Group Therapy: An Interpersonal Learning Model


A thesis submitted in fulfillment of the requirements for the degree of Ph.D., Department of Psychology, University of Surrey, January 1988.
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Abstract

This study was concerned with an investigation of the processes and outcome of long-term dynamically-oriented therapy groups. Its aims included an elucidation of the relationships between client's presenting characteristics, group therapeutic process and outcome; the identification of individual patterns of group behaviour and response to treatment; the development of a model of group therapy based upon the importance of interpersonal learning processes; and a structural analysis of the key components of such a model.

Methodologically, the investigation used an empirical in-depth approach to the study of such groups with measures being taken pre and post-treatment and during the course of treatment. The first part of the study utilised conventional statistical techniques to test a set of hypotheses derived from the interpersonal learning model. The second part of the study employed multidimensional scaling procedures in order to analyse individual differences and to define the structure of the model.

The results of the first study provided evidence concerning the influence of the 'social microcosm' mechanism and group composition variables on group process; identified developmental features of member's interaction with and perceptions of one another; and related these sets of group process variables to subsequent outcome. The second study demonstrated clearly differentiated patterns of individual group behaviour and response to therapy; and identified consistent structural characteristics of an integrated process-outcome model of group therapy.

Taken together, these two sets of findings provided validating evidence for both the measures and methodology used in the study; yielded implications for clinical practice and future research on therapy groups; and demonstrated the importance and relevance of an interpersonal learning model of group therapy.
Introduction

The use of group therapy has now become established as a major therapeutic modality in the treatment of individuals suffering from emotional disorders and interpersonal problems. The techniques used in therapy groups for the amelioration of distress and promotion of change are characterised by their heterogeneity, being derived in part from the individual therapy context and in part from processes, which are specific to the group situation.

However, in common with other systems of therapy, the demonstration of the effectiveness of group therapy and the elucidation of the key processes operating within therapy groups remain to be determined. In addition, research into group therapy encounters methodological problems, which are specific to that particular context; and awaits the development of a methodological paradigm, which can adequately do justice to the richness and complexity of process and outcome in such groups. Furthermore, the range of techniques and conceptual systems operating under the rubric of group therapy has created a continuing confusion and uncertainty concerning the most appropriate theoretical model to use in order both to explain the functioning and effect of such groups and also to generate hypotheses for their investigation.

The present study is directed towards the investigation of process and outcome in long-term psychodynamically-oriented outpatient therapy groups. This investigation intends to take due account of the complexity and multidimensional nature of patient's behaviour and experience in such groups. The aims of the study are defined by the following.

Firstly, to develop a model of group therapy functioning based upon the importance of interpersonal learning processes. Within this model, the concept of role flexibility is specifically focussed upon and a set of operational definitions
Secondly, to develop a unifying methodological paradigm for the study of therapy groups, which is related to this model; and which enables an investigation of the relationships between process and outcome. This paradigm emphasises in particular the importance of an empirically-based in-depth approach to the investigation of such groups.

Thirdly, to test a set of hypotheses, which are derived from the model; and which investigates the relationships between presenting client characteristics, group process behaviour and experience, and outcome response to group therapy.

Fourthly, to identify individual patterns of presenting problems, group behaviour and response to treatment in order to determine aspects of generality and variability in these sets of variables.

Fifthly, by the use of multidimensional scaling techniques, to analyse and define the key structural components of a unified process and outcome model of group therapy based upon interpersonal learning processes.
Chapter 1: A history of group therapy

Although the forces for change inherent in groups have long been recognised and used in the fields of religion and politics, it is only during the past sixty years that these forces have come to be applied in the area of mental health. The power of these forces to effect change in belief systems and personality has been documented by Eric Hoffer in relation to the conversion phenomena, which were used by Dr John Wesley; and the manipulation of crowd psychology as wielded by political demagogues.

In a more therapeutic context, the catharsis achieved by the ancient Greeks through identification with the personae dramatis is an early example of the use of one of the major mechanisms for group change. Freud (1947), himself, had noted group effects in heightening emotion and suggestibility. His followers, notably Reich (1968) and Adler (see Way, 1956), had emphasised the social context of the development of personality and psychopathology.

Pratt (1922), a physician in Boston, is generally accredited with being the forerunner of contemporary group therapy. He noticed that chronic tubercular patients, who seemed to be unresponsive to medical intervention, appeared to derive benefit from meeting and talking with other fellow sufferers, while attending his clinic.

This observation led him to set up a more formal meeting at which patients could talk with one another and also use him as a source of information relating to the psychological aspects of their illness. Thus, by using a lecture format, which provided factual information and reassurance, he sought to mitigate the influences of hopelessness and discouragement; and to increase self-confidence and sociability.

His aims in this programme were clearly two-fold. Firstly, from an economic point of view, the meetings served
to take pressure off the clinic and its waiting list. Secondly, for these patients, it was in the nature of their illness that it created severe disruptions of their social lives. The meetings thus served to provide a setting in which patients' social needs could be catered for. It is perhaps no coincidence that these two aims, economic and social, have continued to provide a large part of the rationale for group treatment to this day.

The information-providing educational aspect of Pratt's approach was developed further by Marsh (1931). Working in a state mental institution, he sought to offset the impact of the patient role with its attendant fears of insanity and stigma by providing his patients with an alternative role, that of student. The treatment he offered consisted of a course of four lectures concerning human social and emotional development followed by a group discussion in which participants were encouraged to relate the content of the lectures to their own problems.

Although Freud, himself, did not envisage treatment by group means, his analysis of group phenomena in 'Group psychology and the Analysis of the Ego', provided a theoretical starting-point for these analytically-oriented therapists, who turned to group work. His concern was with large scale organisations rather than small groups. However, his observations on the role of the leader as father-figure and substitute super-ego, and the development of identifications within the group on the basis of a common shared relationship to the leader provided therapists with a tool for the understanding of group formation and the widely observed phenomena relating to the experience and expression of heightened affect in the group situation.

He also noted the psychological consequences of the lack of social relationships for the neurotic as being the development of unconscious fantasy relationships and suggested that these may well be amenable to analysis in the group situation as they become apparent in the transferential projections which
members make upon each other.

It was perhaps natural, however, that Adler, (see Way, 1956), whose theoretical emphasis had always been towards the social side of man, should be the first of the analytically-oriented therapists to use group methods. He was particularly interested in applying these in order to cater for the psychological needs of the working classes. This was, however, a relatively rare occurrence within the mainstream of analytic practice, which continued to cater predominately for the upper echelons of society.

However, Adler's shift of emphasis within the analytic tradition away from the primacy of internal forces and towards the effects of social ones was developed in the United States by Trigant Burrows (1927), whose work is a pioneering attempt to relate analytic theory to an exploration of group dynamics. He was perhaps the first to recognise that distortions in the self-image of neurotic individuals are susceptible to modification by making them aware of the reactions of other group members to them. This mechanism was later used by Lewin as a cornerstone of his theory of group action under the title of 'feedback'.

Within the analytic tradition, the next significant theoretical development was made by Redl (1942), who pointed out not only the impact of the leader's personality upon group formation and dynamics, but also the way in which groups make use of the leader both as an object of libidinal and aggressive drives, and also as a focus for the working through of conflicts in these areas. In addition, he differentiated between 'constituent' group emotions, as being those basic to the formation of group processes, and 'secondary group emotions', which arise within the formed group. He was also the first theorist to make use of role theory in his description of various types of group member and their effect on the group as a whole.

However, it should be pointed out that at this time in
the United States therapy in a group was seen more in terms of treatment of the individual by participation in the group than of the group as a whole. Indeed this emphasis of psychoanalysis in the group continued with minor modifications to the present day with the work of Schwartz and Wolf (1962). Wolf (1949), using the group as a surrogate family, employed the usual psychoanalytic techniques of dream interpretation, free association, analysis of transference and resistance, etc. to achieve his therapeutic purpose. At the same time, the burgeoning field of social psychology had begun to elucidate some of the key variables involved in group dynamics. Early examples of this were the studies of audience effects upon task performance (Travis, 1925); the individual's use of other's behaviour in imitation and vicarious learning (Miller and Dollard, 1941); issues of group performance in contrast to individual performance (Taylor and Faust, 1952), and the Hawthorn experiments on the effect of outside interest on group productivity.

However, it is the work of Kurt Lewin (1947), which appears to have gone furthest towards systematising the field of group dynamics. With a background in Gestalt psychology and later work on the structural approach to personality, he came to group work out of a desire to analyse and comprehend the acquisition and development of social attitudes and their effect on behaviour.

His primary observation was that attitudes were more malleable in the group situation. He then went on to study the effects of different sorts of leadership style in terms of a tripartite differentiation into authoritarian, democratic and laissez-faire styles. This work clearly had common ground with that of Redl.

In addition, his application of the structuralist approach of field theory from personality theory to group dynamics provided a theoretical framework, which could encompass not only intrapersonal effects of group membership, but also go some way towards explaining interpersonal mechanisms existing
in groups. Among the more important of its postulates was the idea that change in one group member inevitably affects the group as a whole. This in turn provided a rationale for the concept of treating the group as a whole in the here and now, which became one of the hallmarks of the T-group movement.

With regard to change processes operating in groups, these were considered by Lewin to operate via two main mechanisms. Firstly, 'feedback', concerning the person's behaviour in the here and now. Secondly, 'unfreezing', whereby maladaptive attitudes and belief systems were challenged and disconfirmed in order to open the person up to the possibility of change through exposure to new information. Additionally, the application of field theory to analytically-derived concepts of group development, particularly those of Bion (1961), proved to be highly fruitful, as is exemplified in Stock-Whitaker and Lieberman's (1964) concepts concerning focal-conflict theory. This theory takes the group itself as the target for analysis, and posits the existence over time of a succession of conflicts within the group between the desire for satisfaction of various needs and fear of exposing those needs and having them frustrated. This leads to the development of a succession of compromises based on a more or less successful reconciliation of the opposed forces.

Indeed, Bion, himself, had gone some way towards relating group dynamics to the therapeutic enterprise, largely in terms of looking at the group as a whole. This was a perspective which had been largely ignored by most therapists, who had continued to regard the individual as their primary datum. Bion's aim in contradistinction to this was to explicate the historical development of group culture.

His theoretical ideas had developed under the influence of Melanie Klein, an English psychoanalyst. Klein (1932) had gone beyond the Freudian conception of personality by seeking to locate its origin back to the first very early contacts between mother and child. Her work is an important departure
from Freud in that it locates the bases of personality development in social relationships rather than the earlier instinctively-based conceptions of personality development. Implicit in it is an object-relations approach to therapy, which was utilised by Bion in his work with groups.

His major therapeutic tools were the use of an unstructured group situation, the interpretation of group rather than individual reactions, and interpretations of the group situation in the here and now. His observations of group action led him to postulate the existence of a series of emotional needs within the group, which co-existed with and affected the work its members were engaged in. These needs could be regarded as the culture of the group at a particular time and constituted the basic assumptions upon which it was operating.

Bion described these needs as threefold, each of which created an opposing reaction based on fear, anxiety or disappointment about its gratification:

a) Dependency - Counter-dependency reactions
b) Fight - Flight reactions
c) Pairing - Isolation

At different times, different group members would exhibit these needs or reactions to them. He also believed that the group would move developmentally through these basic assumption cultures, with frequent returns to an earlier culture, where material relating to that need had not been fully worked through.

Bion's work is one example of what has come to be viewed as the application of 'equilibrium' models of group functioning. This is based on the notion that groups tend to attempt to maintain or return to a steady state. This idea has also found theoretical exposition within the approaches of Ezriel (1950) at the Tavistock Clinic, and Stock-Whitaker and Lieberman's (1964) 'focal-conflict' theory.
The work of Foulkes (1965) has much in common with Bion, both emphasising the understanding, interpretation and use of group level phenomena. Although his group-analytic approach clearly rests upon a basically psychoanalytic framework, it would appear to have little in common operationally with Schwarz and Wolf's approach of doing individual psychoanalysis within a group context. The group-analytic approach specifically views the group as the ground within which the individual is the figure, and concerns itself with the interaction between the two. The concept coined to describe this was the notion of behaviour occurring within a 'group matrix'. In the process, group-analytic theory reconceptualises the role of group leader towards a potentially more active stance, and emphasises the importance of working on a number of different levels: group, interpersonal and intrapsychic.

A number of other strands, both theoretical and technical, have found their way into the mainstream of groupwork.

Neo-Freudians, such as Fromm (1947) and Horney (1950), have emphasised the social context within which both personality and emotional disorders are generated. More particularly, however, Sullivan (1957) with his development of the interpersonal theory of psychiatry has located the source of emotional problems within dysfunctional human relationships. His ideas of personality developing on the basis of feedback, and the influence of the development of 'parataxic distortion' on relationships in the here-and-now, have common ground with the aforementioned work of Lewin, and also point towards the importance of correcting such maladaptive patterns within the therapeutic situation.

This latter point was clearly influential within the development of Rogers' (1951) client-centred approach to therapy, which emphasised the importance of the therapeutic relationship. This importance was defined in terms of the necessary conditions of empathy, warmth, and genuineness; and encouraged the therapist to join the therapeutic enterprise as a fellow human being. This approach in turn may be seen as
one of the cornerstones of the humanistic approach to therapy and part of the movement towards therapist self-disclosure and transparency. Indeed, it is no coincidence that Rogers' later work (1970) has led him away from the individual psychotherapy context and into the Encounter Group movement.

Encounter groups have proven to be the most visible and theoretically interesting example of the new humanistically-based therapies. The more important of their philosophical values include a shift in emphasis away from sickness and towards human growth; a concentration on the here-and-now in contradistinction to a historical approach; and an assertion of the value of spontaneous emotional expression and a consequent downplaying of the importance of intellectual understanding and analysis. Together with the view of the leader as fellow-participant, they thus constitute both a reaction against and challenge to the more traditional forms of group work.

Although initially viewed as an experience for 'normals', members of encounter groups are increasingly coming to resemble those attending more traditional forms of group therapy. Moreover, the heterogeneity of practices currently operating under the rubric of the encounter group frequently belies its earlier image of anti-intellectualism. As Lieberman, Yalom and Miles (1973) have demonstrated in their study, encounter group leaders not only attempt to stimulate emotional expression, but also seek to provide an intellectual structure for the understanding of experience, this latter being particularly associated with beneficial outcome.

In contrast with the relatively unstructured nature of dynamically-oriented and humanistic groups, the behavioural tradition within groupwork has brought with it from individual behaviour therapy an orientation towards the structuring of the treatment process, and also an emphasis on the importance of the evaluation of its efficacy. Bandura's (1977) theory concerning the social reinforcement processes underlying both symptom development and removal, together with the work of Argyle (1978) and Rathus (1972) on social skills and assertion
training, respectively, point up the importance of modelling, imitation and feedback in the correction of maladaptive and development of adaptive behaviours, and can be seen to be particularly appropriate to the group context.

The learning theory approach to the treatment of emotional disorder can also be located as a descendant of Marsh's earlier emphasis on the educational function within groupwork. However, it largely ignores the influence of group processes. Thus in such typical behavioural approaches as social skills training and anxiety management groups, an emphasis is found on the treatment of the individual and his/her presenting problem via structured learning experiences and homework assignments.

Apart from these technical innovations, the work of Liberman (1971) demonstrates an attempt from within the behavioural school to investigate and redefine group processes in terms of behavioural principles of reinforcement and discrimination learning. This may be seen as similar to Truax's (1966) investigation of Rogerian client-centred therapy along similar lines.

Although addressing themselves to a specific set of problem behaviours, it would appear that behavioural groups are at present burgeoning, not least because of the relatively short time-scale of their operation (ie usually 6 - 12 sessions) in contrast with the more long-term nature of dynamically-oriented groups. This is particularly evidenced by the results of the survey, conducted as part of the present study. This indicated that nearly two-thirds of therapy groups run by clinical psychologists are being conducted along behavioural lines (see Appendix 3 ).

The heterogeneity of theoretical perspectives which have impinged on the history and development of groupwork has led not only to a mutual interchange and cross-fertilisation of theoretical viewpoints, but also made for a great deal of confusion from which flowed contradictions and debates concerning the actual process of doing therapy.
Among the more important of these are four in particular. Firstly, an emphasis on the here-and-now as opposed to delving back into the past for causative mechanisms. Secondly, the issue of therapist transparency versus therapist aloofness. Thirdly, the concentration on the individual or on the group as a whole. Fourthly, the value of individual therapy as opposed to group therapy.

Although more recently the intensity of these controversies has abated, the paucity of research investigation into questions that appeared to lie at the heart of group therapy does suggest that these were dichotomies stemming more from the theoretical and therapeutic prejudices and backgrounds of individual therapists, rather than from any phenomenological grasp of the essential elements involved in therapeutic group situations (Durkin, 1964).

More beneficial has been a willingness to experiment with group formats and organisational structures. This has led to the emergence of such innovations as the therapeutic community, involving the use of large groups; the development of marathon sessions; alternating group sessions with the therapist present and absent; the use of groups as a training modality for sensitivity and awareness concerning human relations among professionals; the development of pre-therapy training techniques; and the ever-widening application of group methods of treatment to different problem types, including chronic institutionalised schizophrenics, juvenile delinquents, borderline personalities, adolescents, and family and other natural groupings, apart from its more typical use with outpatient middle-class neurotic populations.

The history of the application of group methods of treatment to emotional disorders is thus marked by developments within both theory and technique, which may be best characterised as heterogenous and fragmented.

More recently, the work of Yalom (1970) and Lieberman (1978) has sought to introduce some measure of integration and
conceptual clarity into this situation, although this enter- prise is at an early stage and is somewhat analagous to Hercules' task of clearing the Augean stables.

Yalom's major contribution has been to develop a theory of group therapy based upon Sullivan's interpersonal concep- tions of psychopathology and change. This theory is oriented around an explication of the role of Corsini and Rosenberg's (1955) list of curative factors in group therapy; and in particular, emphasises the importance of interpersonal learn- ing and group cohesiveness.

Lieberman's work has on the one hand (together with similar reviews by Bednar and Kaul, 1978) brought some order into the evaluation of the findings of previous research; and on the other, provided a framework for developing a typology of sorts of group. This framework aims to facilitate the definition of key structural characteristics of groups, which are considered central to the change-induction process. The characteristics provided are as follows:-

i) The level of psychological distance between participant and leader.

ii) The attribution system with regard to the cause, source and cure of psychological misery.

iii) The extent to which the principle of change involves the conception of the group as a social microcosm.

iv) The degree to which dominant organisational principles among members is based upon differ- entiation as opposed to similarity.

v) The relationship between the two main axes of leader behaviour and modes of learning - cog- nitive and expressive.

An alternative effort at integration is offered by Durkin (1982) who presents general systems theory as a model potentially capable of integrating existing models and research findings within a more general framework. To what extent this will prove to be the case, remains to be seen.
Thus, from its inception in the 1920's, the development of group therapy has been successively influenced by each of the major theoretical traditions within psychology. This has prompted experimentation and innovation both in relation to techniques and formats, and also with regard to the application of groupwork to an ever-widening sphere of client populations.

The survey of group work practice amongst clinical psychologists, which was conducted as part of the present study (see Appendix 3) provides evidence for a marked heterogeneity in such practice across a number of parameters including client characteristics, nature of presenting problems, type of group, aims of group, and nature of therapist interventions.

Such heterogeneity has also found expression in the wide variety of theoretical models, which have been developed to describe the workings of therapy groups. Some of these can clearly be seen to have been imported into groupwork from the individual therapy context; others have been developed within the field of groupwork. Many of these latter are based upon observations of and theorising about experimental and experiential groups rather than therapy groups.

Although their theoretical perspectives differ widely, what they have generally in common is a speculative aspect, which has proven difficult to tie down to empirical investigation. The following chapter describes the major groups of models, which have been influential both in prompting the aforementioned development of techniques and in providing concepts with which to speculate about the nature of the processes operating in groups.
Chapter 2 : Models of group therapy

The role of theory in clinical scientific work is particularly addressed by Shadish (1981). In outlining the criteria for acceptability of a theory, he points up the importance firstly of identification of a theory's basic concepts and explanatory and/or predictive statements; and secondly of falsifiability in relation to a theory's key concepts, whether these be couched in explanatory or predictive terms. He notes that this requirement for a theory's acceptability qua theory is quite different from its acceptance (which is determined by the empirical support that it receives via hypothesis testing).

He additionally suggests that group theories are made up of constructs, which operate at different levels of abstraction:

i) Observational terms rely on direct observation eg feedback, disclosure.

ii) Indirect observables involve more complex observations in which inferences are drawn concerning causal relationship eg attitude, feeling.

iii) Constructs which are not observable but are based on observation eg group structure, developmental stage.

iv) Theoretical terms, which are not based on observation, but can only be understood in the context of the theory as a whole eg corrective recapitulation (Yalom, 1970).

Finally, he draws attention to the need for theorists to specify the conditions under which they will give up their theoretical positions ie accept that falsifiability has occurred; and points out that falsification of a theoretical statement does not necessarily imply the giving up of the theory which has made the falsified prediction.

These criteria and the constructs associated with them pose particular problems for the models which are described hereunder. Even when dealing with observable constructs,
difficulties remain with regard to specifying the level of observation, developing an adequate category system for the variables and providing operational definitions for the terms in question. Thus, a concept such as feedback may be variously perceived by an originator, recipient and external observer. These difficulties increase as the constructs under examination move away from direct observation into the realms of increasing levels of inference and abstraction. Moreover, in the majority of the models described hereunder, no account is taken of the falsifiability criterion. This criticism has of course frequently been levelled at psychoanalytic constructs and theories, but can be seen as applying with equal force to a variety of the other models.

Even a cursory inspection of the literature reveals a welter of models of group functioning. Indeed, the fact that groups have been set up and used in different ways, for different purposes, with different client populations means that to a large degree, the explanations propounded for group dynamics reflect the orientations and hence perceptions of their propounders. This is a clear case in point of adequate theory trailing far behind actual practice.

However, amongst them, there can be discerned a number of clear differences in emphasis, which enable some degree of grouping. In terms of their experimental verifiability and utility, it is necessary to give an overview of these various theories in order to be able to determine the level of analysis at which they are operating and the heuristic value of their concepts.

They will be described in more or less ascending order of generality.

2.1 Behavioural

This model takes as its basic premiss the application of learning theory to the group therapy situation. Thus, it views therapy, following Bandura (1971), as a learning process
involving such mechanisms as imitation, modelling, prompting and reinforcement.

At present, the main development of behavioural theory in relation to group therapy has been the application of behavioural techniques within a group format for the treatment of specific relatively circumscribed disorders. Amongst the more important have been groups for anxiety management training, social skills and assertiveness training, and weight control. Typically, such groups are set up as short-term (8 - 10 sessions being average), structured and goal directed with an orientation towards problem solving. In addition, their main focus is upon treatment of the individual, using the group format as an adjunct (e.g. in facilitating role-play exercises); and they tend to eschew the use of interpersonal and group level processes. An overview of studies into their effectiveness is to be found in the research review.

The most coherent attempt to specifically define group therapy process in terms of learning theory is provided in the work of Liberman (1971). His main experimental focus was upon the group mechanism of cohesiveness. He demonstrated that the leader was capable through modelling and appropriate reinforcement to increase the frequency of statements by members, which were conducive to the development of cohesiveness. In addition he found that the experimental group gained more rapid symptom relief than a comparison treatment group.

However, there are clear problems with this model as presented, particularly in respect of the definition of the key variable, i.e., what constitutes a 'cohesive statement'. This will clearly vary from one group to another, and also within the same group from one time to another. Moreover, the model fails to explain the relationship between the observed increase in cohesive statements and the claims for more rapid symptom relief in the experimental group, or to take account of other possible intervening variables. Indeed, the degree of its specificity of approach to the analysis of client change i.e. explaining this in terms of just one of the putative group
change mechanisms, leaves it open to the charge of being simplistic.

Whether these problems are a function of the relative newness of the approach as applied to groups, or whether they are implicit in the model itself remains at present open to question. The behavioural approach has been of demonstrated utility in the treatment of individuals (e.g. Meyer and Chesser, 1970) and evidence for the efficacy of behavioural group therapy is accumulating (Rose, 1977).

It appears likely that processes within therapy groups are capable of being analysed in terms of behavioural principles in the same way that processes within individual therapy have been susceptible to such analysis (e.g. Truax, 1966, in relation to client-centred therapy). Concepts such as reinforcement, imitation and exposure have clear links with such theoretically postulated change mechanisms as feedback, identification and self-disclosure; and a priori offer approaches to the analysis of group process, which have proven experimental success within individual behaviour therapy.

However, the usefulness of the behavioural model both as a research paradigm and set of explanatory concepts clearly requires further evidence; and a more firm empirically grounded set of operational definitions for its key concepts in relation to group therapy.

2.2 Psychoanalytic

This model derives its theoretical underpinning from the work of Freud. Although Freud remained convinced of the preeminent validity of individual treatment, in contrast with his more socially-oriented followers such as Adler (see Way, 1956) and Fromm (1947), his 1922 paper 'Group Psychology and the Analysis of the Ego' was to be used by succeeding generations of analytically-oriented group therapists as the basis for theorising and practice.
This paper was based on his observation of dynamics operating within large groups and highlighted two main effects: contagion of affect, and a lowering of the individual's intellectual functioning within the large group situation. These two factors in turn are considered to be based upon members' shared identification with the group leader as substitute father-figure, and to be accompanied by a mistrust towards and alienation from outsiders.

Identification processes are also central to Redl's (1942) study of individual's differing modes of relating to the group leader, although here, members' group behaviour is demonstrated as being influenced by the personality and actions of the group leader. On the basis of this, Redl delineates a number of different types of group according to the type of leadership offered.

From a psychoanalytic perspective, therefore, identification processes are held to facilitate group formation. However, as defensive manoeuvres, they are also, as in the individual therapy context, based upon transference feelings held by group members towards the therapist. The emergence and interpretation of such reactions are held to be one of the key therapeutic ingredients of analytic group therapy. This, in turn, enjoins upon the therapist a particular stance towards the group, i.e., the 'blank-screen' approach of classical psychoanalysis. Its description and rationale is provided, eg., by Horwitz (1964).

Apart from transference reactions to the therapist, the group situation also offers the possibility of such reactions occurring in relation to other group members. Such reactions provide further types of material for therapeutic work.

Becker (1972) has described work within groups as utilising the same sort of interventions as occur in more usual psychoanalytic treatment. Thus, the practice of analytic groups involves paying attention to unconscious forces, analysing dreams, interpreting transference phenomena, and
interpreting and working through the various manifestations of resistance to therapy. Becker provides a number of illustrative examples of resistance within the group context, including detachment from the rest of the group, lateness, silence, hostile verbalisations, pessimism, and rationalisation. He also describes the dynamics of change in terms of the following six processes:

i) Ventilation of feelings.
ii) Emotional catharsis.
iii) Development of insight.
iv) Working through.
v) Removal of rationalisations and projections (and also clearing up of blind spots).
vi) Reorientation and strengthening of values.

These are clearly based upon therapeutic work within the individual therapy context.

So far as group development is concerned, Scheidlinger (1968) has highlighted the importance of regression within the group process. In particular, he distinguishes between primitive identification with the group leader as an early dynamic in the group's history, and the later emergence of transferential reactions. So far as the former are concerned, he points to Bion's 'basic assumption' group cultures, in particular the 'dependency' phases, as examples of pre-oedipal group identification processes.

As noted above, identification with the group leader is considered to operate on the basis of the leader being reacted to as an idealised father-figure. Following Money-Kyrle (1950), Scheidlinger additionally postulates the existence of an additional identification with a mother image, which is constituted by the group entity itself.

Saravay (1978) attempts to provide a formal account of group development by defining its various stages as a phylogenetic recapitulation of ontogenetic individual development.
Thus, it is asserted that the group as a whole passes through the same developmental sequence of oral, anal, phallic and genital phases that the individual has done as a child. During each stage, the group will exhibit behaviour and concerns appropriate to that particular phase of development.

While the effect of group dynamics in promoting regression is considered to originate this process, the way in which the sequence unfolds is based upon the leader's interpretations of the transferences of each phase, thereby yielding new identifications 'which produce a redifferentiation of the members' group-related ego and superego structures. Each structural advance produces a corresponding advance in the instinctual transference wishes modulated through the structures'.

From a more specific point of view, Kauff (1977) has investigated the termination process in therapy groups, arguing that the ways in which members handle termination is determined by the nature and outcome of earlier infantile separations from the mother. Her analysis particularly points to the importance of the splitting defence, where the therapist is typically seen as the "bad mother" and the group itself may come to serve the function of a good 'transitional object'.

To summarise, both in its theoretical superstructure and in its actual practice, the psychoanalytic model of group functioning attempts to transplant the concepts, e.g., regression and transference, and techniques, e.g., interpretation and 'blank-screen' approach, on to the group situation. Thus it remains attached to the importance of individual dynamics, with little attention paid to group dynamics as such.

In turn, this has generated one of the major conflicts in the development of group therapy, between the proponents of psychoanalysis (e.g., Schwarz & Wolf 1962) who have asserted the importance of individual factors and developed their working methods in terms of psychoanalysis within the group, and those (e.g., Foulkes, 1965 and Bion, 1961) who have argued the importance of group in addition to individual processes, and have
developed their working methods in terms of analysis by and of the group. However, such conflicts have not encouraged active research into their resolution and have largely been consigned to history.

With regard to research concerning the model, the problems of this model of group functioning parallel those of psychoanalysis itself. The concepts used are operating at high levels of inference not amenable to direct observation and are thus not readily operationalised; and accounts of therapy using this model in the literature tend to be descriptive and impressionistic relying mainly on a case study type of approach. Thus, while its proponents have undoubtedly provided important insights and interesting speculations into group functioning, in general it must be concluded that the model lacks experimental verifiability on account of the low heuristic utility of its major concepts.

2.3 Equilibrium models

The bases of this type of theory may be found in the work of Bion (1961) who viewed groups as alternating between three distinct affective states, which he termed basic assumptions.

The first of these 'dependency' is characterised by members seeking to find somebody, usually the therapist, who will provide them with answers to their problems.

The second group culture - the 'fight-flight' basic assumption - occurs where the group is struggling unsuccessfully with issues covering aggression and hostility or is attempting to avoid such issues. Group phenomena associated with this basic assumption would include for example, scapegoating, hostility directed towards the leader, and a symbolic deposing of the leader. Conversely, the flight aspect of this basic assumption would be exemplified by an over-friendly atmosphere with attempts to keep arguments, disputes and aggression at bay.
Bion termed his third basic assumption 'pairing', where group members engage one another in pair relationships, which are intimate and sexually-oriented, usually with the tacit agreement, consent and encouragement of other group members.

The hallmark of the basic assumption cultures is that they consist of attempts by members to deal with the major issues involved in interpersonal relationships within the group via strategies which are on the one hand irrational and on the other, contain elements of both need-satisfaction and threat. These two elements will have varying degrees of balance at different times, which will determine the type of basic assumption pre-dominating at any particular time.

In contradistinction to these three basic-assumption cultures Bion uses the term 'work-group' to refer to those times during the group when its members are functioning in rational problem-solving ways.

The aims of the work-group are considered to be primarily directed towards the observation by its members of its operation in order to facilitate the development of insight into their characteristic modes of experiencing and behaving.

The model described above, which highlights the importance of rational understanding and insight and views the emotional reactions of members as being primarily defensive and avoiding of the development of understanding, has yielded information into the development of groups particularly insofar as these relate to training and task-oriented groups. However, its impact on the development of our understanding of therapeutic processes of emotional growth is more questionable.

Akin to the Bionic model was that developed by Ezriel (1950) who viewed the group in terms of the tripartite Freudian division of id, ego and superego. At any one time the group is seen as being in conflict between the wish for some form of instinctual gratification and a fear of the consequences.
This process is considered to underlie actual group behaviour which is seen as a compromise between the two. The group's problem is considered to be unconscious and is termed by Ezriel 'the common group tension'. Furthermore, taking over Kleinian concepts of object-relations from the Tavistock School, Ezriel posited three types of relationship for the individual in the group: the 'required' relationship i.e. that which the patient attempts to establish with the therapist; in order to avoid the 'avoided' relationship; and the 'calamity', which would be the outcome of engaging in the avoided relationship. Also similarly to Bion, Ezriel posited the importance of group forces in the therapeutic process and considered that member progress occurs via the development of insight into the nature of the above-mentioned relationships and through reality-testing of his largely unconscious fears.

Group process, similarly to Bion and Foulkes was viewed as associative in the Freudian sense. From this, develops the importance of therapist interventions and interpretations being based on phenomena occurring in the here-and-now, which may be both group-centred and individual-centred. Interpretations are 'group centred in that they first point out the unconscious common group tension and resultant structuring of the group; and individual-centred in that they also pin-point the common contributions of individual group members to this group tension'.

A further development of the equilibrium-type model is found in the focal-conflict theory of Stock-Whitaker and Lieberman (1964). In common with Bion and Ezriel, they considered that the group situation itself and forces inherent within it constituted the matrix for the therapeutic process. Their focal-conflict is similar to both Bion's basic assumption culture and Ezriel's common-group tension, but differs insofar as these latter two are presented as being primarily defensive in character, whereas the focal conflict holds within itself progressive enabling characteristics as well as more purely defensive ones.
The theory itself assumes that successive group focal conflicts emerge within the group. Each consists of a shared wish, termed the "disturbing motive" and a shared fear or guilt in relation to it, termed the 'reactive motive'. As a result of experiencing a conflict, group members attempt to move towards a solution to it, which is usually a compromise between the opposing motives. This solution will attempt to minimise the impact of the reactive fear and to maximise the gratification of the disturbing motive.

These solutions may become established as normative standards and beliefs for the group and as such contribute to its emerging culture. Alternatively, they may be modified over time as the balance of the relative weights of the two motives change.

This means that the same type of conflict may emerge on a number of occasions during the group's history with solutions being changed under the impact of the group climate at different times, as the group develops its ability to cope with the anxiety generated by the conflict.

Furthermore, Stock-Whitaker and Lieberman categorised solutions in terms of their impact on the atmosphere of the group and its potential for progress as being either 'enabling' or 'restrictive'. They viewed group life as being composed of a succession of focal conflicts, linked by similar disturbing motives, which constitute a group theme.

In this perspective, the group itself, or rather the conflicting tendencies within it, is the object of the therapists interventions. The aim of the therapist is to facilitate the emergence of enabling solutions to conflict while being aware of the fact that the group as a whole will at times need to adopt restrictive ones in order to allay fear and anxiety. This would be the case particularly early in the group. The fact of being able to cope with the early conflicts is held to generate a sense of commitment and relief which paves the way for more productive group work. Moreover, Stock-
Whitaker and Lieberman pointed out that the therapist would not necessarily at all times be aware of the nature of the focal conflict in which the group is enmeshed. At such times it would be necessary to either use working hypotheses or adopt a policy of waiting for issues to emerge more clearly.

Stock-Whitaker and Lieberman presented their theory of group processes in terms of 37 propositions and suggested a research strategy to test these propositions by means of using trained judges to analyse the development of focal conflicts and their resolutions. They, thus, assessed the adequacy of their theory in terms of inter-rater reliability, ie that independent investigators analysing a tape of a particular therapy session or series of sessions will produce formulations which are similar or identical to one another in terms of both the final formulations of the focal conflict and also, what has led up to it.

They admitted that perfect agreement between raters had not been attained suggesting that while final formulations may be similar or alike, differences of opinion occurred in relation to the steps that have led up to it.

However, a study of their propositions by Sigrell (1968) using 2 judges was unable to find agreement between them in more than 12 instances out of the thirty formulations presented.

In most instances, as predicted by Stock-Whitaker and Liberman, the agreement related to the solutions utilised by the groups; whereas more often disagreement was found in the analysis of the steps leading up to it. This does not however, necessarily imply a vindication of any part of the model. The reason for this is that the observations of for example, avoidance of difficult emotional material or members viewing themselves as alike in some way or another are frequent group phenomena which may have been highlighted by an observer having no knowledge of focal-conflict theory.

Much more crucial to the success of the model is its
ability to generate agreement between raters on the antecedents to the solution ie the actual focal conflicts. Here agreement has been much more limited.

Moreover, this approach to assessing the adequacy of the theory does itself beg the question, in that the judges would themselves have been trained in the theory's methodological approach and might therefore be expected to produce formulations of the raw data, which support the theory.

While it appears to be undeniable that conflicts of the sort proposed by Stock-Whitaker and Lieberman do occur in groups and moreover that themes develop around members emotional concerns, neither the research strategy proposed by them nor the results of its application to therapy groups can be said to confirm the theory as an empirically-based model. Once again, a major problem refers to the difficulty of operationally-defining concepts, which are relatively abstract and operating at high levels of inference.

2.4 Group analytic

This model of group action is mainly based on the work of Foulkes and Anthony (1965). While continuing to locate themselves firmly within the Freudian psychoanalytic tradition, they utilised the group situation to explore the dynamics of group and interpersonal forces in this situation. Thus, while retaining the language of psychoanalysis, they sought to analyse not only transference reactions towards the therapist, but also similar reactions towards other group members.

The major aspects of this approach, which separate it out from other theories of group action are described as follows (Foulkes and Anthony, 1965):-

1) Verbal material is treated as 'group association', forming part of 'free-floating discussions'. This is the equivalent in group terms of the 'free association' of individual psychoanalysis. Such group associations are held to operate within a 'group matrix', and attention is thus paid to both
intra- and interpersonal dynamics. The focus on a group matrix implies an emphasis on the here-and-now, in contradistinction to the genetic attitude of psychoanalysis. Foulkes and Anthony have described this as a horizontal approach to analysis in contrast to the vertical approach of more strictly Freudian analysis.

2) Communications, actions and interactions of members are analysed. Thus not only the dynamic process of the group, but also their analysis form an essential part of the process of treatment.

3) The principles of psychoanalysis are utilised to examine not only the overt content of communication, but also its unconscious meaning.

In addition, the therapist adopts a less passive role than in the usual psychoanalytic mode, his main task being to facilitate group-based growth processes and hold himself open to the modification of his interventions by them. The group itself is viewed as the origin of growth possibilities.

To turn now to the heuristic usefulness of this model, it does appear to be much more an approach to treatment, rather than a set of testable hypotheses concerning its major concepts. Foulkes and Anthony (1965) have cogently argued for a more naturalistic approach to scientific investigations of therapy, and thus rely largely on a descriptive mode of presentation for their model.

Its validity is thus assessed by them through invoking similarities across observers in the use and understanding of its concepts. This is clearly however a circular argument as such observers will be viewing group processes through the same set of psychological concepts that they are being called upon to observe and validate.

Therefore, it would appear that, although the model has proven to have a potent influence on the training and clinical practice of group therapists in this country, its utility as a research strategy is circumscribed by the same factors that inhibit the psychoanalytic model from which it is largely derived.
2.5 Humanistic Models

Within the fields of psychotherapy, there can be discerned periodic eruptions of new approaches and techniques. Following the development of psychodynamic and behavioural approaches during the first half of this century, we have witnessed during the past twenty years the emergence of what has come to be termed the 'third force' or humanistic approach to psychology.

Whereas the theoretical and practical historical development of the earlier two models proceeded in a fairly unitary fashion, the hallmark of the humanistic tradition has been heterogeneity and variety. This has generated a plethora of theories and techniques, some of which can be seen to have been passing fads and others possessing more lasting value.

Although the emergence of this group of models as a viable alternative has clear sociological antecedents, it is not intended to detail these other than to note in passing the impact of a renewed interest in the Eastern mystical traditions and existentialism.

From a psychological viewpoint, the primary originators of the humanistic perspective have included Reich, Perls, Rogers and Schutz.

Reich's (1968) main contribution has been his analysis of the impact of sexual repression on the development of neurosis. This emphasis has been taken up by a number of practitioners, foremost among whom has been Alexander Lowen, who have developed a range of body therapies and sensory awareness techniques. The aim of groups using such techniques as massage, dance, spontaneous physical movement, etc is to enhance physical awareness and expression.

The motivational research of Maslow (1954) has yielded two major concepts of importance: "the peak experience" and "self-actualisation". The former refers to a sensation of
transcendence experienced by individuals; the latter addresses itself to needs within people to exploit their full potential. Both have been taken up by therapists who seek to enhance clients' creativity and growth. In operational terms the aims of therapy are no longer restricted to helping the client deal with emotional problems. Instead, they include also an awareness of the importance of, and possibilities for, personal growth.

Rogers' (1951) client-centred approach to therapy was developed initially within the individual therapy context. His major emphasis was upon the therapeutic relationship and its use to facilitate change. Whereas the psychoanalytic tradition enjoined upon therapists a "blank-screen" approach and behaviourism encouraged a behavioural engineer/technician attitude, Rogers asserted the importance of the therapist providing certain conditions in the interaction i.e.: empathy, warmth and genuineness. These three conditions in effect required the therapist to participate in therapy as a person.

Rogers claimed that the provision of these conditions would lead to an atmosphere of mutual trust between therapist and client, thereby enhancing the process of increased openness, honesty, self-expression and self-acceptance within the client. Moreover, Rogers asserted that a therapeutic relationship, in which these conditions obtained, was a paradigm for helping relationships in general. There are clear points of contact between this approach and the work on self-disclosure initiated by Jourard (1971).

With regard to the field of group treatment, the clearest impact of the model has been to establish the value and importance of the therapist participating as a person in the therapeutic enterprise. Rogers' himself has developed this and related ideas within the context of the Encounter Group which will be discussed below.

Placing his theoretical perspective firmly within the tradition of academic psychology, Perls (1969) has claimed that
his Gestalt Therapy is both a logical development and practical application of insights generated by the Gestalt school of psychology. Whereas this school had experimented on and theorised about mechanisms of perception, Perls' concept of Gestalt relates to the individual's awareness of self.

His approach is essentially organismic, as exemplified by his idea that 'the whole determines its parts'. His concept of the figure/ground configuration is used as the basis for an understanding of emotional disorder and well-being. Where the individual is capable of being aware of such configurations in their wholeness and able to respond to excitations occasioned by contact with the environment or self by adaptive changes in these configurations, emotional health is demonstrated. Conversely where these configurations are rigid or lacking information, neurotic-type failures of adaptation are held to occur. Thus figure/ground configurations are seen as providing the structure for awareness.

Perls and therapists working within the Gestalt framework have developed a range of techniques to facilitate the entry into awareness of previously unavailable material. The major impetus of these techniques has been on awareness of the here-and-now from an experiential viewpoint, and on the individual taking responsibility for and acknowledging ownership of aspects of themselves that had previously been denied. While therapeutic work has usually occurred within a group context, the focus for intervention has been the individual. This approach has thus largely eschewed the use of group dynamics as an agent of change.

Although this approach and its associated techniques have flourished, particularly in the United States, there is a dearth of research directly relating to it. Indeed, throughout Perls' writings the word isn't mentioned once. While claiming to base theory on scientific psychology, no thorough-going attempt has been made by practitioners utilising this framework to test the adequacy of their concepts or the effectiveness of their treatment.
The Encounter group has proven to be the most 'visible' of the humanistic approaches to treatment and has attracted a variety of proponents from various backgrounds. It has its clearest origins in the T-Groups originated by Lewin in 1947, which aimed at providing laboratory training in human relations skills. Originally, this developed within an industrial context, but thereafter expanded into clinics, schools and the private sphere.

As implied by its title the aim of the encounter group is to provide its members with the experience of an immediate personal encounter with another person or persons. It has been characterised by Rogers (1970) as being 'small, relatively unstructured choosing its own goals and personal directions'. The task of the leader (or facilitator) is to facilitate the expression of members' thoughts and feelings in the here-and-now to present personal interactions. The facilitator participates in this process by providing a minimum of cognitive structure; encouraging an atmosphere of trust; placing emphasis on the present; and involving himself/herself as a person in the enterprise.

Rogers' (1970) description of the developmental process of a typical encounter group moving from superficial 'cocktail party' conversation to deeper levels of intimacy and confrontation follows similar lines to those observable within more traditional groups, and incidentally, mirrors Altman and Taylor's 'social penetration' model. Its primary differences lie in the speed with which these processes are held to operate and the use of a variety of non-verbal and verbal exercises, in order to achieve its aims. These exercises have been described by another of the movements founders, Schutz (1967), among others.

Its practice has in the past aroused a great deal of controversy not only in terms of its efficacy as a viable treatment, but also its potential dangers and philosophical substratum. For example, Strupp (1973) has argued that it represents a 'wholesale rejection of the values of individual
psychotherapy' and also involves 'an anti-intellectual attitude that constitutes an ultimate denial of the individual'. In a similar vein, Burton (1969) claimed that the movement 'attracts the opportunist, the promoter, the self-styled healer, the charismatic would-be saint, the sick and even the sadist'.

On the other hand, Hogan (1976) has claimed that both the writing and practice of exponents of the technique do not bear out the negative accusations made against it. On the basis of the work of Lomranz et al (1972) he questions the unitary nature of the encounter movement and also challenges the assumption that encounter group leaders operate primarily in terms of the catharsis mechanism of change. He also quotes Benne (1970) as providing one example of a balanced approach to therapy, which involves a recognition of the importance of reason as well as emotion.

Much research has been carried out on encounter groups looking at both their inner working and effects, but its practitioners have largely eschewed the development of a scientific methodology aimed at testing the concepts they are using. Indeed, one of their foremost theorists, Rogers (1970), while using formal research findings to demonstrate such groups' positive effectiveness, has argued that a naturalistic phenomenological approach utilising members' self-reports of their experience provides the most meaningful approach to the subject, being 'far more valuable than traditional "hard-headed" empirical approach' and 'the most fruitful way of advancing our knowledge in these subtle and unknown fields'.

2.6 General Systems Theory

Following the pioneering work of von Bertalanffy (1968) this model has been claimed by its proponent (Durkin, 1982) to provide 'both the broad perspective and some specific ingredients with which to build a more timely and effective model'. As such, it has been held out as having the potential to integrate other models that at present appear to be contradictory;
as increasing the precision of traditional concepts and
providing a firmer conceptual basis for new techniques; and
also as having heuristic power to generate fresh hypotheses.

Its major theoretical propositions consist of the
following:—

1) All living systems possess isomorphies of struc-
ture and function whose interaction determines
their mode of interaction.

2) Systems are organised into hierarchies of sub-
systems in mutual interaction regulated by an
organising or deciding subsystem, which will
determine input into and output from the system.

3) Systems are open in the sense of possessing a
flexible boundary, which enables the exchange of
energy and information between the system and
suprasystem, and between different subsystems with-
in the system.

In contrast to other theories such as the psychoanalytic,
General Systems Theory seeks to understand phenomena not in
terms of linear temporal causality, but rather by describing
an inter-relational model for all phenomena within a series of
open systems. It thus focusses on organisation and interaction
rather than causal mechanisms. Basic to this enterprise is the
concept of a system as a 'set of units with a relationship bet-
ween them'.

Systems are held to be arranged in hierarchies differen-
tiated from one another by boundaries which are more or less
flexible in terms of the type and amount of energy and commu-
nication which passes between systems. The concept of hierarchy
implies that within each system, there will be subsystems and
that any system will itself be a subsystem of a suprasystem.
The concept of boundary is adduced to explain the fact that the
components of each system or subsystem are held together in
order to permit organisation and articulation of processes and
functions within the system; protect the system from external
stress; and exclude or admit matter/energy and information.

One of the main defining features of living systems is
that they are open; and possess an organising or decider subsystem, which regulates the permeability of its boundary and hence the nature and quantity of inputs and outputs.

In relation to our understanding of groups, a group is viewed as a bounded system, whose units i.e. members, are in continuous interaction. Within the system, the group leader can be viewed as taking on the role of the organising subsystem. This role is adopted in order that the leader can influence the system as a whole in the direction of increased growth and freedom of expression.

In systems theory terms, the leader will thus work at the boundary of each unit, i.e. group member, in order to increase its permeability both to receiving input from outside itself, i.e. from other members (for example, in the form of feedback); and also to free and transform its energy in order to enhance participation, change and growth.

In appraising the utility of this model from the point of view of clinical practice and research design, an attempt has been made by Kernberg (1975) to relate systems theory to Bion's basic assumptions approach, particularly in terms of the leader's role in setting priorities for group tasks within therapy. This has undoubtedly generated interesting insights into the therapists work at the boundaries of units, particularly with regard to the boundary between his own observing and participating subsystems.

On a still more theoretical level, Ganzarain (1977) has claimed that General Systems Theory provides a wider perspective for the understanding of object relations phenomena within groups and the relationship between the group as a system and outgroups, e.g. the family and other social systems. The focus for analysis is thus once again in terms of boundary issues, but whereas Kernberg addresses himself to boundaries within and between individuals, Ganzarain looks to the boundary between the group system and aspects of the outside world.
However, although clearly yielding clinical insights, this model has not as yet generated either a particular approach or technique for therapy; nor has it been able to generate a set of testable hypotheses concerning the group therapeutic situation. On the one hand it has been described by one of its main proponents (Durkin, 1982) as 'a theory in search of a technique' and by Garzarain as a 'skeleton, it needs to be filled with specific descriptions of the concrete subject matter that is being studied'. On the other hand, it appears at present to be too generalised to permit a research strategy to develop from it. However, this may be possible in the future when/if it becomes tied down to specific clinical phenomena.

2.7 Social - Psychological Approaches

In addition to the foregoing models of group therapy, there is a further source of theory and data concerning group functioning, which originates within the experimental social-psychological tradition. The relevance and impact of this body of work in relation to group therapy has still to be determined.

However, Goldstein and Simonson (1971) have argued, that this work offer an important source of hypotheses for group therapy research. They point to the use made of the Bales IPA System in studies of process in therapy groups. In particular, they report the work of Psathas (1960) in demonstrating that therapy groups show similar phase movements and equilibrium tendencies as those reported in non-clinical groups by Bales and Strodtbeck (1951).

As further examples of possibilities for fruitful cross-fertilisation between the small group research tradition and group therapy, Goldstein and Simonson emphasise the work done in both fields on the phenomenon of group cohesiveness, an area which is considered within the Research review chapter of the present study. They point to the work of Myers (1961) in both clinical and non-clinical settings on the development of cohesiveness in groups as a consequence of intergroup competition.
Additionally, the work of Borgatta and Bales (1965) on a non-clinical population, and Goldstein et al (1966) on a clinical population demonstrates a mutual interest in and exploration of the potential of behavioural tasks and pre-group observation in the important areas of group selection and composition.

A further source of understanding the process of therapy from a social psychological perspective is provided by Strong (1978). He argues that concepts derived from attribution theory, consistency theory, and social power theory are capable of generating hypotheses about and explanations of therapist impact and client change. The essential process hypothesized is that the therapist by means of his/her power induces discrepancy in the client via the provision of new attributions to the client. These create incongruities for the client between his viewpoint and that of the therapist. Such incongruities require resolution via acceptance of new information, which in turn facilitates the development of improved self-concept and self-control.

A survey by Zander (1979) outlines the changing interests and emphasis in small group research from a historical point of view. He points firstly to the early influence of Lewin (Lewin et al, 1939) whose study of group climate, leadership style and intergroup conflict brought group dynamics within the purview of experimental methodology. From the point of view of clinical practice, it also importantly generated an emphasis on the here-and-now aspects of human behaviour.

The following two decades brought an upsurge of interest in group research, some of the more important themes including social pressures that group members place on one another (Festinger, 1950); the direction and amount of communication between group members (Bavelas, 1950); the source of coalitions in groups (Kelley, 1968); influence processes in groups (Back, 1951); balance in group relations (Homans, 1961); and Bales' (1950) development of the IPA system.
During the 1960s and 1970s interest in group research abated. The major areas investigated continued to be those already mentioned, together with conformity to group pressure (Crutchfield, 1955); the so-called 'risky shift' phenomenon (Pruitt, 1971); intergroup competition (Sherif, 1966); and cohesiveness (Shaw, 1971).

Zander additionally notes major problems among researchers in developing theories of group functioning; a lack of specificity in the definition of major concepts; and a tendency to conduct research on a relatively limited range of topics, particularly those which have established tradition of research upon them. These problems in the experimental study of small groups quite clearly echo criticisms made elsewhere of research into therapy groups.

So far as the development of theory is concerned, Gibbard, Hartmann and Mann (1974) outline three major types of model:

1) Linear-progressive models. These seek to define groups as developmental systems, which pass through a number of more or less discrete stages. Such models frequently describe group development in terms, which are analogous to the development of the individual. Examples given include the models of Tuckman (1965), and Kaplan and Roman (1963).

2) Life-cycle models. These differ from the previous type in that they emphasise the importance of the termination or separation phase of the group, rather than assuming that it reaches an optimal peak of work and continues at that level of development. Examples given include those of Mills (1964) and Mann (1967).

3) Pendular or recurring cycle models. Such models suggest that groups either pass through recurring cycles of issues and concerns, or oscillate between them. Further aspects of such models refer to a concern with group structure in relation to individual and group boundaries, and the notion of equilibrium. Examples of such models are those of Bion (1981), Schutz (1958) and Mills (1964).

They suggest that none of these types of model are sufficient in themselves and argue for an attempt to integrate them.
They also point up the interest of researchers in emerging role structures in groups with particular reference to the distinction in leadership functions between task and social-emotional functions.

The work of Bennis and Shepard (1956), Dunphy (1968), and Mann (1967) represent attempts to relate the emergence and development of differentiating role structures to the aforementioned movement of groups through specific stages. The forms of this relationship vary from one model to another. However, they have in common the notion that the polarity between impulse-expression and impulse-suppression is central to the role differentiation process, and that the emergence of role specialists having varying degrees of centrality to the groups at different times, prompts the movement (be it linear or pendular) of the group from one stage to another.

Both the research summarised by Zander and the models described by Gibbard, Hartmann and Mann are of clear interest and importance to the practice and research of group therapy. However, as Klein (1983) notes, cross-fertilisation between the two fields has been virtually non-existent.

2.8 The Interpersonal Learning Model

This model is nowhere clearly described or presented as a set of theoretical postulates. However, it seems probable that this has something to do with the fact that an awareness of the influence of interpersonal relationships on emotional disorder has become such a part of our general way of thinking about mental health problems, that it is difficult to disengage that awareness and utilise it from a scientific perspective.

It is generally recognised on the one hand that individuals presenting with psychopathological complaints typically suffer from interpersonal problems (for example, see Horowitz, 1979). On the other hand, the people most likely to benefit from group therapy are precisely those individuals whose
difficulties include problems with relationships (Brody and Detre, 1972).

Furthermore, the viewpoint that mental health disorders stem from unsatisfactory relationship experiences, particularly dating back to childhood, has a venerable ancestry which encompasses both psychoanalytic and behavioural formulations of personality development and symptom formation. Communication theorists such as Ruesch and Bateson (1951) would go further and say that the essence of psychopathology consists precisely in unsatisfactory and disordered interpersonal behaviour.

Possibly, Sullivan (1953) has provided the first fully worked out theory concerning the impact of interpersonal relationships on the development of personality, though references to it may also be found in the interactionist theories of Murray (see Carson, 1969) who explains personality as being a resultant of an interaction between individual needs and environmental demands; and from a developmental viewpoint, in the work of Bowlby (1969) on attachment and the consequences of its failure.

Sullivan's primary assertion is that personality is a product of the individual's interaction with other humans. Particularly during childhood, out of need for security, traits in the individual which are acceptable to others will emerge and develop, while those that are unacceptable will be 'repressed'. Similarly, the self-concept that the individual develops will largely consist of feedback that is received from others. This process can clearly be seen to be susceptible to the development of distortion in the self-concept, for example where such feedback is ambiguous or negative.

Equally, under the impact of dissatisfying experiences of others and the frustrations arising from failure of needs to be met, the individual may become prone to develop distortions in his perceptions of others. These distortions, carried over from the past into the present, have been termed 'parataxic
distortions' by Sullivan and are characterised by the quality of being self-perpetuating insofar as they tend towards a self-fulfilling prophesy, e.g. if an individual on the basis of having had unaffectionate parents goes on to assume that people in general are unaffectionate, he may well tend to relate to them in a standoffish manner and feel unable to ask for affection. Under these circumstances it is likely that others will reciprocate by being standoffish towards him, thereby reinforcing his belief that people are unaffectionate.

A consequence of these unsatisfactory experiences in personality development is that the individual develops rigid patterns of behaviour, which in the normal course of events, i.e. in the absence of therapeutic intervention, remain impervious to the effects of new learning experiences. In turn, this means that the individual has difficulty in matching his behaviour to the requirements of shifting circumstances and changing situations, particularly as these involve relationships with others. This factor had been first noted by Adler (see Way, 1956); and later elaborated by Horney (1950) in terms of a difficulty in changing roles between moving towards, away from or against others.

The implication of this factor of role rigidity is that the individual will experience problems in interpersonal relationships both in adopting behavioural strategies which will ensure that his own needs are met, and also in responding to the needs of others.

The increasing importance and attention given to the dynamics of the therapeutic relationship, which was largely prompted by the work of Rogers (1951) and his school on the necessary and sufficient conditions of therapy, bears witness to the viewpoint that the consequences of earlier unsatisfactory relationships can only be overcome within an interpersonal context where previously unmet needs can be worked through, i.e. it is only satisfactory relationships which will 'mend' the damage caused by early bad relationship experiences.
To carry this perspective over into the group therapy situation, the first assumption made in group treatment is that the group constitutes for each individual a 'social microcosm' (Yalom, 1970). By this it is meant that in time the individual will display within the group his typical ways of relating to others and dealing with situations, including importantly those forms of interpersonal behaviour which are maladaptive. The group format therefore provides the therapist, the individual concerned and other group members with ongoing diagnostic information concerning the nature of the individual's problematic behaviour. Additionally through observation and analysis of the context within which the behaviour is occurring ie by paying attention to the interactional sequence which will include the behaviour and reactions of the therapist and other members, information will become available concerning triggers for the behaviour in question and also its consequences.

In terms of the potential available within the group for change, there are clearly a number of mechanisms whereby this may occur. Firstly, whatever expectations the members may bring to the group concerning its operation and whatever hopes they might have regarding symptom relief, part of the therapist's teaching function consists in providing them with a psychological 'set' oriented towards observing and becoming aware of their internal processes and interactions within the group. This is one of the major aspects involved in learning how to use the group.

Secondly, through obtaining direct feedback from other members on their behaviour in the group, individuals are able to gain information about the ways in which they present themselves and appear to others. Thirdly, through the aforementioned orientation towards looking at their interactions, members are able to develop an understanding of what they do with and to each other.

Fourthly, members are able to develop insight into both why they behave in the way they do and how their present behaviour relates back to experiences in the past. In connection
with this point, it is relevant to mention Yalom's (1970) description of the 'corrective emotional experience' and the impact of this in facilitating change. Fifthly, the availability of others suffering or having suffered from the same sort of problem may provide the individual with alternative models of effective functioning.

Sixthly, the experience of an atmosphere within the group, which seeks to provide Roger's (1951) necessary conditions of therapy, namely genuineness, warmth and empathy (or to paraphrase these: honesty, acceptance and understanding) might be expected to encourage the individual in taking risks in self-expression and experimenting with new modes of behaviour towards others.

A comparison of these factors with Corsini and Rosenberg's (1965) ten factors illustrates the degree to which those latter are interpersonally based. Thus it will be readily seen that their mechanisms of Acceptance, Altruism, Universalisation, Intellectualisation, Reality Test, Transference, Interaction, Spectator Therapy and Ventilation intersect at many points with the above.

While the foregoing has pointed up the importance of interpersonal processes on pathology and change in the group, the work of Mann (1967) has demonstrated the fact that individuals maintain a degree of consistency in their response to the evolving group situation. He focused on the member-leader relationship and identified six main factors from member's verbalisations, which defined their performance with regard to this relationship:

1) Leader related to as an analyst
2) Leader related to as an authority figure
3) Leader related to as a manipulator
4) Leader related to as an audience
5) Effect of the leader on member's ego state
6) Commitment to the member-leader relationship

In addition to these factors, he also related individual's
behaviour in the group to the major interpersonal themes of nurturance, control, sexuality and competence.

These six factors concerning the nature of the member-leader relationship are related to the individual's performance not only through the expression of the interpersonal themes, but also insofar as this performance constitutes for the member a particular strategy aimed at achieving certain goals or preventing others.

The factors additionally provide a basis for describing the four forms of activity in the group, which are defined as therapeutic, namely Enactment, Independence, Involvement and Expression.

The importance of the interpersonal themes clearly vary from one individual to another and also within the group from one time to another. The interaction of these two sets of variables, i.e. individual concerns and stage of group work, determines the forms of individual performance seen.

Moreover, Mann was able to show that the individual's 'performance' and 'career' in the group could not be understood solely in terms of his previous personality, nor only as a response to processes operating in the group. Rather it had to be seen as the result of an interaction between on the one hand an individual for whom particular themes and concerns were more or less important, and on the other, a group developing through a number of stages in a lawfully structured fashion.

A further aspect of Mann's analysis was concerned with the categorising of individuals in terms of a typology of roles, which appeared to evolve fairly rapidly within the groups studied. He identified five main types of individual career, which correspond to the roles occupied by members of the groups, namely the Hero, the Paranoid Resister, the Distressed Female, the Sexual Scaregoat and the Independent Enactor.

It is perhaps of interest to compare the conclusions of
Mann's approach based as it is on the methods of scientific empiricism, founded on strict observation and factor analysis with the work of Redl (1942). The latter, working within a psychoanalytic framework also derived from a more intuitive level a list of categories of individuals within groups. However, this referred to types of 'central person', who provide an object for members' identifications.

Moreover, Redl also argued against the assumption that the individual's behaviour in the group can be predicted solely on the basis of knowledge of personality characteristics, thereby implicating the importance of group forces. His term 'role suction' describes the influence of group members' expectations on the subsequent behaviour in the group of an individual.

The effect of this influence has been demonstrated in Mann's work in relation to his identification of the effects of group stages on individual careers, particularly with regard to his hero type. From the above-mentioned work by Horney (1950) and others on role rigidity in psychopathology, Heckel (1972) has suggested that in comparing normal and patient groups, this factor constitutes one of the major differences between the behaviour of individuals in the two types of group. Thus, the normal group members showed 'an ability to perform many roles in their group', whereas patient group members performed a 'limited number of verbal task, social-emotional and group building roles'. The ability to shift roles in response to changing requirements was labelled 'role flexibility'. It appears likely that such flexibility of response constitutes an important element in outcome of therapy.

However, it is important at this point in talking about roles to distinguish between, on the one hand, the use of the term 'role' as that applies to the position that a member occupies within a group, involving as it does the expectations for behaviour associated with that position; and on the other hand, the use of the term in relation to 'role flexibility', which applies to the individual's perceptions and reactions to
the group, and hence involves the individual's personality characteristics and behavioural response styles.

Needless to say, the actual behaviour exhibited by an individual in the group will be a consequence of an interaction between expectations held of him and his willingness and ability to meet these expectations ie by the degree of fit between personality and role.

To summarise, the interpersonal learning model presented above analyses psychopathology in terms of this being a consequence of unsatisfactory interpersonal experiences in the past and the development within the personality of distortions in perception in relation both to the self and others. The result of this is the development of rigidity in the personality and hence in the individual's ability to respond to changing interpersonal requirements.

The aims of therapy are seen as correcting the above distortions and providing the individual with choice in terms of their response to others ie providing flexibility in meeting one's own needs and those of others.

The operation of effective therapy may be analysed in terms of this being a resultant of interactions between the following sets of variables:-

a) Individual personality characteristics
b) Expectations and perceptions of other members concerning the individual and the role occupied.
c) Group forces, which relate to a temporal dimension ie the notion that a group develops and changes in the nature of its functioning over time.

Inspection of the major therapeutic mechanisms operating in group therapy reveals that these are mainly interpersonal in nature.

In terms of a research strategy utilising this model and in attempting to analyse the interactions between these variables
It is clearly necessary to go beyond the traditional forms of interaction process analysis, which are in the main concerned with the content of an individual's verbalisations (e.g., Bales, 1950) and begin to develop observation and coding systems, which focus on the interactions between members. Thus in order to investigate, e.g., the development of an individual's role flexibility, or the operation of interpersonal feedback, or the group's reactions to a corrective emotional experience in an individual, it is necessary to be able to place an individual's behaviour within an ongoing interpersonal context. An example of this type of system has been developed by Lewinsohn et al. (1970); and it clearly yielded data, which was interpersonal in form.

Finally, it seems important to be able to relate group process to outcome data. A concept such as 'role flexibility' appears to hold out the promise of being able to bridge the gap between descriptions of the individual's changing behaviour in the group and changes in his ability to respond adaptively to interpersonal situations outside the group.

2.9 Summary of models

If it is accepted that group therapy primarily operates via interpersonal learning mechanisms, the above model can be shown to have advantages for the purposes of research over the other models presented. Both the behavioural and psychodynamic models, being derived from the individual therapy context, although differing in the levels of inference at which they treat their data, focus primarily on the individual's behaviour and experience in the group. This is the case in spite of the fact that they utilise concepts, such as reinforcement and modelling for the former and transference and group association for the latter, which have interpersonal referents.

Conversely, systems, group analytic and conflict models have as their focus mechanisms operating at the level of group forces. They are therefore more concerned with the interactions between units in a system, or subgroups representing
different group tendencies rather than interactions between individuals. These models, which in general operate at higher level of inference, are therefore less able to provide data concerning the impact of experience in the group, particularly interpersonal experience, on change in the individual. In contrast, the interpersonal learning model based as it is on direct observation of dyadic interaction and its context is capable of generating data demonstrating the effect of process on outcome, particularly insofar as this relates to the individual’s interpersonal behaviour.

As the interests of this study are particularly directed towards interpersonal aspects of behaviour and the linking of process to outcome in group therapy, it was decided that the interpersonal learning model, although nowhere clearly systematised, offered a potentially fruitful approach to the empirical investigation of group therapy. Accordingly, this is the model which will be used in the present study. Its uses will include the development of a unifying methodology to enable the investigation of both process and outcome; the investigation of a set of hypotheses, in part derived from the model itself and in part from previous research; and on the basis of empirical findings, an attempt to delineate the major structural features of a coherent model of group therapy.

As noted above, the majority of the models described lack firm empirical grounding and support. It has proven easier to develop models and theoretical concepts than to conduct research into them.

Such research as has been conducted into group therapy has largely been split between studies evaluating its effectiveness either in comparison with other treatment formats or on specific populations and problem areas, and those oriented towards an investigation of particular processes. These two separate emphases within the research has meant that the empirical status of the models described above remains to be determined. The following chapter provides a review of the main focii and lines of evidence in group therapy research.
Chapter 3 : A review of research into group therapy

As described above, the development of group therapy has been characterised by a proliferation of techniques and the extension of its application to a wide range of client populations and types of problem. Alongside these developments, but separate from them, there has been the emergence of successive attempts at theoretical conceptualisation and model building aimed at comprehending the process of group therapy. In the main, and with a few notable exceptions, empirical research has not been addressed to the testing of such models, but has been more concerned with evaluating the effectiveness of therapy and attempting to elucidate and describe factors operating within it.

Thus, at the base of the research enterprise are to be found questions concerning the effectiveness of group therapy as an agent of change promoting beneficial effects on emotional and psychological functioning and behaviour.

One of these questions refers to whether a particular therapeutic experience facilitates such adaptive change in a superior or more efficient manner than allowing the disorder to run its natural course. This issue does leave begging questions concerning prognosis; and whether emotional/behavioural disorders do run natural courses and, if so, what these might be.

These questions refer to the 'problem' of spontaneous remission. This has been put as high as 70% two years after onset for neurotic disorders (Eysenck, 1952). However, doubts have been cast on the methodological adequacy of this study as it relates to the types of person who present themselves for treatment (Kiesler, 1966). More recent estimates of spontaneous remission rate (Bergin, 1971) suggest that 30% is a more likely estimate over a heterogenous set of diverse samples.

Rates of remission clearly vary according to the nature
and severity of the disorder, and there is good evidence to suggest that untreated control groups do in fact look for and gain ' unofficial treatment' through enlisting the help and support of relatives, friends etc. This factor in itself puts in doubt the rationale and justification for utilising the sacred cow of therapeutic outcome studies: the control group.

It appears to be unquestionable that the longer the time-span over which the effects of a course of treatment are assessed, the closer together move results from treated and untreated groups. However, if it can be demonstrated that the change processes operating in a therapy group have a more rapid effect upon individuals than leaving them untreated, then effectiveness can be claimed for the treatment in terms of its ability to cut down the time-scale of disorders and their attendant suffering. Further, if such processes act in a more thoroughgoing manner than leaving the individual untreated, then positive benefits can clearly be claimed for the treatment.

In the past twenty years there has been a considerable upsurge in the number of scientific research papers into group therapy. An early commentator (Frank, 1951) did in fact cast doubt upon the feasibility of conducting research into group therapy. Although such pessimism has proven to be unfounded, many of the results in this body of research are less than impressive, and major methodological problems remain.

The research was reviewed in relation to the following set of structural parameters:-

1) The type of client (including factors pertaining to personality, motivation, socioeconomic and other demographic variables).

2) The nature and severity of the disorder (including pre-treatment level of functioning).
3) Therapist variables.
4) The use of specialised formats.
5) The nature of the group experience.

However, within these parameters, major lacunae in the group therapy literature were found. Therefore in order to provide a fuller account of the available evidence, which might have implications for group therapy, it has been necessary to include studies from the individual therapy context where these were appropriate.

3.1 Client Characteristics

Research into the effectiveness of psychotherapy with various types of client has not as yet come to any clear-cut conclusion. No one approach to therapy can claim to work for the majority of people, whereas most approaches can be demonstrated to work for some.

Most research on individual characteristics has been carried out within the individual therapy context. However, findings here are likely to have implications also for patients' response to group therapy, although a one-to-one correspondence can clearly not be assumed.

3.1.1 Client characteristics in relation to process

The psychotherapeutic process and its antecedents may be conceptualised as a series of filters through which people pass or, alternatively, as a decision-making flow chart:

a) The decision by the client to seek therapy.
b) The decision by the therapist to accept an individual for therapy.
c) The decision by the client to commence therapy.
d) The decision by one or both to continue therapy.
e) The decision by one or both to terminate therapy.

a) The role of demoralisation as a factor in help-seeking has been suggested by Frank (1974). Additionally, factors such as hopelessness, social isolation and sense of failure have been found more in individuals seeking treatment (Galassi and Galassi, 1973; Katz, 1971; Vaillant, 1972) than in those not seeking treatment. These studies were all conducted into individual psychotherapy. Studies of reasons for people seeking group therapy are absent from the literature.
b) The major finding relating to acceptance of clients for psychotherapy emphasises the social-class factor. In repeated studies, socio-economic status was a major determinant of selection for psychotherapy (Schaffer and Myers, 1954; Bailey et al, 1959; Lubin et al, 1973; Kadushin, 1969). Bailey et al (1959) also found factors such as age, expressed desire for psychotherapy, intrapsychic complaints and previous experience of psychotherapy affected whether or not an individual received psychotherapy. Additionally, Schaffer and Myers (1954) found a relationship between patients' social class and the rank of the therapist.

In relation to referral for group therapy, a study by Brody and Detre (1972) investigated referral patterns to individual and group therapy at a student mental hygiene clinic and found that factors affecting this included the referring clinician's treatment experience and discipline. In addition, patients presenting their problems in interpersonal terms or seen as needing improved social skills were more likely to be referred for group therapy.

c) A number of studies have demonstrated a large drop-out rate before commencement of therapy. Thus Garfield and Kurz (1952) found one-third of patients offered therapy declined, and Marks (1978), in a study of patients' acceptance for behavioural therapy, found a 25% refusal rate. An even larger figure of 40% failing to attend was found by Raynes and Warren (1971). In this latter study, non-attendance was associated with length of time on waiting-list. Other factors relevant to acceptance were found by Rosenthal and Frank (1958) to be clients' income and related level of motivation. These studies all refer to non-commencement in individual therapy.

d) In assessing patients' continuation in therapy, it is necessary to place this question within its context and hence determine what constitutes premature termination. In a survey of a number of investigations, Garfield (1978) concluded that the median number of interviews for patients commencing therapy was only 5 or 6, and that most clinics had lost over half their clients before the eighth session. In most cases, such termination was not the policy of the centre and was considered a problem. Hence it would appear that a large number of clients commencing therapy have rejected it by premature termination.

Once again, social class appears to be a major determinant of continuation. Studies by Imber, Nash and Stone (1955) and Dodd (1970), among others, demonstrate that middle class tend to stay longer in therapy than do lower-class patients. Similarly, educational level has repeatedly been found to predict length of stay (e.g., the already-mentioned...

On the other hand, these studies failed to find a relationship between length of stay and such variables as age, sex or diagnosis. Moreover, work on the use of psychological tests as predictors of continuation have been unable to provide clear-cut results other than a repeated finding associating IQ with remaining in therapy (Hiler, 1958).

In looking at clients' expectations of therapy, Heine (1962) and Overall and Aronson (1962) both found that clients whose expectations were more congruent with the therapeutic situation stayed longer.

With regard to the effect of therapist factors on staying in therapy, studies by Dodd (1970) and Garfield et al (1963) demonstrate a relationship between therapists' level of skill and continuation. Moreover, the role of therapists' perceptions of clients has also been found to relate to client continuation (Affleck and Garfield, 1961), particularly with regard to the therapist's prediction of outcome.

While the foregoing studies were conducted on individual psychotherapy, Rosenzweig and Tolman (1974) investigated continuation in group therapy. They found that three therapist factors were positively related to continuation in group therapy: therapists' estimate of ability to empathise with the client; positive feelings towards the client; and judgement of the client's ability to form a therapeutic relationship.

In looking at reasons given by premature terminators for dropping out of group therapy, studies by Yalom (1966), Koran and Costell (1973) and Sethna and Harrington (1971) provide a variety of possible causes, some related to the therapeutic situation, others to external factors.

Some two-thirds of Yalom's sample were accounted for by two group-related factors: problems of intimacy and fear of emotional contagion. In general terms, however, Yalom was unable to find any single cause for a particular patient dropping out of therapy and admitted that it was frequently difficult to determine the major reason.

The best predictor in Koran and Costell's study was a failure by the patient to fill in the pre-therapy psychological questionnaires; while Sethna and Harrington found an association between premature termination and anxiety about active participation in group therapy or a diagnosis of hysteria.
Rates of premature termination in group therapy mirror those found in individual work. Thus Yalom (1966) and Sethna and Harrington (1971) obtained rates of 36% and 31% respectively. Criteria for allocation to the premature terminator category vary somewhat. Yalom defined this in terms of failure to complete 10 sessions, whereas Sethna and Harrington found that two-thirds of their 'lapsed' group had dropped out by the twentieth session.

A study by Connelly et al (1986) obtained a rate (33%) after six months of therapy which was substantially similar to the above. In addition, they found a number of factors related to dropping out of therapy. Amongst these were a primary diagnosis of personality disorder, no previous experience of therapy, lower pre-treatment levels of interpersonal functioning, and more negative expectations of therapy. In terms of differences related to early therapy, terminators were less committed and perceived less compatibility in their groups; viewed their therapist and other group members less favourably, and were similarly less positively viewed. In addition, they viewed the group climate as having more conflict, less support and less engagement. On the other hand, they obtained higher scores on levels of groupwork.

These findings regarding the more negative pre-treatment expectations of premature terminators were also obtained in a study by Caine et al (1973), who additionally found them to be less introspective than those who remained in the group.

While the foregoing studies mainly addressed themselves to dynamically-oriented individual or group psychotherapy, little work has been done within the behavioural tradition, other than the already-quoted study by Marks (1978) on patient refusal.

Summary

Certain lines of evidence are apparent within the above discussion. Acceptance for group therapy appears to be related to interaction effects between client characteristics and aspects of the institution. The high rates of non-acceptance and non-continuation are considered to be problems, which suggests that the forms of mental health care available are not meeting clients' needs. Repeated findings implicate social class and educational level factors in this state of affairs. These factors may well relate also to additional findings concerning the role of patient expectations of therapy and congruency between patient and therapist in terms of both values and personality factors.

The position with regard to premature termination in group therapy implicates these factors, but also involves factors specific to the group situation. Moreover, Yalom (1966) has emphasised the deleterious effect of drop-outs on those who remain in the group. Further evidence is provided by Rosenzeig and Folman (1974), who suggested that the most important predictor of staying in group therapy was the patient's attraction towards the therapist. However, while
these studies have uncovered aspects of the client which relate to staying or going, there are few attempts to isolate interaction effects between client variables and group factors. The importance of these latter were pointed up by Lieberman et al's (1973) study of encounter groups, which noted the effect of various group climates on drop-out rates.

3.1.2 Client characteristics in relation to outcome

As will be seen in the methodology section, the question of therapeutic outcome is one that is vexed by problems of specification of variables, differing criteria across studies and a resulting difficulty of generalising findings. This should be kept in mind as background to the following discussion. Most of the available evidence refers to individual therapy, but will be included in the review where it may have implications for group therapy outcome.

Firstly, in contradistinction to the position regarding acceptance for and continuation in therapy, there is little evidence to suggest that social class is related to outcome. (Garfield, 1978). However, studies by McNair et al (1964) among others suggest a positive relationship between educational level and outcome. For age, sex and marital status, no very strong relationships have been consistently found between these variables and outcome. Findings here are thus similar to those found in relation to premature termination.

With regard to personality variables, early studies by Rosenberg (1954) and Barron (1953, a) have demonstrated the importance of intelligence in relation to outcome. A review of studies on intelligence and outcome by Luborsky et al (1971) demonstrated a preponderance of studies showing a positive relationship between intelligence and good outcome, although it seems likely that the importance of intelligence will to a large extent depend on the form of therapy used.

Barron (1953, b) also found that level of ego strength was associated positively with outcome. A number of studies have failed to confirm the utility of Barron's scale of ego-strength as a predictor, though the positive association between ego-strength and outcome has also been demonstrated in the long-term study of analytic therapy conducted by the Menninger Foundation (Kernberg et al, 1972). This study also noted the presence of anxiety at the start of therapy as being associated with good outcome.

The role of patient expectation of outcome is one which has been claimed by Frank (1959). Evidence for it is presented by Friedman (1963), Goldstein and Shipman (1961) and Tollington (1973). However, the relationship between expectations of benefit and outcome appears to be complex. Thus Goldstein and Shipman found a curvilinear relationship between levels of expectation and outcome; while Tollington noted that the effects of expectations on outcome only held during the initial stages of therapy, but were thereafter dissipated.
The situation regarding expectancies is further complicated by criticisms of studies for relying on self-reports of expectations, and confounding measures of expectancy with both outcome measure and feedback effects (Wilkins, 1973). Moreover, it has increasingly become necessary to distinguish between various facets of patient expectancy, e.g. expectations regarding improvement as distinct from expectations concerning the therapeutic process, and also to distinguish between expectancy states and traits.

At this point in the discussion of client characteristics, we are moving into the area of the relationship between the impact of such client characteristics on outcome and what actually occurs within therapy itself.

One aspect of this which has received some attention in group therapy refers to the relationship between personality variables and response to different kinds of therapy. Thus, a study by Abramowitz et al (1974) obtained differential levels of response to group treatment structure according to individuals' locus of control, i.e. patients high on internal locus of control did better in non-directive groups and vice versa.

In a similar vein Abramowitz and Abromowitz (1974), comparing the effects of insight and interaction-oriented group therapy on individuals differing on psychological-mindedness, found that high psychological-mindedness was associated with more favourable response to insight-oriented therapy.

Pertinent here also are studies of therapist-patient matching. Thus, in individual therapy, Sapolsky (1965), using FIRO-B, found a positive relationship between therapist-patient similarity and outcome. However, a dichotomy was found here in terms of who was evaluating the therapeutic relationship. Thus, a positive association was found between outcome and patients perceiving the therapist as similar to themselves; whereas no such association was found with regard to therapists' perception of similarity between self and patient. Similarly, McLachlan (1972) found that therapists and patients matched for conceptual level was associated with positive outcome; and Beutler et al (1975), investigating matching on attitudes, found that this was associated with self-rated improvement in group therapy, although some degree of dissimilarity led to greater attitude change in patients.

Peake (1979) investigated the effect of patient-therapist agreement concerning the nature of the therapeutic relationship on outcome in group therapy, but was unable to find any consistent association between the two. He claimed that the finding detracts from Goldstein's (1962) assertion of the importance of clarifying patient and therapist expectations, and lends tentative support to those theorists who emphasise the role of ambiguity in therapy.

In looking at the therapist's perception of client characteristics, the following studies were all conducted into individual therapy. Thus, both Prager (1971) and Sloane et al (1975) found a positive relationship between client likeability.
at the end of therapy and outcome (which raises questions of causal direction) though no association was found between initial likeability and outcome. Similarly, no association was found in these studies between outcome and therapists' early perceptions of the patient being suitable for therapy, participating in therapy, having a good prognosis or understanding. However, Salzman et al (1976) found a positive relationship between outcome and rated prognosis at the third session.

and also between outcome and therapists' view of the patient's level of understanding and taking responsibility for problem-solving.

Salzman et al (1976) did not find an association between the therapist's rating of patient progress and outcome, whereas a study by Malan (1976) suggested that positive outcome was associated with therapists' impressions that therapy was going well.

Furthermore, in an earlier study, Gendlin et al (1960) found a positive effect on outcome where therapists considered that the patient perceived the therapeutic relationship as being unique and paradigmatic. Similarly, Salzman et al (1976) found a positive relationship between patients perceiving therapy as being important and different from other relationships and outcome. Gendlin et al (1960) also reported positive outcome for therapists perceiving patients as moving from talking about to experiencing feelings in therapy.

With regard to patients' view of themselves, Salzman et al found a positive relationship between outcome and patients reporting themselves as expressing thoughts and feelings; experiencing feelings focussed on the therapist; taking responsibility for problem-solving; understanding therapist communications; and making progress in solving problems as early as the third session. Along similar lines, Tovian (1977) found positive outcome for patients experiencing encouragement, benefit and a sense of mastery, relief and confidence, and also what he terms 'erotic transference communication'. A similar association obtained for patients seeing themselves as actively-initiating during therapy.

Some of the above findings clearly relate to patient motivation. More direct attempts to research therapists' impressions of patient motivation yield mixed results. Thus, Prager (1971) was unable to demonstrate a relationship between initial assessment of motivation and outcome in client-centred therapy; whereas Malan (1976) did find such a relationship in brief psychotherapy and Strupp et al (1963) reported an association between outcome and therapists' retrospective assessment of motivation (although here again the issue of causal direction is problematic). Strupp et al also reported a negative relation between outcome and therapist perception of patients' defensiveness in therapy.
In terms of actual behaviours in situ, both Truax (1971) for group therapy and Crowder (1971) for individual therapy found positive outcome related to patients' expression of negative feelings. Sloane et al (1975) found a similar association for patients talking in larger chunks, although Smith et al (1960) were unable to relate outcome to the actual amount of time for which patients spoke in therapy groups composed of adult offenders.

In addition, Kirtner and Cartwright (1958) found that patients' early focus on feelings in relationship problems in client-centred therapy was predictive of good outcome. This finding was replicated by Truax and Wittner (1971), who additionally claimed positive outcome for patients utilising personal references. Along the same lines, Schauble and Pierce (1974) found positive outcome associated with high and increasing levels of clients viewing their problems as being internal, a willingness to 'own' feelings and the development of cognitive differentiation of problems, feelings and concerns. A further aspect of cognitive structure is reported by Wargo et al (1971) of a negative correlation between outcome and the rationality of clients' utterances.

In relation to group therapy, two further studies can be mentioned. Lieberman et al (1973), in their study of encounter groups, found that positive outcome was associated with individuals who had realistic expectations of change; avoided being scapegoated; anticipated problems in the group situation; held values congruent with the group's mode of functioning; and were able to use group events not directly involving themselves. Additionally, Yalom (1967) found that early popularity in the group was predictive of good outcome.

Summary

In reviewing research into client characteristics, there appears to be no strong evidence linking demographic aspects to outcome. The major positive finding concerns intelligence, but even here research has not defined a lower limit below which people may not benefit, although clearly certain forms of therapy depend more on level of intelligence than do others.

With regard to personality factors, ego-strength appears to bear a relationship to outcome. Moreover, there seems to be a clear interaction between locus of control and differential response to type of therapy. The evidence concerning patient likeability remains inconclusive.

The role of patient expectations and the degree to which these are congruent with the therapeutic process appear to be important, although the concept itself stands in need of clearer definition and differentiation.

The evidence regarding therapists' perceptions of suitability and prognosis is less than compelling as also are initial ratings of motivation. However, the quality of the therapeutic relationship and a sense that the patient regards this as being important both appear related to outcome, as also do certain patient behaviours in situ. The studies quoted above suggest that active involvement, taking responsibility for oneself, viewing problems internally, expressing negative feelings and the development of a cognitive structure for understanding are positively associated with outcome.
3.2 Nature and severity of the disorder

A survey of the reported use of group methods suggests that these are now being used for a very wide range of social and personal problems, ranging from specific disorders such as drug addiction, obesity and alcoholism through more general problems of mental health such as anxiety, depression and social inadequacy to the growth-oriented group experience of the so-called 'normal populations' as is exemplified by the encounter movement and women's consciousness-raising groups. These latter usually draw their membership from the educated articulate middle-class section of society, but there is good evidence to suggest that in terms of personality and adaptation there is little difference between, for example, an encounter group's members and those attending a more traditional therapy group meeting (Lieberman and Gardner, 1975).

The literature regarding the effect of degree of disturbance on outcome is beset by problems of comparison across studies due to differing criteria for change, client groups and definitions of distress.

Thus, for example, a study by Truax et al (1966) on group therapy patients using MMPI scales found that patients suffering greater initial disturbance made more positive gains in therapy. Similar findings were also obtained by Stone et al (1961); whereas studies by Rogers et al (1967) and Kirtner and Cartwright (1958) obtained results opposite to this, and Katz et al (1958) found no relationship between degree of disturbance and outcome. Part of this discrepancy can doubtless be accounted for due to differences in client variables and differing criteria and definitions of distress.

Some light is thrown on the situation by Sloane et al's (1975) study comparing behavioural and analytical therapy. They found that analytic therapy provided more positive gains to less disturbed patients; whereas behaviour therapy was equally successful with patients exhibiting high and low levels of pathology.

Also, a study by Prager and Garfield (1972) obtained differential results for various measures of disturbance and outcome. Thus ratings of initial disturbance made by clients, therapists and supervisors were unrelated to outcome; whereas test measures of disturbance on the MMPI were negatively correlated with outcome as assessed by clients, therapists and supervisors, and uncorrelated with outcome on pre- to post assessment of test scores.

The authors note that studies demonstrating a greater benefit for people suffering higher levels of initial disturbance may involve a regression towards the mean, where pre- to post difference scores are used. Furthermore, they found that in studies where the converse applied, i.e. higher disturbance associated with less benefit, ratings of change tended to be global ones based on the rater's perception of change, rather than actual measures of symptoms etc and their change.
It has generally been assumed that less disturbed patients do better in psychotherapy (Garfield, 1971). However, to a large extent, this conclusion is based on studies where global measures of change are used and the focus is on the rater's impression of the individual at the end of therapy rather than on the amount of gain that the individual has made (Mintz, 1972). Thus, an individual who started therapy functioning adequately and at the end of therapy functions well will be seen as more improved than one who starts at a poor level of functioning and at the end functions adequately, even though the gain made by the latter may be greater. The already-mentioned review of outcome studies by Luborsky et al (1971) obtained the following results: of 55 findings, 31 showed a positive relationship between initial adequacy of adjustment and outcome; 1 found a negative relationship, and 23 found no relationship or were inconclusive.

In terms of diagnostic types some general findings can be mentioned. Lorr et al (1958) found positive benefit associated with a diagnosis of anxiety and for individuals exhibiting a high level of suffering of a neurotic nature, which is not acted out. Similarly, positive benefit was found for depressives, unless they are actively suicidal, in which case the group may be unable to provide sufficient support to contain their self-destructive impulses. The greater degree of personal attention required by them is considered to be better handled by individual therapy. Such would also be the case of the schizoid individual who, while clearly asking for help, has not yet attained a sufficient capacity for relatedness to be able to benefit from the group situation.

Additional contra-indications were outlined by Barron (1953,a) as being the existence of antisocial or hysterical acting-out behaviour in the symptomatology and severe thought-disorder and withdrawal. Such withdrawal must, however, be differentiated from the silent introverted individual, who nevertheless remains interested and involved in what is going on around him, and on this basis is able to derive benefit from the group experience via vicarious learning.

The following survey of the effects of group therapy on particular diagnostic types is largely based on a summary of outcome findings by Parloff and Dies (1977).
3.2.1 Schizophrenia

While the normal run of therapy groups for neurotics are unable to help a psychotic, claims have been made for the usefulness of working with groups of psychotics in in-patient settings (Standish and Semrad, 1951); and also for the inclusion of one or two psychotic or borderline individuals in a predominantly neurotic group (Day and Semrad, 1975).

Standish and Semrad's early paper is largely impressionistic in tone but makes some attempt at quantification, suggesting that greater benefit was obtained from group therapy by acute rather than chronic patients in terms of release and post-hospital adjustment. The paper by Day and Semrad also claims benefit for psychotics from attendances in out-patient groups and suggests that their presence may facilitate dynamic exploration by neurotics of their own problems.

However, such claims may be measured against findings to the contrary. For example, Boe et al (1966) failed to discover any improvements on a wide range of self-report measures in schizophrenics receiving group therapy in hospitals as compared to a control group of schizophrenics undergoing a usual hospital treatment regime.

Similarly, Pattison et al (1967) in a study of analytically-oriented group therapy showed that in-patient schizophrenics receiving group therapy showed less improvement on a range of outcome indices than a no-group control, although a sub-group of 3 patients receiving individual as well as group therapy did better than those only receiving group therapy.

Additionally, studies by Lipton et al (1968) and Haven and Woods (1970) failed to demonstrate any advantage to patients receiving group therapy over no-group controls on rates of recidivism. The major factor affecting this in Lipton et al's study was the initial degree of presenting pathology.

In contrast, Vitalo (1971) and Olson and Greenberg (1972) reported more improved social and hospital adjustment for patients receiving group therapy than no-group controls. Both of these studies also compared therapy group patients with groups receiving more specialised interventions aimed at changing specific behaviour as well as the no-group controls. The general finding here was what the groups receiving specialised treatment did change on indices measuring the particular behaviour in question more than the therapy groups and no-group controls, though such groups did less well on measures of general adjustment than did the groups receiving group therapy.
In looking at the combination of group therapy with other ward-based interventions, studies by Corder et al (1971), Coons and Peacock (1970) and Roback (1972) found that group therapy when combined with social interaction produced results that were better than either technique alone. However, the use of alternate sessions (ie meetings of the group in the absence of therapists) was found by Truax et al (1966) to have a detrimental effect on the self and ideal-self descriptions of this type of patient in contrast with its documented usefulness with neurotic samples (Truax and Wargo, 1969).

In a similar vein, Strassberg et al (1975), in contrast with findings on neurotic samples, found a negative correlation between schizophrenics' level of self-disclosure and outcome. This suggests that self-disclosure was too threatening for this type of patient, which fits with Coons and Peacock's finding of better outcome for interaction than insight-oriented groups.

The overall conclusion from the foregoing is that group therapy on its own had little impact on schizophrenics over and above the usual hospital regime. However, some degree of effectiveness can be claimed for group therapy in combination with other specific treatment approaches.

3.2.2 Neuroses

Considering the widespread use of group formats in the treatment of neurotic disorders, the paucity of outcome studies in this area is all the more surprising. However, Gelder et al (1967), in comparing group therapy with individual psychotherapy and systematic desensitisation, found greater symptom relief with the latter treatment approach, but earlier improved interpersonal relationships with group therapy.

In contrast, a study by Meichenbaum et al (1971) on college students studied the effect of insight-oriented group therapy, group desensitisation, insight only, desensitisation only, and a placebo control on speech anxiety. They found that both group treatments were significantly more effective both on behavioural ratings and self-reports than the individual treatment conditions. These differences persisted at three month follow-up.

Mitchell and Ng (1973) compared the effects of group counselling, desensitisation, and a mixture of those together with a no-contact control group on study habits and test anxiety in college students. They found that the mixed condition led to improved study habits and reduced test anxiety, while desensitisation alone led to reduced test anxiety. This suggests that combined techniques had greater effect than either one on its own.
A study by Covi et al (1974) on depressed women suggested that drug effects had a stronger effect on depression than group treatment, but that this latter had some effect on interpersonal sensitivity, anxiety and hostility.

A study by Hodgson (1981) of depressed college students compared the effects of cognitive group therapy (based on exercises developed on the basis of Beck's 1967 analysis of depression) with behavioural group therapy (based on social skills training) under two conditions: massed and spaced treatment. The dependent measures used were the Self-rating Depression Scale (SDS) and the Depression Adjective Check List (DACL), together with a modified Group Assessment of Interpersonal Traits (GAIT), which used independent observers to rate members' interpersonal behaviour at post-treatment. Results indicated that both kinds of treatment were more effective than a waiting-list control group. However, most gains were made by the behavioural group under the condition of massed treatment both on self-report measures of depression and observer ratings of interpersonal skills.

Swarr and Ewing (1977) conducted a study of long-term interpersonal learning-based group therapy on a similar client population, i.e. neurotic college students. They found differences in the time-span of response to therapy for different types of problem. Improvements on indices of self-esteem, self-confidence, anxiety reduction, activity, interest and motivation were in evidence by the midpoint of therapy (ie after ten sessions). However, problems related to poor interpersonal relationships, including distrust, hostility and lack of assertion only showed change at the end. The authors suggest that change in these latter problems required the development of interpersonal learning processes within the group, which required the longer time-span of therapy.

On in-patient samples, Haven and Woods (1970) found group therapy beneficial in reducing recidivism in comparison with a control group, but few other benefits on a range of outcome measures. Another study by Townsend et al (1975) compared group therapy with biofeedback in in-patients suffering from anxiety and concluded that few differences existed, but that these generally favoured the biofeedback group.

Truax and Wargo (1969) in a comparison of group therapy and group therapy plus alternate sessions found that the latter format led to greater improvement in outpatient neurotics.

Malan (1976), in a study of analytically-oriented group therapy, obtained results that were less than impressive. Patients likely to obtain great benefit
from group therapy appeared to be rare, and were those likely to benefit from any other sort of insight-oriented treatment. The strongest predictor of benefit from group therapy was previous experience of individual psychotherapy. No association was found between length of group treatment and outcome.

Once again, considering the wide-spread use of group treatments for the sort of problem, the evidence available to demonstrate its superiority is less than compelling. In spite of this, there is a growing consensus of clinicians who feel that group therapy has something to offer the neurotic patient.

However, the majority of studies of group treatment have been carried out on unrepresentative samples, e.g. college students; descriptions of the nature of the treatment are sketchy and unclear; and the relationship between what occurs in therapy and outcome results remains obscure. Once again therefore we are forced back to theoretical and methodological problems which amount to determining adequate definitions of type of patient, type of therapy, the interaction between these two, and outcome criteria.

3.2.3 Addictions

The use of group approaches to the treatment of addictions is one which has found increasing favour, as is demonstrated by the popularity of Alcoholics Anonymous and Synanon. However here, as elsewhere, the amount of research available is sparse.

Kilmann (1974) investigated the effects of directive and non-directive marathon group therapy and a no-treatment control group on female institutionalised drug addicts. No differences were obtained between the two marathon group conditions, but beneficial changes were noted in the two treatment conditions as compared to the control groups on measures of self-control and achievement. In another investigation of the same sample, Kilmann and Auerbach (1974) also found a decrease in 'state anxiety' in the two treatment groups, greater than in the control group.

Ross et al (1974) compared marathon group therapy with daily group therapy for two weeks in female addicts. Similar degrees of personality change were noted in both conditions, but marathon group patients additionally demonstrated less positive attitudes towards themselves as drug addicts and their sub-culture at the end of therapy.

Willett (1973), in a comparison of analytic group therapy, T-group treatment and a control group on a methadone treatment, suggested that group treatment led to changes in interpersonal behaviour as assessed by the Interpersonal Check List.
McLachlan (1972) studied in-patient alcoholics in group therapy in terms of the degree of similarity between patient and therapist conceptual level. He found that conceptual level of either patient or therapist was unrelated to outcome. However, patients matched with therapists for conceptual level reported more improvement than mismatched patient-therapist dyads, although staff ratings of change did not confirm this.

Unfortunately, these studies are unable to demonstrate change in the one dependent variable of importance to this group of patients, ie their addictive behaviour, although suggestive findings are presented concerning personality change and improved interpersonal behaviour.

3.2.4 Crime and Delinquency

Group therapy is also enjoying increased popularity for this set of problems. In looking at its impact, Truax et al (1966) reported improved rates of recidivism and better family relationships in female adolescent offenders than a control group. Social relationships, emotional stability and anxiety levels were not, however, improved. In a similar vein, Redfering (1973) found improved perceptions of self, family and peers after group therapy in contrast to a control group. While this was sustained for self and family at one-year follow-up, attitude towards peers was not. The experimental group, however, also made better post-institutional adjustment.

Jew et al (1972), in a study of male offenders over 18 months of twice-weekly group therapy, found little difference between experimental and control groups on measures of parole one year and four years after release. However, a study of sex offenders on probation by Peters et al (1968) found improved rates of recidivism for the treated group, but no differences in social adjustment or self-ratings.

A study of institutionalised delinquent boys by Sarason and Ganzer (1973) compared the effects of two group methods, modelling and structured discussions on attitudes and institutional adjustment. Both groups did better in terms of adjustment and recidivism rates than did a control group, but there were no significant differences between the two experimental conditions.

A study by Jesness (1975) compared group transactional analysis and individual behaviour modification together with a comparison group among institutionalised delinquents. Results of this study were mixed, group treatment being associated with improvements on psychological outcome measures, behavioural treatments being superior on behavioural measures, and both being equally effective on a measure of recidivism and superior to the comparison group.
In addition, a comparison of individual and group therapy by Mordock et al (1969) on sociometric choice among institutionalised delinquents found that the group condition was associated with increased favourability on work choice, i.e. individuals choosing one another to work with, but no differences were found between the two groups as far as social choice or rejection was concerned.

In looking at the influence of group therapy in combination with other specialised treatment, Bailey (1970) compared group therapy with an audio-feedback condition and a control group in female prisoners. No significant differences were found between the three conditions on measures of self-acceptance, though some evidence suggested that the two treatment groups showed greater variability than did the control group.

Thus, as with other groupings, the evidence available is mixed and somewhat contradictory. This may be a consequence of differing group populations, levels of disturbance and varying improvement criteria. However, the available evidence does not clearly demonstrate that group therapy makes a more positive contribution to the treatment of crime and delinquency than do other approaches, notwithstanding its widespread use as a therapeutic intervention for such problems.

3.2.5 Summary

Studies into the effectiveness of group therapy in relation to the type of disorder are less than impressive. With regard to in-patient predominantly schizophrenic populations, the available evidence suggests that group therapy on its own has little to offer in the treatment of those conditions over and above the usual hospital regime. It may, however, in combination with more specific treatment approaches, lead to improvement, although this does leave begging the issue regarding what are the active ingredients promoting such improvements.

Studies into the addictions and delinquency provide some evidence for the utility of group therapy in such areas as improved interpersonal behaviour and modified self-concept, but are generally unable to relate it to changes on the major problematic behaviours associated with these conditions, i.e. addictive behaviour and recidivism respectively.

The evidence with regard to anxiety and depression, which are arguably the major set of problems for which groups are set up, is if anything even more disappointing. Once again, group therapy appears to be effective in enhancing interpersonal behaviour, but studies uniformly fail to demonstrate its superiority over other treatment approaches in generating symptom relief. Furthermore, those individuals who do benefit from it would be likely to benefit from any other insight-oriented therapy.
3.3 Therapist variables

With regard to the impact of therapist variables on group therapy outcome, the first finding of importance that should be mentioned is the relative absence of correlation between the group leader's professed theoretical orientation and his observed behaviour in group (Lieberman et al., 1973). The fact is that no one theoretical approach has been demonstrated to have a superior effect over a variety of treatment populations than any other. Thus, for the therapist, it is very much a case of what he actually does being more important than what he believes (Lieberman et al.).

There is, moreover, disconcerting evidence to suggest that under certain circumstances on certain outcome measures, leaderless groups do as well and in some cases better than those being run by a formally designated therapist. The implication is that in certain circumstances, the group therapist may be redundant, (e.g. Meltzoff and Kornreich, 1970; and Lieberman et al., 1973).

However, as the power of vested interests remains as powerful in the mental health field as elsewhere, we are unlikely in the near future to witness the demise of the group therapist. This being the case it is as well, perhaps, to delineate those therapist behaviours which have been discovered to be positive influences in the group therapy situation.

While, as mentioned above, theoretical orientation is largely irrelevant, experience of leading groups is undoubtedly a potent asset (Meltzoff & Kornreich, 1970). On a methodological note, in drawing conclusions from research studies, it is important to note that the bulk of these have been carried out on groups conducted by therapists in training. This is a further complicating factor in assessing the generalisability of findings derived from them.

In looking at therapists' actual behaviours, most of the relevant studies have been carried out within the individual therapy context. Insofar as they may well have implications for...
the behaviour of group therapists, the main findings will be reported here. Sloane et al (1975) in a study of behavioural and psychoanalytic therapists replicated Lieberman et al's (1973) finding that therapist behaviour was not necessarily predictable from their theoretical orientation. Indeed, they found behavioural therapists employing interpretations as much as analytical therapists and the former demonstrating more empathy than the latter.

The evidence on therapist behaviours leading to positive outcome is less than consistent. Thus Ashby et al (1957) found a positive correlation between 'leading behaviour' and outcome, but Baker (1960) found no relationship between these factors. Similarly, Johnson (1971) found a positive effect from confrontation while Nagy (1973) found no relationship.

Crowder (1972), utilising Leary's circumplex model found a positive relationship with outcome for therapists demonstrating high 'supportive-interpretive', low 'hostile-competitive', and low 'passive-resistant' behaviour late in therapy, and high 'hostile-competitive' and low 'passive-resistant' behaviour early in therapy.

With regard to the nature of therapists verbal behaviour, Rice (1965) found a positive relation to outcome where therapists comments were directed to the patients immediate experience and a negative association for therapists adopting an 'observing' orientation to their patients. Similarly, Nagy (1973) found positive outcome associated with therapist messages high on 'personally relevant concreteness', and Sloane et al (1975) found a similar association for expressions of approval.

However, Abramovitz and Jackson (1974) studying groups, found no differences in outcome between therapists focussing on the here-and-now and there-and-then, an issue which has been hotly debated from a theoretical viewpoint.

Truax and his co-workers (1967) extending Roger's work on client-centred therapy have targeted three important therapist-
offered conditions or interpersonal skills, the provision of which facilitates the process of therapeutic change. These three conditions are characterised as genuineness, accurate empathy and non-possessive warmth. Scales have been devised for their measurement (Carkhuff and Burstein, 1970) and evidence suggests that, irrespective of orientation, therapists offering higher levels of these conditions tend to do better on measures of client outcome than those providing lower levels of them (Orlinsky and Howard, 1978). However, in relating these conditions to group therapy, Truax and Carkhuff (1967) obtained equivocal findings, suggesting that they are less important here than in individual therapy.

Orlinsky and Howard (1978) in their review of studies on facilitating conditions noted with regard to empathy, that two-thirds of 35 studies showed a positive association with client outcome. The remaining third mainly showed no relationship, with few suggesting a negative effect. Additionally, of 20 studies investigating therapist genuineness, 14 demonstrated a positive correlation with outcome.

Further studies also throw light on the relationship between the patient's perceptions of the therapist and outcome. Thus positive associations were also found for the following factors: independance-encouraging (Lorr, 1965); helpful (Tovian, 1977); competent and committed to help (Salzman et al, 1976); credible (Beutler et al, 1975); really interested (Strupp et al, 1964); confident and able to induce positive expectations (Ryan and Grizynski, 1971); active-involved and likeable (Bent et al, 1976); genuine (Barrett-Lennard, 1962); and experience of therapist as being satisfied (Ryan and Grizynski, 1971).

Some of these studies also relate outcome to the therapists view of themselves. Thus, Ryan and Grizynski (1971) investigating behaviour therapy, found positive outcome associated with therapists fostering positive associations; and Strupp et al (1964) found a similar association for therapists experiencing warmth in relation to their patients. Additionally, Salzman et al (1974) also found positive outcome for therapists respecting
and accepting patients. In studying brief dynamically-oriented psychotherapy, Malan (1976) found beneficial results from therapist utilising 'directed' interpretations.

Additionally, findings yielding no association to outcome may be noted; interest in patient (Sloane et al, 1975); sense of involvement and availability (Salzman et al, 1974); therapist ratings of empathy and more general perceptions of their own behaviour (McNally, 1973).

One further aspect of outcome studies in general that should be noted here is a repeated finding of a lack of correlation between therapists estimates of patient change and other indices, eg client ratings, observer ratings, and results derived from questionnaires. There has been a consistent tendency for therapists to ascribe higher levels of positive gain than evidence from these other sources.

While the work on therapist-offered conditions appears largely to hold true for the individual psycho-therapy situation, these factors' impact on the complex social processes operating in groups is likely to be somewhat more tenuous and remains unclear at present.

A review by Gurman and Gustafson (1976) of both inpatient and outpatient group studies found only 3 out of 11 studies which demonstrated a positive relationship between patients perceptions of the therapeutic relationship and outcome. In one of these, Truax et al (1966), the number of positive correlations only just exceeded chance. Speculating on the reason for these findings, Gurman and Gustafson suggest that groups are likely to differ according to the extent to which they are leader-centred, but that in general terms, following such theoretical formulations of group action as Yalom's (1970) and Whitaker and Lieberman's (1964) group therapy is likely to emphasize peer relationships more than therapist-patient ones.

In general, it does seem likely that such skills as interpersonal sensitivity, field dependence, and the ability to
develop a warm supportive atmosphere in the group are likely to lead to a cohesive work climate in the group. The role of cohesiveness as a therapeutic mechanism has been ably discussed by Yalom (1970) and utilised by Liberman (1971). It will be further discussed in the next section on the nature of the group experience.

It has also generally been considered to be part of the therapist's task to attend to boundary concerns of the group, such as attendance, punctuality, etc; and the rules and norms of the group governing the nature of interactions in the group and the content of such interactions (Yalom and Rand, 1966). With regard to this latter, the leader has been seen as providing a model for imitation of caring supportive behaviour; providing meaning to the content and style of interactions; and eliciting the expression of conflict laden affective material.

However, some care must be exercised in not overestimating the freedom of the therapist to develop these normative functions in the group. Work by Beismeier (1974) on natural groups and Bond (1975) on therapy groups provides evidence suggesting that member's expectations play a larger role in the development of norms than does the therapists' s behaviour. These findings, if shown to be of general application to the field, do point up the importance in setting up a group of providing members with adequate and appropriate preparation. Such preparation should aim to develop in members a psychological set which is congruent with the normative methods and aims of the therapist.

In looking at the effect of therapist interventions, Nichols (1977) found little immediate impact from therapist statements on subsequent patient statements, using the Group Therapist Interventions Scale and the Experiencing Scale as independent and dependant variables respectively. He did however find change in the nature of therapist statements over time in that these became more confrontive and more directed towards individuals. Additionally, patients activities within the group became characterised by more intense and more here-and-now responses. It was inferred that this was a consequence of changes in therapist
activity over time.

Along similar lines Gruen (1977) found that leaders accurate anticipation of group themes, exercise of executive control and/or use of connective statements promoted movement by patients towards the solution of problems. Additionally therapists use of connective statements served as a model for increased usage of such statements by patients.

With regard to the development of typologies of leadership style, a study by Liberman et al (1973) made use of observer ratings of 16 leaders of various orientations conducting encounter groups. From these ratings, four main factors of leadership were derived: emotional stimulation, caring, meaning attribution and executive functions. These functions in turn related to three basic styles of leadership:

1. Energisers - charismatic leaders who emphasise stimulation.
2. Providers - leaders showing high levels of caring and meaning attribution.
3. Social Engineers - leaders concerned with the management of the group as a social system and providing meaning attribution.

In addition, three further variants of these basic types were found - impersonals, laissez-faire and managers.

This study also found the same lack of correlation between style and theoretical orientation as has been mentioned earlier. However, style was found to be positively associated with outcome. On a number of outcome measures, using pre-post and follow up assessments, providers showed the highest rate of change (57%) while managers showed the lowest (0%). Each style also carried its associated levels of risk as measured by psychiatric casualty negative change, and drop-out rate. On these measures, providers showed the lowest risk level, while energisers and impersonals, both of whom relied on high levels of emotional stimulation, provided the highest risks levels. In terms of the four factors, caring and meaning attribution were associated with positive outcome; and an excess of the other two with negative response.
In addition, from a phenomenological point of view, Wile et al (1970) established a category system for the interpretation of therapist's perceptions of their own group style on the basis of their responses to the Group Therapy Questionnaire. They also claimed that such categories could be related to the major theoretical positions regarding leadership in therapy.

One of the major influences affecting therapist behaviour from the human potential and encounter group movements has been the demand that the therapist abrogate his position as manager and specialist, and join the group as a fellow human being willing to share and exhibit similar personal problems, failings and conflicts as his clients. The issue at point here concerns the therapeutic utility of the self-disclosure strategem, which has found its fullest theoretical rationale in the work of Jourard (1971).

Its proponents argue that therapists willing to confide their own problems to their clients thereby offset anxiety about the therapeutic situation; more rapidly obtain clients' confidence; and provide a living model in themselves for the possibilities of full human functioning.

The position is clearly at the extreme end of a continuum of therapist behaviour, the other end of which is exemplified by the 'blank-screen' approach of the more traditional analytically oriented group therapists. These latter would conversely argue that such self-disclosure on the part of the therapist irreparably dilutes the transference relationship to the group leader, which is one of the major therapeutic tools used by them, and this makes difficult the working through of feelings towards authority and parental figures.

At the same time they would argue that such behaviour on the part of the therapist is evidence of counter-transferential reactions to the situation and as such should be withheld. These reactions, if released, are held to be contaminative of the therapeutic process.
Along similar lines, the group analysts as exemplified by Foulkes and Anthony (1965) would hold that the therapist by maintaining an objective stance towards events in the group is the only one in the situation capable of grasping the inner movement of needs and conflicts requiring elucidation and working through. By giving up this stance of objectivity he/she would be losing that necessary perspective which enables him/her to operate as insight-provider and analyser of group events.

Research findings on self-disclosure have in the past tended to be contradictory. Thus, Culbert (1968) and Bolman (1972) examining the effect of leader openness in T-groups failed to find any effect on member self-awareness or liking for leader and learning respectively as a consequence of varying levels of leader openness. However, Hurley and Force (1973) did find that leader self-disclosure was highly correlated with participants' gains within a human relations laboratory.

In terms of its effect upon leader attractiveness, studies by Weigel and Warnath (1968) and Dies (1973) revealed that self-disclosing therapists were rated as better liked and more friendly, intimate and helpful, but also as being less mentally stable, less relaxed and less strong. However, a study by May and Thompson (1973) on encounter groups did find a positive relationship between self-disclosure, mental health and helpfulness on the part of the therapist on the basis of member ratings. It seems clear from this that self-disclosure may be regarded as a two-edged weapon whose utilisation will have differing effects depending on the situation.

Apart from the issue of cross-cultural differences in members' expectancies of therapists (which has been largely ignored by literature), there is good evidence from the above mentioned studies by Weigel and Warnath (1968) and Dies (1973) that within one culture different groups expect different things of their leaders. Thus, encounter group members were found to be more able to tolerate self-disclosure in the leader than were therapy group members.
Altman and Taylor (1973) have offered an explanation for the differences in terms of three situational dimensions: formality, confinement and interdependence. Formality refers to the degree of role specification within the group, and where this is maximal self-disclosure will be less rapid. This is clearly likely to be higher in therapy groups than in encounter groups. Confinement relates to the amount of psychological pressure involved in the situation. This is clearly greater where individuals are experiencing shame, fear and anxiety, as in a therapy group than where motivation stems from a more emotionally healthy source. They suggest that psychological confinement is negatively associated with speedy self-disclosure. Thirdly, the factor of interdependence would tend to operate more in those situations where members are in intensive face-to-face contact over an extended length of time. This would tend to increase self-disclosure and may explain in part its rapid increase in marathon sessions as opposed to the more typical one hour weekly therapy sessions. Thus, all three of these situational dimensions suggest less rapid self-disclosure within therapy groups.

Dies and Cohen (1976) have also demonstrated that the phase of the group will be an important determinant of the value of the self-disclosure. Such behaviour on the part of the therapist tends to increase anxiety and be less acceptable in the earlier stages of a group's history than later on, when members have developed in sophistication; got to know the leader; and have been able to experience his stronger and more positive aspects. Moreover, there does seem to be a clear interaction between the type of group and its phase, in that encounter groups are more easily able to assimilate self-disclosing material earlier in their development than are therapy groups.

This study also found uniform trends with regard to the content of the self-disclosure. Sharing of normal 'then and there' emotional experiences was regarded as constructive, whereas disclosure of strong negative 'here and now' reactions toward individual members or toward the group was thought to be detrimental.
Dies (1977) in his able review of the literature has noted that apart from the above mentioned variables of group type, group phase and content, there will be a number of other variables involved in the effect of self-disclosure behaviour on the part of the therapist, notably context, credibility, intent, non-verbal aspects of the communication and the use made of it by the group. All of these factors remain to be studied.

He calls for a move away from the simplistic approach of viewing therapist self-disclosure as a single entity, towards a more sophisticated formulation of questions, where the above mentioned variables are more clearly specified. In terms of its application, he views it as one of a number of interventions available to the leader, but requiring integration into a coherent leadership style, which is congruent with the needs of the particular group situation facing him.

The absence of uniform effects on groups as a result of therapist self-disclosure suggests that this is not a unitary phenomenon. Rather it should be viewed as an event (or events) occurring within and contributing to the nexus of processes and forces operating within the group.

Another area of interest concerns the use of co-therapy teams in groups. The rationale for the use of mixed-sex teams refers to the similarity of the therapy situation to that obtaining within families and emphasises transferential processes operating in group members to the therapists (Rosenbaum, 1971).

Cooper (1976) makes use of a variety of concepts, including psycho-analytic, group-analytic and Bionic, to develop a model of co-therapy behaviour, which is based on systems theory. He considers the co-therapy relationship to be a key part of the role structure of the group, and points up the use made by patients of splitting in their perceptions of and reactions to the therapeutic team.
On a more empirical basis, Piper et al (1979) studied the relationship between co-therapy behaviour, group process and outcome of therapy. In particular, they were interested in the effects of co-therapist behaviour on two dimensions: similarity and consistency in relation to the group's levels of therapeutic work (as measured by HIM) and a variety of outcome indices. The two dimensions were defined in terms of the focus of therapeutic interventions, viz: individuals, pairs, the group as a whole, or non-person discussion topics. Results indicated that consistent and dissimilar co-therapy teams were significantly associated with groups exhibiting greater proportions of therapeutic work, and also with patients reporting greater improvement on some of the outcome measures. However, Piper et al noted that the reasons for these findings remain unclear, particularly with regard to the direction of the effect, i.e., is therapist consistency a cause or effect of greater patient therapeutic work.

Within the foregoing, certain lines of evidence can be drawn out. Firstly, it has been easier within the individual therapy context to identify therapist factors implicated in successful outcome than in group therapy. Thus, for example, the importance of Roger's therapist-offered conditions appears to be well established in the former context but not in the latter.

Secondly, Lieberman et al's (1973) study on encounter groups points up on the one hand the importance of leaders providing caring and a cognitive structure whereby members can comprehend their experience; and on the other, the deleterious effects associated with excessive emotional stimulation.

Thirdly, the major research interest in the self-disclosure therapist strategem yields somewhat contradictory findings. However, in general there is a suggestion that the effectiveness of such therapist self-disclosure is likely to be multifactorially determined (Dies, 1977).

Fourthly, the evidence with regard to the effect and
effectiveness of the therapist in norm-setting for the group remains far from clear cut. Moreover, major areas of study remain unresearched. The available literature provides little evidence regarding the nature and development of patient's relationships with the group therapist, or investigations of therapist-patient interaction patterns, to mention but two of these.

Finally, on a methodological note, the majority of the groupwork studies mentioned above have been conducted on either experiential or short-term therapy groups and often conducted by therapists in training. The extent to which this limited set of findings can be generalised to either long-term therapy groups, and/or those run by experienced therapists remains to be investigated.
3.4 The use of specialised formats

As noted above, the development of group therapy has been characterised by both heterogeneity in conceptual models and variety and innovation in techniques. With regard to the latter, the upurge of groups emanating from the humanistic approach towards therapy, i.e., sensitivity training and encounter groups, has in particular led to a mushrooming of research into groupwork. In addition, the development of groups run along behavioural lines has encouraged many clinicians to utilise techniques within a group, which had previously been primarily applied within an individual context (see Rose et al., 1979; and the results of the survey conducted as part of the present study in Appendix 3).

Two additional aspects, which have commanded more recent interest, have been the use of short-term group interventions and the combination of individual with group therapy. The former has been particularly addressed by Klein (1985), who has also drawn attention to the use of this approach in inpatient settings. The importance of the latter has been claimed by Porter (1980) particularly with regard to the treatment of individuals suffering from borderline personality disorders.

The research reported hereunder focusses on the evidence regarding the impact of the two broad approaches which have been delineated, i.e., sensitivity and behavioural groups.

3.4.1. Sensitivity Training Groups

The field of experiential small group work is one which is characterised by, on the one hand, a bewildering variety of techniques, and on the other, controversies which generate strong feelings both for and against, in relation to such issues as efficacy, harmfulness and leader behaviour. Not surprisingly, these controversies are rarely founded on empirical evidence, but tend to reflect contrary theoretical positions and personal preferences.
A further aspect, which should be mentioned, pertains to personality characteristics of group participants. Such groups have typically been viewed as facilitating positive change in occupational and personal development, and have thus tended to attract individuals who are young, white, middle class, intelligent and suffering little in the way of personal distress.

However, the work of Lieberman and Gardner (1976) has demonstrated that this is no longer the case, if it ever was. Attenders at encounter groups were primarily motivated by help-seeking for personal problems and their levels of psychological distress were more similar to a clinic population than to a normative sample. Moreover, many of these people used encounter groups as well as rather than in place of more traditional approaches to therapy.

The plethora of techniques for encounter groups alone is well illustrated by Lieberman et al's (1973) study, while Smith (1980) has described a variety of T-group and sensitivity training experiences, which have largely developed from the pioneering work associated with the National Training Laboratory.

An early study by Miles (1960) of an NTL programme on a system of 'verified changes' using participants' job associates as raters found that these occurred for 72% of trainees compared with 17% and 29% for two control groups. Types of change related mainly to interpersonal sensitivity and communication, leadership and group skills.

Campbell and Dunnette (1968) in a review of studies of sensitivity training noted replications of these findings, but also weaknesses in study design, most notably, that observers knew who was and was not attending training and a reliance on post-hoc assessments.

While the rationale for sensitivity and encounter emphasises the development of interpersonal skills, most studies of
outcome have focussed on changes in the way the individual feels about themself. Thus Cicatti (1970) and Lieberman et al (1973) both obtained increased positive self-ratings following sensitivity training using the semantic differential. In addition, Gibb (1971) in a review of studies of sensitivity groups noted positive changes in self-esteem, increased self-actualising tendencies and also improved empathy towards others. In a further review Smith (1980) found 12 out of 15 studies reporting improved self-concept after a group experience, in contrast with control groups. However, results of studies were contradictory with regard to the persistence of these effects at follow-up. Moreover, the same review found only seven out of twenty studies using psychometric measures of self-concept (mainly the Tennessee Self-Concept Scale) providing evidence of positive change.

In view of the fact that part of the rationale for encounter groups involves the development of openness to experience, this has been researched by a number of investigators. Studies using global measures, such as the California F scale (eg, Kernan, 1964; and Adams, 1970) and Rokeach's dogmatism scale (eg, Adams, 1970; and Poe, 1972) failed to demonstrate positive effects as a result of group experience.

A further group of studies refers to the effect of group experiences with regard to interactive style. Thus, Smith (1964) using FIRO-B, found increased convergence between wanted and expressed scores, though Lieberman et al (1973) found no changes on FIRO-B. In a review of studies using FIRO-B, Smith (1975) found 8 out of 11 studies reporting changes on this measure. While such changes were diverse, the main trend consisted of increases in expressed and/or wanted behaviour.

Using the Interpersonal Checklist, Treppa and Fricke (1972) obtained increased desire for dominance, while White (1974) found no change. Kaye (1973) obtained reduced submissiveness and hostility in training group members which were maintained at 8 month follow-up. This study is also of interest in relation to the present study in that these positive changes in
interpersonal functioning following training were associated with changes in group interaction patterns as measured by the HIM, which consisted of increases in the Personal, Relationship and Speculative categories.

With regard to self-disclosure, Cicatti (1970) found increased self-disclosure to others outside the group during student groups; but Gold (1968) found no change with similar groups, while Walker et al (1972) found lower self-disclosure after women's groups. A study by Smith (1979) investigated the effects of sensitivity training groups on relationships and found a modest increased change in relationships after the group experience but little increase in satisfaction. Such changes encompassed both personal and work relationships and were mainly characterised by withdrawal from or decreased intensity in the relationship.

The most thoroughgoing account of encounter groups is provided by Lieberman, Yalom and Miles (1973). Although their research focussed on encounter groups, their findings are of more general application to the field of group therapy. They studied 17 groups representing ten major theoretical positions utilising highly experienced group leaders, but including also a leaderless tape-led variety of group.

In terms of outcome, they used a wide variety of measures from which was derived a cumulative index to assess overall progress. On this, a third were rated as having benefitted; somewhat over a third were unchanged; and the remainder had a negative outcome, ie: drop-out, therapeutic casualty or having experienced psychological decompensation. These modest results were in marked contrast to the leader's assessments of change at termination (almost 90% having positive change) and members' own assessments (60% positive change at termination, though this had dropped to 40% at 6 month follow-up).

The main areas of benefit perceived by members at termination were increases in openness and honesty, acceptance of others and ability to achieve intimacy. The most stable changes
at follow-up were in the areas of values, attitudes and self-concept.

However, while differences were observed between encounter group members and a control group, this was not as great as the variability between the various groups studied. Such differences between the groups also accounts for the relatively modest positive effect found.

As noted above, the small group experience has generated controversy concerning its possible harmfulness. Studies by Gottschalk and Pattison (1969) and Lieberman et al (1973) reported 'acute pathological emotional reactions' and 'casualties' for 30% and 18% respectively of participants. It should be noted, however, that this latter figure also included drop-outs, who had not necessarily been positively harmed by the experience.

A study by Cooper (1980) investigated the effects of small group experience in participants involved in management development workshops. He used ratings by other group members, group leaders and reports from work colleagues and families, as well as members own changes on a personality inventory (the 16 PF). At the end of training, the study found 5% of participants had been 'hurt' by their experience. This had shrunk to 2% at 7 month follow-up. In general, participant 'hurt' was associated with groups characterised by a here-and-now focus, confrontation, rejection and low structure and with group leaders high on energising. Personality factors associated with the 'hurt' category implicated shyness and sobermindedness. These results are broadly similar to those obtained by Lieberman et al (1973).

These findings suggest that small groups, in common with other strategies aimed at personal change, do carry with them certain problems, which place at risk certain types of personality. They also, however, enable some degree of specification concerning group conditions likely to constitute threat, and suggest that earlier reports of casualty rates are perhaps over-estimates.
The overall conclusions from the foregoing suggest that training groups do lead to changes in members' self-concept, attitudes and interactive styles, but that such changes in most cases tend to be transient. The studies themselves do seem to be increasingly incorporating control group designs, but few include follow-up assessments and those that do, tend to show a decrease in the initial positive effect. Moreover, the measures used tend either to be too global to isolate specific personal change, or to depend upon ratings where observer bias could not be ruled out. While the stability of change is problematic it appears to be undoubtedly the case that leadership style and group atmosphere both generate differential effects.

One further problem relates to the wide variety of techniques and client populations subsumed under the general heading; and the limited specification provided concerning group members and techniques used. This makes highly problematic any attempt to generalise findings beyond any particular study in order to be able to make statements about such groups in general; or to apply such findings to therapy groups.

3.4.2. Behavioural group therapy

While behaviour therapy has traditionally developed clinically within the individual treatment context and generated a research methodology (the single-case study approach) in keeping with this, increasing use is now being made of group approaches.

Rose (1977) in a review of the field noted that behavioural group treatment has been used for such problems as anxiety-management, social skills and assertion training, weight control, parent training, and training in communication skills for couples.

Treatment methods used broadly paralleled those in individual work, utilising learning theory principles such as
reinforcement, feedback, behavioural rehearsal and role play, modelling, goal setting, homework assignments to facilitate transfer of training, and contingency contracting. The focus of intervention was thus overt behaviour. The evaluation of treatment efficacy similarly made use of the typical behavioural assessment procedure of baseline observations, checklists and rating scales, recording of behaviour, and A B A B evaluation designs.

In another review directed more to the effects of behavioural group therapy, Harris (1979) noted its use in the treatment of phobias, social behaviour, appetitive disorders, and deviant child behaviour.

A study by Lazarus (1961) of the use of group desensitisation for a variety of phobias found 13 out of 18 subjects improved after 20 sessions in contrast with 2 out of 17, receiving traditional group therapy on a test of approaching and dealing with the previously phobic stimulus.

Paul and Shannon (1966) similarly provided group desensitisation for test anxiety and found significantly better results on self-report measures than a matched group receiving individual insight-oriented psychotherapy. However, the experimental group's opportunity for group discussion confounds this result and introduces an alternative possible therapeutic factor.

A study of test anxiety by Donner and Guerney (1969) using individual and group desensitisation and a control group found slight differences favouring the individual over the group procedure at end of therapy though both experimental conditions yielded significantly better results than the control group and the differences between the experimental conditions were not in evidence at 5 month follow-up.

Galassi et al (1974) compared a treatment condition involving group discussion, modelling and role-play with feedback with a control group for the treatment of assertiveness. They found significant differences favouring the treatment group.
after 8 sessions.

Joanning (1974) compared traditional and behaviour group therapy involving rehearsal training with groups of volunteer subjects in the treatment of assertion. Once again results favoured the behavioural group, both in terms of increased assertive behaviour and decreased social anxiety.

Rose (1981) in an attempt to relate group process measures to outcome in behavioural group therapy studied groups of volunteers for training in assertion techniques. The process measures consisted of scores for attendance, level of satisfaction, participation, and assignment completion. It was hypothesised that participation would be related to satisfaction, completion of assignments and behavioural change. Furthermore, attendance and satisfaction were considered to be indices of group cohesion.

Results indicated that outcome as measured on Gambrill and Richey's Assertion Inventory and a behavioural role-play test was related to participation and assignment completion; attendance correlated with satisfaction; and participation with assignment completion.

The field of social skills training (SST) is possibly that for which behaviour group therapy receives its most obvious rationale. Social skills deficits have been associated with a wide range of disorders. Thus Bryant et al (1976) assessed some 272 (including 60% of men) of neurotic and personality disordered individuals as having problems of this nature, while Libet and Lewinsohn (1973) have highlighted its importance in relation to depression. Phillips (1978) and Griffiths (1979) claim a more general application of such deficits in an understanding of a variety of clinical syndromes.

The development of social skills training is particularly associated with the work of Argyle et al (1974) and Hersen and Bellack (1976). Studies by Curran (1975) and Twentyman and McFall (1975) have demonstrated the potential for behaviour
change by means of SST in shy college males. The application of SST has also been used for chronic psychiatric inpatients in studies by among others Hersen and Bellack (1976), Edelstein and Eisler (1976) and Goldsmith and McFall (1975).

While this group of studies has been able to demonstrate marked changes in social behaviour following SST in the short term, they have not shown such improvements generalising beyond the therapeutic situation or as having long-term therapeutic benefits. Furthermore, they have not adequately controlled for the effects of group discussion. Additional problems with such studies noted by Marzillier and Winter (1978) include poorly validated assessment measures; the failure to use random allocation to treatment modality; and reliance on group effects as measures of outcome.

Results of studies on outpatient populations, primarily neurotics, are varied. Argyle et al (1974) found no improvement on social behaviour following 6 sessions of SST; while Marzillier et al (1976) found improved social contacts compared with a group of waiting list controls. Falloon et al (1977) found that outpatients receiving role-rehearsal procedures and/or homework assignment did better on indices of social functioning than a discussion group, though these effects were smaller than anticipated.

A further study by Falloon (1981) compared a group receiving role rehearsal and modelling with a discussion group on measures of both process and outcome and found the former group exhibited both higher levels of attraction to the group and therapist and also did better on outcome measures of specific social fears at the end of treatment.

One of the major difficulties of evaluating SST is the fact that the treatment is typically conducted as a package. Thus a variety of different techniques may be used with the same group including role-rehearsal, modelling, feedback on behaviour, social reinforcement, and homework assignments as well as, inevitably, group discussion. Furthermore, with its frequent
emphasis on the specificity of skill-training and the differences between individuals in terms of their particular skill-deficits, it becomes difficult to isolate just what it is within a particular group treatment which is having a therapeutic benefit either for the group or for the individual. These problems, moreover, are not confined to social skills groups but also apply to other forms of behavioural group therapy.

The foregoing studies suggest that SST is capable of generating behavioural change to some degree in both inpatients and outpatients, and that in some cases such change extends beyond the clinical therapeutic context and persists. However, studies obtaining findings to the contrary suggest the need to develop criteria capable of differentiating those who are likely to benefit from such treatment.

In summary, the available evidence suggests that short-term structured group treatment of the individual along behavioural lines has utility for the amelioration of the circumscribed problems for which such groups are set up. However, the range of usefulness of such groups remains to be determined, i.e. the differentiation of those individuals who will benefit from those, who will not. In addition, the extent to which changes obtained within a clinical context are generalised beyond this remains to be demonstrated. Furthermore, the fact that behavioural groups typically offer a package of techniques and also provide opportunities for group discussion makes problematic the identification of the active ingredients within this type of treatment. The problem of identifying the active ingredients of group therapy is also relevant to the following section, which evaluates the body of research concerned with the complex dynamics of group process.
3.5 Nature of the Group Experience

The parameters discussed above, namely client characteristics, nature and severity of the disorder, and therapist variables impinge on and, in a sense, come together in the discussion of the nature of the group experience.

Much of the research in this area is concerned not with outcome, but with process; and may be subsumed under the general rubric of studies into and theories about change mechanisms. In applying this term to research into therapy groups, there is a major assumption operative that individuals experience change in those groups in a more or less orderly and predictable fashion on the basis of undergoing particular sorts of experience and/or being involved in particular types of processes or events in these groups.

Pioneer work into these change mechanisms was initiated by Corsini and Rosenberg (1955). They studied 300 articles on group therapy and took from them all statements, which described events or experiences leading to client change. They then combined those statements relating to similar events or experiences, weighted them for frequency of occurrence, and from this derived a list of change mechanisms.

In spite of minor changes in labelling and variations in the emphasis placed on their relative importance, this list has maintained an impressive consistency over the past 25 years in terms of the development of theory and research about change in groups. Indeed, the list given by one of the leading theorists, Yalom (1970) differs but little from that provided by Corsini and Rosenberg, some 20 years earlier. Whether this should be taken as a measure of the validity of their theoretical perspective, or as an indication of the failure of any significant breakthrough in the restructuring of our conceptions about change processes in groups remains open to question.

Hill (1975) compared Corsini and Rosenberg's and Yalom's list of factors with data derived from his own enquiry of
group therapists concerning what patients get out of group therapy. He found a high measure of agreement between the three lists, particularly with regard to catharsis, cohesiveness, identification and insight.

Yalom's theory provides us with twelve major experiences facilitating change: altruism, catharsis, instillation of hope, universality, insight, guidance, identification, interpersonal input, interpersonal output, family re-enactment, cohesiveness and existential awareness.

Bednar and Kaul (1978) subsume these factors under three higher order factors: namely that group members profit from participation in, and evaluation of an evolving social microcosm; social learning processes based on interpersonal feedback and consensual validation; and reciprocal opportunity to be both helpers and helpees in a group setting.

In spite of the above-mentioned consistency of these factors, however, they remain largely at the level of speculation. Bednar and Kaul conclude that 'with a few obvious exceptions, the contemporary group research is devoid of any vigorous effort to test these assertions'. Bloch et al (1979) have described a method of studying therapist and patient perceptions of important events in the group for evaluation in terms of therapeutic factors, but this line of enquiry is at an early stage of development.

Within the studies into processes in therapy groups certain major areas of interest can be delineated. These areas provide the sub-sections for this part of the literature review. They will be covered in the following order: patient's perceptions of group therapy, group composition, group structure, interpersonal interaction, cohesiveness and self-disclosure.

3.5.1. Participant perceptions of group therapy

The above-mentioned review by Gurman and Gustavson (1976) of the relationship between patients' perceptions of the
therapeutic relationship and outcome found only three out of eleven studies demonstrating a positive association between these factors. This is in contrast with the repeated findings in individual psychotherapy, which emphasise the important effect of the therapeutic relationship on outcome.

Rohrbaugh and Bartels (1975) utilised Yalom's list of curative factors in order to test their empirical validity on a number of different types of therapy and growth groups. Following a Q-sort procedure and factor analysis, they found that while some of the list of hypothesised curative factors held factorial validity, this was not the case for all of them.

The relative importance of the curative factors was not uniform, but associated with characteristics of the groups themselves. Thus, growth-oriented groups tended to rate relatedness (group cohesion and interpersonal output) factors highly, whereas therapeutically-oriented groups rated self-understanding, family re-enactment and existential awareness as more important. Educational level correlated positively with high ratings for relatedness and low ratings for guidance. Other variables such as sex, age, previous group experiences, etc appeared unrelated to perceptions of curative factors. Significantly, catharsis, which in theoretical terms is generally held to provide little in the way of permanent therapeutic benefit was rated overall as the highest factor.

Rohrbaugh and Bartels noted also the difficulty of distinguishing the factors from each other and providing definitions for them. Additionally, they pointed out that members' perceptions of the value of these factors may have little to do with their in-group behaviour.

A study by Schaffer and Dreyer (1982) of staff and patients' perceptions of change mechanisms points up the importance of context in relation to the perceived value of particular therapeutic experiences. Their study was conducted in a crisis-oriented short-term inpatient unit, whose therapeutic orientation was modelled on social learning theory.
Their first finding was of a low correlation between patients and staff assessments of group change mechanisms. Staff perceptions were consistent with the social learning milieu of the unit, valuing mechanisms such as inter-member modelling and behavioural experimentation. Conversely, patients valued more internally focused experiences, e.g., self-understanding or self-responsibility.

Secondly, patients rankings in this study were markedly different from those reported elsewhere (Lieberman et al., 1973), which emphasised more interpersonal referents. Schaffer and Dreyer suggest that this may well be a function of the crisis situation in which their patients find themselves and their concommitent needs to re-assert self-control over their lives.

The issues of differences between clinical populations was addressed by Butler and Fuhriman (1980). They compared day hospital, predominantly schizophrenic, with outpatient, predominantly neurotic, group members in terms of their rankings of important group mechanisms. They found differences both in terms of the rankings of group mechanisms and also with regard to the extent to which the mechanisms were differentiated from one another by the two samples. In particular, the day hospital group emphasised the importance of cohesiveness (and by implication the opportunity for social contact), while the most highly ranked factor for the outpatient sample was self-understanding. This sample also differentiated between the factors to a greater degree than did the day hospital sample.

In a further study of outpatient group therapy, Butler and Fuhriman (1983) used an adaptation of Yalom's 60-item questionnaire to assess the influence of patient's level of functioning and length of time in therapy on their perceptions of the curative factors. They found that higher functioning patients valued their group experience more than lower functioning patients, particularly for the following factors: catharsis, self-understanding and interpersonal learning (both input and output). For length of time, those who had been in therapy
longer valued their group experience more particularly on self-understanding, cohesiveness and interpersonal learning.

A study by McCanne (1977) investigated participant goals, expectations and perceptions in a variety of therapeutic and growth groups, and found significant differences between the groups. Therapy group members were committed to personal change and involvement and sought advice; whereas members of the growth groups expressed more interest in inter-personal interactions and a disinterest in self-change. Group differences also occurred in relation to expectations of leadership behaviour and preferences for norms; this latter particularly along the dimension of expression of feelings versus open boundaries. Therapy group members reported their leaders as being most effective; were least satisfied with their group experience; but recommended it more highly than members of other types of groups.

A further study by Marcovitz and Smith (1983) investigated patient perceptions of curative factors in short-term inpatient groups composed primarily of patients suffering from affective disorders, and utilising a primarily psychodynamic approach to treatment, using Yalom's 60-item questionnaire. Factors identified as being of most importance were catharsis, group cohesiveness and altruism. In discussing these findings they note that while group cohesiveness appears to be of importance for all types of group, the high ratings assigned to catharsis and altruism appeared to be a function of the nature of the group, ie, its short-term nature, type of patient and therapeutic approach.

Weiner (1974) used Yalom's questionnaire of curative experiences on therapy groups and argued against the prepotent importance of interpersonal learning over genetic insight.

Freedman and Hurley (1980) studied students undergoing a small-group experience using Yalom's 60-item questionnaire. Assessments were conducted before the first session, halfway
through the course of 51 sessions and before the last session. Members' ratings indicated interpersonal learning output, interpersonal learning input and catharsis as being of most importance. Furthermore, a high degree of stability was found in ratings across the three occasions of testing.

Hurley (1976) in studying quasi-therapeutic groups, found a relationship between ratings of helpfulness and behaviour relating to the dimensions of acceptance versus rejection of self (SAR) and others (ARO).

Melnick and Rose (1979) investigated therapy group members' expectations in relation to risk-taking disposition on four dependent measures of group behaviour: self-disclosure, interpersonal feedback, risk-taking and verbalisation. They found a clear interaction between expectations and risk-taking. Thus, low risk-low expectation members were more negatively evaluated than low risk-high expectation members. However, high risk - high expectancy members were not rated more positively than high risk - low expectancy members. They hypothesise an optimal level of group involvement to explain this latter discrepant finding.

Moreover, they found that members having high expectations of intimacy tended to perceive their groups as more cohesive and therapeutically involved. Furthermore, while risk-taking disposition had its main effect on participants' behaviour within the group setting, members' expectations had its most powerful effect on members' evaluation of the experience. In terms of clinical practice, they point out the benefit of including in groups, individuals high on risk-taking disposition, and the importance of generating positive expectations prior to treatment, e.g. via pre-group training.

With regard to group members' perceptions of each other; Sprouse and Bush (1980) utilised multi-dimensional scaling in a study of a quasi-therapy group in order to identify the dimensions under-lying members' perceptions of each other.
They were able to identify three major dimensions which varied in relative importance over time within the group, and concluded that members increasingly came to perceive each other along those same interpersonal dimensions.

Somewhat in contrast, Piper et al (1977) found no association between self and other ratings of member's group behaviour after three months of group therapy. Other ratings were significantly correlated with ratings made by the therapist; and self ratings of interpersonal functioning were higher than ratings from these two other scores. Furthermore, a study by Wyrick (1979) was unable to find a predicted increase over time in which the extent to which member's perceptions of others were congruent with those individual's perceptions of themselves.

A study of leadership behaviour amongst group members by Beck and Peters (1981) used a methodology based on members' responses to sociometric questions in an attempt to delineate four leadership roles: Task, Social-Emotional, Scapegoat and the Defiant Leader. They additionally theorised that the importance of functions associated with each of the four leadership roles would vary over time and be related to particular phases of group development.

Evidence from three groups suggested that responses to the sociometric questions used were able to delineate the Task and Social-Emotional leaders, the former being the role particularly associated with the group therapist. However, the other two roles, Scapegoat and Defiant Leader, were less clearly differentiated.

The foregoing suggest that members' expectations and perceptions of their group experiences and group leader are complex. To some extent these are related to the type of group they enter (notably varying according to therapy versus growth-oriented) but are also dependent on educational level.

No clearcut conclusions can be stated concerning the relative importance of the 'curative factors'. These appear to
have some empirical validity, notwithstanding the fact that they have not been related to specific in-group behaviour. Moreover, the possibility that these factors' importance varies not only according to the type of group and personality characteristics, but also in relation to stage of group process is one which has been hypothesised by Yalom (1970) and hinted at by Weiner (1979), but remains to be investigated.

Certain types of experience and behaviour have been found to be associated with positive results, eg, acceptance of self and others, risk-taking, and holding positive expectations. However, what members expect of each other and the ways in which they develop their perceptions of one another remain areas of research which are virtually uncharted.

3.5.2. Group Structure

The issue of structure in group therapy is one which invokes a number of issues, relating inter alia to client characteristics, therapeutic strategies and theoretical issues.

Both Heitler (1973) and Strupp and Bloxom (1973) have argued the need of lower-class patients entering group therapy to be provided with pre-training via role induction aimed at structuring their expectations and modes of behaviour for this type of treatment.

The work of Lieberman et al (1973) on encounter groups has demonstrated the importance of therapists providing meaning attribution in attaining positive outcome for clients and the associated dangers of premature termination and therapeutic casualty stemming from a failure to do so.

In theoretical terms, the controversy regarding directive versus non-directive therapy is also germane to this issue. Thus, typically, analytically-oriented and client-centred therapists have stressed the importance of low structure to facilitate the emergence of emotional conflict, transference
reactions, and client self-determination. On the other hand, theorists employing a more directive stance, particularly those working within a behavioural framework involving skill development, have emphasised the importance of specifying goals and providing task assignments to meet these.

From a general point of view, Lee and Bednar (1977) suggested that lack of structure and resulting ambiguity might be expected to increase anxiety, thereby deleteriously affecting learning and performance in a variety of situations. A model presented by Bednar, Melnick and Kaul (1974) suggested that providing structure might be expected to increase risk-taking and hence facilitate the development of group processes in terms of increased cohesion leading to the assumption by group members of personal responsibility, though this remains to be empirically validated.

In terms of the influence of pre-group training on subsequent group process, Bednar and Battersby (1976) found that specific behavioural instructions were associated with higher levels of group cohesion, improved attitudes towards group experience, higher frequencies of work-oriented interaction and lower frequencies of conventional interaction during early group development in groups of college students. Similarly, D'Augelli and Chinsky (1974) found pre-group cognitive instructions associated with higher levels of interpersonal communication in groups of college students. Similar findings are reported by Warren and Rice (1972) in relation to group drop-outs, group participation and personal change; and Whalen (1969) found interpersonal honesty in groups.

With regard to clinical populations, Truax et al (1966) found pre-training had a positive influence on the self-concept of institutionalised mental patients receiving group therapy, although these findings were not replicated with juvenile delinquents. Heitler (1973) utilised an 'anticipatory socialisation interview' in preparing lower class inpatients for group therapy and found improved patient participation and improved quality of working alliance for patients undergoing
pretraining. Furthermore, Strupp and Bloxam (1973), using a role induction procedure with lower-class outpatients, obtained more favourable therapy experience in groups for these patients,

A study by Yalom et al (1967) of the effect of preparing patients for group therapy utilising changes on HIM as one of the dependant variables, found a positive effect on interpersonal attraction and interaction, but not on group cohesiveness. However, Peake (1979) was unable to obtain an effect on therapist-patient agreement concerning the therapeutic relationship from pre-group training in this area; nor was level of agreement found to be consistently related to outcome indices.

Evansen and Bednar (1976) investigating the interaction of pregroup cognitive and behavioural structure and risk-taking disposition found an interaction effect between structure and risk-taking with the high risk - behavioural structure condition associated with the highest level of group performance. Additionally, Lee and Bednar (1976) obtained similarly good results for high-risk/high-structure conditions where structure was provided within the group by the provision of group tasks and guidelines for their attainment. Moreover, high structure was also associated with improvement among low-risk subjects. Surprisingly, however, this study obtained a negative correlation between measures of group cohesion and the above mentioned conditions involving high levels of group performance.

Further studies investigating the interaction effects of structure and personality on subsequent performance included one by Abramowitz et al (1974) which compared the effect of directive and non-directive therapy on patients differing in locus of control. They found that matching structure to personality led to improved group functioning eg high internals responded better to lower structure. Anchor et al (1973) investigating the effect of group structure on high and low anxiety patients found that high anxiety patients talked most in both conditions.

In looking at the effect of introducing structure into
into the group in terms of its history, both Crews and Melnicks (1976) and Dejulio et al. (1976) found initially higher levels of group performance associated with early high structure, in terms of improved self-disclosure and higher levels of group interaction respectively, although in both instances this tended to tail off in time. In the latter study, low structure groups eventually attained higher levels of group functioning.

Certain conclusions may be drawn from the foregoing. The value of pre-training for certain categories of patients appears to have been demonstrated with regard to their experience of and behaviour in group therapy. The provision of structure to T-groups composed of college students appears to have benefits for the development of certain types of group process, particularly early on. Additionally, there appear to be important interaction effects between on the one hand level of group structure provided, and on the other personality factors of group participants.

Furthermore, Lieberman et al.'s study (1973) of encounter groups has pointed up the value of therapists providing group members with a cognitive structure within which to comprehend their experience; and the concomitant association of low levels of structure and high levels of risk and emotional stimulation with subsequent therapeutic casualty i.e. deterioration and/or drop-outs.

However, with the exception of the work on pre-training, the studies were primarily carried out on college students, which raises problems of generalising findings to clinical populations. Furthermore, the studies of Crews and Melnick (1972) and Dejulio et al. (1973) indicate that there are limits on what can be achieved by the provision of structure early in the group. Finally, while the above studies provide suggestive findings concerning the effect of group structure on process variables, there has been little or no attempt to tie this factor into outcome.
3.5.3. Group Composition

The literature on group composition has in the main addressed itself to the heterogeneity-homogeneity dimension and attempted to analyse variables relevant to this.

From a theoretical point of view, models of group action which emphasise the social microcosm (Foulkes and Anthony, 1957) and dissonance (Harrison and Lubin, 1965) factors favour a tendency towards heterogeneity; while those which rely on the mechanism of cohesion (Yalom and Rand, 1966; Schutz, 1961) stress the relevance of homogeneity. Between these two extremes has emerged a further alternative, which has been characterised as support plus confrontation, involving a mixture of the two. Examples of this are provided by Harrison (1965) and Whitaker and Lieberman (1964) who advocate that groups should be homogenous for degree of vulnerability and capacity to tolerate anxiety, but heterogenous for conflict areas and coping style.

In terms of empirical data relating to these positions, Koran and Costell (1973) using FIRO-B interchange compatibility as a measure of group compatibility found no association between this and drop-out rate on outpatient neurotic groups. A similar finding was obtained by Yalom and Rand (1966). These studies were also unable to demonstrate an association between group compatibility and cohesiveness, although Yalom and Rand did find that where two members were extremely incompatible with each other their satisfaction with the group was significantly lower.

Powdermaker and Frank (1953) in a study which varied group climates and member composition, found an association between these factors. Thus, dependent patients and those high on fear of affect tended to drop out of non-supportive and emotionally-charged groups, respectively. Furthermore, groups which were homogenous for competition, aggressiveness, and low self disclosure had fewer drop-outs than heterogenous groups.
With regard to laboratory studies, most of which relate to T-groups, the homogeneity-heterogeneity dimension has yielded differences in growth or learning in terms of degree of challenge (Andrews, 1973); interpersonal skill (D'Augelli, 1973); dogmatism (Frye et al, 1972); impersonal versus personal orientation (Greening and Coffey, 1966); degree of structure (Harrison, 1965); interpersonal orientation (Pollack, 1971; Gross, 1959; Reddy, 1972); and dominance (Silver and Mood, 1971). In the main, these differences reflected superiority for heterogenous groups.

Homogenous groups tended to permit members to function in their preferred modes and hence offered less challenge for change (eg, Gross, 1959); whereas heterogenous groups more often started with difficulty but eventually made greater changes (Greening and Coffey, 1966; Harrison, 1965; Pollack, 1971; Reddy, 1972). A further study by Lieberman (1958) demonstrated that members least attuned to the prevailing group culture tended to change most. Furthermore, Silver and Mood (1971) in a study of groups homogenous and heterogenous for dominance found that heterogenous groups showed greater changes in self and peer-perception in the direction of greater conformity than did homogenous groups.

The literature relating compatibility to cohesiveness suggests that groups homogenous for the following qualities are likely to develop cohesion: task-orientation (Bass and Dunteman, 1963); interpersonal skills (D'Augelli, 1973); interpersonal orientation (Gross, 1959); work-orientation (Harrison and Luhin, 1965).

D'Augelli et al (1974) composed groups high, medium and low on 'therapeutic talent' as assessed by the group assessment of interpersonal traits (GAIT) and found differences in terms of the amount of time members spent on personal discussion with the high therapeutic talent group obtaining the best result, as might be expected.

In a study of small assertion training groups, Bixenstine
and Abascal (1985) varied group composition along two dimensions: warmth and success-modelling. They found that inclusion of individuals in the groups who performed each of these roles led to significant increases in behaviour change. Interestingly in relation to member's perceptions of one another, members tended to attribute success to the influence of confederate warmth rather than success modelling.

The foregoing studies demonstrated the influence of group composition on both member satisfaction and growth, and the development of specific types of group culture interaction patterns. There is a general favouring of heterogeneity over homogeneity, although the influence of the latter along certain dimensions in the development of cohesiveness is pointed out.

However, the extent to which these findings on short-term groups of individuals having limited behavioural change goals can be generalised to therapy groups remains questionable. For example, it is possible that members of a residential T-group may be more willing to tolerate short-term anxiety and dissonance without dropping out; whereas a therapy group member may in the first instance require a greater amount of support and sense of group cohesion. This would suggest that a therapy group may need to be more homogenous along certain dimensions than a laboratory group, particularly in its early stages.

In a review of the literature, Melnick and Woods (1976) argue for the support plus confrontation model, which provides for a mixture of heterogeneity and homogeneity to meet the needs on the one hand for interpersonal learning via conflict and dissonance, but to temper this with considerations of group cohesion. Furthermore, they point up the lack of research into the relationship between the factors noted above e.g., interpersonal skill, conflict, cohesion, etc and outcome in group therapy.

3.5.4. Interpersonal Interaction

A major part of the rationale for group treatment relates
to the opportunity that it affords for participants to learn on the basis of interacting with each other.

The fact that therapeutic interactions occur with individuals other than the therapist is held to facilitate the mutual exploration of problems and provide the opportunity of correcting maladaptive behaviour and thought on the basis of reality testing, consensual validation, receiving of feedback, etc.

As mentioned elsewhere, most of the group change mechanisms detailed above (Corsini and Rosenberg, 1955; Yalom, 1970) have interpersonal referents which relate to member interaction. However, few studies of group process have addressed themselves to the issue of different types of member interaction patterns or related these to outcome. Wogan et al (1970) were unable to find any clearcut influence between group therapy member modes of interaction and outcome. The most significant factor in this study appeared to be the therapists' behaviour, notably in attending to here-and-now issues in the group.

McPherson and Walton (1970) required clinicians to observe therapy sessions and assess group members on repertory grids. Factor analysis of these grids yielded three main components accounting between them for some 70% of the total variance of group behaviour. The three factors were defined as dominance - submission, emotional sensitivity - insensitivity, and aiding - hindering the attainment of group goals.

The facilitation of learning in small groups was investigated by Shaw et al (1979) using Bales IPA. They found that members' ratings of individual's contributions were most influenced by those giving information, ideas and suggesting solutions to problems; while objective measures of contributions were related to individuals asking for information, clarification and direction.

With regard to determinants of interaction, looking at sex differences in interaction, Aries (1976) found that males were more likely to occupy leadership roles in mixed-sex task-oriented
groups while females were more likely to be supportive. Whether this difference reflects biological or status differences has been questioned.

Thus, Thune et al (1980) in a study of the effects of status and sex on interaction patterns in mixed-sex therapy groups obtained findings suggestive of status roles being more important in determining interaction than sex roles. This study also found that the number of interactions within groups decreased over time, which was explicable either in terms of less interactions occurring or of interactions becoming longer. The results of an earlier investigation (Silbergeld et al, 1977) supports the latter explanation.

Silbergeld et al (1980) studied the effects of brief marital group therapy in two 15-session groups composed of the same patients conducted two years apart. Using the HIM they found that the first group was characterised initially by husbands engaging in more interaction than wives, husbands were oriented towards personal themes and used more confrontation (taken as evidence of more 'instrumental' role-taking); whereas wives were oriented towards relationship themes and used more conventional interactions (taken as evidence of more 'social-emotional' supportive role taking).

Later phases of the initial group and the second group two years later were characterised by an attenuation of these differences. In particular, both males and females engaged in less conventional and more confrontive interactions; males increased interactions concerning relationships; and females increased their overall proportion of interactions. Thus, group members earlier stereotyped sex-role behaviour was modified during the course of therapy into greater similarity of behaviour between spouses, and an improvement in the quality of therapeutic interaction, i.e., the moves from conventional to confrontive style; and personal to relationship content over the course of the two groups.

With regard to the effects of interaction, Coons and
Peacock (1970) in a study of institutionalised patients compared the effects of formal group therapy with organised ward interaction and random ward interaction on changes in intelligence and personality. They found that only the first condition was associated with positive benefit and concluded that the nature of patient interactions was more important than interaction per se. Speculating on reasons for this, they noted two possibilities: differing levels of therapist skill and differing patient expectations across the experimental conditions.

Coons (1957) has also addressed the issue of the relative importance of interaction and insight in promoting change in group psychotherapy. Working with groups of schizophrenic inpatients, he compared insight and interaction oriented groups and a control group, and found that the interaction group improved significantly more than the other two. He concluded that 'interaction rather than insight seems to be the essential condition for therapeutic change'.

Roback (1972) compared the effectiveness of groups for psychiatric inpatients varying in the degree to which insight and interaction were emphasised. Although no statistically significant differences between them were found, there was a trend towards a combination of insight-promotion and member-to-member interaction producing more favourable indications of change than either alone.

Abramovitz and Jackson (1974) in studying the content of interaction compared groups where therapists focussed on there-and-then, here-and-now, and mixed interventions, in addition to an attention control group. Most therapeutic gains were made by the latter two groups, i.e., mixed interventions and attention-control, and least by the here-and-now oriented groups.

A further study by Abramovitz and Abramovitz (1974) compared the effects of insight and interaction-oriented groups on individuals differing on psychological mindedness and found that members high on this factor responded best to the insight-oriented group.
Semon and Goldstein (1957) also compared groups geared towards insight or interaction for chronic schizophrenics and found that while both types of group improved significantly more than a control group, there was no statistical difference in outcome between the experimental groups.

In looking at patients' own retrospective estimates of curative factors in groups, Dickoff and Lakin (1963) found that 'group support' (which in the main related to interpersonal factors) was more highly rated than 'insights gained', although patients with high WAIS vocabulary scores were found to reverse these preferences.

Roback (1974) has suggested that the importance of insight versus interpersonal factors may well depend on patient population characteristics. Thus, for example, schizophrenics and people of limited verbal ability would respond more to interpersonal features of group action, while more 'psychologically-minded' individuals suffering intrapsychic conflicts would more likely require an insight-oriented approach. Such speculation, while carrying a good degree of face validity and some support from the Abramovitz and Abramovitz (1974) study, clearly requires further research. As is the case in other areas of group research, Roback also points out the lack of conceptual clarification of terms and the requirement for adequate measurement of both the dependent and independent variables under study.

From the point of view of analysing group interaction in order to provide descriptions of it in terms of major factors, a study by Lorr (1966) of both neurotic and psychotic therapy groups identified eight factors accounting for interaction, the last two of which appeared mainly associated with psychotic groups. The factors were: leadership, supportive, succourance, submissive, hostility, attention-seeking control, withdrawal and disorganised. The first six of these appeared to map well on to the Leary circumplex.
Lorr concluded that these results provided support for the idea that interactions in therapy groups are more complex than those found in task-oriented groups; but also that the intercorrelations between the factors suggested the presence of a general higher-order factor, which could be identified as general activity level.

From a slightly different perspective, Hawkins et al. (1973) sought to identify the factors contributing to the emergence of group climates in therapy groups. They identified five factors described as: I - expressive and supportive; II - confronting and hardworking; III - directionless, lacking responsibility and self-oriented; IV - avoiding confrontation and feelings; and V - dull and non-cohesive.

A further study by Heckel et al. (1971) used factor analysis of group members' interactions to define a number of different types of group participation styles (which may well amount to the description of a role system). These styles appeared to change over time from an early to more developed stage of group functioning.

The factors identified by Heckel et al. were as follows: for early sessions - egocentric participator, guarded impersonal environmental commentator, superficial group interactor, non-committal opinion-seeker, therapist-directed environmental commentator, and occasional opinion-seeker; for late sessions - cohesive group builder, superficial environmental commentator, questioning information-seeker, radar antenna (i.e. norm builder), self-oriented verbaliser, and occasional personal information giver.

A further attempt to analyse the development of roles in therapy groups was conducted by Bogdanoff and Elbaum (1978) in terms of focal-conflict theory. They specifically addressed the problem of difficult group members, e.g., monopolisers and isolates, in terms of role lock, which they define as a fixed mode of relating which leads the individual (and to some extent the group of which he is a part) into an interpersonal trap.
They speculate that role lock may emerge as a compromise solution to a focal conflict, which becomes perpetuated, and fixes the individual into a particular mode of behaviour in the group.

Pertinent here also is the concept of 'feedback' which developed as an important change mechanism within the T-group movement as an antidote to the lack of clarity and honesty in interpersonal communication, which was held to characterise more general forms of societal relations.

The value of giving and receiving feedback is held to facilitate a number of learning experiences including among others:

a) Consensual validation of the individual's thoughts and feelings.
b) Receiving of information concerning one's behaviour and self-presentation.
c) Disconfirmation of nonrealistic expectations and attitudes towards the self and others.
d) Challenging of maladaptive and development of more adaptive interpersonal reactions.
e) Development of the ability to learn from the consequences of one's own behaviour.

Rothke (1986) has suggested that effective feedback can be characterised by clarity, immediacy, a focus on the sender, affective in nature, involves risky self-disclosure, deals with sender-receiver relationship, and is minimally evaluative. Thus, he clearly relates the concept to self-disclosure about the ongoing relationship, and in addition, emphasises its focus on reducing dysfunctional behaviour.

Attempts to investigate the concept have been most notably associated with the work of Jacobs and her associates on T-groups composed of college students. Thus Jacobs et al (1973a) obtained findings that positive feedback was both more desirable and believable than negative feedback. In terms of sequencing, it was found that best effects in terms of maximal acceptance of both negative and positive feedback were obtained
where subjects received negative feedback before positive feedback. This finding was taken as supporting Miles' (1958) and Stollers' (1968) theoretical explanation of the value of negative feedback in terms of its disconfirmation of the present self-concept in order to 'unfreeze' the individual and enhance receptivity. No significant differences were found between the conditions in terms of the effect on group cohesiveness though there was a trend for increased cohesiveness to be associated with subjects receiving negative feedback. In terms of the effectiveness of feedback from the participant's point of view, the mixed feedback condition was rated as providing the lowest learning experience.

Another study by Jacobs et al (1973b) replicated the earlier findings concerning the greater credibility and impact of positive over negative feedback, but additionally found that negative behavioural was more effective than negative emotional feedback. This study also obtained significant sex differences in terms of the subjects of feedback, highest and lowest impact ratings being derived from males receiving positive and negative feedback respectively. Additionally, an association was obtained between positive feedback and group cohesiveness; and members receiving behavioural feedback rated their experience as being more productive. However, the study was unable to find any relationship between consensus among the deliverers of feedback and its credibility or impact.

A further study (Jacobs et al, 1974) obtained differential effects for emotional and behavioural positive feedback, with the former condition leading to greater cohesiveness, and the latter being rated as having most credibility. In this study, unlike the other two, feedback was provided from an anonymous source.

Schaible and Jacobs (1975) in studying sequencing of feedback, found positive followed by negative was rated as more credible and desirable than vice-versa, in contrast to the earlier 1973 (a) finding.
Along similar lines, Shawver and Lubach (1977) investigated group therapy members' attributions of value to participants verbalisations in terms of blame or praise. As expected, they found clear tendencies for individuals to defend themselves against blame and attribute blame for their problems on to others, while group members not personally involved in the situation tended to adopt a more critical, but non-biased, attitude towards what was presented. However, therapeutic work was associated with a willingness by the individual to look at their own blameworthyness and responsibility in relation to their problems.

From the foregoing, certain tentative conclusions can be drawn. The work of Aries (1976) and Thune et al (1980) has demonstrated an association between group composition and subsequent interaction in terms of sex and status respectively.

The pre-eminent importance of interaction factors over insight had been claimed by Coons (1957), but later, reservations in terms of therapist factors and patient expectancies have been introduced (Coons and Peacock, 1970). The influence of patient population characteristics in the relative importance of insight and interaction has been suggested by Roback (1974).

The notion that different types of personality or patients suffering different problems in different organisational (eg, inpatient or outpatient) settings might respond more favourably to different treatment approaches is one, which is plausible (indeed, likely), but has not as yet received any vigorous thorough-going experimental attention.

Research concerning the relative importance of insight and interaction, and also that relating to the content of interactions in terms of here-and-now versus there-and-then has failed to give clear-cut answers. These debates in retrospect appear to have been stalemated by a simplistic dichotomous approach to the complexity of group processes and a failure to adequately understand, define or measure the relevant variables. One example suffices: nowhere
within the available research is experimental account taken of the possibility that insight may develop as a consequence of interaction (or vice-versa!).

The studies of Lorr (1966), Hawkins et al (1973) and Heckel et al (1971) utilising factor analytic techniques demonstrate the possibility of describing group interaction in terms of members' behavioural styles, and remain tantalising suggestions of ways in which group process could be analysed. Unfortunately, they have not as yet been taken further.

The position regarding feedback remains uncertain, other than the replicated findings that people prefer and are more likely to believe positive than negative feedback (Jacobs et al 1973a, 1973b) and the relatively greater efficacy of behavioural over emotional feedback (Jacob et al, 1974). Effects relating to sequencing, source, and the interaction of feedback with other group processes, such as cohesion, remain unclear at the present time. Moreover, as with other process concepts, the effects of feedback specifically and interaction generally remain to be related to outcome.

3.5.5. Group Cohesiveness

As noted above, one of the major factors implicated in the therapeutic action of groups has been group cohesiveness. Thus, Yalom (1970) has suggested that cohesion provides group members with a sense of belonging and being understood which permits increased risk-taking, self-disclosure, and exploration of problems.

However, attempts to research this factor encounter serious methodological problems, as have been identified by Bednar and Kaul (1978). Thus, these authors note firstly, the lack of cognitive substance to the concept, and hence the generality of its usage; secondly, the poor psychometric properties of scales designed to assess it; and thirdly, the failure by researchers to take account of the lack of equivalenc
between operational and conceptual definitions as used in scales to measure cohesion. Furthermore, they argue that whereas cohesion is frequently treated as a stable factor, it is more likely to be a developmental one which changes over time and is subject to fluctuations and situational influences.

Although the concept was introduced into clinical practice from the field of social psychology, a recent review of it by Evans and Jarvis (1980) noted the lack of progress even within the academic field of being able to develop an adequate operational definition. They pointed out that the last attempt to review the area was as early as 1968 (Cartwright), and that the concept itself has remained entangled with that of attraction to the group. Following van Bergan and Koekebakker (1959) they argue that cohesion be defined as 'the degree of unification of the group field', which would involve such things as members' closeness in similarity of conceptual level, and perceptions of events, and a bonding together in response to the outside world. On the other hand, attraction to the group would refer to members' feelings about the group, and thereby involve individuals' desire to identify with and be accepted as a member of the group.

In looking at factors leading to enhanced therapy group cohesion, a study by Yalom and Rand (1966) demonstrated that members' compatibility (as measured by FIRO-B) was predictive of cohesion. This study also found that members who were less compatible with their group were both less satisfied with their group experience and more likely to terminate prematurely.

A further study (Yalom et al, 1967) suggested that group
cohesiveness was related to outcome. Additionally, however, this study found that popularity within the group was more predictive of outcome than group cohesiveness. The authors speculate that this latter finding may reflect the fact that popular members become leaders of the group, and are positively reinforced for engaging in social skills, which are seen to be relevant and appropriate to the group's task.

D'Augelli (1973) in a study of interpersonal skills found that groups composed of individuals high on interpersonal skills were rated by members as more cohesive. Similarly, members high on interpersonal skills tended to rate their groups as being more cohesive. He goes on to argue the need for members low on such skills to be trained in them before coming into group therapy in order to achieve a cohesive working group.

A study by Flowers et al (1981) related client improvement to group cohesiveness. They studied two groups of students enrolled in a graduate class in group therapy each of which lasted for ten weeks. As a measure of group cohesiveness during each session, they employed the extent to which members attended to the speaker, and found that the measure was additionally correlated to other measures of cohesiveness, viz. members' ratings of satisfaction with sessions and number of members trusted in each session. The major findings were of significant correlations between high cohesive sessions and amount of problems disclosed; that external observers rated subjects' improvement on problems disclosed as being greater during high cohesive than low cohesive sessions; and that cohesive sessions were associated with the disclosure of higher intensity problems.

Ribner (1974) in studying the effects of self-disclosure on cohesiveness demonstrated variable effects depending on whether contracts to self-disclosure were used and whether groups were homogenous or heterogenous for self-disclosure. It was found that the use of a contract to self-disclosure increased attraction to the group as a whole but decreased
liking for other members. Where groups were homogenous for high self-disclosure attraction to both the group and other members was maximal. However, this study was carried out for experimental groups of college students and its generalisability to clinical contexts remains untested.

Along similar lines, Kirshner et al (1978) were able to demonstrate that varying levels of self-disclosure via pre-encounter group instruction had a differential effect on group cohesiveness, i.e., higher levels of self-disclosure leading to greater group cohesiveness.

With regard to the impact of the group leader on cohesiveness, Liberman (1971) working within the behavioural framework, was able to show that group cohesiveness was increased by the leader providing systematic positive reinforcement for members' cohesive statements, and that in comparison with control groups, members of the experimental groups obtained greater symptom relief.

From the point of view of the effects of different types of group therapy on cohesiveness, Dies and Hess (1971) found greater cohesiveness in marathon groups than in more conventional time-interrupted groups. Both types of group demonstrated a developmental increase in cohesiveness over time.

However, the generality of this latter finding is circumscribed by a study of Costell and Koran (1972) who found no difference in cohesiveness from the first to the twelfth session in therapy groups. They were also unable to relate results of FIRO-B interchange compatibility and HIM-B to results from their cohesiveness questionnaire.

Silbergeld et al (1975), using the Group Atmosphere Scale (GAS), were able to demonstrate greater cohesiveness in long term therapy groups than in either long-term counselling or short-term intervention groups. They also found that more cohesive groups scored lower on the Submission Subscale; and that differences on the Hill Interaction Matrix and self-report of
communications and anxiety in the groups consistently differentiated more and less cohesive groups. The GAS itself was found to provide a reliable measure of cohesion in terms of six subscales: spontaneity, support, affiliation, involvement, insight and clarity.

More recently, Budge (1981) has criticised the use made of the concept of cohesiveness within research, arguing that this use is based on the following erroneous assumptions:

1. The use made within measuring instruments of only positive statements in measuring cohesiveness (and by implication, the assumption that cohesiveness is always 'a good thing').

2. The use of group-cumulative averages in order to determine whether a group is high or low on the variable, which eliminates from consideration significant fluctuations both in individuals and in the group as a whole.

3. The view that cohesiveness is a static positive achievement of a group rather than a complex dynamic process.

In contrast, Budge argues for a dynamic view of group cohesiveness as a process which fluctuates over time, and which at certain times, may be enhancing of therapy and at others represent a defensive manoeuvre arising from a resistance to separation/individuation.

Thus, in conclusion, notwithstanding its lack of conceptual clarity, cohesiveness has continued to attract the interest of researchers into group change mechanisms and has additionally generated the development of a number of psychometric devices for its measurement. Certain aspects of members' behaviour appear related to the development of group cohesion, such as self-disclosure and level of interpersonal skill, and the work of Liberman (1971) suggests that the group leader is also implicated in the process. It also appears probable that cohesion is a developmental factor, which is additionally influenced by situational variations in composition, type of group, members' expectations and probably other variables also. Moreover, its multidimensional nature is pointed up by the
variety of subscales used on the GAS for its measurement. Finally, as in other areas of group work research, there is a notable absence of studies aimed at researching the impact of group cohesiveness on outcome.

3.5.6. Self-disclosure

As noted in the section on Therapist factors, the importance of self-disclosure has been claimed by humanistically-oriented therapists, but the concept itself is one which requires greater precision in definition and is related to complex developmental features of group process in inter-relation-ship with other factors.

The variables noted by Dies (1977) as being relevant to self-disclosure eg content, context, non-verbal aspects, etc largely remain to be investigated as do their relationship with other relevant factors.

However, certain predictors of self-disclosure have been uncovered. Thus Bean and Houston (1972) found that members low on self-concept initially disclosed less, but increased in this respect over time in a study of an encounter group.

Anchor, Vojtisek and Berger (1972) studying an inpatient therapy group found that members with medium approval-dependancy self-disclosed more than those high or low on this variable. Weigel, Dinges, Dyer and Straumfjord (1972) obtained a positive association between liking and self-disclosure in an outpatient therapy group.

Strassberg et al (1975) found a positive relationship between patients liking for therapist and self-disclosure, but lower self-disclosers obtained the best therapeutic outcomes. This is explicable by reference to the patient population, schizophrenic, in this study.

Similarly, in a study of experiential groups, Wright and
Ingraham (1985) found that self-disclosure was a function of relationships between members in the group; and that self-disclosure evidenced a reciprocal process. The authors linked these findings to Bales (1970) proposition that incoming behaviour is highly correlated with outgoing behaviour in groups.

A further aspect of the subject, which may well have implications for an understanding of the dynamics involved in the early stages of a group is provided by Berger and Anchor (1978). They were able to show that in a group situation, individuals with little prior knowledge of each other gave more personal statements (emphasising the risk-taking element involved in self-disclosure), but also received more impersonal responses than was the case for individuals having more prior knowledge of each other. The preponderance of impersonal responses is explained either in terms of avoidance and defensiveness on the part of the recipients, or as an attempt to incorporate more of the group into the exchange of communication.

Two further papers have attempted to relate self-disclosure to other group mechanisms. Thus Ribner (1974) found that using a contract for members to self-disclose led to higher frequency and depth of self-disclosure, and increased group cohesiveness than no contract.

Goldstein et al (1978) sought to relate self-disclosure to the group structure model suggested by Bednar et al (1974), by comparing the relative riskiness of self-disclosure with providing interpersonal feedback or promoting group confrontation. They also investigated the evaluative nature (positive or negative) of each of these three forms of group activity. They were unable to find significant differences between the various modes or between negative and positive self-disclosure (although differences between negative and positive were obtained for interpersonal feedback and group confrontation).

In a general review of research into self-disclosure, Allen (1973) emphasised the influence of two factors: the quality of the relationship and reciprocity. In addition, he
pointed up the early influence of self-disclosure on the promotion of 'universality' in therapy groups; and suggested that in terms of group composition, a relative degree of homogeneity in individual's level of self-disclosure was preferable to including those who were at the extremes on this variable.

In summary, the foregoing has been able to identify certain antecedents to self-disclosure, particularly in terms of client characteristics; and also to relate it to other group mechanisms, notably cohesiveness. However, the concept stands in need of adequate definition; and its significance as a component of group therapy process in interaction with other components remains to be investigated. In addition, its utility both for the individual engaged in it and also for the rest of the group receiving it in terms of productive change and beneficial outcome remains to be demonstrated.

3.6 Summary

The evidence reviewed above has yielded few clearcut conclusions concerning process and outcome in therapy groups, notwithstanding the fact that they continue to attract a considerable degree of research interest.

Thus, it has been difficult to discern specific client characteristics, which are predictive of outcome, although certain client behaviours in situ have been demonstrated to be important. In addition, evidence for the efficacy of group therapy with particular presenting problems is less than impressive; and the role of the therapeutic relationship in groups remains unclear.

Similarly, the research into therapeutic factors has been unable to clarify their influence on group process and they remain largely unrelated to outcome. These problems in part refer to methodological issues concerning inter alia the representativeness of sampling, the generalisability of findings and the operational definitions of key terms. These issues will be further addressed in the following chapter.
Chapter 4: An overview of methodological paradigms

4.1 Background

The difficulties in carrying out research into therapy to a large degree stem from the subject matter itself. Theories expounded, problems presented, methods used, changes sought and achieved and types of people treated have tended to be described in vague and impressionistic terms.

Thus, the very nature of emotional disorder, the interventions used for its alleviation, and our circumscribed understanding of both of these, have contributed to difficulties in specifying, defining and analysing the relevant independent, dependent and confounding variables.

An additional problem is posed by the absence of an adequate classification system for the disorders in question. The main system used in clinical practice - the psychiatric diagnosis - has clear deficiencies in terms of reliability, consistency and prognostic value. Furthermore, it has proved to be incapable of clearly differentiating the sorts of people who will benefit from different types of therapy. It is thus of limited use as a tool for research into psychotherapy.

Such problems have affected research into behavioural techniques less than others, due to the focus by its theoreticians and practitioners on overt behaviour and manipulation of its change in ways which are observable and quantifiable.

However, even here, Breger and McGough (1965) have pointed out that techniques have often developed independently of theory; the failure to link specific techniques to theoretical formulations; contradictory assertions by theoreticians that particular techniques are explicable in terms of their own theoretical constructs; imprecise definitions of both procedures and effects stemming from them; and the
coexistence of other types of intervention alongside the 'purely' behavioural.

Notwithstanding these difficulties, research studies have contributed to our knowledge about those therapist and patient characteristics and their interaction, which contribute to successful outcome. Also, the requirements of the research enterprise to define person and process characteristics have fed back into actual clinical practice in terms of both selection procedures and therapist behaviour. This is most clearly seen in the trend towards therapists requiring patients to specify treatment goals and also in a developing emphasis on evaluations of treatment progress.

Problems remain, however. Twenty years ago Colby (1964) noted that 'in the domain of Psychotherapy there is no single paradigm commanding consensus'. More recent reviewers (Orkinsky and Howard, 1978) have described the position of research into psychotherapy as being 'pre-paradigmatic'. By this, they meant that no single theory is at present capable of explaining the wide variety of findings and organising these into a coherent body of knowledge.

While not claiming to present such a paradigm, they did attempt to develop a conceptual scheme which could be utilised to incorporate a wide range of research studies, bringing some degree of order into disparate sets of data. In this way they have been able to highlight areas in which research into therapy is well under way and others which have been scarcely looked at.

Their scheme was based on a simple definition of therapy as being 'a relation among persons engaged in by one or more individuals defined as needing special assistance to improve their functioning as persons, together with one or more individuals defined as able to render such special help'.

However, in carrying through their survey, some of the findings of which are covered in the Research chapter of this
present study, it rapidly becomes apparent that major areas of the therapeutic enterprise remain unresearched. Two examples suffice to make the point: they were unable to find any studies which addressed themselves to the therapists' or patients' perception of the patients' appearance during therapy, and few studies into the therapists' feelings during the course of therapy.

Moreover, their criticisms of research echoed those made elsewhere (Kiesler 1966, Lewis and McCants 1973, and Lieberman 1976).

The sort of problems they noted include:-

a) The problem of descriptive specificity, i.e. a lack of description in studies of the people involved; the context; what was actually done. This has led to a perpetuation of what Kiesler has called 'uniformity myths'.

b) The fair sample problem. Studies have tended to carry out research on a circumscribed, possibly unrepresentative sample of types of patient; types of treatment; therapists; and therapeutic variables.

c) The causal inference problem. This highlights the difficulties of experimenting rigorously in the context of psychotherapy. This makes problematic the attributions of change to the therapeutic process rather than, e.g., to concurrent life events or the natural history of a disorder.

d) The problem of outcome evaluation. This problem is multi-faceted but includes inter alia a failure to take account of differences between patients in terms of their pre-therapy level of functioning and potential for a change, and also differences in the levels of functioning that they are aiming for. This is one example of the patient uniformity myth. Moreover, it is noted that confounding occurs in descriptions of outcome between actual descriptions of changes and evaluation of these changes in terms of explicit value standards (e.g. Leiberman et al's, 1973, use of seeking psychotherapy as part of a definition of encounter group 'casualty').

e) The failure in many studies to meet the requirements of prescriptive utility. This highlights the necessity and importance of translating research findings into language that can be understood by its consumers, i.e., by prospective patients and therapists.
In relating this last to group therapy research, Coche and Dies (1981) summarised the main criticisms made by practitioners of the research literature in terms of the following:

1: Much group research, although technically sophisticated, is conceptually weak.

2: There is a lack of conceptual and methodological uniformity, thereby making difficult the comparison of results across studies.

3: The highly technical language of many reports is aversive to potential consumers.

4: Too much emphasis is given to outcome and insufficient attention paid to process. Moreover, the dichotomy between the two is specious.

5: The use of non-clinical populations in research makes findings irrelevant to the running of clinical groups.

6: Early findings, based on group comparison methods, of a lack of effectiveness of group treatment contradicted what clinicians felt to be true, i.e. that their interventions were in fact beneficial and effective.

To remedy this situation Coche and Dies made a number of concrete proposals:

a) Practitioners should be encouraged to read reviews of research rather than individual studies in order to be able to identify main lines of enquiry and trends of evidence.

b) Researchers should develop more collaboration amongst themselves in order to develop programmes of research which are conceptually clear and methodologically sound.

c) Practitioners themselves should be involved in the design and implementation of research.

d) Researchers should orientate their report writing to practitioner consumers.

e) Face-to-face meetings between practitioners and researchers can be more encouraged, particularly via professional associations.

f) Group therapy training programmes can enhance the interest of trainees in research.

g) The use of research instruments can be more fully integrated into the actual practice of group therapy.
Kiesler (1966) attacked not only the uniformity myths prevalent in the research literature, but also Eysenck's (1952) oft-quoted assertion concerning the spontaneous remission rate of psycho-neurotic disorders. The main objections to the spontaneous remission hypothesis rest on a questioning of the validity of Eysenck's experimental methodology in comparing data from a group, which did not present themselves for (or presumably see themselves as being in need of) treatment, with data from groups of patients who do present themselves for therapy. More recent estimates of spontaneous remission (eg Bergin 1971) were much more conservative than Eysenck's earlier conclusions.

Moreover, recent developments in learning theory (eg Eysenck, 1976) suggest that behavioural theorists themselves have become more sophisticated in their attempts to understand the nature of neurosis and its variety, and the differential effects of various therapeutic strategies. However, this has not yet led to a clear elucidation of the details of who benefits from what form of intervention, how, when, and why. Kiesler also argued against the dichotomy between process and outcome research, a point which will be expanded on later, suggesting that 'patient improvement manifested in interview behaviour is just as legitimately outcome as any other form of extra therapy change'.

In outlining the requirements of an adequate research paradigm, Kiesler highlighted the importance of specifying 'the network of independent, dependent and confounding variables in sufficient-enough detail to permit researchers to solve sampling and other methodological difficulties'. Addressing the issue of confounding variables, he utilised Underwood's (1957) classification of these into subject, task and environmental variables.

Subject variables include those characteristics of the patient which are relevant to his response to treatment. Unfortunately for the prospective researcher this would appear potentially to include virtually every aspect of the individual,
eg. age, severity of disorder, level of ego-strength, motivation for treatment, verbal intelligence level, verbal expressive ability, level of discomfort, socio-demographic data, occupational satisfaction and success, etc.

Task variables include those aspects of the therapist and his behaviour apart from the independent variable(s) under study, which interact with one another and affect the results obtained. Environmental variables point up the influence of extra-therapy influences on the patient, eg life-events, external circumstances of the therapeutic situation etc.

In summarising the changes in group work research over the past thirty years, Dies (1979) pointed to a number of important trends. He noted firstly an increase in the number of journal articles on group therapy, together with a fourfold increase in the proportionate number of such articles, which are research-oriented. Part of these increases appeared to be accounted for by an interest in investigating empirically the 'new groups', eg encounter, which mushroomed during the 1960s and 1970s.

A second trend consisted of the accumulation of evidence for the effectiveness of group therapy in modifying behaviour. However, along with this came a growing awareness of deterioration effects.

In terms of methodology, Dies pointed to the increased specificity of questions which were being posed by group researchers; the development of a pragmatic and systematic approach to the business of doing research on groups; and an awareness of the need to individualise process and outcome criteria.

Finally, in addressing the issue of the prescriptive utility of research, he noted the growing recognition of the need for a dialogue between researchers and practitioners.
The concern among group therapists and theorists for improvements in the quality of research has prompted several papers aimed at providing potential group researchers with guidelines concerning how to go about it. Thus Weigel and Corrizzini (1978), having firstly acknowledged some anti-research bias on the part of small group practitioners, went on to discuss the varieties of experimental designs available; pointed up issues relating to experimenter bias, replication, follow-up and casualties; and evaluated the advantages and disadvantages of various types of instrumentation.

Parloff and Dies (1978) in presenting the Group Therapy Outcome Instrument provided a structure and set of categories for use by the potential researcher into the comparative efficacy of group therapy. This instrument aimed to provide guidelines which would enable an evaluation of the procedures used in experimental design, data collection, and data analysis. They additionally provided means of estimating the adequacy of these procedures in terms of the following: patient sample controls, treatment and therapist controls, description of therapeutic intervention, data gathering techniques and data analysis.

4.2 Review of alternative research strategies

The attempt to place the study of therapy on a scientific basis and thereby describe and elucidate the key variables in its process has a tradition dating back over one hundred years. In the course of this time, a number of different approaches have been suggested and attempted which have contributed to our knowledge but have at the same time been found to have serious shortcomings. Within this tradition we can discern a developmental process of increasing refinement of technique and specificity of questioning, albeit at times the whole enterprise has been questioned.

4.2.1 The Case Study Approach

The influence of single-case studies on psychological
research and theorising has a long history encompassing both psychoanalytic and behavioural approaches. Indeed, it may be argued that the basis of psychoanalytic theory rests on Freud's case studies, while Watson and Rayner's (1920) investigation of Little Albert demonstrates an early experimental attempt to link learning theory to clinical phenomena.

This approach is generally defined as being characterised by a focus on the individual patient, a reliance on anecdotal information and an absence of experimental controls. Descriptions of the individual are often thorough and vivid, while analysis of change processes may be speculative and tortuous. The absence of systematic observation and experimental control makes problematic the demonstration of causal links between independent and dependent variables.

Indeed, the attacks in the early 50s (eg Eysenck, 1952) on psychotherapy as being unscientific and lacking in proof for its claims of success were mainly directed at the case study. These attacks also generated an attempt by researchers to develop an experimental approach to research methodology which led to the between-group comparison approach.

However, more recently a re-evaluation of the case study approach has taken place (Kazdin, 1981). Essentially, Kazdin argued that case studies differ among themselves in terms of the degree to which valid inferences can be drawn from them. Such inferences relate to the above-mentioned causal links between independent and dependent variables.

Case studies were seen as varying in terms of the degree to which they address themselves to certain classes of 'threats to internal validity' (Campbell and Stanley, 1963) of such inferences. The most general threats included the influence of history (such as life events), maturation, testing, instrumentation, statistical regression and sampling.

The extent to which case studies ruled out each of the above specific threats in turn depended on characteristics of
the study, such as which of the following it included:
objective data, continuous assessment, stability of problem,
immediate and marked effect, and presence of multiple cases.

As the case study more completely in its design ruled out the threats to internal validity by incorporating the above controls it approximated to the single-case methodology which will be discussed hereunder.

4.2.2 Between-Groups Comparison Approach

The attempt to demonstrate the efficacy of therapy in a scientific manner, which would enable experimental control and manipulation of variables, led to the development of this approach. In its most basic form, this consists of comparing a group of treatment cases with another group either receiving an alternative form of treatment or no treatment. The dependent variable is a change in some aspect of the individual's functioning, symptom level or personality structure. Assessment of this is carried out before and after the treatment intervention. Attempts are made to ensure that the groups are matched in terms of variables thought to be relevant to the response to treatment.

Early findings using this approach suggested that effects of therapy were positive but 'weak', and also that over a wide range of problems, no particular theoretical approach to therapy was demonstrated as being of greater impact than others.

However, this approach has been criticised by Bergin (1971) as being inappropriate on a number of points. It assumed:

a) That equivalent control groups can be set up, matched to the experimental group on all relevant variables.
b) That reliable measures are available to assess status of clients both before and after therapy.
c) That therapy is homogeneous: a notion which has been dispelled by Kiesler's attack on uniformity myths, and has prompted a demand that therapist characteristics and therapeutic procedures be more adequately described.
d) That control group members do not receive help during the experimental period. Evidence suggests to the contrary that in fact people eg on waiting lists, will receive support possibly informally from other sources. Moreover, the reality of placebo effects requires that these be investigated (eg as a set of Strupp's, 1973 non-specific factors) rather than controlled for.

Moreover, a re-evaluation of those studies exhibiting the above-mentioned 'weak' positive effects by Bergin (1966) demonstrated that such effects were artifacts of an averaging process, ie some patients in fact improved greatly, others stayed the same, while still others deteriorated.

Further problems with the approach have been delineated by Hersen and Barlow (1976):

a) Ethical, in that treatment may be withheld from a no-treatment control group.

b) Practical difficulties in collecting large enough numbers of patients homogeneous for a particular behavioural variable.

c) Problems of generalising findings, since results of group studies do not reflect changes in individual patients.

d) Inter-subject variability in response to treatment. Thus, patients tend to exhibit not only differential rates of response but also differing types of response to a particular treatment. Additionally, intra-subject variability, ie individual fluctuations in response to treatment over time is common, eg some patients may need to 'get worse' before they get better.

Beutler (1979) has suggested that comparative therapy research generally has attended to types of therapeutic strategy and largely ignored patient characteristics. In order to identify the types of therapy which would be most suitable for particular presenting conditions, he argues for the utility of studying therapeutic outcome in terms of interactions between type of therapy and patient parameters. The parameters suggested are: degree of symptom (circumscribed vs complex); defensive style (internal vs external); and level of response to the environment (low vs high). He goes
on to discuss ways in which this model can be used to generate predictions of differentiated response to different therapeutic strategies.

4.2.3 Naturalistic Studies

The difficulties in specifying the relevant dependent and independent variables operative in the between-groups comparison approach have led some investigators to suggest a return to the observation of therapy as it occurs. Such studies have been described by Schontz (1965) as characterised by 'identification of variables in terms of measurements of already-existing subject characteristics, rather than in terms of manipulative operations performed by the investigator, and its use of a single standard test situation for all subjects, rather than a different set of departments for each research group'.

The aim of such an approach has been thus to investigate therapy in the raw, thereby enabling the study of many behavioural aspects simultaneously. On the basis of correlation the inter-relationships between these various aspects will be more readily determined.

However, the major problem with this approach is that it is not possible on the basis of correlational data to make probabilistic statements, i.e. one cannot determine the directionality of change as independent and dependent variables are interchangeable. For example, if a study investigating the relationship between therapist empathy and client depth of self-exploration finds a positive correlation between the two, either could be the cause of the other.

4.2.4 Manipulative Studies

This approach originated within the behavioural school of therapy. The main aim was to produce causal effects by varying independent variables and looking at the effect of this on the dependent variable, e.g. varying one aspect of therapist behaviour and observing the effect of this on patient change, or studying the impact of a particular
Although this approach does provide the possibility of making causal inferences, which naturalistic studies do not, it relies on the assumption that other relevant variables are being held steady. This brings us back to Kiesler's discussion of Underwood's 'task confounding variables' and also Breger and McGaugh's observation that behavioural therapists frequently utilise interventions other than their 'purely' behavioural techniques. For example, a study of the use of systematic desensitisation in the treatment of phobic anxiety would need to control for the impact of the therapist's personality, use of empathy, making of interpretations, etc, in demonstrating the efficacy of the technique itself.

4.2.5 Multivariate Studies

The use of multivariate studies has been advocated as one way of attempting to overcome the limitations of other strategies, particularly the between-groups comparison approach described above. It was also hoped that this approach would solve the problem of the lack of comparability between results found in studies using different outcome measures and criteria. The aim was thus to some extent to standardise the data-gathering enterprise.

The development of large-scale collaborative studies with sufficient numbers of subjects to represent patients, therapists, treatment approaches and environmental factors would enable variables stemming from these sources to be adequately investigated. Thereby it was considered that interactions between them could be studied and elucidated by means of powerful factor-analytic statistical procedures.

While this approach on the surface appears to answer many of the problems raised by the shortcomings of the other strategies, it is in itself flawed in practical terms.

Firstly, Lewis and McCants (1973) noted that its
usefulness depends on 'selecting for analysis those variables which have impact on individual change' and that these variables have not as yet been identified.

Secondly, a feasibility study by Bergin and Strupp (1970) concluded that a survey of researchers were either unwilling or unable to participate in such a project.

Thirdly, one suspects that underlying the desire for such an approach lies a fantasy that is in fact a fallacy, namely that it will provide us with a definitive study of therapy.

4.2.6 Single-Case Methodology

As noted above, the case study approach has a long history of clinical use but has generally been considered lacking in scientific precision and control. As such, case studies have been considered capable of generating illuminating insights, clinical leads and hypotheses but unable to provide experimental verification for them.

More recently, however, Kazdin (1981) has suggested that case studies may be viewed as lying on a continuum in terms of their scientific status ranging from pre-experimental to experimental.

To the extent to which they achieve experimental status, they more closely approximate to the single-case methodology outlined by, among others, Hersen and Barlow (1976), Davidson and Costello (1969) and Chassan (1967).

In common with the manipulative approach, this strategy developed initially within the behavioural framework and aimed at providing both clinical flexibility and also experimental control and manipulation of variables.

An early example of it and its characteristics is provided by Shapiro (1961) who utilised a single-case methodology which
included the application of repeated measures during therapy, a change of therapeutic manoeuvre during the course of therapy (an early A-B-A design) and the use of measures to an endpoint, thereby linking process to outcome. (Absent from Shapiro's work was the obtaining of a baseline measure, which has since become one of the major elements of single-case designs).

In presenting their rationale for this strategy Hersen and Barlow addressed themselves to two key issues in research: variability and generality.

Variability

Clearly it is important to identify sources of variability in individuals and between them in order to strengthen the predictive reliability that a particular therapeutic technique is responsible for a particular change in functioning.

Group comparison studies assumed that unwanted sources of variability were randomly distributed and hence cancelled each other out. This averaging-out of uncontrolled variables, however, was a major reason for the conclusion that effects of therapy were 'weak' whereas in fact some patients improved greatly, others get worse, and others stayed the same.

The major sources of variability were identified by Hersen and Barlow as follows:

1: In the individual - part of the reason for using repeated measures is to control for this.
2: Between individuals - people may well respond differently to the same therapeutic intervention.
3: Spontaneous movement eg during baseline measurement or due to attention - placebo effects.
4: Cyclical variability in the individual.

The search for sources of variability within individuals should also provide clues regarding potential variability in
other similar subjects and hence aid generality. Hersen and Barlow follow Sidman (1960) in asserting that achieving generality is dependent upon the identification of sources of variability within individuals.

**Generality**

The major types of generality that can be noted are client, therapist and setting generality.

There are clear problems for single-case designs in establishing generality of findings of one case to others. However, group designs also have problems in this respect.

With regard to client generality, these problems for group designs consist of the following:

i) Inferring that results from a relatively homogeneous group are representative of a given population.

Initially this is a problem of random sampling for a given disorder. The assumption made is that one has available a pool of subjects who have the required behaviour, disorder or personality characteristics. If the sample is heavily weighted on some client characteristics and inadequately sampled on others this will limit the degree of generality. Moreover, even if such clients sampling is adequate there remain the problems of therapist and setting generality.

ii) Generalising from the group to the individual.

If adequate sampling is achieved (i.e. random) and all relevant population characteristics are represented, the less relevance will findings have for a specific individual. The better the sample and the more heterogenous the group, the less likely it will be that the average response represents any one individual in the group. Then, the specific effects of a given treatment on an individual with a certain combination of problems becomes lost in the group average.

However, in practice we do not find random samples. Usually clients are chosen on the basis of availability and then randomly assigned to either treatment or control group. Thus, to the extent that a sample isn't random we can't
generalise to the population, but to the extent that a group is heterogenous on any of a number of characteristics we can't make statements about individuals.

The only way out of this which enables generality of findings from group to individual is to discard sampling and opt for groups which are homogenous for the relevant client characteristics. This permits generalisation from the group to individuals who exhibit the same characteristics. However, this provides no information on generality across therapists and settings, which pose similar problems for group designs.

Hersen and Barlow claimed that the use of single-case methodology with 'direct replication' does in fact provide as much client generality as the group comparison design. Aside from this, the single-case approach based on repeated measures (whereas the group comparison is only typically pre-post) has flexibility in response to differences between clients, i.e. a particular treatment may be modified with successive patients, thereby elucidating its basic strengths. In this way the identification of client variability becomes a means to strengthen generality (see Sidman, 1960).

The main means of assessing generality across the other two dimensions - therapist and setting - relies on factorial designs. Once again, these are practically difficult to carry out due to the above-mentioned difficulty in collecting large enough numbers of patients homogenous for a particular behavioural variable. Moreover, such designs also suffer from the drawback of inflexibility noted above in relation to between-group comparisons.

Hersen and Barlow's answer to this is to extend replication techniques systematically on a technique which has already proven itself on a 'direct replication' series in order to answer questions concerning therapist and setting generality.

Finally Hayes (1981) in addressing the issue of the split
between research and practice has argued that the use of single case experimental design offers clinicians a methodology which parallels good clinical decision-making. He presented this research strategy as one which is equally suitable for the study of the process and outcome of dynamically-oriented approaches as it was found to be with regard to behavioural techniques.

4.3 Outcome

The methodological problems relating to the study of outcome, as noted above, are manifold. Among the more frequently-noted problems in evaluating outcome results are the following (taken from Bergin and Lambert, 1978):

a) A difficulty in relating results obtained on change measures to the expressed aims of therapy.

In part this issue refers to the fact that divergent processes occur as a result of therapy and the use of an uni-dimensional pre-post assessment fails to account for the variety of patient responses. However, other related concerns are also of relevance. Thus, the matter of differences in values between the researcher, the clinician and the organisation needs to be taken account of, e.g. the fact that a person requires re-admission to hospital less after receiving therapy than before may be evidence of good outcome from the point of view of the organisation, but does not necessarily signify an improved quality of life from the point of view of the individual or the therapist. Additionally, the use of standard personality inventories such as the MMPI as outcome measures may have little or nothing to do with changes desired by either patient or therapist.

b) The importance of dichotomising between 'internal' and 'external' effects, e.g. contrast between improvements in the patient's view of self and in actual coping behaviour. The necessity to provide criteria that will assess both of these aspects of functioning is pointed up by Truax and Carkhuff's (1967) finding that initial level of inner disturbance was positively associated to outcome while the initial level of behavioural disturbance was negatively related.

c) The presence of non-specific factors, which may well constitute the essence of the therapeutic process leading to change (Strupp and Hadley, 1978). Attempts to control for such factors in experimental design may well be missing important variables leading to change.
d) A lack of correlation within a study between various indices of change. The fact that change is multidimensional poses problems that the application of multiple criteria measure have not overcome. Factor-analysis of such criteria has generally led to the following finding: 'main factors derived from such data tend to be closely associated with the measurement method or source of observation....rather than being identified by some conceptual variable that would be expected to cut across techniques of measurement' (Bergin and Lambert, 1978, p.172).

The suggestion is that such data provide information not only about patient and response to treatment, but also on the varying value-orientations of people providing such data. The possible sources of variability and potential disagreement regarding criteria include among others: patient's self-report, therapist evaluations, independent observers, test results, indices of overt behaviour, and factors associated with specific instruments, eg instrument reactivity factors such as social desirability responses.

Furthermore, although correlations between criteria do not occur on a consistent basis within studies, they do appear to occur across studies. This puzzling finding is unexplained, being either a result of chance fluctuations in data or evidence of more general factors which have yet to be identified.

Forms of solution to this problem have been suggested in a study by Berzins et al (1975). In addressing the issue of lack of inter-source consensus, they used a principal component analysis of outcome results which yielded four distinct components: change in patient's experienced distress level; changes in observable maladjustment as reported by client, therapist and psychometrist (on which there was inter-source agreement); changes in impulse expression (on which there was disagreement between therapist and psychometrist); and changes in self-acceptance.

Along similar lines in an attempt to develop a model which would be capable of evaluating the multiple effects of therapy, Strupp and Hadley (1979) presented a tri-partite approach. The key element of this consisted of measuring outcome from the viewpoint of the client (via an improved sense of well-being); the mental health professional (via among other things the development of a well-integrated personality); and society at large (via behavioural change leading to conformity to societal norms).

e) The fact that many measures of personality and general anxiety level have proved to have limited utility in relation to psychotherapeutic change emphasises the importance of developing measures which are situation-specific, either via direct behavioural observation of in-vivo situations or via self-report measures that are situation-specific.
f) Concomitant with the general inference of (e) away from general towards specific measures of change is the need to individualise change criteria. A typical example of this is in relation to impulse control: whereas for one patient the development of control might be an appropriate therapeutic aim, for another the release of control might be required.

In a review of methodological issues relating to outcome research to the treatment of obesity, Wilson (1978) provided a useful overview of problems associated with outcome studies. Although his focus is on the evaluation of behavioural techniques the issues he raises are of more general concern and application.

Thus, apart from more direct behavioural measures of change relevant to the particular client group, e.g. various indices of weight loss and changes in eating behaviour, he also pointed up the importance of a variety of criteria for evaluating change. These included the importance of clinical as opposed to statistical significance of change, the issue of individual differences in response to treatment (which is often obscured by between-groups comparison studies), the use of multiple measures of change, and a consideration of the cost-effectiveness and efficiency of treatment procedures.

Wilson emphasised the importance of providing adequate descriptions of the form of therapy used, client characteristics and therapist characteristics; and, in discussing the importance of long-term follow-up in relation to the treatment of particular disorders, provided recommendations for reducing client attrition both during the treatment and at follow-up.

These points thus largely reinforce those made by Bergin and Lambert and suggest a more general concern with particular aspects of research methodology.

Within a completely different context, Lieberman and Bond (1978) considered the problems associated with assessing outcome in self-help groups. While some of these problems are
specific to these types of group, others are quite clearly of relevance to the methodology employed in outcome studies of psychotherapy in general and group therapy in particular.

They noted the utility of an idiographic approach to outcome while pointing up the potential confusion created in goal-setting by differing values and system level influences between traditional and self-help groups. Thus, while clients' level of anxiety and depression have been found to be broadly similar across both types of group, a majority (61%) of psychotherapy clients mention at least one problem relating to internal feeling states as a target for change, while only 16% of self-help group participants identify such problems as change goals for attending the group.

They also suggested that the range of presenting problems among clients was sufficiently limited to permit a categorisation of such problems, thereby making their measurement and change susceptible to the use of standardised scales. In this way it becomes possible to combine idiographic and nomothetic approaches to outcome.

In addition via a survey of the general population of the problems in adaptation to social roles and changes or transitions in such roles, they have developed sets of normative indices against which client/patient changes in functioning from pre- to post-treatment can be measured.

Finally, they addressed the problem of the control group issue. Noting firstly the difficulty in outcome research of the factor of self-selection for such groups, they also pointed out the unevenness of members' involvement in such groups, ranging from casual contact to intense commitment, and the fact that the group participants were frequently users of multiple forms of help. Each of these three factors makes difficult the creation of appropriate control groups and poses more general methodological difficulties for outcome evaluation.
In assessing the usefulness of outcome findings both Lewis and McCants (1973) and Lieberman (1976) have pointed out the difficulty in comparing results across different studies due to the heterogeneity of measures used. Moreover, even within one study, measures have been uncorrelated with one another. An example of this was provided by the repeated finding that therapist evaluation of patient change is uncorrelated with evaluations made by both the patients themselves and trained observers (e.g. Kiesler et al, 1967).

Additionally, it remained difficult to discern the relationship between results obtained on the one hand on the typical types of outcome criteria, e.g. symptom checklists, personality questionnaires, hospital discharge rates, and, on the other, changes in patients' actual level of functioning and capacity to deal adaptively with their lives.

Attempts to compare findings across studies have traditionally relied on the literature review, which has been susceptible to criticism in terms of the subjectivity involved both in the criteria used to determine whether a study shall be included or not and in relation to the variables considered to be important in evaluating outcome. Furthermore, this approach tended to rely on narrative description and lacked quantification, although more recent approaches to it have included tabulation of studies (e.g. Orlinsky and Howard 1978).

As an alternative to this, Smith, Glass and Miller (1980) presented 'Meta-Analysis'. Essentially this consists of the numerical combination of data from a number of between-group comparison studies in order to generate summary statistics which permit an evaluation of, among other things, the effectiveness of particular forms of therapy in treating particular types of disorder.

This method as summarised by Shapiro and Shapiro (1983, p.42) includes 'Calculations and aggregations across studies of indexes of statistical significance or magnitude of effect, systematic and often exhaustive search procedures, coding of
objective and qualitative features of resource studies and investigation of the correlates of study outcome via disaggregation and regression analysis'.

Its basic numerical data consist of estimates of 'effect size'. These are used both to provide overall measures of comparison between different types of therapy and also to generate comparisons of the effects of such different types of therapy in relation to particular types of problem and forms of outcome criteria. 'Effect size' was also used by Smith, Glass and Miller to determine the influence on outcome of a variety of other factors including the modality of treatment, i.e., individual, group etc., its duration, levels of therapist training and experience, location e.g., hospital, outpatient clinic etc., experimenter blinding and allegiance, client solicitation, and studies' internal validity as assessed by random assignment to groups and control of patient attrition.

The approach in general has generated its own welter of controversy to that already existing in the field of therapy outcome research. Its proponents such as Shapiro and Shapiro (1982) and Cook and Leviton (1980) argue that by including data from studies of varying quality and coding the methodological aspects of studies, major trends of evidence are uncovered; the effects of methodological (in)adequacy can be studied in relation to effect size; and the extent of agreement or disagreement between 'strong' and 'weak' studies can be used to determine whether or not the result of such 'weak' studies should be included in the analysis.

Its critics, such as Wilson and Rachman (1983), point out that the technique remains vulnerable to subjectivity and bias; argue against the 'arbitrary' use of the 'effect size' as giving equal weight to both good and bad studies; claim that the criteria used for conflating particular therapeutic approaches into more general classes are illogical and lack validity; and suggest that the application of sophisticated multi-variate statistical techniques of analysis cannot 'make
acceptable poor quality data that distort therapeutic process and outcome'. The approach is also criticised by Paul and Licht (1978) as involving the re-introduction of Kiesler’s uniformity assumptions and thereby provoking unwarranted generalisations about the effect of therapy to patients and therapists generally.

While the final outcome of these arguments and counter-arguments remains unclear at present, it is perhaps of interest to compare historically the progress of outcome research itself with the progress of attempts to integrate research findings. From this perspective, the traditional literature review may be considered analogic to the case study approach, and the current state of meta-analysis analogic to the between-groups comparison approach from which it draws most heavily for its data base. More adequate attempts to integrate research findings are perhaps dependent on the development of more adequate methodological approaches to research itself, and the development of a more coherent paradigm for defining and interpreting the aims, process and results of therapy.

A further aspect of methodology which has required clarification refers to the status of non-specific factors. The importance of these as key ingredients in the therapeutic process has been emphasised by Strupp and Hadley (1974). While in the past they have been viewed as contaminants of outcome studies which required to be controlled for, there is a growing recognition both of the need to investigate their effects in their own right and to begin to delineate and define their variety.

In relation to this, Wilkins (1979) has pointed up a change in the criteria used and criticisms made of claims concerning the effects of therapy from Eysenck’s (1952) early assertions concerning spontaneous remission, i.e. that psychotherapy is no more effective than allowing the disorder to run its natural course, to more recent demands that particular therapeutic procedures be able to demonstrate their efficacy
independent of events classed as non-specific (Kazdin and Wilcoxon, 1976).

Wilkins illustrated the change in criteria from a demand by Eysenck that therapy procedures demonstrate superiority over non-specific events to the later demands that they are shown to be independent of non-specific events. The former demand raises issues concerning the effectiveness of therapeutic procedures in producing outcome, while the latter relates to the process mechanisms whereby a particular procedure achieves its results.

Amongst events classed as non-specific, the role of client expectancy has received particular attention from researchers (see Frank, 1968; Bootzin and Lick, 1979; Goldstein, 1962; Wilkins, 1979, and Grosz, 1968). The variety of these authors attests to the significance attached to expectancy by researchers into a variety of therapeutic approaches including psychotherapy, counselling and behavioural approaches.

While an accumulating body of evidence has been able to demonstrate the superiority of specific over non-specific procedures such as spontaneous remission, the demonstration of their independence from non-specifics has proven more difficult.

Wilkins argued that part of the reason for this has been a tendency by researchers to assume that non-specific factors are homogenous. The consequence of this is a failure to discriminate between observable expectancy factors, such as placebo manipulation and expectancy-inducing instructions, and unobservable expectancy factors, such as 'expectancy' and non-specific cognitive variables.

While the use of appropriate experimental design can control for the effects of observable non-specifics, the class of non-observable non-specific such as 'client expectancy' is inferred in part because of the effects of the
the therapeutic procedures themselves. Thus, rather than being a separate discrete class of events such factors are perhaps better considered as intervening variables, which are frequently a by-product of the therapeutic technique used.

For example, if as a result of moving up a systematic desensitisation hierarchy a patient develops an expectancy of increased or continued improvement, this should more appropriately be considered an effect of the specific therapeutic procedure rather than a non-specific potentially contaminating factor in the demonstration of the technique's effectiveness. This type of effect can quite clearly be discriminated from an instruction provided on the use of the procedure, which may induce expectancy, and hence be considered a true non-specific factor in the therapeutic process.

In a general review of experimental designs in therapy research, Kiesler (1973) has challenged the process/outcome dichotomy in research, noting that outcome studies which focussed on only two points in time (pre and post) may well miss curvilinear functions and hence obscure meaningful improvement. The reliance on pre/post measures also implies that the researcher has available highly sensitive change measures which avoid the impact of random fluctuations in the patient's state. The assumption of the availability of such measures is clearly questionable and argues for the use of both repeated-measures designs and a multi-modal approach to evaluation of treatment effects. Kiesler also highlighted some of the key methodological issues with regard to the use of scales in the evaluation of therapeutic process, noting among others the importance of the following:-

a) The importance of good inter-rater reliability for scales.

b) The dimensionality problem, i.e. is the scale measuring one or more dimensions.

c) Face validity problem, i.e. is the scale measuring important aspects of therapeutic process.
d) The need to define and resolve sampling problems involved in applying the scale to process data of therapy, i.e. what is the basic process unit to which measurement will be applied.

e) The importance of assessing the differential information loss to the scale of using different data media, e.g. typescript, audio and video.

f) The need to consider the level of clinical experience and degree of training needed by raters in using particular scales to rate particular variables.

g) The helpfulness of using therapists' and clients' viewpoints of what is occurring in therapy as a check on the validity of the results arrived at by raters using a scale.

However, this last point does raise issues regarding the differences in perception of events between different individuals. In particular Kiesler himself (1967) found that the therapist's evaluation of therapeutic process correlated negatively with evaluations made both by patients and trained observers. In addition, Patterson (1973) found that patients' self-reports concerning frequency of their behaviours in therapy sessions were unreliable.

The issues raised by Kiesler are clearly of practical importance in approaching therapeutic process, and are of relevance to a consideration of the results obtained by using the instruments discussed hereunder.

4.4 Process Instrumentation

Interest in and attempts to quantify the process of therapy have generated the development of a variety of measurement devices. Within the individual psychotherapy context a number of approaches to process analysis have emerged. In part these consist of interaction coding systems (see Kiesler, 1973; and Marsden, 1971), and in part of post-session self-reports, such as the Therapy Session Report (see Orlinsky and Howard, 1975; Mintz et al, 1973) and the Session Evaluation Questionnaire (Stiles, 1980).

It has proven difficult to compare specific interaction
processes with long-term outcome, but Stiles (1980) has argued for the potential use of a measure of session impact as a bridge between process and outcome.

From studies of self-reports of sessions, two main themes emerge: the patient's affective state and the therapist's involved effectiveness. The SEQ was developed to provide a measure of the impact upon patients of sessions rather than being either a process or outcome measure per se. On it, sessions appear to vary in terms of two main dimensions: depth/value and smoothness/ease, with high levels of correlation between patient and therapist in their ratings of specific sessions on these dimensions. Satisfaction with sessions varied, however, with patients' post-session positive feelings being associated with smoothness and ease, and therapists expressing satisfaction following deep, valuable sessions.

In studies of group therapy one of the best-established process measures is the Hill Interaction Matrix (Hill, 1971), which provides a system for the categorisation of group therapy interaction in terms of two main dimensions: work style and content. It is more fully discussed and described in the section on the scales used on the present project.

Piper et al (1979) used a modified HIM and found that sampled segments of group sessions were highly representative of entire sessions outputs. They suggested that the use of process analysis provides both a conceptual bridge between behavioural and psychodynamic approaches to group therapy; and is also of use in providing feedback to therapists and patients within the treatment setting; training therapists in the application of groupwork skills; and as a research tool.

Working from a behavioural perspective and concerned with the group treatment of depression, Lewinsohn et al (1970) presented a category system, which has the following coded components: source of interaction (ie, the person emitting
the action), interactional category (i.e. its form), content, object (i.e. the recipient of the interaction), and the reaction. This last is divided into positive and negative forms of reaction. The authors claim high inter-rater reliabilitys (around .9) for the coding of two main categories: source and reaction.

Based on the work of Moos (1974) and out of an interest in assessing the psychosocial environment of groups, Silbergeld et al (1975) developed the Group Atmosphere Scale (GAS). This contains 120 true/false statements which provide scores on twelve subscales. In turn these provide measures of two main dimensions of group atmosphere: cohesion and conformity. Measures of the validity of these dimensions in relation to HIM, and a post-session questionnaire were found to be good. The scale as a whole was found to be able to differentiate between three main types of group: academic counselling, long-term therapy and short-term intervention.

Along similar lines, the Group Climate Questionnaire (MacKenzie, 1981) was developed as a way of assessing the impact of group norms as reflected in actual group behaviour. MacKenzie also takes the work of Moos as a starting-point. The questionnaire consists of thirty-two items and provides scores on eight scales of group climate: engagement, disclosure, support, conflict, challenge, practicality, cognition, and control. Item scale correlations are moderate (mean = .70) and interscale correlations are low, suggesting independence of the scales.

Schag et al (1978) developed the Group Assessment Of Interpersonal Traits (GAIT) as a measure of therapeutic effectiveness. Essentially it consists of a semi-structured group exercise within which participants' behaviour is rated on measures derived from Rogerian concepts of therapeutic talent. From this, scores are derived for Empathy, Acceptance, Outgoing, Insight and Potential for Therapeutic Effectiveness. Intercorrelations between these scales were found to be high, and scores were stable over time, and predictive of behaviour.
in a variety of interpersonal situations.

Truax (1966) also used the Rogerian triad of empathy, warmth and genuineness to compare the effects of three types of measurement of therapist-offered conditions in relation to patient outcome. The three measures used were interaction unit measures, i.e. interactions between the therapist and the patient, rated for therapist warmth, empathy and genuineness; time sampling, i.e. three-minute samples of group interaction; and patients' perceptions of therapist-offered conditions as measured by the Relationship Inventory (Barrett-Lennard, 1962). Contrary to the hypothesis that the first of these measures would be most predictive of outcome, results indicated that the time-sampling of group interaction was the most predictive, while responses to the Relationship Inventory were least predictive.

Heckel (1972) developed a scale of group interaction, providing three content and eleven style categories. It aimed to provide a measure of role flexibility in group behaviour; and was found to be correlated with a pre-treatment screening scale based on behavioural and demographic data.

A later study (Heckel and Levensberg, 1975) found that this process scale was able to discriminate between interactions found in family and group therapy, family therapy being characterised by less responding to the therapist, more negative interaction, more task-relevant behaviour and less need to attend to relationship-building functions.

The issue of the extent to which time-sampling group interaction provides valid estimates of overall interaction was tested by Billings et al (1978). Using Bales Interaction Process Analysis, and varying both the number of categories (12 & 4) and length of sampling units (2, 6 & 10-minute units), they found that valid measures of group process could be obtained from relatively small sampling units. With regard to the different lengths of sampling units, the validity of these varied according to the number of categories used (i.e.
shorter units were more valid for the 4 than for the 12 category system) and the behavioural focus of the sampling process. Thus valid measures of an individual's behaviour were simplest to obtain; the overall profile of the group required slightly longer segments, and the use of particular categories required the longest sampling.

Along similar lines Kiesler et al (1964) found time-sampling validity related the length of sampling unit and the particular behaviour being studied; while Miller and Maley (1969), using eight-minute segments of hour-long therapy sessions and comparing random selection and stratified selection of sampling, found that both provided valid estimates of the distribution of statements on the Therapeutic Interaction Analysis Client Categories.

The measurement of rate of group interaction has been found to vary by Crowther and Pantleo (1970) according to the method of measurement used. They found two main variables accounting for such differences: actual amount of overt behaviour, and the psychological impression of interaction rate. This latter appeared to be a function of the number of people involved in the interaction.

As noted in the chapter reviewing research, a large number of ad hoc scales have been developed to measure specific aspects of group functioning. These scales have tended to reflect the relative value and importance attached to particular concepts by their creators. There are therefore, for example, scales to measure group cohesion, self-disclosure, the impact of various curative mechanisms (eg. Yalom's 60-item Q-sort), measures of leadership style, and sociometric approaches to the investigation of both relationship formation and inter-personal perception within groups.

Finally, in providing an evaluation of the available group process measures, Fuhriman and Packard (1986) point to the main themes to which these instruments have addressed themselves. These include curativeness (eg Hill, 1965), group
development (e.g., Bales, 1950), and interpersonal relationships in relation to total group functioning (e.g., Mann, 1967). The authors conclude that the use of such instruments provides a greater understanding of group therapeutic interactions than is possible via normal clinical observation, but that they have been unable to relate group interaction to curative factors.

4.5 Summary

In summary, the development of methodological paradigms for conducting research into both psychotherapy generally and group therapy specifically evidence increasing degrees of refinement and specificity. Major problems remain however, particularly in developing adequate conceptual models, which can be operationally defined and empirically tested; in developing approaches which will bring together process and outcome; in specifying the subject variables most relevant to considerations of variability and generality; and in taking account of the multidimensional nature of therapeutic process and outcome.

These issues will be specifically addressed within the present study. A model of group therapy functioning will be presented and developed, which views this in interpersonal learning terms. This model will be used to investigate process and outcome aspects of group therapy via the development of a set of hypotheses. In order to give due weight to the complexity and multidimensional nature of both process and outcome, it has been considered important to investigate one group in depth. The issue of subject variability and generality is addressed in the second part of the study on the one hand by establishing idiographic measures of change and on the other by investigating individuals patterns of response. Finally, the results of these approaches will aim to delineate the major structural characteristics of the aforementioned interpersonal learning model of group therapy.
Chapter 5 : The Background and rationale to the study

5.1 Background to the study and model used

The origin and impetus for this study came about as a result of the author's clinical experience of running dynamically-oriented long-term outpatient therapy groups over a period of some four years.

The complexity of the processes of such groups served as a source of fascination and at times confusion. However, the essence of what appeared to be happening in them consisted of individuals experimenting with new forms of behaviour within the nexus of a set of emergent and developing interpersonal relationship.

In setting up the present study, it seemed important that due account be taken of this complexity and a focus be provided for the investigation of these relationships.

In order to investigate these processes adequately, it was necessary to study from its inception a group (or groups) which was being set up to provide such learning experiences within a broadly unstructured format. It was also necessary that the study take place over an adequate period of time for such processes to emerge and develop. Results from the survey of groupwork practice amongst clinical psychologists, which was conducted as part of the present study (see Appendix 3), indicated that these groups constitute a significant proportion of the total. Within the categories provided for type of group, the counselling and group-analytic types accounted for 29% and 10% respectively of groups being run.

Such groups are typically run for outpatients rather than inpatients; and aim to provide a treatment situation for individuals suffering primarily from both neurotic symptomatology (mainly anxiety and/or depression) and interpersonal and/
or social difficulties. The latter would include marital and more general relationship difficulties, problems of sexual dysfunction, social anxiety, social skills deficits and social isolation.

Thus, the clinical interest in explicating these group therapeutic processes together with an awareness of the interpersonal aspects of patients problems served to define the type of group, which would most readily repay an in-depth study.

The existing models of group work discussed above presented problems in terms of their applicability to this study because either they had been imported into group work from the field of individual therapy, or their basic concepts were not readily amenable to translation into objectively heuristic operational terms.

Those models imported into group work from the individual therapy context e.g., the behavioural and psychoanalytic, appeared to be largely oriented towards the development of techniques for treatment of the individual within a group setting, rather than seeking to analyse or understand the therapeutic processes operating in groups. As a result of this, they tended to pay attention to what is happening within rather than between individuals.

In contrast, models such as the group-analytic and equilibrium e.g., focal-conflict theory, were found to be operating at levels of abstraction and inference, which made their central concepts relatively unamenable to empirical observation or investigation. In addition, they did not readily provide links for their central concepts to indices of positive or negative outcome.

However, the work of Mann (1967) on experiential groups provided an example of the relevance of interpersonal styles to group process, particularly in relation to the development of a role structure in groups. Thus, Mann was able to
demonstrate that such a role structure emerges as a result of an interaction between individuals typical interpersonal styles and the development of group-based processes.

In addition, Heckel (1972) has demonstrated the importance of the concept of 'role flexibility' in differentiating the behaviour in groups of normals and neurotics. Furthermore, the majority of the list of curative factors in group psychotherapy provided by Corsini and Rosenberg (1955) can clearly be seen as having interpersonal referents; while Yalom (1970) specifically targeted interpersonal learning (together with Group Cohesiveness) as being of prime importance within this list.

These sources provided the basis for the development of an Interpersonal learning model of group therapy functioning which is the model being used in the present study.

The reasons for developing and using this model rested not only on clinical experience and observation and theoretical assertions regarding the nature of the posited curative factors but also on the content of patients presenting problems. In addition to neurotic symptomatology, these also included difficulties in relationships, communication and social interaction.

Within this model, the concept of 'role flexibility' was developed as an exploratory tool to provide a bridge between group process and outcome. This concept refers to a distinction between adaptive and maladaptive interpersonal behaviour. The former is characterised by an ability to alter ones behaviour in response to changing interpersonal needs and demands both within the self and the other; whereas the latter is in part defined by an inability to do this, and a consequent fixity or rigidity in interpersonal behaviour.

Essentially, the Interpersonal learning model predicts that group therapy has a major effect on changing individuals maladaptive interpersonal behaviour; that this effect is associated with engaging in certain forms of behaviour in the group
therapy situation; that it is also associated with occupying particular roles within the group (in operational terms, being perceived sociometrically in particular ways by the rest of the group); and that positive changes on both process and outcome dimensions can be defined in terms of the above-described increase in interpersonal flexibility.

Thus, a focus on interpersonal behaviour and learning is predicated on the following:

1) The nature of patients problems is frequently interpersonal.
2) Clinical experience points to the importance of interpersonal activity and experience within the group therapeutic situation.
3) Factors posited as being 'curative' largely refer to interpersonal processes.
4) The interpersonal dimension apart from being important in itself provides the link between the individual and group levels of process.
5) Insofar as presenting problems can be defined in interpersonal terms, outcome indices may also be so defined.

Previous research and methods

The body of research described above in the Research Review is markedly sparse in being able to specify client characteristics, which are differentially predictive of response to group therapy. Moreover, the evidence for its effectiveness in relation to type of disorder is less than impressive. This is particularly to case with regard to neurotic populations, where for example Malan (1976) concluded that those who were likely to benefit from it were individuals who would benefit from any other sort of insight-oriented procedure.

Similarly, the studies of group process yield few useful findings. Thus, investigations of patient's perceptions of the 'curative factors' tended to provide varying findings according to type of group and remain unrelated to outcome. With the exception of consistent findings regarding the
efficacy of pre-training with clinical populations, the usefulness of results of studies into the provision of structure is circumscribed by the fact that most of these studies were conducted on groups of college students. The same criticism must also be levelled at the studies of group composition, with the exception of a handful of studies which have related composition variables to premature termination in therapy groups.

Studies of interpersonal interaction in groups (eg Thune et al, 1980) have pointed up the influence of composition variables (in this case, status) on subsequent group interaction; while Jacob's (1973) work on feedback has consistently emphasised the greater acceptability of positive over negative feedback. However, studies of interaction in general have been characterised by a dichotomous polemic regarding the beneficial influence of interaction as opposed to insight; and as with investigations of other group mechanisms, remain unrelated to outcome.

The same shortcomings are to be found in studies of cohesiveness and self-disclosure. Both areas yielded suggestive findings concerning their relationship with other group process mechanisms but remain unrelated to outcome.

The following reasons for this state of affairs are suggested:

1. So far as outcome is concerned, there has been a reliance on global measures of change rather than attempts to individualise both the definition of problems and development of outcome criteria. This in part is a consequence of the operation of Kiesler's (1966) uniformity assumptions, but also relates to the use of the most typical outcome methodological paradigm i.e. the between-groups comparison approach. While offering evidence for the comparative efficacy of treatment techniques in relation to particular disorders, this approach served to obscure individual differences both in terms of presenting problems and response to treatment; assumed that the effect of a treatment is homogenous for all patients receiving it; and also that matching between groups on relevant variables was possible and achievable.
2. Studies of outcome have largely eschewed attempts to investigate process. They have thus ignored data concerning individuals experience of and behaviour in therapy which might contribute to an understanding of differential patterns of response to treatment.

3. Investigators of group process have preferred largely to conduct relatively short-term studies of quasi-therapeutic or experiential groups composed often of college students or paid volunteers (in both cases, presumably acquiescent) rather than investigate the longer-term processes operating in therapy groups, where issues of attendance, attrition and motivation are much more problematic. The effects of this have consisted of on the one hand difficulties in generalising findings to therapy groups; and on the other, a failure to develop an understanding or description of time-extended group processes.

4. Along with this preference for short-term studies, there has also been a predilection for investigating macro-level concepts e.g. cohesiveness and group structure, rather than the ongoing nature of member's group behaviour. This has enabled links to be made between various process concepts e.g. self-disclosure and cohesiveness; but has not contributed substantially either to an understanding of the effects of such group mechanisms on outcome or to an identification of their salient components.

5. The fact that process studies have mainly confined themselves to process and not made links with outcome has had the general effect of inhibiting the development of theory in regard to group therapy.

The criticisms of research made by Lewis and McCants (1973) and Coche and Dies (1981) as outlined in the Overview of Paradigms chapter are also germane to this issue. In addition, Lewis and McCants have argued that the separation of process from outcome in research has impeded the development of a unifying paradigm for group therapy. Such a paradigm would facilitate the research enterprise by generating a set of testable hypotheses, which could be investigated programmatic ally. This argument was also accepted by Piper et al (1977) in the design of their outcome study of group psychotherapy.

In order to facilitate the development of a coherent testable model of group therapy functioning and also to address the problems consequent to and identified in the research described above, the present study specifically aimed to relate
process to outcome. In more concrete terms, the reason for this decision refers to the importance attached to investigating the following relationships:

a) The influence of pre-treatment client characteristics on individual's group behaviour and experience.

b) The influence of composition variables on member's interaction, perceptions of one another and outcome.

c) Individual's patterns of group behaviour and experience of one another in relation to subsequent outcome.

However, in order to achieve this, problems were encountered with regard to determining the most appropriate methodological paradigm to use. The drawbacks to using the between-groups comparison have already been noted so far as outcome alone is concerned. These became even more problematic for a process-outcome study. Similarly, the manipulative paradigm did not lend itself to the study of group processes, which are largely developing in an unstructured fashion; and which are themselves a crucial aspect of the investigation.

The naturalistic approach did lend itself to the study of such processes but did not in itself permit the testing of predictive hypotheses. On this basis, it did not enable the delineation of relationships between process and outcome; and would hence not contribute substantially to the development of a theory, which links these two aspects.

Furthermore, the use of multivariate studies required the investigation of large numbers of groups in order to adequately sample the range of variables, which might be of relevance, and provide sufficient data to submit them to factor-analytic procedures. In practice this has been difficult to achieve in a collaborative enterprise.

5.2 Methodological paradigm of the present study

Clearly, the review of methods indicates the problems associated with attempting to conduct a process-outcome study
into group therapy. The strategy decided upon was to adapt single-case methodology to the group therapy situation by studying one group in depth. This approach involved obtaining a pre-treatment assessment of individuals level of functioning. Thereafter, individual's behaviour and experience in the group was assessed periodically during the course of treatment via the process measures; and a post-treatment assessment of functioning conducted at the end of the study using the same measures as at pre-treatment.

The resulting data was analysed in two ways:

1. In order to test hypotheses related to the Interpersonal learning model regarding process and outcome for the group as a whole. Essentially this consisted of applying correlational techniques to identify significant relationships between process and outcome variables, which would provide the outlines of a unifying model. (The First Study).

2. In combination with similar data derived from a second group (run along similar lines and composed of individuals presenting with similar problems) in order to identify individuals changing interpersonal behavioural patterns; and on the basis of multi-dimensional scaling techniques, to identify structural characteristics of the model in relation to group therapy. The reasons for incorporating data from a second group were firstly to expand the data base upon which to develop the model; and secondly, to facilitate the identification of factors of generality and variability in members response to group therapy. (The Second Study).

5.3 Background to the hypotheses

The development of the hypotheses to be tested in part derived from issues identified within previous research and theory, and in part from the requirement to develop, define and investigate concepts and variables relevant to the Interpersonal learning model.

Hypothesis I

The relationship between pre-treatment client characteristics and individual's group behaviour finds theoretical
exposition in the concept of the 'social microcosm'. (Yalom, 1970; Bednar and Kaul, 1978).

A major assumption underlying much group work is that the types of problem which the individual experiences and his behavioural repertoire for dealing with them in day-to-day living are available to the group for working on. Thus, it is assumed that in the course of time, the individual will exhibit within the group his typical modes of thought, feeling and action, including those that are problematic and dysfunctional. This assumed phenomenon is the same as that which is described by Yalom as 'the social microcosm'.

However, by its very nature, the group therapy situation is artificial and might, therefore, be expected to provoke uncharacteristic modes of behaviour. While some group theorists (notably those working within a psychoanalytic model) argue that this occurs as a key aspect of group process (Scheidlinger, 1968, on the regressive forces of groups), those who emphasise social learning processes theorise that the converse predominates, i.e., group members mainly come to behave in their typical ways. It remains a moot point and in any case outside the scope of the present study to determine whether this so-called 'social microcosm' phenomenon occurs in normal groups, but its observation within a therapy group will clearly provide evidence of consistency within the individual from one situation to another.

In order for the therapeutic experience to be truly effective, it must enable productive change to occur not only with regard to the individual's behaviour within the group but also insofar as he is capable of transferring such new learning to other situations. Such mechanisms as modelling, rehearsal, interpersonal learning and generalisation phenomena can only operate on the basis of major continuities in behaviour and experience between the group and the outside world.

This hypothesis therefore has to do with the investigation of whether or not such continuities are in fact observable.
from pre-treatment to ingroup behaviour.

In view of the contrast in theoretical position between, e.g., Yalom and Scheidinger, it seemed important to investigate the temporal dimension of these relationships in order to ascertain whether the associations between pre-treatment behaviour and group behaviour occur, and if so, whether they are more in evidence early or late in the group's history.

**Hypothesis II**

As a counterpart to the investigation of the 'social microcosm' hypothesis, importance was also attached to the investigation of the relationship between pre-treatment client characteristics and member's experience of one another. As noted in the Research Review, studies of patient's perceptions of one another are sparse. The few studies which were found related patient's perceptions to group-based functions (e.g., Beck and Peter's 1981 study of perceptions of leadership behaviour). No studies of group therapy were found which attempted to relate patient perceptions either to existing client characteristics or to outcome.

However, as Mann (1967) has demonstrated, individual's pre-existing characteristics, particularly their predominate interpersonal styles, are implicated in the development of role structures within groups. Moreover, such structures are related not only to member's group behaviour, but also to their experience of one another.

The responses to the pre-treatment questionnaires on the one hand, provided a description of predominant modes of relating and on the other, indicated levels of adjustment, including aspects of the self-concept. Both the self-concept and interpersonal styles mediate actual behaviour; and the ways in which such behaviour is experienced and interpreted by both the self and others.

The use of a sociometric questionnaire offered an
opportunity to investigate the influence of client characteristics on three general aspects of intermember experience:

1. Ratings of individuals by the rest of the group on variables measuring aspects of group behaviour.
2. Ratings of individuals by the rest of the group on variables related to member's personal attractiveness to one another.
3. Individual's self-ratings of their group behaviour.

As with group activity it was relevant to investigate the extent to which these associations between pre-treatment characteristics and sociometric measures were operative early and late in the group history. The results of such an investigation would permit the identification of a temporal dimension in relation to impression formation and to the types of client characteristics, which are most salient at different times in influencing interpersonal perception.

Hypothesis III

Apart from the social microcosm hypothesis and the investigation of the association between individuals pre-treatment characteristics and subsequent group status, the other set of relationships which were considered of importance between pre-treatment and group process were those pertaining to group composition.

The groupwork literature on composition has in the main investigated the homogenous-heterogenous dimension in an attempt to relate composition to models of group structure, particularly with regard to the contrast between models emphasising cohesion and those emphasising dissonance.

The small number of studies on therapy groups have mainly been concerned with investigating the relationship between group composition and dropout rate (e.g., Koran and Costell, 1973). Results of these studies are mixed and do not permit any firm conclusions.
However, in terms of an interpersonal learning model of group therapy, the importance of group compositional variables needs to be assessed in relation to the types of interactions engaged in and subsequent relationships developed by members with one another in the group.

**Hypothesis IV**

As noted above, studies of interaction in therapy groups have focussed on an investigation of its importance (for example in comparison with insight), rather than attempting to describe or delineate its major characteristics. The main exceptions to this so far as process studies are concerned is the work by Jacobs (1973) on feedback; and Hill's study (1965) of the interaction patterns associated with different types of group therapy.

However, it is suggested that as a result of being a member of a therapy group, individuals undergo learning processes (mainly interpersonal in nature) which result in changes in their group behaviour.

This hypothesis therefore goes to the heart of the concept of the group as an agent of change. Writers on group dynamics have observed that groups provide a context within which new learning occurs and have speculated on the forces leading to adaptive change. An early example of such writing was Corsini and Rosenberg's (1955) analysis of group therapists' judgements from which was derived their list of therapeutic factors. More recently Yalom (1970) modified this list and elaborated on the importance of three such factors: Cohesiveness, Interpersonal Learning and Corrective Emotional Experience.

Additional to this and, more directly related to the hypothesis of behavioural changes within groups have been the attempts to view group development in terms of passage through a number of stages. This form of analysis dates back to Bion's (1961) observations on basic assumption cultures within groups.
Attempts to define development in terms of stages have looked at the operation of the group as a whole. From this perspective, individual members' contributions have been considered as being illustrative of either their involvement in or disengagement from the issues taking up the group's attention at particular stages. Alternatively, they have been seen as aiding or detracting from the group's task at particular times in its history. Such analyses have therefore tended to operate at the macro-level of group functioning.

An alternative approach has been provided by theorists who have concerned themselves with the development of a role structure within groups. This work initially focussed on the leadership role and can be seen in Bales' (1950) distinction between the task and socio-emotional functions of leadership.

Mann (1967) went beyond this approach by providing a typology of group roles and charting the individual careers of particular members occupying such roles through the various stages of the group's history. In doing so he provided a bridge between the analysis of group development at the molar level and the study of individuals within roles at the molecular level.

Implicit within his study is the concept of roles developing on the basis of interactions between group-based forces and individual member's changing needs and responses at various group stages.

A further aspect of role theory relevant to the present study concerns the concept of 'role flexibility', elaborated upon by Heckel (1972). He noted that the major difference between groups of normals and patients consisted in the ability of the former to switch their behaviour to match the demands of changing situations and fluctuating interpersonal relationships within groups. Conversely, patients within groups manifested a degree of rigidity in their behavioural repertoire. Insofar as patients were able to move away from stereotyped responses and strategies in the course of therapy, they would
thus more closely approach a normal type of functioning. Thus, it appears possible to utilise the concept of 'role flexibility' as a measure of positive change in patient groups.

In essence, two types of behavioural change in group process were predicted in the present study. Firstly, that group members would change over time in the direction of using an increased variety of types of interaction. Although not providing direct proof, such a change would be suggestive of increased flexibility of response.

Secondly, that there would be a qualitative shift in the nature of group interaction from a reliance on forms of interaction, which are relatively stereotyped and relevant to everyday social contexts, to the development of types of interaction, which are oriented towards an exploration of member's developing relationships within the group. Such a shift would be indicative of both increasing levels of therapeutic work generally, and more specifically of engagement in interpersonal learning.

Hypothesis V

The existing groupwork literature is largely bereft of studies of member's experience of therapy and also of their perceptions of one another. However, insofar as therapeutic processes implicate interpersonal dynamics it appeared important to investigate the structure and development of member's perceptions of one another over time.

At the outset of the group experience, both the individual's behaviour and interpretation of experience would be likely to reflect their predominant modes of relating including aspects of these, which were problematic. In an unfamiliar situation with people who were unknown to them, the lack of structure and prevalence of ambiguity might well lead to the emergence of misperceptions and misinterpretations of experience, which have elsewhere been termed 'parataxic
distortions' (Sullivan, 1953) or transference reactions. Thus the individual would tend to experience others in ways which are idiosyncratic.

Evidence suggestive of this phenomenon would be provided by a relative lack of consensus between group members in their perceptions of any one individual, although such evidence will not be conclusive as an individual will clearly behave differently towards different group members.

Furthermore, the attributions that individuals make about one another would be likely to be in terms of simplified bipolar constructs, e.g., similar - to - me: dissimilar - to - me. A consequence of this is that an individual's perceptions of another member would be likely to exhibit a degree of consistency across a number of dimensions, i.e., perceptions of others would tend to be undifferentiated.

Additionally, member's self-perceptions, particularly early in the group's history, might be expected to reflect their self-concept rather than actual behaviour in the group and would hence differ from ratings of their behaviour given by other members.

The group literature suggests that in the course of time, group norms develop which serve to provide structure and the delineation of task-relevant behaviour. These norms emphasise the importance of communication and learning, particularly interpersonal learning. Part of the developing group structure involves the establishment of a system of more or less flexible roles within the group. These consist of the best available fit between members' individual personality characteristics and the demands of the group situation at any one time.

Additionally, as interpersonal learning is a progressive process, involving among other mechanisms feedback, it is likely that two sorts of development occur:-
1) An increase in the complexity of evaluations of others in line with 'social penetration' processes (Altman and Taylor, 1973). This would be shown by a progressive differentiation of a member's perceptions of another individual across a number of dimensions.

2) An increase in the consensus of perceptions both between members of another individual, and between the individual's self-perceptions and other members' perceptions of the individual.

Thus, as learning occurs, the accuracy of perceptions of the self and others would be likely to increase on the basis of the developments of, on the one hand, insight into oneself and one's position within the group; and on the other, a developing fund of knowledge and information about the other group members.

This hypothesis therefore aimed to investigate whether such changes in members perceptions of one another were in fact in evidence for the group as a whole.

**Hypothesis VI**

In viewing change processes within group therapy from an interpersonal perspective, it appeared important to investigate the reciprocal relationships between member's behaviour towards one another and their experience of one another, and look at the ways in which these changed over time. As with other molecular aspects of group process, such studies are markedly absent in the group therapy literature.

This hypothesis thus represents an attempt to operationalise the process of learning in groups. Insofar as the group experience is unique and discontinuous from other types of learning and other forms of social interaction, there is a need for patients to learn how to use this situation productively. Thus before change can occur group members are required to comprehend the group's task and progressively assimilate the norms of behaviour relevant to that task, i.e. its necessary for patients to learn how to learn.
Most practitioners of group therapy, regardless of theoretical orientation would agree that the members' task comprises a study of the group, their internal reactions to it and overt behaviour within it. There is thus a focus on behavioural interactions and one's experience of them, which is largely absent from other forms of social intercourse.

The fact of seeing oneself behaving in particular ways is held to facilitate the development of insight and awareness, which in turn generates the possibility for change. This focus provides for the development of successive approximations between behaviour and self-awareness, whereby ideally the two factors come to progressively mirror one another. To the extent to which the therapeutic situation provides a context for members to experiment with new types of behaviour, change will be exhibited initially within the group itself.

The focus on behaviour additionally provides an opportunity for group members to make changes in their perceptions of events and their causes, which relates to the development of what Strong (1979) has called 'causal attribution'. This concept in turn is closely related to the notion of taking responsibility for oneself and one's feelings and behaviour, which is a precondition to establishing effective control over what happens to one.

In determining whether learning occurs, and if so what its nature is, it is therefore important to be able to relate member's experience of the group to their behaviour within it. In this way it should be possible to map change processes occurring as a result of therapy.

An attempt to achieve this will be made by focussing on verbal interaction between group members via an analysis of the tape transcripts and relating these interactions to member's experience of each other and themselves as assessed on the sociometric questionnaires. For example, an individual who initiates a supportive interaction with another might be expected to receive a high rating on the dimensions of helpfulness.
or likeability from that individual. Alternatively a member
who confronts another might be experienced by them as being
high on helpfulness or on dominance, or on both. It is thus
important to be able to assess the differential reactions
that members have to one another in learning to relate more
effectively.

Furthermore, interactions are the building blocks of
patterns of group forces, which become concretised in a role
structure. This evolves and changes as members' relationships
with one another change. In order to find themselves within
the group, it is anticipated that members would initially adopt
their usual modes of relating and hence slip into particular
roles. For effective change to occur learning must not only
relate to the molecular level of gaining insight as a result
of particular interactions, but also to a more global aware­
ness of ones position within the social group. Such awareness
is a precondition of being able to change ones role.

A common example of this is the formerly silent member,
whose silence is commented on by other members, and who then
'suddenly' unburdens himself at length to the group. As a
result this person is enabled thereafter to change their group
role into one which involves more reciprocity in interaction.

In order to concretise the foregoing into an initial set
of testable propositions, it was predicted that evidence would
be found for the following relationships:

1. Individual's level of overall activity in the group
   associated with levels of sociometric ranking
   obtained from the group.

2. Individual's scores for receiving interaction from
   others associated with levels of sociometric rank­
   ing obtained from the group.

3. Level of interaction between dyads associated with
   level of sociometric ranking obtained from one
   another.

4. Use of specific forms of interactions associated
   with rankings obtained from the group on specific
   sociometric variables.
An analysis of these relationships and their change over time would provide a structure for the process aspect of group therapy. This structure would aim to link both general and specific forms of group behaviour to various categories of members perceptions of one another.

Hypothesis VII

Members' behaviour and perceptions in the group are predictive of scores on post-treatment assessment.

This hypothesis addressed itself to the issue of relating what occurs within a therapy group to outcome. As noted above, research into therapy has tended to dichotomise into studies dealing with process and those looking at outcome effects. It has thus proved difficult for changes discovered on outcome measures to be directly accounted for in terms of learning processes operating within or events occurring during the course of therapy.

The fact that therapy does not occur in a vacuum, but is instead only one of several influences which impinge upon the individual makes problematic the assumption that change in the individual can be directly ascribed to the therapeutic experience.

Depending upon the model of groupwork used, practitioners have claimed efficacy in terms of a host of beneficial changes including the development of insight, improvements in the self-concept, the modification of maladaptive behaviour, the development of interpersonal sensitivity, improved communication skills, and the development of self-actualising tendencies.

Equally variegated have been the mechanisms postulated as operating within groups to account for such changes, including group cohesiveness; interpersonal learning; self-disclosure; the use of feedback; rehearsal, practice and modelling; the correction of parataxic distortions, among others.
Lacking however, has been the demonstration of clear relationships between the postulated mechanisms and the claimed benefits. In particular, it has proved difficult to show relationships between learning, which occurs in the group and the transfer of such learning beyond the therapy situation.

In order to demonstrate such a transfer (or indeed, its absence) it appeared necessary to develop a measure of conceptual clarification which would bridge the gap between process and outcome. In view of the fact that group functioning is essentially characterised by interactions between people, the major form of learning which might be expected to occur would be interpersonal in nature. Similarly, changes or benefits in functioning might be expected to be characterised in particular by improved abilities to relate to others.

A concept which appeared relevant to both of these was 'role flexibility' which may be defined as the ability to change one's interpersonal behaviour in response to the changing requirements of interpersonal situations. This ability has been demonstrated as a characteristic of healthy relationships (Horney, 1950), and also as differentiating between the group behaviour of normal and clinical samples (Heckel, 1972).

However, it was admittedly general and imprecise, and required redefining in operational terms. Moreover, it would appear a priori to be a multidimensional, rather than a unitary concept. Thus it included, among other things, the abilities to have one's own changing interpersonal needs met; to meet the changing interpersonal needs of others; to modify one's perceptions of and attributions about others on the basis of experience; and to be capable of adopting a variety of interpersonal styles and strategies, rather than being dependent on the use of a few.

In order to operationalise the concept of role flexibility, and also to some extent take account of its multidimensional nature, it was necessary to develop a set of indices which would go some way towards measuring its various facets. It was
also intended that these indices would serve to bridge the gap between process and outcome, and hence demonstrate the relationship between the two.

Finally, it was decided to investigate the influence of group compositional indices in relation to outcome. The measures developed for use in Hypothesis III offered a means of determining the influence on outcome of the extent to which individual's pre-treatment interpersonal orientation and style was congruent with that of the rest of the group.

Hypothesis VIII

While the basic thrust of the present study was towards developing an empirically-based model of group therapy, whose structure was defined in terms of interpersonal processes, it also seemed important to ascertain the influences on outcome of more general structural features of the group therapeutic situation.

In general studies of psychotherapy, length of therapy has been found to be unrelated to outcome (Orlinsky and Howard, 1978); and the same conclusion was found for group therapy by Malan (1976). Similarly, Smith et al (1960) found that amount of talking in group therapy was unrelated to outcome. A further possibility, which remained empirically untested was that outcome was the result of being a focus for the group's interest and work.

However, in order to test the extent to which outcome was associated with interpersonal processes rather than these more general structural features, the present hypothesis aimed to test whether and to what extent outcome was a function of the following more general characteristics: attendance, activity level, and being the focus of group activity.

Hypothesis IX

Although the focus for the present study was on inter-
member behaviour and experience, it seemed important to take account of the relationship which members developed with the group therapist in order to determine its effect on outcome; and also to identify whether the therapeutic relationship or intermember relationships were the main determinants of outcome.

The importance of the therapeutic relationship has a long and venerable history with regard to theories of therapeutic causation. Numerous mechanisms have been postulated to describe this importance, ranging from the psychoanalytic 'transference relationship'; through Rogers' affirmations concerning therapist empathy, warmth and genuineness; to the behaviourist conceptions of the therapist as model and reinforcer.

While some evidence has been offered for the importance of therapist characteristics and behaviour with regard to the individual therapy context, the major conclusion so far as the group context is concerned is that no single therapist variable has been conclusively related to outcome. Thus, for example, while a number of investigators have attested to the value of therapist empathy as a therapeutic factor in individual therapy, the results for group therapy have been inconclusive (Gurman and Gustafson, 1976). The same picture holds true for patients' perceptions of their therapist. Thus, in individual therapy, outcome has been related to patients seeing their therapist as helpful (Tovian, 1972), competent (Saltzman et al., 1976), and credible (Beutler et al., 1975), among others. However, these findings have not been replicated with group therapy.

The difficulty in relating therapist characteristics to outcome for group therapy has been explained by Gurman and Gustafson (1976) in terms of the importance of peer relationships over therapist-patient relationships in the group situation.

The present hypothesis tested the influence of members
relationships with the therapist on subsequent outcome in terms of two sets of indices: amount of interaction with the therapist and the quality of the therapeutic relationship, this latter being based upon individual’s perceptions of the therapist.

5.4 Choice of the scales

5.4.1 The Outcome Scales

The emphasis in the present study on interpersonal behaviour prompted a search of the literature for scales, which would be able to measure these aspects of personality.

Leary’s Interpersonal Checklist (ICL) was chosen on the basis of the following considerations:

1) It has been developed in the context of a coherent theory of interpersonal behaviour, which in particular postulates a circumplicial structure to such behaviour. An accumulation of evidence for such a structure has emerged from a variety of sources working in very different areas of interpersonal behaviour.

2) Evidence was presented (Laforge and Suczek, 1955) for its reliability and content validity. This evidence was supported by the analysis of the relationships between the ICL variables pre and post-treatment (see Chapter 7).

3) The ICL has shown itself to be of use both as an outcome measure (e.g., Silver and Mood, 1971, on the effects of varying composition) and process measure (e.g., Crowder, 1972, on therapist and patient behaviours).

4) For the present study, it provided a quick readily administered measure of individual’s prevailing modes of interpersonal behaviour. In addition, its summary scores, DOM, LOV, NIC, IP1-IP4, provided means of defining group member’s problems in interpersonal terms and of assessing change.

Schutz’ Fundamental Interpersonal Relationship Orientation-Behaviour (FIRO-B) was found to possess similar advantages to the ICL:
a) Schutz' theory (1958) on the importance of his three main dimensions of interpersonal orientation, inclusion, control and affection, has been found to be applicable not only to the understanding of individual's interpersonal behaviour, but also to an analysis of group dynamics. This latter analysis is akin to Bion's (1961) three basic assumption cultures, which show a marked degree of conceptual similarity with Schutz' trio of orientations.

b) Evidence was presented (Schutz, 1967) for the scale's reliability; and there were also a number of studies, which provided evidence for its validity (e.g. Reddy, 1972, and Smith, 1974 on its predictive use as a composition measure).

c) There was a developing body of evidence (see Smith, 1975) of the usefulness of the scale as an outcome measure particularly with regard to sensitivity training.

d) In contradistinction to ICL which provided a measure of interpersonal behaviour, FIRO's scales offered an assessment of interpersonal style in terms of both expressed behaviour (the E scores) and what is required from others (the W scores). It also provided measures of the relative importance to the individual of the three areas (the sum scores) and of the extent to which E or W predominates (the D scores) in each area.

e) For the present study FIRO provided a measure, which was readily administered; and able to provide both definitions of presenting problems and criteria for beneficial change.

As part of the present study relates to issues of group composition, its indices of interpersonal compatibility were useful in providing compositional measures which could be related to both process and outcome indices.

While ICL and FIRO-B offered established and well-documented measures, which met the criterion of applicability to the Interpersonal learning model, it was considered important to take account also of other aspects of functioning and problem areas.

In relation to this, the concept of adjustment appeared to offer a general heading, which was capable of subsuming a set of major aspects relating to individuals presenting problems and required benefits from therapy. These included symptomatology, the self-concept, the ability to structure time productively, together with two areas of interpersonal behaviour not specifically measured by ICL and FIRO-B. These
areas may be characterised in terms of level of satisfaction with and ability to cope with firstly, intimate personal (including sexual) relationships, and secondly, range of social contacts.

A search of the literature was unable to produce a scale or scales, which covered all of these areas of functioning. Accordingly, a scale was developed, the Personal Adjustment Questionnaire (PAQ), specifically for this study. A full description of the scale is provided elsewhere (see Appendix 7), but its usefulness in relation to the present study may be summarised as follows:

(i) Both the individual and overall scales possess satisfactory psychometric qualities. The individual scales have been found to be independent of one another, but highly related to the overall scale; to possess internal consistency (as the main measure of reliability); and to show concurrent, predictive and construct validity. Thus, there are clear and logically consistent relationships between the PAQ scales and other scales used in the study (see Chapter 7). Additionally both the individual and overall scales reliably differentiate different clinical populations, and clinical from normal populations.

(ii) The scale is readily administered and scored; and is capable of providing both definitions of presenting problems and indices of improvement. With regard to the former of these, individual's profiles of scores on the PAQ provide estimates of both strengths and deficits; and also offer the possibility of generating hypotheses about the relationships between scores on the different scales.

(iii) In terms of the above-mentioned range of aspects of functioning, which required to be covered for the purposes of this study, the PAQ offered a device for the measurement of aspects of interpersonal behaviour (additional to those measured by ICL and FIRO) and also other important areas of adjustment, together with an estimate of overall level of functioning.

In addition to interpersonal behaviour and the various aspects of adjustment, another significant factor related to problems of mental health consists of social skills deficits.
Such deficits can quite clearly be conceptually related to the interpersonal domain (and are hence of relevance to an interpersonal learning model); and have also been empirically related to psychiatric symptomatology (e.g., Phillips, 1978).

Moreover, it appears likely on a priori grounds that such deficits would have implications for the individual's behaviour and experience within the group therapeutic situation; and insofar as this situation provides a context for learning new behaviours, that group therapy would have an influence on such deficits.

Thus, from considerations of both group process and outcome, it appeared useful to include an assessment of individual's perceptions of their actual social behaviour. A search of the literature was unable to uncover a scale which would provide an assessment of such behaviour. Accordingly, a short scale was devised, the Self-evaluation in Interpersonal Situations (SEIS) (see next chapter). This scale specifically aimed to measure social behaviour in terms of two distinctions: initiating versus responsive behaviour; and task-oriented versus social-emotional behaviour.

The scale was found to have utility for the present study in terms of the following:

1) Intercorrelations between the four scales indicated that SEIS made the above distinctions (see Chapter 7), initiating and task orientation being highly intercorrelated, and similarly, responsive and social-emotional.

2) Each of the four scales exhibited concurrent and predictive validity so far as the other scales used in the study are concerned (see Chapter 7).

3) Notwithstanding the absence of normative data, the scale was considered to provide a quick and easily administered measure of individual's perceptions of their social behaviour. As with the other measures, it offered an additional means of defining patient's problems and also measures of change.
5.4.2 The Process Scales

The Hill Interaction Matrix (HIM) was adopted in the present study for the analysis of group intermember interaction as a result of a number of considerations:

1) The study required a category system which was specifically relevant to the interactional processes of therapy groups. The HIM was developed particularly for use with such groups in contrast to other category systems (e.g. Bales' IPA, 1950), which have been developed for use with experimental groups.

2) The number of categories (16) was sufficiently small to enable ongoing interaction-by-interaction coding; and the handbook (1967) provided sufficient examples for the system to be learnt fairly readily.

3) The range and type of categories were all-embracing and mutually exclusive. The scale aimed thereby to be able to categorise any form of verbal interaction in therapy groups. In addition, the definition of the category system offered a scaling approach to both content and style of interaction in terms of varying levels of therapeutic work. Moreover, the development of these categories had taken place within the context of an essentially interpersonal theory of group functioning.

4) The scale possessed good psychometric qualities, particularly in terms of inter-rater reliability and had been found to be able to differentially predict the interactional patterns of different types of therapy groups (Hill, 1965).

5) There was a developing body of research evidence (e.g. Silbergeld et al, 1980) attesting to its utility as a process measure in therapy groups. In particular, a number of these studies indicated that the scale was able to measure change in the nature of group interactions over time.

6) In view of its focus on dyadic interaction, the scale offered the present study a number of indices at the individual, intermember and group levels of behaviour, which could be related to pre-treatment characteristics, sociometric variables, and outcome indices.

As a counterpart to the analysis of behaviour, it was considered important to investigate member's experience of group therapy. In view of the study's focus on interpersonal aspects of functioning, the area of study chosen in relation to member's experience was their experience and perceptions of
one another. Investigations of such intermember perceptions are sparse in the group therapy literature, as also are uses of the technique of sociometry, which has a venerable tradition within social psychology.

This technique offered a means of sampling member's perceptions of one another across a number of dimensions and across time, thereby yielding data regarding individual's changing positions in relation to one another. Thus, it provided means of analysing changes in the role structure of a group over time. In addition, it provided a set of scores for each individual, whose relationships with pre-treatment measures, group behaviour and outcome measures could be analysed both for individuals and for the group as a whole. Moreover, by including self-ratings and ratings of the therapist within the set of required responses, the questionnaire enabled an analysis on the one hand of member's self-perceptions of their group behaviour; and on the other, of the quality of their relationship with the therapist.

The design of the scale and the variables incorporated in it were based on the following considerations:

1) It should be multi-dimensional; and provide ratings on variables related to both the task of group therapy (the group behaviour variables) and member's personal feelings about one another (the personal choice variables).

2) The inclusion of self-ratings would enable the analysis of agreement/disagreement between individual's self-perceptions and the perceptions made of them by others.

3) The ways in which individuals rated others across the ten variables would provide a measure of cognitive/perceptual differentiation.

4) The use of rank-order ratings providing a forced-choice situation which required individuals to differentiate between one another on the variables, was intended to provide a set of scores showing more variation than might have been the case if scale scores (eg 0 - 10) had been required. In addition, it ruled out the likely problem associated with the use of such a scale of uncontrolled random fluctuations across sessions in the subjective criteria used to respond the questionnaire.
5.5 The utility of a tripartite methodological structure

Traditionally, the field of group therapy research has been characterised by a split between studies whose predominant focus had been on the outcome of therapeutic procedures on the one hand, and those which had attempted to investigate the mechanisms operating in groups to facilitate change on the other. Thus, it had become axiomatic that studies of outcome and studies of process should be separated.

The rationale for this was that the study of process issues may well contaminate outcome results in ways which could neither be predicted or controlled for. Similarly, an investigation of outcome may affect the group experience in such a way as to modify processes, again in ways which could not be predicted or controlled for.

Researchers are thus confronted by a paradox, which has been recognised in the physical sciences under the rubric of Heisenberg's theory of indeterminancy. In essence this consists of a recognition of the fact that the observer is implicated in the situation, which he is observing, and hence affects it.

If this can be recognised in the so-called objective physical sciences, then its effect is likely to be so much the greater in those studies of social processes, where the individual researcher's personality, values, expectations and hopes are much more likely to operate.

Studies of experimenter effects have been examined by Rosenthal (1966) who has in a succession of studies demonstrated the basis of these effects as stemming from such sources as the experimenter's hypothesis, expectations, motivation, prestige, non-specific factors in the pre-data-gathering interaction, verbal conditioning, visual and verbal cues, and various personality aspects of both the experimenter and subject, (apart from plain cheating!).
This work can be viewed as one aspect of what has come to be known as the 'placebo' effect. Evidence for this effect in relation to pharmacology and psychotherapy, as well as with regard to the research arena has been documented and summarised by Shapiro (1971).

This work, while demonstrating the difficulties of achieving strict objectivity in the sphere of psychological research, also pointed up the importance of non-specific factors (Strupp, 1973) in the actual process of therapy and development of patient change.

The following conclusions flow from the foregoing:

1) The fact that any form of research is being carried out on a group will create expectations and reactions in the group's members. These are likely to produce effects, which are difficult to identify, assess and control for.

2) Process studies and outcome studies might be expected to not only affect each other, but also the very thing that they are attempting to investigate in ways which again are difficult to predict or control for. Constraints are thereby placed on the possibility of full objectivity.

While studies working within the separation of process from outcome research have undoubtedly been able to provide a body of information concerning group therapy within the terms of their own discrete areas of investigation, the overall trend has had one unfortunate consequence. This has consisted of a failure to develop a unifying paradigm (Lewis and McCants, 1973), which would be capable of integrating a wide variety of findings. Thus, there has been a tendency for studies of outcome to be unable to offer cogent explanations for observed changes in terms of mechanisms operating in the group. Similarly process studies have not necessarily related their findings of group dynamics to actual change in individual clients.

The importance of a unifying paradigm lies in its ability to synthesise information and thereby facilitate the development
of a coherent theoretical formulation of change.

Part of the purpose of the present study consisted of an attempt to begin to uncover some of the outlines of such a paradigm. Firstly, however, it is necessary to acknowledge the major assumptions underlying this investigation:-

1) The type of problems brought to the group by the client population to be studied have a part of their basis in disturbances in past and/or present relationships with others. (Beyond this, clients disturbed relationships may be related to constitutional or hereditary factors predisposing them to this type of problem - but this does not fall within the purview of the present study).

2) The group experience provides, among other things, opportunities for the members to explore their relationships with each other. It's anticipated that this is in itself conducive to productive change.

Thus, the point of departure for the study is the interpersonal learning model, as described above. The major focus will be on interpersonal aspects of the individual members' personalities and their interactions in the group situation.

The three aspects of research which would be subsumed under such a paradigm are the definition of patient problems; the process of individual change; and the outcome of treatment. The difficulties posed by the challenge of attempting to develop such a paradigm may be analysed therefore in terms of the following tripartite structure:-

1) Diagnostic elements
2) Conceptualisation and measurement of group process
3) Assessment of outcome

Moreover, if we bear in mind Kiesler's plea for a specification of the network of independent, dependent and confounding variables; address ourselves to Hersen and Barlow's concerns regarding variability and generality; remain aware of Garfield's findings concerning patients' differing levels of functioning and expectations of therapy; and also note
Rosenthal's array of factors influencing experimenter effects; if we furthermore remember the high degree of variability in ratings of change between patients, therapists and external observers, then this tripartite structure should ideally be capable of answering questions and incorporating data pertinent to the following:-

1) Diagnostic elements
   a) Specification of the client population
   b) Specification of target problems
   c) Assessment of patients' expectations of therapy
   d) Specification of type of therapy offered
   e) Definition of adequate controls provided

2) Conceptualisation and measurement of group process
   a) Specification of group process variables to be studied
   b) Specification of level of analysis to be employed
   c) Specification of type of therapy offered
   d) Assessment and control of external influences
   e) Assessment of the effect of conducting research on patients' behaviour and experience

3) Assessment of outcome
   a) Development of improvement criteria
   b) Relationship of specific change to experience and behaviour in therapy
   c) Social validation of change

The methods used in the present study will be described hereunder in relation to this tripartite system.

5.6 Summary of the hypotheses

These hypotheses may be summarised as follows:-

1) Individuals existing characteristics will be predictive of their behaviour in the group.

2) Individuals existing characteristics will be predictive of the ways in which they will be perceived by themselves and by other group members.

3) Pre-treatment group composition measures will be predictive of member's levels of interaction with and perceptions of one another.

4) The group experience leads to changes in members behaviour in the group.

5) The group experience leads to changes in the ways in which individuals are perceived by themselves and by
other group members.

6) There will be a relationship between, on the one hand members perceptions of themselves and others in the group, and on the other, their modes of interaction.

7) Member's behaviour in the group and their perceptions of each other will be predictive of outcome.

8) General structural characteristics of individual's participation in the group will be predictive of outcome.

9) The nature of individual's relationship with the therapist will be predictive of outcome.

In the following chapter the aforementioned tripartite system will be used to describe the methods used in the present study, at the end of which the hypotheses to be tested will be more fully described.
Chapter 6: The Methods used in the first study

As noted above, the approach taken to this study consisted of an attempt to approach process and outcome aspects of group therapy utilising a common language for the two. The use of a unifying paradigm as described by Lewis and McCants (1973) offered a methodology which could be applied to the indepth study of one group. The structure of this paradigm consists of three major elements, each of which are subdivided. These three elements comprise the following: diagnostic elements; the conceptualisation and measurement of group process; and assessment of outcome. The methods used in the present study are described hereunder in terms of this structure.

6.1 Diagnostic Elements

a) Specification of the client population

All clients in the groups studied were outpatients, referred to the group therapist for treatment of neurotic-type problems, involving a history of anxiety and/or depression. The clients additionally exhibited problems in interpersonal relationships, such as social isolation, marital breakdown, sexual difficulties, deficient social skills, and problems in establishing relationships.

The sources of referrals included clinical psychologists, psychiatrists, general practitioners and community nurses. They were thus similar both in presenting problems and sources of referral to those found in the survey (see Appendix 3).

In more specific terms, their interpersonal difficulties and general problems in functioning were assessed and quantified using the pre-treatment questionnaires. Details of group members' epidemiological data are to be found in Table 1.

This table indicates that 13 individuals were members of the group during its eighteen month history. Their mean age was 31.4 years with a range of 26-40. The group was evenly split between males and females; but there was a disproportionately large number who were not in permanent relationships and only two married. With regard to socio-economic status, the numbers given in the table refer to the Registrar-General's definitions of occupational classification. These indicate that the majority of the group came
### TABLE 1
Background data on patients in the first study

<table>
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<tr>
<th>ID</th>
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<th>S-E status</th>
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<th>Medication</th>
<th>PPT</th>
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<th>Leave</th>
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from classes 2 and 3.

PPH refers to previous psychiatric history: 0 = no previous contact with psychiatric services; 1 = outpatient contact only; 2 = previous history of inpatient admission. The group splits evenly between these three categories. The medication column refers to whether individuals were on medication for mental health problems at the beginning of their group therapy. It will be seen that four of the thirteen were taking medication at this time.

PPT refers to previous experience of psychotherapy. Patients included in this category referred to experience of any form of talking therapy including previous group therapy, individual psychotherapy, behaviour therapy, etc. Patients included in this category numbered five of the thirteen.

The 'Join' and 'Leave' columns refer to the block of sessions during the group's history when members entered and left the group. The first seven individuals entered the group at its start. Of these, five had left after the second block of recorded sessions, i.e. within six months of the group's inception; and the remaining two stayed in the group until the end. A further four individuals joined the group between blocks two and three, one of whom left within three months, while the other three stayed until the end. Finally, an additional two joined between blocks four and five and stayed until the end.

Thus it can be seen that in common with other long-term therapy groups, this group suffered a significant problem with premature termination, particularly during the early phases i.e. the first six months of its history. This problem in itself posed severe methodological difficulties for the study. These difficulties included the following:

i) A marked variability in the number of sessions attended by individuals and hence in the time-span between their pre and post-treatment assessments.

ii) A need to take account of the impact on group process of individuals leaving and joining the group.

iii) An impracticality in studying change in group process and individual patterns of behaviour and experience by focussing on the chronological history of the group. In order to overcome this, it became necessary to derive process scores for individuals based on their behaviour during 'early' and 'late' blocks of sessions, which they attended in the group. For purposes of analysis, 'early' process scores were derived from blocks 1, 3 and 5; and 'late'
scores from blocks 2, 4 and 6.

b) **Specification of target problems**

As noted above, in the overview of methodological paradigms, the use of global measures of change in studies of therapy has frequently obscured important individual differences in response to treatment.

The present study approached this problem in two ways:

Firstly, at the end of the Personal Adjustment Questionnaire there was a section which required the individual to specify particular problems for which they wished help in the group.

Secondly, on the basis of responses to the pre-treatment assessment questionnaire, specific problem areas were identified, particularly with respect to the individual's interpersonal functioning.

Descriptions and analyses of individuals' target problems are to be found in the Second Study. Prior to members joining the group, the researcher met them in order to administer the pre-treatment scales, ICL, FIRO-B, PAQ and SEIS. The variables derived from these scales and used in the study are to be found in Table 2. At the same meeting, the researcher provided members with a rationale for the study, obtained written permission for use of the questionnaires and tape recordings, and provided an assurance of confidentiality.

c) **Assessment of clients' expectations of therapy**

No direct formal attempt was made to assess clients' expectations of therapy. Inferential data were available which relate to this issue:

i) Group members were provided with a structured preparation for participation in group therapy before the group started. This might be expected to affect client expectations and hence the type of norms which the group developed. A proforma of the areas covered in patient's preparation for group therapy is to be found in Appendix 4.

ii) Members' responses to the questions at the end of the Personal Adjustment Questionnaire concerning the problems for which they were seeking help via group therapy may well relate to their expectations of the type of help which group therapy might offer.

d) **Specification of the type of therapy offered**

The group was run by the same therapist on a weekly basis for one and a half hours per session over a period of eighteen months. It took place in a room in an outpatient department of psychiatry equipped with audio facilities and a one-way mirror.
A frequent criticism of therapy studies is the use of labels of the type of therapy offered, which either provide no information or are misleading as regards the therapist's behaviour in situ. Examples of this include 'dynamically oriented group therapy' 'group analysis', 'behavioural group therapy' etc. Behind the use of such labels lies the operation of Kiesler's (1966) therapist uniformity myth.

An attempt was made to overcome this deficit in therapeutic research by using the Group Therapy Questionnaire. This questionnaire aims to provide a measure of specification in the therapist's perception of his style in terms of concrete behavioural interventions into a variety of group situations.

The questionnaire was administered to the group therapist before the start of therapy and at the end of one year in order to assess therapist consistency in type of therapy offered.

The therapist for the first group had had five years experience of running therapy groups and was trained in the group-analytic approach. His responses to the Group Therapy Questionnaire evidenced a marked consistency across the two administrations.

A description of this questionnaire is to be found in the section on the process scales used in the study. It aims to provide scores for leadership style across eight scales: Directive-Nondirective, Group-Individual, Silence, Authoritarian, Interpretation, Question, Feeling and Supportive.

The highest scores for this therapist were to be found on the Directive, Interpretation and Group scales, across both administrations of the questionnaire. High scores on the these latter two scales are consistent with the group analytic approach. The main changes over time consisted of slight decreases on Directive and Interpretation; and concomittent increases on Nondirective and Silence.

e) Problem of providing adequate controls

As noted above, the use of a control group procedure in clinical research had become a sacred cow, which neither answered questions concerning generality of findings, nor contributed to the understanding of therapeutic processes. It represents one example of the operation of Kiesler's patient uniformity myth.

The alternative strategy taken in the present study was to look at the ways in which group processes brought about differential changes in members over time. An analysis of patterns of individual change from pre-treatment through early and late group process to post-treatment is to be found in the Second Study.
6.2 Conceptualisation & Measurement of Group Process

a) Specification of group process variables to be studied

In the first instance, this problem relates to decisions concerning the sorts of variables to be studied. In line with the theoretical model underpinning the study and the focus on interpersonal factors, the types of variable which were studied were interpersonal in nature.

The pre-treatment questionnaires, particularly FIRO-B and the Interpersonal Checklist; the Sociometric questionnaire and the Hill Interaction Matrix (HIM) all yielded data which are susceptible to analysis in terms of an interpersonal framework. In particular, the concept of 'role flexibility' was used as a means of defining changes in individuals' functioning within the group.

This definition related to both members' overt verbal behaviour within the group (as measured by usage of the HIM categories) and members' perceptions of themselves and others within the group (as measured by their responses to the sociometric questionnaire).

Group processes were considered to be constituted by the contributions made to group activity by each member and the therapist. Thus, the specification of group processes and their change was defined as being determined by the changes in behaviour and perceptions of individual members over time.

The specific group process variables used in the present study consisted of the following. For the HIM, variables were based on scores derived from the proportion of total group interactions for a session. Such scores were then summed across the relevant sessions in order to derive means both for each individual and for the group as a whole. The following variables were composed in this way:

i) Individual's scores for overall activity level in the group and for overall interactions received from others.

ii) A division of (i) scores for overall activity and receiving during early and late sessions. In addition, by subtraction of early from late scores, measures of change on these indices were derived.

iii) Scores for total amount of interaction across all sessions for dyads of members, who were present in the group at the same time.

iv) Individual's scores across all sessions on each of the eight HIM summary categories: Conventional, Assertive, Speculative and Confrontive for style of interaction; and Topic, Group, Personal and Relationship for content of interaction.
v) A division of (iv) into scores on these eight summary variables for early and late sessions; and in addition by subtraction of early from late scores, measures of change on these eight variables.

vi) Individual's variances across the eight early and late summary variables scores were separately computed and used as measures of early and late flexibility in type of interaction. In addition, subtraction of early from late flexibility scores provided a measure of change on this index.

vii) Individual's scores overall (i.e., both across all sessions and across all categories) for both directing interaction towards and receiving interaction from the therapist.

For the Sociometric Questionnaire, scores on the variables were mainly based on the mean rankings which individuals received on each of the variables covered by the questionnaire. The exceptions to this are the set of variables in c) and e) below. The following variables were developed and used in the study:

a) Early, late and change (late minus early) scores for each individual on each of the following variables: self-rated helpful, dominant, sensitive, needs help and able to discuss feelings (the self-rated variables); other-rated helpful, dominant, sensitive, needs help and able to discuss feelings (the Group Behaviour variables); and like, understand, admire, trust and understands you (the Personal Choice variables).

b) Early, late and change (late minus early) scores for each individual on level of consensus obtained in ratings made of them by the rest of the group across the ten other-rated variables.

c) Early, late and change (late minus early) scores for each individual on a measure of cognitive/perceptual differentiation in their ratings of others. This measure was based on the size of the standard deviation from the mean for individual's intercorrelations between the ten other-rated variables in the ratings, which they gave other group members.

d) Early and late scores for level of correlation between self-ratings and other-ratings on the first five sociometric variables for the group as a whole.

e) Overall scores (i.e., across all sessions) for mean level of ratings given and received by dyads on each of the ten other-rated variables.

f) Overall scores (i.e., across all sessions) for mean level of ratings for each individual obtained from the rest of the group on each of the ten other-rated variables.
Taping of group sessions for the HIM analyses and administration of the Sociometric Questionnaire were conducted concurrently over six blocks of four consecutive sessions during a period of eighteen months from the group's inception. The six blocks included both the first and last blocks of group sessions together with four other blocks at three monthly intervals from one another for the first study. During this period of time, there were both absences and changes in membership.

Individual's scores on the above variables were computed on those blocks of sessions during which they were members of the group. Thus, for example, the four members, who left the group after block 2, had their mean scores based on the first two block of sessions. Similarly, two members joined the group prior to block 5, and accordingly had their scores based on the last two blocks of sessions.

With regard to absences from group sessions during blocks when they were members, absentees were given the mean group scores on each of the HIM and sociometric variables for the session in order to enable computation of their individual overall, early and late scores on the variables.

The use of group means in this way rather than basing scores only on those sessions where individuals were present, was predicated on the importance of deriving individual's scores from as large a number of sessions as possible. It was hoped in this way to obviate the possibility of individuals obtaining spuriously high 'positive' scores based on attendance at a relatively small number of sessions.

These issues and considerations do point up the methodological problems involved in conducting research into long-term therapy groups in contrast with shorter-term experiential groups.

b) Specification of level of analysis to be employed

This issue is clearly related to the model of group work being used. Thus a behaviourist would tend to focus on schedules of reinforcement being applied for various forms of behaviour; a psycho-analyst on transference reactions occurring within the group; and a focal-conflict therapist on verbal evidence of contributions towards the development and resolution of group focal conflicts.

The present study, with its emphasis on interpersonal interaction, utilised as its basic datum a verbal interaction between one group member and another; between one group member and others; or between one group member and the group.

The focus of the study was thus on observed verbal behaviour. The rationale for this lies firstly in its
avoidance of the potential pitfalls of inaccuracies in the post-hoc reporting of group events, and also, in the avoidance of the complexities inherent in attempting to study and describe behaviour in toto, e.g. physical movements and responses, body language, location in space, seating arrangements etc. Secondly, it avoids the problematic making of inferences which would be implicit in attempting to identify such putative group phenomena as defence mechanisms, focal conflicts and basic assumption cultures. Thirdly, it provides an interpersonal interaction focus to the study of group process.

The basic unit of analysis was thus a statement or question directed from one group member to another or others. This unit of verbal behaviour was then coded in terms of the categories of the Hill Interaction Matrix. This is described hereunder in the description of the process scales.

The definition of the basic unit of verbal behaviour categorised was further elaborated as follows:

Where a statement was directed to more than one person (but not the group as a whole), the statement was separately coded for each person addressed. Additionally, where there was a change in category usage within a statement, separate codings were provided for each category used.

In practice, the researcher sat behind a one-way screen; listened to the ongoing group interaction through headphones; and noted down who was interacting with whom. At the same time, the whole of the session was taped on cassette.

Over the eighteen months, six blocks of four consecutive sessions were thus recorded yielding data on twenty-four sessions. The recordings of those twenty-four sessions were then analysed by the researcher and a clinical psychologist, using the HIM handbook (Hill, 1961) which provides definitions and examples for allocation of interactions to each of the sixteen categories.

Prior to the analysis, both had read the handbook; and five minute segments of tapes were separately analysed by both raters in order to ensure that category allocation was uniform. Interrater reliabilities for each category of .9 were achieved. This was considered adequate to enable the two raters to analyse different sessions.

Each interaction during each of the recorded sessions was transposed onto a form (see Appendix 8), which yielded the following information: speaker, spoken to, HIM category, and subject matter.

From these record forms, summary statistics were computed which provided information on the number of interactions initiated and received by each member with each other member (or the group) on each of the HIM categories for each session.
The actual number of category statements made and received by an individual provided, however, only a gross level of analysis. As the length of utterances and their number varied both between individuals and across sessions, it was decided to convert the actual numbers of category statements into proportions of the numbers of statements for each session. This approach to the data is consistent with the use made of the HIM in other studies of group process eg Thune et al (1980). For each person, proportions were provided in terms of both use of categories and interaction with other members for each session. With regard to interaction with other members, proportion scores were derived for the amount of interaction which the individual both gave and received from others. The use of category scores referred to the interactions which the individual gave in each category.

In order to provide a clearer indication of category usage in terms of both type of interaction and level of groupwork, individuals proportion scores on the sixteen categories were summed for the eight main scales. This provided both group and individual scores for each session and each block of sessions on the four style categories, ie Conventional, Assertive, Speculative and Confrontive, and the four content categories ie Topic, Group, Personal and Relationship.

The use of the Sociometric Questionnaire aimed to provide information on the individual's perceptions of the group. As these perceptions are clearly multifaceted, it was deemed necessary to sample a range of variables. It was also considered important to include ratings of the therapist and self-ratings in order to provide information on the individual's experience of the total group.

The Sociometric Questionnaire was administered by the researcher at the same sessions (ie, six blocks of four consecutive sessions spread across eighteen months) as the HIM analyses, in order to provide a means of relating behaviour to experience.

The units of analysis used were rank order ratings which each person made of each other person in the group on the ten sociometric variables.

These rank order ratings would then be susceptible to analysis both in terms of individual's ratings of others (and self), and other's ratings of individuals across specified sets of sessions, eg the division into early and late sessions.

c) Specification of type of therapy provided

As noted above, descriptions of therapist style/behaviour have tended to be vague and imprecise. Moreover, research findings have demonstrated that the labels therapists use to describe their approach often bear little relationship to their actual behaviour in situ.
While the Group Therapist Questionnaire provided information concerning the therapists' perceptions and expectations of their style, behaviour and role in the group, data from the tape recordings of group sessions analysed via the HIM were used to specify actual therapist behaviour.

In terms of level of activity, the therapist evidenced marked variability in this over time, starting off at a very low level, rising through the following three blocks, and subsequently decreasing again. The following provides the scores for therapist mean proportion of total group activity across the six blocks:

Block 1: 0.047
Block 2: 0.073
Block 3: 0.072
Block 4: 0.137
Block 5: 0.107
Block 6: 0.077

In terms of style of interaction, the majority of this was speculative in nature, although there was additionally a modest peak for confrontive interactions during block 4. With regard to content, this showed a change over time from a predominant focus on group phenomena towards a later emphasis on relationships occurring between individuals within the group.

A comparison of these results with those obtained from the Group Therapy Questionnaire (see previous section) provides evidence for a reasonable degree of consistency between the therapists perception of his style pre-treatment and actual group behaviour.

d) Assessment and control of external influences

No clear attempt was made in the present study to investigate or control for this set of variables. Members did inevitably from time to time provide anecdotal information concerning external events, such as job changes, birth and death, relationship changes, etc, in the course of group interaction. However, this study did not attempt to treat such data in any systematic fashion, or to investigate its relationship to the process of therapy or its outcome.

Moreover, apart from the study of gross changes, as exemplified in the literature on life events, there is as yet no methodology, or even theory, which relates events occurring in the 'real world' to those in the therapy situation. Thus, it remains problematic to attempt to investigate the meaning, saliency and import of both large scale events, such as the death of a family member, and 'smaller' events, such as a marital argument, in relation to therapy process and outcome.

e) Assessment of effect of conducting research on clients' experience and behaviour

As noted above, the researcher works within certain constraints on objectivity. These constraints are
imposed by the fact of the researcher inevitably being a part of that which is being researched. Evidence for this is to be found in studies of experimenter effects (Rosenthal, 1966; Shapiro, 1971) and are given theoretical explanation within the systems view of human behaviour. According to this view, both the researcher and the object of research constitute a system of mutual interaction.

From this perspective, within the present study, the impact of the research enterprise upon the operation of the therapy group may be delineated as follows:

1) The group therapist informed members at their initial assessment interview that the group was to have a research study conducted on it. He explained that group sessions would be observed and taped; and that members would be required to fill in questionnaires. Members were given the option of not joining the group, but instead being put on the waiting list for the next group to be set up. In practice, nobody took up this option.

2) Group members' written permission was sought by the researcher for the taping of group sessions; and their co-operation enlisted in the completion of assessment and sociometric questionnaires. Individual interviews between the researcher and group members at the time when the assessment questionnaires were administered provided group members with face to face contact with the researcher.

Assurances of confidentiality were provided with regard to the content of tape recordings and questionnaire responses. Group members were not provided with information concerning the specific aims of the project, but were given a very general rationale for the study and information concerning when group sessions would be observed and taped.

3) Meetings of the group were observed and taped from behind a one-way screen by the researcher on an intermittent basis, i.e., in six blocks of four consecutive sessions at spaced intervals.

The literature on the effects on therapy of observation and recording point up the ways in which these procedures impinge upon the therapeutic situation. Thus, Meltzoff and Kornreich (1970) noted its violation of the confidential and privileged therapist-patient relationship; and Lamb and Mahl (1956) found positive correlations between therapists' admission of anxiety about being recorded and therapists' assessment that their patients were being disturbed by the experience.

While the foregoing relate to individual psycho-
therapy, for group therapy Mackie and Wood (1968) noted that observation generated 'a complex web of introjective and projective mechanisms' within both patients and therapist. However, they added that these need not be antitherapeutic if such reactions are acknowledged and interpreted.

Somewhat differently, Sutherland and Gill (1964) concluded that 'the screen did not constitute to an appreciable extent either a constant source of distraction or a persistent source of inhibition' but additionally, 'the one-way screen acts as a projective stimulus, the significance of which is determined by both the intrapsychic and the interpersonal dynamics of the group situation'.

The group therapist in the present study (Hobbs, 1984) was able to confirm much of the foregoing from his own experience and observation, and delineated the following main effects:

i) A change in the boundary of the group due to the presence of the one-way mirror.

ii) The existence of anxiety in both the therapist and group members about being observed, evidenced by references to the screen and observer.

iii) Consequent upon this, the development of projective fantasies, transference reactions and defensive resistances to the observer, notwithstanding the group members' real life contacts with the researcher.

iv) The importance of acknowledging and analysing these reactions in order that the use of the screen may in itself become a source of therapeutic data.

At the end of each recorded session, the researcher administered the sociometric questionnaire to group members in the absence of the group therapist.

This continuing real-life contact with the researcher provides graphic evidence of the involvement of both research and therapy within a broader system, notwithstanding the fact that the contents of the session and members' responses to the questionnaire were not discussed at this time.

Additionally, however, the sociometric questionnaire itself required group members to reflect upon each other and the group therapist; and to do this in terms of a set of given categories, i.e., the ten sociometric variables under consideration. It might be expected that the requirements to make their group experience conscious in this way would affect their future perceptions of the group.
6.3 Assessment of outcome

a) Development of improvement criteria

The problems attached to the assessment of outcome of therapy have been discussed above, (see Chapter 4). In terms of the present study, the development of improvement criteria attempted to take account of a number of issues.

Firstly, with an emphasis on both presenting problems and mode of treatment being viewed in interpersonal terms, it was considered important that indices of change should be addressed to improved interpersonal functioning. Accordingly, three of the outcome measures, ICL, FIRO-B and SEIS were used in view of their ability to measure, respectively, self-perception of interpersonal style, interpersonal preferences, and self-perception of social behaviour.

Secondly, the use of the PAQ provided a broad-based measure of change on a number of aspects of functioning eg symptomatology and level of self-understanding.

Thirdly, following on from the specification of target problems, it was considered important to attempt to estimate the extent to which individuals had been helped by therapy in overcoming these. This analysis is to be found in the second study.

Fourthly, in an attempt to relate both theory to practice and process to outcome, the concept of role flexibility has been developed and operationally defined. This definition included measures of improvement both with regard to changes in functioning within the therapy situation and also in relation to pre to post outcome measures. It was hypothesised that there would be a pattern of relationships between these two aspects, ie, between process and outcome aspects of role flexibility.

Individuals were seen for the post-treatment assessment within a month of the end of the study. At that time, the following scales were administered: ICL, FIRO-B, PAQ and SEIS. The premature terminators were contacted by post at the time when they dropped out of therapy. Of these six individuals, three filled in the post-treatment questionnaires and returned them; and the remaining three did not respond to the attempt at contact and hence were lost to the post-treatment assessment.

Thus, pre-post and process data were available on ten of the thirteen individuals for inclusion in both the correlational investigation of the hypotheses described hereunder relating process to outcome; and for inclusion in the second study, which looked at individual patterns of change.
b) Relationship of specific change to experience and behaviour in therapy

This issue has its origins in the controversy concerning the alleged spontaneous remission of neurotic-type disorders. From the point of view of the research into therapy outcome, the problem consists of differentiating changes, which are a consequence of therapy from those which are either due to the disorder running its natural course or to external influences, e.g. life events or informal sources of help and support. As noted above, this enterprise has in the past been impeded by the separation of process from outcome studies:

The present study attempted to overcome this separation in the following ways:

i) Specific hypotheses predicted individuals' functioning in the group on the basis of their pre-treatment assessments.

ii) Specific hypotheses predicted post-treatment outcome on the basis of individuals' functioning in the group.

iii) The operational definition of role flexibility aimed to relate functioning in the group to outcome.

iv) Specific hypotheses aimed to investigate the effect of individuals' relationships with the therapist on subsequent post-treatment outcome.

v) Structural features of the relationship between process and outcome were analysed and described in the second study; as also were 'careers' of individuals from pre-treatment functioning through the behavioural and experiential aspects of group process to post-treatment functioning.

c) Social validation of change

The attempt to measure outcome of therapy has been additionally confused by repeated findings of a lack of correlation between various sources of assessment, e.g. self-ratings, therapist-ratings and observer-ratings. In particular, several studies have indicated that therapist-ratings of change tend to be higher than those derived from other sources.

The use of 'significant others' in the patient's life (e.g. Lieberman, 1973) to provide an alternative source of assessment has come to be viewed as providing a more 'objective' mode of evaluation. The rationale for this is presumed to be based upon the absence in such 'significant others' of vested interests with regard to demonstrating the effectiveness of therapy.

However, this rationale can readily be demonstrated to be an assumption in view of the following considerations, among others:
i) It presupposes the existence of 'significant others' in the environment of patients, who know them intimately enough to be able to make judgements concerning change. In practice, many patients entering therapy are in a socially deprived situation, and this was certainly the case for the present group.

ii) It assumes that changes which are frequently of their nature internal and/or subtle will have external manifestations which are readily observable.

iii) It assumes that changes which are positively valued by the individual will be similarly perceived by those in contact with them. For example, an increase in assertiveness may well enhance an individual's self-concept, but at least in the first instance, prove problematic for those in contact with them.

iv) In the absence of a double-blind situation, there is no reason to suppose that 'significant others' are any less prone to the operation of the 'placebo effect' than are the individuals themselves who are receiving therapy. In involving 'significant others' in the research enterprises, one is in fact making them a part of the same system of expectations, perceptions and value judgements as obtains within the therapeutic system itself.

These considerations place limitations upon the possibility of obtaining objective evaluations of individual change from external sources. In the present study, it proved difficult to find suitable 'significant others' in the case of several individuals, ie, their current situation was one of relative social isolation.

As an alternative, admittedly not ideal, changes in the sociometric ratings made of individuals by the rest of the group were taken as providing a social evaluation of change in functioning.

Indeed, it might be argued that those people sharing the experience of therapy with an individual would be the ones best placed to provide an evaluation of change.

The utility of this form of evaluation would then be assessed with reference to its correlations both with change in actual behaviour in group (as measured by HIM analyses) and with changes on the outcome assessment measures.

In essence, therefore, this study opted to include social perceptions of change ie, group members perceptions of one another, as one of the sets of variables requiring to be investigated. The investigation of such perceptions provided one of the links between pre-treatment, group process and post-treatment behaviour.
This in turn emphasised the utility of the tripartite structure to this study.

The investigation of the relationships between process and outcome in group therapy has been cast into a set of hypotheses. The background and rationale to the development of these hypotheses and their relationship to an interpersonal learning model have been described above in the Rationale chapter.

The following sections describe firstly the process and outcome scales used; and secondly the specific data and variables used, and the forms of statistical analysis employed in the investigation of each hypothesis.
6.4 Description of the measures used

6.4.1 Pre-post Assessment Measures

a) Interpersonal Checklist (ICL)

The ICL is a 134-item list of words or phrases used to generate a self-description or descriptions of significant others. The scale is oriented towards interpersonal aspects of personality, and yields scores on 16 variables which are mapped onto a circumplex with two basic dimensions: dominance-submission and love-hate. By pairing adjacent variables, these 16 scores may be collapsed into 8 octants and, further, into 4 quadrants. The ICL additionally incorporates procedures for assessing acquiescence and desirability response sets.

The theoretical rationale for the ICL is to be found in Freedman et al (1951), Leary (1957), and Laforge and Suczek (1955). It is based on a differentiation of the sources of personality data into three levels: Level 1 being data derived from descriptions of behavior by others, Level 2 being self-descriptive data, and Level 3 being data reinterpreted by psychologists on the basis of projective techniques. It is Level 2 data which is relevant to our present purpose.

Two further theoretical aspects should be mentioned here. Firstly, the notion of individual consistency which relates to the extent to which respondents favour particular variables. While most people would tend to have scores ranging around the circumplex, maladjustment would be identified by excessive representation within a limited range of variables.

Secondly, the concept of complementarity postulates that interpersonal behavioural styles achieve maximal satisfaction when they elicit responses which are reciprocal with regard to the dominance-submission axis and similar with regard to the love-hate axis. Thus a dominant-friendly style seeks to elicit a submissive-friendly style. Conversely, dissatisfaction is obtained via anticomplementary interactions eg, dominant-friendly being responded to by dominant-friendly or submissive-hostile responses.

Apart from being divided among the 16 variables, the 128 items are also divided between 4 levels of intensity. Thus while each variable has 8 words or phrases represented by it, these 8 are divided into 1 item for 'Intensity 1', 3 items for 'Intensity 2', 3 items for 'Intensity 3' and one item for 'Intensity 4'. The average intensity level (AIN) over the 16 variables is taken to be a measure of social desirability, based on a study by Kogan and Jackson (1963) who found correlations of intensity with judged social desirability of -.74 and -.73 in groups of psychiatric patient raters and college student raters respectively.
The acquiescence response set (NIC) is simply represented by the total number of items checked by the respondent. Additionally two further summary scores are provided, DOM and LOV, these being scores for the two basic dimensions of interpersonal behaviours.

The scale is administered by presenting the list of words or phrases to the respondent and requiring them to place a check mark (e.g., a tick) against each number which applies to the individual being described. The numbers checked are then scored in terms of the 16 variables (A - P) and the four intensity levels. The scores on each of the 16 variables can then be mapped onto a circumplex. Additionally the four summary scores DOM, LOV, AIN and NIC can be computed.

With regard to reliability, test-retest correlations are reported by La Forge and Suczek (1955) of between .64 and .77 for the sixteenths and .7111, .7478, and .7135 for AIN, DOM and LOV respectively. They suggest that these scores are conservative estimates as the tests were conducted before and after a programme designed to change self-concept.

Evidence for content validity is adduced from the correlations regarding intensity levels (La Forge and Suczek, 1955, and Kogan and Jackson, 1963). With regard to construct validity, correlations between the ICL and Cattell's 16 PF are reported by La Forge as follows: DOM and E (.4975 for males); DOM and H (.5284 for males); DOM and E (.4831 for females); DOM and H (.5583 for females); DOM and O (-.4401 for females); AIN and D (.5010 for females); LOV and E (-.4005 for males); LOV and L (-.4670 for females); AIN and D (.5010 for females) and AIN and Q3 (-.4248 for females).

Correlations between ICL and the MMPI in excess of .40 are reported for ICL factors FG, HI and DOM in relation to MMPI factors Pt, F, D and K, with DOM correlations being in the opposite direction to the other MMPI factors. Correlations in excess of .50 are also reported between ICL factors FG, HI and -DOM and special MMPI factors Dy (Dependency), Si (Social Intraversion) and negative correlations between FG, JK, HI and NO and Es (Ego-strength).

The notion that interpersonal behaviour may be mapped onto a circumplex has been suggested (apart from Leary and his co-workers) by a number of studies from various domains. Thus Borgatta, Cotrell and Mann (1958) on analysing sociometric data from students meeting in discussion groups; Schaefer's (1959) studies of maternal behaviour; Becker and Krug's (1964) analysis of the interpersonal behaviour of
children, and Lorr and McNair (1966) in a review of a number of studies of various samples, which contributed to the development of their Interpersonal Behaviour Inventory, all provide evidence of the utility of viewing interpersonal behaviour as being mapped into a circumplex.

The ICL variables used in the present study consisted of DOM, LOV and NIC together with summary scores for the four quadrants: IP1 (disaffiliation), IP2 (affiliation), IP3 (assertion) and IP4 (submission).

An analysis of the correlational structure of the ICL is to be found in Chapter 7. This analysis was based on the responses of the members of both groups. In addition, a copy of the questionnaire itself is to be found in Appendix 6.

b) Fundamental Interpersonal Relationship Orientation: (FIRO-B)

FIRO-B was designed by Schutz (1958) to assess individuals' characteristic behaviour towards others in terms of three main dimensions: inclusion (I), control (C) and affection (A). Each of these dimensions is further subdivided in terms of the directions of behaviour, expressed (E) and wanted (W), thereby yielding six scales. Two other types of data are derived from the three main dimensions which appear to have importance clinically. The first of these is a sum score (E + W) which provides an estimate of the importance of that particular area in the individual's interpersonal functioning and, secondly, a difference score (E - W) which shows the extent to which individuals tend to initiate or receive interpersonal interaction. Its purposes are designated as two-fold: firstly to measure how an individual acts in interpersonal situations ie characteristic traits; and secondly, to facilitate prediction of interactions between individuals eg via an assessment of their compatibility on these scales.

The scale consists of 54 items which are divided into four groups. At the head of each group are six alternative numbered responses and, for each item in the group, the respondent is required to provide the response number which applies to them, eg: item 'I try to be with people' has the following set of possible responses with their numbers: 1 Never; 2 Rarely; 3 Occasionally; 4 Sometimes; 5 Often; 6 Usually. Responses are then scored by reference to the scoring key in terms of the aforementioned three main dimensions ie Inclusion, Control and Affection, and four scores within each ie E, W, Sum and Difference scores.
From the point of view of reliability, Schultz utilises the criterion of reproducibility as a measure of internal consistency. Reproducibility is defined as the extent to which responses to individual items can be predicted on the basis of knowledge of scale scores. For each scale a reproducibility coefficient of .94 was obtained. Test-retest reliability coefficients range from .82 to .71 with a mean of .76 over the six scales.

As FIRO-B also aims to measure interpersonal orientations, which are presumed to be stable, test-retest reliability coefficients were computed in order to provide coefficients of stability for the six scales. These were based on a student sample tested twice with an interval of one month. The mean coefficient for the six scales was .76 with a range of .71 to .82.

As far as relationships between the scales are concerned, significant correlations occurred between E and W for Inclusion and Affection (Inclusion = .49, Affection = .42). Additionally, the Inclusion and Affection scales were themselves intercorrelated particularly on the E dimension (EI - EA = .47). The correlations for the Control scales both with each other (E and W) and with the other two (I and A) are somewhat lower.

With regard to validity, the content validity of the FIRO scales is adduced from their design which is based on Guttman's scaling procedure (Guttman, 1950) and aims for item scores to be cumulative and reproducible.

The predictive validity of FIRO-B is based, among other things, on its use both as a measure of outcome for therapy and as an aid in research into group composition. With regard to the latter, Reddy (1972) assigned participants to sensitivity groups on the basis of their interchange compatibility on FIRO-B for affection.

Two groups (A and B) each had five members with high need for affection (and hence compatible with each other) and five members with low needs for affection (incompatible with each other). The second two groups (C and D) had members all of whom had moderate needs for affection.

Reddy hypothesised that group A and B would make greater gains in self-actualisation as measured by the Personal Orientation Inventory than would members of groups C and D. This hypothesis was strongly supported and Reddy concluded that the greater change in groups A and B was a result of members in these
groups engaging in both more support (due to compatibility) and confrontation (due to incompatibility).

Similar differences in group behaviour were found by Smith (1974) who manipulated group composition on the basis of FIRO affection and control scores in order to generate different group processes: compliance where composition enhanced confrontation, identification where composition was supportive, and internalisation where both support and confrontation were present. Once again, results supported the hypothesised expectations.

Additionally Yalom et al (1967) in a study of group therapy found that an individual's level of compatibility with the rest of the group as assessed by FIRO-B pre-treatment was predictive of their level of popularity in the group. Popularity in turn was strongly predictive of outcome.

Along similar lines, Sapolsky (1967) found that therapeutic outcome was positively related to patient-doctor interpersonal need compatibility.

Finally, Pollack (1971) used FIRO-B to look at changes in sensitivity-training groups as a function of homogeneity versus heterogeneity. Homogenous groups were formed on the basis of members being high on both EC and WC, high on EC and low on WC, low on EC and high on WC and low on EC and WC. The heterogenous groups were formed on the basis of having high, moderate and low scores on both EC and WC. Pollack's hypothesis that heterogenous groups would show more positive changes than would homogenous groups was confirmed.

A copy of the FIRO-B questionnaire is to be found in Appendix 6. In addition, a correlational study was conducted of the structure of the FIRO-B in the present study (see Chapter 7). This study was based on the responses of members of both groups.

c) The Personal Adjustment Questionnaire (PAQ)

This measure was designed specifically for use in the present study in order to provide a broad-based measure of level of functioning. The aspects of functioning covered included level of symptomatology (Sy), self-acceptance (SA), self-understanding (SU), personal relationships (PR), social contacts (SC), structuring of time (L) together with an overall estimate of level of adjustment (Adj).

Normative data was collected on both clinical and non-clinical samples and the scale and its sub-scales found to have good levels of reliability and validity. A full account of the scale is to be found in Appendix 7, while a copy of it is included in Appendix 6.
d) Self-Evaluation in Interpersonal Situations (SEIS)

The SEIS is an ad hoc scale which aims to assess individuals' evaluation of themselves with regard to certain key aspects of social skills. Examples of these include abilities to initiate conversation, to be sensitive towards others' feelings, and to contribute to discussion.

It consists of 15 items on which individuals are required to rate themselves on a five-point scale (1 to 5). A rating of 1 represents a low ability on a particular skill and a rating of 5 a high ability.

The rationale for using the scale in the present study is twofold. Firstly, there is a developing body of theory and empirical evidence (for example, see Phillips, 1966) which links psychiatric problems and/or disorders of interpersonal relationships to deficits in social skills. An assessment of the individuals' perceptions of their social and interpersonal skills and deficits, therefore, becomes an important element diagnostically and also provides information on specific treatment needs.

Secondly, the group therapy situation is one which specifically provides a focus for interpersonal behaviour. A priori, it appears likely that the particular patterns of social skills which an individual possesses will play an important part in their group functioning. Additionally, deficits in these areas are likely to be equally important and may well become focii for change; alternatively, they may provide problems for the individual in coping with the group situation and prompt absences and/or premature termination.

The way in which responses to SEIS are scored relates to two types of conception of interpersonal skills. The first of these refers to Bales' IPA method of studying behaviour in groups, particularly with regard to leadership. Thus it distinguishes behaviour which is task-oriented from that which is more involved in and attuned to socio-emotional aspects.

The second type of distinction made is one which is common within the literature on social skills: a differentiation between initiating and receiving skills.

These two sets of concepts clearly have areas of overlap between them, e.g. some associations between the skills involved in a task orientation and those involved in initiating behaviour. However they remain sufficiently distinct to be incorporated in to four separate scales.
With due regard to the aforementioned issue of overlap, the 15 items of SEIS were accordingly empirically assigned to each of the four scales, ensuring that the same item was not included within both the task and social-emotional or initiating and receiving scales. A copy of the scale is to be found in Appendix 6.

The item numbers within each scale are as follows:

1) Receiving (Re): 2, 5, 6, 8, 11, 13
2) Initiating (In): 3, 4, 7, 9, 10, 12, 14, 15
3) Task (Ta): 1, 4, 9, 11, 12, 14
4) Social-Emotional (S-E): 2, 5, 6, 8, 10, 15

The individual's scores on the scales were then computed by adding up their ratings on each item within each scale. The total possible scores for the scales are: for Re, Ta and S-E = 30; and for In, 40.

Reliability

Evidence for SEIS reliability rests at present on an analysis of the intercorrelations between the four scales. Details of this are to be found in Chapter 7. However, in broad outline each scale was significantly correlated with the others. High correlations occurred between In and Ta and between Re and S-E. Re was additionally well correlated with In and Ta while S-E was less so.

Validity

Detailed evidence concerning concurrent validity is to be found in Chapter 7. However, in summary, In and Ta were well correlated with ICL, positively with the P-F segment and negatively with the H-L segment; with FIRO-B, positively with EC and DC and negatively with WC; and with PAQ, particularly with T and Adj. This latter association was more evident for In, which was additionally significantly correlated with the PAQ scales Sy, SA and SU.

Overall, these lines of evidence suggest that In and Ta are tapping aspects of functioning which emphasise assertion, independence, non-emotional aspects of interpersonal behaviour and general coping ability.

The evidence for the other two scales Re and S-E was more sparse. However, S-E had a significantly positive correlation with M on ICL, and both S-E and Re were related to DA on FIRO-B. Moreover, S-E was unrelated to the Control roles of FIRO-B and to PAQ. This suggests that S-E is much more related to areas of interpersonal behaviour, which include among their components affection and a desire to be close to others.
emotionally; while the Re scale includes a mixture of both emotional closeness and independence.

As far as predictive validity is concerned pre-treatment scores on all four scales were able to predict post-treatment scores on the non-coping segment, I-L, of ICL; and In and Ta retained their associations with variables A and E i.e. the independent assertive aspects of ICL.

e) The Group Therapy Questionnaire

The Group Therapy Questionnaire (Wile et al, 1970) was developed in order to provide an assessment of leadership style in therapy groups. It comprises a description of twenty incidents in group therapy which pose questions to the therapist regarding their response to such interactions. Such incidents include ways in which to start a group, respond to group silences, react to members' crying etc. Along with each of the twenty situations there is a set of eight alternative responses by the therapist. Administration of the questionnaire requires the therapist to nominate their choice of response from amongst these eight alternatives (and also their second choice or alternative response if they so wish).

These response choices to the twenty incidents are then categorised in terms of fifteen scales which comprise the following: Directive; Non-directive; Group; Individual; Group-mind; Outside Group Events; Silence; Authoritarian; Interpretation; Question; Interpretation-question; Feeling question; Member Feeling; Leader Feeling and Supportive.

These scales were developed on the basis of their theoretical meaningfulness and scored via an identification of 'those responses which seemed to share some common theoretical decision or orientation towards group therapy leadership' (Wile et al, 1970). Assignment of responses to the scales was based on the degree of agreement between three judges.

With regard to reliability in scoring the questionnaire, the authors report interviewer reliabilities in excess of .80 for ten of the scales, over .70 for Outside Group Events, Group Mind, Individual and Member Feeling, and .66 for Directive.

The main method of scoring the scale uses the individual's first choice response to the twenty incidents. These first choice responses are then transformed into scores for the leadership scales using the key provided. These scores are mapped onto the calculation sheet, which provides eight main categories: Directive-Non-directive; Group -
Individual; Silence; Authoritarian; Interpretation; Question; Feeling and Supportive.

An example of the questionnaire's scoring sheet is included in Appendix 1.

6.4.2 Process Measures

a) The Hill Interaction Matrix (HIM)

The HIM is a set of categories developed in order to enable the description of verbal behaviours within therapy groups. Its development and rationale were described by Hill (1965) as being empirically based upon the study of a number of therapy groups. This study yielded two main dimensions of interaction.

The Content/Style dimension refers to what is talked about, and has four categories:

- Topic (I) referring to any number of possible general interest areas of conversation external to the group;
- Group (II) in which the subject of conversation is the therapy group itself;
- Personal (III) where the subject is a group member; and
- Relationships (IV) in which discussion centres upon relationships within the group.

These four content categories are presumed to be both mutually exclusive and all-embracing.

The other dimension, termed by Hill Work/Style, refers to the notion of group work as conceptualised by Bion, i.e., the degree to which group activity can be considered to be therapeutic. This dimension is divided firstly into two parts, Work and Pre-Work. Pre-Work refers to modes of group activity which are not in themselves therapeutic in the sense of promoting self-understanding, while Work refers to modes of activity which are therapeutic in this way.

The pre-work categories are as follows:

A: Responsive

This category refers to interactions which would not occur without the prompting of the therapist. It is utilised within groups of chronically regressed patients who are largely unable to function in social situations. As such, it was not used in the present study.

B: Conventional

This category is used where interactions are characterised by their similarity to general social groupings eg general conversation, chit-chat etc. Within the context of a therapy group it is seen as performing a group maintenance function.
C: Assertive

This category refers to social protest behaviour, which frequently consists of an avoidance of the patient role, a denial of problems and an attempt to assert one's independence of the group. It is considered to represent an acting-out rather than acting on attitude towards personal problems.

The work categories are as follows:

D: Speculative and Exploratory

This category refers to interactions in which there is an attempt being made to explore and understand therapeutic issues, while the attitude used is frequently an intellectual one towards the material being presented.

E: Confrontation

This category is characterised by interactions in which there is a penetration to the significant aspects of a discussion. Statements confront members with previously-avoided implications of their behaviour, frequently via a focus on the here-and-now. This category also incorporates statements, which serve to integrate previously unassimilated material in order to provide deeper self-understanding.

Both dimensions, Content/Style and Work/Style, are considered to provide varying levels of therapeutic activity, i.e. for Content/Style, Topic is the lowest and Relationship is the highest; for Work/Style, Responsive is the lowest and Confrontation the highest. The rationale for this ordering is provided within the text of the HIM (Hill, 1965).

In essence, the rationale refers to the value system underlying the construction of the scale. This system emphasises three parameters: the extent to which interactions are member-centred; the level of interpersonal threat; the opportunity for members to take the roles of patient and therapist in their group interactions.

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</table>
These sixteen categories then form the system for coding group verbal behaviour on a statement-by-statement basis by reference to the Scoring Manual (Hill, 1961). This manual describes each of the categories, provides illustrative examples of the use of the categories, and also provides the criteria for differentiating between the categories, where difficulties in coding appear.

With regard to the reliability of HIM, Hill (1965) compared the HIM with other group category systems on three indices of reliability:

1) Percentage of inter-judge agreement.
   On this index, HIM achieved 70%, which is comparable with an average of 71% over six types of rating systems.

2) Product-moment correlations.
   On this index, HIM achieved \( r = .76 \), which again is comparable with an average of \( r = .77 \) over seven types of rating system.

3) Rank order correlations.
   On this index HIM achieved rho = .90, which is somewhat higher than the average of rho = .82 over six types of rating system

Claims for the validity of HIM were based on a study of seven different types of group. Ratings were made of complete sessions of these different types of group using HIM. Results indicated that the scale was able to differentiate between the groups on the basis of their usage of the various Content/Style and Work/Style categories. Furthermore, these differentiations were congruent with and explicable in terms of the theoretical model under which the groups were operating, and their composition.

In the present study, members' interactions were initially coded in terms of the above-described sixteen categories. From these raw values, scores were derived as proportions of total group activity during each session for the eight summary categories: conventional, assertive, speculative and confrontive for style of interaction; topic, group, personal and relationship for content of interaction.

A copy of the rating form used for HIM in the present study is to be found in Appendix 8.
b) The Sociometric Questionnaire

Sociometry was originally developed by Moreno (1953) in order to provide a means of recording interpersonal attractions within a group. Originally, its basic format consisted of a request for group members to choose one or more other group members in terms of a particular variable, e.g. Liking.

The resulting pattern of choices was then evaluated, among other ways, by constructing a sociogram. This permitted graphic demonstration of the role structure of the group in terms of the particular variable. In particular, it enabled the identification of central members (i.e., those receiving frequent choices) and isolates (i.e., those receiving few or no choices) within the group.

Furthermore, the use of more than one variable has been shown to provide a more accurate assessment of each individual's position within the group and to enable greater specificity in description of the group's role structure. For example, a person who is chosen frequently on the Liking dimension may or may not be similarly chosen on a dimension of Helpfulness.

Sociometric ratings have generally been shown to exhibit good reliability (Mouton et al., 1955) and good predictive validity in relation to a variety of criteria of interpersonal relations, including subsequent behaviour within the group context (Lindzey and Borgatta, 1954).

In spite of its popularity as an assessment and measurement device in social psychology, a search of the literature was unable to discover the use of sociometry in the study of group therapy.

However, it was considered that this approach offered a useful means of investigating group therapy members' experience of their group; of defining the role structure of the group as it unfolded and changed over time, and of identifying members' perceptions of their own position within the group at different times.

Additionally, by correlating sociometric ratings with members' use of the HIM categories and with their pre- and post-treatment assessments, it would be possible to discover relationships between the following variables:

1) Members' actual interpersonal behaviour within the group and their perceptions of self and others.
2) Members' pre-treatment client characteristics and their perceptions of self and others.

3) Changes in members at post-treatment assessment and changes in their perceptions of self and others.

Accordingly a sociometric questionnaire was constructed with the aim of investigating a number of variables, which were considered to be of relevance to the enterprise of group therapy.

Variables were required to meet at least one of four criteria for inclusion in the questionnaire. These criteria were as follows:

1) The variable should be relevant to the task of group therapy.

2) The variable should permit individuals to rate themselves upon it.

3) The variable should provide a means of identifying the role structure of the group.

4) The variable should contribute to the identification of the development of 'role flexibility' within members of the group.

Additionally it was considered important that the variables chosen should be sufficiently simple in description to permit of ready comprehension by the patient sample being studied; that they should possess face validity in the sense of being seen by members as relevant to their group experience; that they should be readily distinguishable from each other, and that their scope and range should permit the questionnaire to be completed easily and rapidly.

In terms of the above four criteria, the following variables were identified:

1) Helpful, Sensitive to others, Able to discuss Feelings, In need of help, Trust and Feel Understands you.

2) Helpful, Dominant, Sensitive to others, In need of help, and Able to discuss feelings.

3) Dominant, Like, Admire, Understand and In need of help.

4) Helpful, Dominant, Sensitive to others, Able to discuss feelings, Trust and Feel understands you.

In comparing those variables included under criterion 2 (self included) with the other variables (self excluded) it becomes evident that there is a significant differentiation between the former, which refer to descriptive perceptions of behaviour, and the latter, which are more connected to internal states of feeling.
This differentiation was utilised in the construction of the questionnaire, which thus falls quite readily into two halves, each comprising five variables. The first five variables were termed the group behaviour (GB) variables; the second five the personal choice (PC) variables.

A study which is of particular interest in relation to self-rankings on sociometric measures was conducted by Gustavson and Gaumnitz (1972) on experimental groups. Their interest was in level of consensus in group rankings as measured by Kendall's coefficient of concordance across group behaviour variables. They found that levels of consensus were lower where self-rankings were included than where they were excluded. In particular, members' self-rankings tended to be higher than those which they obtained from others, and this was more the case on variables which were relatively abstract, i.e. guidance and contribution of ideas, than on more concrete variables, i.e. participation and leadership.

Their proposed explanation for this refers to the influence of individuals' self-esteem on self-rankings. Whereas their study was conducted on 'normals', whose self-esteem might be expected to have a 'positive' effect on self-rankings, it would be likely that the converse would be the case in the present study, where group therapy patients typically evidence low levels of self-esteem, i.e. group therapy patients' self-rankings might be expected to be lower than those given to the individual by the rest of the group.

At the outset it was considered important to investigate individual members' perception of the whole group, rather than requiring them to nominate one or two choices for each variable. In this way, changes in the position of each individual on each variable would be charted over time.

In order to achieve this, members were thus required to rank order each group member on each variable for the particular sessions of the group under investigation.

The use of rank order data has clear problems attached to it with regard to statistical analysis and interpretation. This is particularly the case where the number of individuals being ranked varies from one occasion to another, as frequently happens in therapy groups.
Additionally, the form of data generated by rank ordering is different in nature from that obtained by other assessment devices, e.g. the distinction between nominal and ordinal data. Thus, in attempting to relate scores on sociometric variables to scores on the HIM or outcome assessment measures, different types of data are being utilised.

Furthermore, the psychological meaning of ranking for the individual doing it may well be unclear. Thus, on any one variable, it cannot be assumed, for example, that the difference between a ranking of 1 and 2 is the same as the difference between a ranking of 2 and 3. Additionally, across variables it cannot be assumed that rankings on one variable are of equal significance as rankings on another variable.

Notwithstanding these problems, it was considered that the use of rank ordering offered advantages over alternative methods of scoring. In particular, it required group members to differentiate each other on the variables under consideration, rather than provide an arbitrary score which might well obscure variations. Additionally it provided a more accurate means of comparing scores across sessions, rather than having to rely on scoring criteria which would be subject to random fluctuations over time.

Apart from providing rankings of the self and other group members, it was also considered important to include the therapist in the rankings. The aim of this was to provide information on individuals' perceptions of the therapist in relation to the group as a whole and on individuals' relationships and feelings towards the therapist.

With the foregoing in mind, the resulting questionnaire consisted of ten items upon which each group member was required to rank order the rest of the group, including the therapist. Additionally, the first five of these items required the individual to include themselves within the rankings made. The ten items were as follows: Helpful; Dominant; Sensitive to others; In need of help; Able to discuss feelings; Like most; Understand most; Admire most; Trust most; Feel understands you best.

The questionnaire was administered immediately following the end of each group session studied. Members were instructed to answer each item in its own right without references made to the other items, and to answer spontaneously rather than spend time thinking about questions. They were additionally encouraged to make use of their own understanding of the meaning of the terms used, rather than being provided with external criteria. The questionnaire was designed to be completed in approximately 10 - 15 minutes.
Finally, members were required to respond to the questionnaire in terms of their own private experience and perceptions, rather than to discuss responses amongst themselves.

A copy of the questionnaire is included in Appendix 10. Additionally, a study of its structure and change in structure over time was conducted on the responses of the first group. The results of this analysis are to be found in Appendix 10.
6.5 The Hypotheses

The data base for this set of hypotheses varied. For those hypotheses involving the pre-treatment assessment, $N = 13$; for those involving the post-treatment assessment, $N = 10$; for those involving change from early to late process, $N = 12$.

The forms of statistical analysis employed were essentially non-parametric (see Siegel, 1956). The most commonly used procedure in the present study was Spearman's rank correlation coefficient. The reason for this was that, given the small size of sample, it would be unlikely that the data would follow a normal distribution, or that the standard error in the data would be minimised. Thus the means and standard deviations obtained would not yield a good estimate of those found in the general population. The use of the rank order correlation coefficient, in common with the Wilcoxon Sign rank test (which was used in hypotheses 4 and 5) requires no assumptions to be made about the parametric distribution of the data.

The main exception to the foregoing was to be found in hypothesis 3. As this was concerned with the investigation of dyads of individuals, the number of cases was much larger ($N = 76$). On the basis of having this much larger a sample, the Pearson product-moment correlation coefficient was used to analyse the results in this hypothesis.

In addition, for hypothesis 5(1), Kendall's coefficient of concordance ($W$) was used. This provides a measure of the consistency of evaluations or of the reliability of ratings across a number of individuals. It was thus particularly appropriate for hypothesis 5(1), which was concerned with investigating levels of intermember consensus in sociometric ratings of individuals.
Hypothesis 1

Individuals' existing characteristics are predictive of their behaviour within the group.

While no attempt was made in this study to sample individuals' overt behaviour (interpersonal or otherwise) outside the group, the responses to the pre-treatment questionnaires (i.e. ICL, FIRO-B, PAQ and SEIS) were inferred to provide information on aspects of the individual's present mode of functioning across a number of behavioural domains. Thus the pre-treatment assessment represented a sample of the individual's behaviour at the time of being assessed. The domains covered by this assessment are to be found in Table 2.

Verbal behaviour within the group was sampled via the tape-recordings of group sessions, which were subsequently analysed and categorised in terms of individuals' use of each of the HIM categories both across all sessions sampled and also for early and late scores. Early and late scores were computed by taking individuals' mean scores on the use of each category over the following blocks of four consecutive sessions: blocks 1, 3 and 5 for early scores and 2, 4 and 6 for late scores. The HIM categorises verbal behaviour in terms of four style variables: Conventional, Assertive, Speculative and Confrontive; and four content variables: Topic, Group, Personal and Relationship.

Evidence for continuity of behaviour from pre-treatment to group activity, and hence for the 'social microcosm' hypothesis would be demonstrated by the uncovering of relationships between the pre-treatment variables and the use of the HIM categories.

In order to investigate the presence, scope and nature of the relationships, members' scores on the pre-treatment variables were correlated with their scores on the HIM categories using Spearman Correlation Coefficients. Use of this measure, which computes correlations on the basis of the degree of similarity between two sets of rank orders, is based upon the non-parametric nature of the data, this being the case for most of the data in the present study.
The following sets of relationships were investigated in this way:–

a) Pre-treatment variables and overall use of each of the HIM categories

b) Pre-treatment variables and early use of each of the HIM categories

c) Pre-treatment variables and late use of each of the HIM categories.

In particular, it was predicted that the level of group activity would be related to high scores on general factors of adjustment and social skills, and that use of the 'work' categories would be related to positive pre-treatment indices of interpersonal functioning.

**Hypothesis 2**

Individuals' existing characteristics are predictive of the ways in which they will be perceived by themselves and others in the group.

This hypothesis aimed to investigate the ways in which individuals' pre-treatment characteristics influenced members' perceptions of one another and of themselves within the group. As with Hypothesis 1, individuals' existing characteristics were assessed via their responses to the ICL, FIRO-B, PAQ and SEIS, which yielded scores on the variables in Table 2.

Members' perceptions of one another were based on their responses to the Sociometric Questionnaire. This required individuals to rank order each member of the group present at the session (including the group therapist) on ten variables, the first five including themselves in the rankings: Helpful, Dominant, Sensitive, Need Help, Able to discuss feelings, Like, Understand, Trust, Admire and Understands You.

Early and late scores for self-ratings were computed from the mean rankings which individuals gave themselves on each of the first five variables across the relevant sessions. Early and late scores for the ratings which individuals received from others were computed on each of the ten sociometric variables from the mean rankings, which individuals received from the rest of the group members across the relevant sessions.
The relationship between client characteristics and perceptions of the individual were then investigated by use of Spearman Correlation Coefficients between the following sets of variables:

i) Thirty pre-treatment variables and early self and other-ratings on the sociometric variables.

ii) The thirty pre-treatment variables and late self and other-ratings on the sociometric variables.

In view of the fact that high ratings on the sociometric variables were designated by low numerical values (i.e., a ranking of 1 being the highest), the direction of the correlations was reversed so that high scores on the pre-treatment variables were positively related to high rankings on the sociometric variables, and vice versa.

In more specific terms, it is predicted that individuals' self-ratings, particularly early, would be related to pre-treatment indices of the self-concept (i.e., SA and SU); while ratings of them made by others would be related to 'positive' indices of interpersonal functioning, particularly those to do with affiliation (IP2), inclusion and affection (the relevant FIRO scale).

Hypothesis 3

Pre-treatment group composition measures are predictive of members' level of interaction with and perception of one another.

This hypothesis aimed to investigate the extent to which members' pre-treatment levels of interpersonal compatibility with one another were predictive of the amount to which they interacted with one another and rated one another highly on the sociometric variables.

The measures of compatibility used were derived from Schutz (1958), who provided two types of index for level of compatibility between two individuals based on their scores on the FIRO scales. These two types are termed originator compatibility (OC) and interchange compatibility (IC).

The former aims to measure complementarity in interpersonal orientation between individuals, i.e., the extent to which one individual's level of expressed behaviour fits with the other individual's level of wanted behaviour on each of the three scales and overall.
The latter provides a measure of similarity in interpersonal orientation between individuals, i.e. the extent to which their expressed scores and wanted scores are similar to one another on each of the three scales and overall.

The formulae provided (Schutz, 1958) for computation of the OC and IC scores between dyads is given as follows:-

For originator compatibility between two individuals on each scale (I, C and A):

$$OC_{ij} = (E_i - W_i) + (E_j - W_j)$$

where i,j = any two people; E = expressed score; W = wanted scores on each scale

Then, the overall score for dyadic originator compatibility is given by the sum of OC across the three scales I, C and A as follows:

$$\text{total originator compatibility} = OC(I)+OC(C)+OC(A)$$

For interchange compatibility between two individuals on each scale (I, C and A):

$$IC_{ij} = (E_i + W_i) - (E_j + W_j)$$

The overall score for dyadic interchange compatibility is then given similarly by the sums of IC across the three scales (I,C and A) as follows:

$$\text{total interchange compatibility} = IC(I)+IC(C)+IC(A)$$

By averaging these dyadic compatibility scores across the dyads of which each individual is a member, compatibility scores for each individual with the group as a whole can be derived on the eight indices. These scores for individuals' group compatibility will be used hereunder in Hypothesis 7.

For the present hypothesis, these formulae were used in order to compute and derive scores for each dyad of individuals, who were present in the group at the same time, on the following variables:

a) For originator compatibility (OC), i.e. complementarity, dyadic scores on inclusion, control, affection and overall.

b) For interchange compatibility (IC), i.e. similarity, dyadic scores on inclusion, control, affection and overall.

For each of the dyads (N = 105), mean scores were computed for their overall level of interaction by summing their scores for interaction with one another across the eight HIM categories and across
all sessions during which both individuals of the dyad were group members. Account was taken of absences from sessions by assigning the group mean score in such instances. Computation of the overall level of interaction in this way provides a more strict test of the hypothesis and mitigates the possibility of spurious 'positive' results.

Similarly, for the same dyads, mean scores were computed of the rankings which they gave one another on each of the sociometric variables by summing those rankings across all sessions during which both individuals in the dyad were group members. The same procedure of assigning the group mean rankings was used in those instances where absences occurred.

These computations yielded scores for each dyad on mean level of overall interaction and mean ratings on each of the ten sociometric variables.

The relationships between the dyadic compatibility scores and the interaction scores and sociometric ratings were then analysed using Pearson correlation coefficients. The following sets of variables were thus correlated:

i) The four OC variables and mean overall HIM dyadic score

ii) The four OC variables and mean ratings between dyads on the ten sociometric variables

iii) The four IC variables and mean overall HIM dyadic score

iv) The four IC variables and mean ratings between dyads on the ten sociometric variables

In general, it was predicted that the compositional variables of complementarity would be more related to both levels of dyadic interaction and sociometric rankings than the similarity variables, i.e. individuals would choose to interact with and rate more highly those individuals with whom they were interpersonally complementary than those to whom they were similar.
Hypothesis 4

The group experience leads to change in members' behaviour in the group.

This hypothesis predicted that there would be a change in group process over time, particularly in the form of members' interactions with one another. The particular predictions made are as follows:

i) From early to late blocks of sessions, there would be an increase for the group in the range of categories used, i.e. there would be a change over time in the direction of members using an increased variety of responses to one another. This prediction was tested by computing the mean variances between individuals' use of the eight HIM categories (i.e. from individuals' mean scores on each of the eight categories) for the early and late blocks of sessions. The mean scores on the categories for early sessions were based upon blocks 1, 3 and 5; and for late sessions upon blocks 2, 4 and 6. These variances for individuals were then summed and group means derived for early and late. Evidence for a group increase in the range of categories used was based upon the existence of a significant difference (i.e. increase in the size of the group variance) between the early and late scores.

The mean variance was taken to provide a measure of interactional flexibility and termed 'Spread'. A significant increase in 'Spread' for the group as a whole was taken as evidence for the hypothesis. As will be seen hereunder, individuals' 'Spread' scores were also related to other aspects of group process and outcome.

ii) There would be a movement from early to late in members' use of the HIM categories. This change would consist of a decrease in the use of the pre-work categories i.e. conventional and assertive style and topic and group content; and a concommitant increase in the use of the work categories i.e. speculative and confrontive style and personal and relationship content.

In the first instance, individuals' scores on each of the HIM categories for each block of sessions were summed in order to provide means for the group as a whole on each category during each block of sessions. These group scores were then graphed (see Figures 1 & 2) in order to provide a representation of the change in use by the group of the eight categories across the six blocks of sessions.
Secondly, the individual and group mean scores on each category were summed across the relevant blocks and means derived in order to provide scores for each category early and late. Once again, early scores comprised blocks 1, 3 and 5, and late scores blocks 2, 4 and 6. Wilcoxon sign-rank tests and T-tests were applied to the early and late scores for each category in order to determine the direction of change from early to late, and whether the change was significant.

Hypothesis 5

The group experience leads to changes in the ways in which members are perceived by themselves and others over time.

This hypothesis predicted that the structure and nature of members' perceptions of one another would evidence change over time. In particular, the following predictions were made:-

i) From early to late blocks, group members' ratings of individuals across the ten sociometric variables would show increasing levels of consensus.

This prediction was tested by computing correlations between group members in the ratings which they gave individuals across the ten sociometric variables for early and late blocks of sessions. In this instance, the statistical procedure used was the Kendall contingency coefficient. This yielded early and late scores for 12 individuals (one having dropped out of the group after attendance at only one block of sessions).

These coefficient scores enabled identification of those individuals about whom the group achieved a measure of agreement in sociometric rating; permitted the direction of change in such agreement over time to be identified; and also provided a test of the extent to which the group as a whole increased this agreement.

This latter was tested by applying the Wilcoxon sign-rank test to the changes from early to late in those scores for the whole group. Evidence for the prediction would be provided by a significant increase in the number of positively signed scores over time. As will be seen hereunder, individuals' consensus scores were also related to other aspects of group process and outcome.
ii) From early to late blocks, members' ratings of one another would become increasingly differentiated between the ten sociometric variables, i.e. an individual's ratings of others would show an increase in variability over the ten variables.

This prediction was tested in two ways:

a) For the group as a whole, correlations were computed early and late for the degree of association between the ten variables from the rankings which each individual gave the other members of the group. The type of correlation used was the Spearman rank; and the early and late correlation matrices are to be found in the section on the structure of the Sociometric Questionnaire (see Appendix 10).

b) For individuals, early and late correlations were computed between the ten variables in rankings which they gave other members of the group. The type of correlation used was the Pearson rho. This yielded early and late matrices for each individual of the correlations between the ten variables.

From these matrices, mean scores were derived for each individual early and late, which were taken as an inverse measure of their level of cognitive/perceptual differentiation, i.e. a high level of differentiation would be evidenced by a low degree of association between the variables, suggesting that the ratings which an individual gave to other members varied across the ten variables. As will be seen hereunder, individuals' CD scores were also related to other aspects of group process and outcome.

For the group as a whole, the Wilcoxon sign-rank test was applied to those early and late individual mean coefficient scores in order to determine the extent and significance of change over time.

Evidence for the prediction would be provided by a significant increase in the number of negatively signed scores over time.

iii) From early to late blocks, there would be an increase in the similarity between individuals' ratings of themselves on the first five sociometric variables and the ratings which they received from the other members of the group.
This prediction was tested by generating mean early and late scores for each individual in their self-ratings on the first five sociometric variables. Similarly, mean early and late scores were computed for each individual of the ratings which they received from the rest of the group on these first five variables. These sets of scores were then correlated using Spearman rank order correlations in order to yield early and late correlation coefficients on each variable for the group as a whole. In addition, early and late self and other ratings were also intercorrelated between the five variables.

Evidence for the prediction would be provided by an increase from early to late in the correlations between self and other ratings on each of the variables.

iv) There would be an increase over time in the relationships between members' pre-treatment levels of compatibility with the group and the ratings they received on the sociometric variables.

This prediction was tested by generating mean scores for individuals of their levels of compatibility with group as a whole. This was done by summing individuals' compatibility scores across the dyads of which they were members for each of the eight compatibility measures. These scores were then correlated with the early and late mean scores which they received on the fifteen sociometric variables (ie five self-rated variables and ten other-rated variables) using Spearman correlation coefficients.

Evidence for the proposition would be provided by increases in the level and/or extent of correlations between the variables from early to late.

Hypothesis 6

There will be a relationship between, on the one hand, members' perceptions of themselves and others in the group and, on the other, their modes of interaction.

In order to investigate the relationship between perception and activity in the group, the following subset of hypotheses were investigated:
a) Individuals' overall level of activity in the
group is associated with the levels of sociometric
ranking which they receive from the rest of the
group on the ten sociometric variables.

This hypothesis was investigated by computing mean
scores for individuals' level of activity in the
group by summing their scores across the eight
HIM categories and six blocks of sessions.
Similarly, their mean rankings obtained from the
rest of the group on each of the sociometric
variables was computed. These two sets of scores
were then correlated for the whole of the group,
using Pearson correlation coefficients. Evidence
for the hypothesis would be provided by findings
of significant correlations between overall
activity level and the sociometric variables.

b) Individuals' scores for receiving interaction
from others is associated with the levels of
sociometric ranking which they receive from the
rest of the group on the ten sociometric variables.

This hypothesis was investigated by computing
mean scores for individuals receiving interaction
from others by summing these scores across the
HIM categories and six blocks of sessions. The
same mean rankings obtained from the rest of the
group on the ten sociometric variables as was
used in a) were then correlated with the scores
for receiving interaction for the whole group,
using Pearson correlation coefficients.

Evidence for the hypothesis would be provided by
the finding of significant correlations between
the scores for receiving interaction and the
sociometric variables.

c) The level of interaction between dyads is
associated with the level of sociometric ratings
which they give one another.

The same scores for level of dyadic interaction
were used as in Hypothesis 3, which investigated
the relationship between dyadic interaction and
the FIRO compatibility scores. For each of these
dyads (N = 105), mean scores for their ratings
of one another across all sessions on each of
the sociometric variables were computed. These
two sets of scores, ie for dyadic interaction
and sociometric rating on each of the ten
variables, were then correlated for the group
as a whole using Pearson correlation coefficients.

Once again, evidence for the hypothesis would be
provided by finding significant correlations
between level of dyadic interaction and mean
rating received on the sociometric variables.
d) The use of specific forms of interaction is associated with the rankings which individuals receive (both self-rankings and those received from the rest of the group) on specific sociometric variables. The testing of this hypothesis involved an investigation of the correlations between each of the eight HIM categories and each of the sociometric variables (five self-rated variables and ten other-rated variables). Accordingly, early and late scores for individuals' use of each of the eight HIM categories were computed across the relevant blocks of sessions, together with mean ratings on each of the sociometric variables. These sets of scores were then correlated for the whole group using Spearman correlation coefficients for both the early and late scores, i.e., early HIM with early sociometric, and late HIM with late sociometric.

In addition, in order to investigate the extent to which change on one set of variables is associated with change on the other, individuals' change scores on each of the HIM categories and sociometric variables were computed by subtraction of early from late scores. These change scores were then similarly correlated with one another, i.e., each HIM variable with each sociometric variable, using Spearman correlation coefficients. Evidence for relationships (and change in these relationships) between specific forms of activity and specific forms of self- and other-perception were adduced from the patterning of significant correlations between the two sets of variables. Once again, in view of the fact that high sociometric ratings were denoted by low numbers (i.e., a score of 1 being the highest ranking), the direction of the correlation was reversed so that high sociometric ratings were positively associated with high HIM scores.

In particular, it was predicted that, over time, sociometric ratings would become increasingly linked to use of the HIM work categories, with a concomitant decrease in correlations with the pre-work categories.
Hypothesis 7

Members' behaviour and perceptions in the group are predictive of outcome.

This hypothesis predicted the existence of relationships between indices of group behaviour and experience, and post-treatment outcome. As far as group behaviour was concerned, the following indices were utilised: individuals' mean late and change (i.e. late minus early) scores on each of the eight HIM categories, together with their scores on 'spread', i.e. the measure of interactional flexibility based on the variance between their mean use of the different categories.

With regard to group perceptions, the following indices were used: individuals' mean late and change (i.e. late minus early) scores on each of the sociometric variables (five for self-ratings and ten for ratings made by others); individuals' late and change scores on the measure of cognitive-perceptual differentiation, based upon the inverse of the mean correlation between the sociometric variables in their ratings of others; and early and late scores for consensus, based upon the mean correlation in the ranking made of them by the rest of the group across the ten variables.

In addition, individuals' mean scores on the eight FIRO compatibility indices (see Hypothesis 3) were derived by summing their compatibility across each dyad of which they were a member. This provided scores for individuals of the extent of their compatibility with the group as a whole.

The outcome indices used comprised individuals' post-treatment scores on each of the variables derived from the four outcome scales used: ICL, FIRO-B, PAQ and SEIS, yielding scores on a total of thirty variables.

The resulting set of outcome indices was then correlated with the HIM, sociometric and Group Compatibility variables described above, using Spearman correlation coefficients.

Evidence regarding the nature of the relationships between the group process and outcome variables was based upon the patterning of significant correlations obtained.

For the sociometric variables, the direction of the correlations was reversed so that high sociometric ratings were positively correlated with high scores on the outcome indices.
Hypothesis 8

General structural characteristics of individuals' participation in the group are predictive of outcome.

One of the main working assumptions of this study is that change is a consequence of complex processes constituted by the interaction of individuals' existing characteristics with their behaviour in and experience of group therapy. This assumption underlies the molecular approach taken to the analysis of group processes and their relationship to outcome.

However, it appeared important to ascertain whether more general characteristics of members' participation in the group were related to outcome and, if so, what the nature of these relationships was. The structural characteristics, which were investigated, comprised individuals' attendance, overall activity and receiving group interaction. These yielded the following subsets of hypotheses:-

i ) Outcome is a function of attendance at the group.
   This hypothesis was tested by the use of individuals' scores for the number of sessions attended at the group during its eighteen-month history. These scores were then correlated with the scores on the thirty variables on the post-treatment scales. The computation used was again the Spearman correlation coefficient.

ii ) Outcome is a function of activity level in the group.
   Individuals' mean scores for overall activity across all eight HIM categories and across all sessions were computed. In addition, change scores for activity were computed by subtraction of early from late overall activity scores. These mean scores for both overall activity and change in activity from early to late were then correlated with the outcome indices (scores on the post-treatment scales) using Spearman correlation coefficients.

iii) Outcome is a function of receiving interaction from the rest of the group.
   Individuals' mean scores for receiving interaction from other members across all sessions were computed. These scores were then correlated with the same outcome indices used in (i) and (ii), using Spearman correlation coefficients.

Evidence for each of these three propositions would be based upon the nature and extent of the significant correlations found between the structural characteristics and the outcome indices.
Hypothesis 9

The nature of individuals' relationship with the therapist is predictive of outcome.

Although the main focus of the study was upon members' interactions with, and perceptions of one another in relation to outcome, it appeared important to test the extent to which their relationship with the therapist was also related to outcome. The following subset of hypotheses was therefore tested:

i) The amount of interaction between the therapist and individual group members is predictive of outcome.

This proposition was tested by computing mean scores for each individual of the amount of interaction which they directed towards and received from the therapist across all blocks of sessions. These two scores (interactions to therapist and from therapist) were then correlated with the outcome indices using Spearman correlation coefficients.

ii) Members' perceptions of the therapist as measured by their ratings of the therapist on the sociometric variables will be predictive of outcome.

Individuals' experience of the therapeutic relationship and the importance of this relationship in comparison with their relationships with other group members was inferred from the rankings which they gave the therapist on the ten sociometric variables.

In order to test this proposition, individuals' mean rankings of the therapist on each of the sociometric variables across all blocks of sessions were computed. These scores were then correlated for the group as a whole with the scores obtained on the outcome indices using Spearman correlation coefficients. Once again, the direction of the correlations was reversed such that high sociometric ranking was positively related to high outcome scores.

Evidence for both of these propositions would be based upon the nature and extent of significant correlations found between the scores for interaction with and perceptions of the therapist and scores on the outcome indices.
Summary

The foregoing has provided a description of the methods used within the present study in the context of a tripartite structure which encompass diagnostic features, the conceptualisation and measurement of group process, and the assessment of outcome. There has followed a description of the scales used and the particular hypotheses advanced and investigated within the first study, together with an account of the data upon which they were tested and the statistical procedures employed.

The chapter hereunder provides the results to each of these hypotheses in turn, after which the findings will be discussed in relation to the evidence which they provide for an interpersonal learning model of group therapy.
**TABLE 2**

Description of the variables derived from the pre- and post-treatment scales

**ICL**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOM</td>
<td>Dominance</td>
</tr>
<tr>
<td>LOV</td>
<td>Affection</td>
</tr>
<tr>
<td>NIC</td>
<td>Acquiescence</td>
</tr>
<tr>
<td>IP1</td>
<td>Disaffiliation</td>
</tr>
<tr>
<td>IP2</td>
<td>Affiliation</td>
</tr>
<tr>
<td>IP3</td>
<td>Assertion</td>
</tr>
<tr>
<td>IP4</td>
<td>Submission</td>
</tr>
</tbody>
</table>

**FIRO-B**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
<td>Expressed inclusion</td>
</tr>
<tr>
<td>WI</td>
<td>Wanted inclusion</td>
</tr>
<tr>
<td>Sum I</td>
<td>Overall importance of inclusion</td>
</tr>
<tr>
<td>DI</td>
<td>Preponderance of expressed over wanted inclusion</td>
</tr>
<tr>
<td>EC</td>
<td>Expressed control</td>
</tr>
<tr>
<td>WC</td>
<td>Wanted control</td>
</tr>
<tr>
<td>Sum C</td>
<td>Overall importance of control</td>
</tr>
<tr>
<td>DC</td>
<td>Preponderance of expressed over wanted control</td>
</tr>
<tr>
<td>EA</td>
<td>Expressed affection</td>
</tr>
<tr>
<td>WA</td>
<td>Wanted affection</td>
</tr>
<tr>
<td>Sum A</td>
<td>Overall importance of affection</td>
</tr>
<tr>
<td>DA</td>
<td>Preponderance of expressed over wanted affection</td>
</tr>
</tbody>
</table>

**PAQ**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sy</td>
<td>Inverse of level of symptomatology</td>
</tr>
<tr>
<td>PR</td>
<td>Ability to engage in intimate personal relations</td>
</tr>
<tr>
<td>SA</td>
<td>Level of self-acceptance</td>
</tr>
<tr>
<td>SU</td>
<td>Level of self-understanding</td>
</tr>
<tr>
<td>SC</td>
<td>Ability to engage in social interaction</td>
</tr>
<tr>
<td>L</td>
<td>Ability to productively structure time</td>
</tr>
<tr>
<td>Adj</td>
<td>Overall level of adjustment</td>
</tr>
</tbody>
</table>

**SEIS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Re</td>
<td>Ability to be interpersonally responsive</td>
</tr>
<tr>
<td>In</td>
<td>Ability to initiate interactions</td>
</tr>
<tr>
<td>Ta</td>
<td>Level of task-orientation towards social situations</td>
</tr>
<tr>
<td>S-E</td>
<td>Level of social-emotional awareness in social situations</td>
</tr>
</tbody>
</table>
Table 3 List of variables derived from the process measures

Hill Interaction Matrix (HIM):

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cv</td>
<td>Conventional</td>
</tr>
<tr>
<td>Ass</td>
<td>Assertive</td>
</tr>
<tr>
<td>Sp</td>
<td>Speculative</td>
</tr>
<tr>
<td>Cf</td>
<td>Confrontive</td>
</tr>
<tr>
<td>Top</td>
<td>Topic</td>
</tr>
<tr>
<td>Gp</td>
<td>Group</td>
</tr>
<tr>
<td>Per</td>
<td>Personal</td>
</tr>
<tr>
<td>Rel</td>
<td>Relationship</td>
</tr>
<tr>
<td>'Spread'</td>
<td>Interactional flexibility measure</td>
</tr>
</tbody>
</table>

Sociometric Questionnaire

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>Helpful</td>
</tr>
<tr>
<td>Do.</td>
<td>Dominant</td>
</tr>
<tr>
<td>S</td>
<td>Sensitive</td>
</tr>
<tr>
<td>N</td>
<td>Needs help</td>
</tr>
<tr>
<td>Di</td>
<td>Able to discuss feelings</td>
</tr>
<tr>
<td>L</td>
<td>Like</td>
</tr>
<tr>
<td>U</td>
<td>Understand</td>
</tr>
<tr>
<td>A</td>
<td>Admire</td>
</tr>
<tr>
<td>T</td>
<td>Trust</td>
</tr>
<tr>
<td>Y</td>
<td>Understands you</td>
</tr>
<tr>
<td>S</td>
<td>Self-ratings</td>
</tr>
<tr>
<td>O</td>
<td>Ratings made by others</td>
</tr>
<tr>
<td>CD</td>
<td>Cognitive-perceptual differentiation measures</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>'Early' scores</td>
</tr>
<tr>
<td>L</td>
<td>'Late' scores</td>
</tr>
</tbody>
</table>
Chapter 7 Results of the First Study

This chapter provides the results to the series of hypotheses developed and described in the previous chapter, together with a correlational analysis of the scales used in the study. With regard to the numbers of individuals upon which these results were based, for the first four hypotheses, N=13; for hypotheses 5 and 6 N=12; and for hypotheses 7, 8 and 9, N=10.

All correlational results reported were significant at the .05 level, unless otherwise stated. Table 2 shows the variables used in the analyses, which were derived from the pre-post scales. Table 3 shows the variables used in the analyses, which were derived from the process scales. These two tables thus provide the keys for the symbols used in the following tables and in the description of results in the text.

Details of the correlational analysis of the scales structure will be provided first, followed by the results of the hypotheses.

Correlational structure of the scales used in the study

In order to uncover the structure of the scales used in the study and the relationships between them, a correlational study was carried out as follows:

1. Intercorrelations were computed for the variables in each of the pre-treatment scales: ICL, FIRO-B, PAQ and SEIS. This aimed to provide information on the internal structure of each of these scales.

2. Intercorrelations were computed for the variables between the four pre-treatment scales. This aimed to identify the relationship between the scales; and on the basis of this, determine areas of commonality and diversity in this structure over time.
3. Intercorrelations were computed for early and late scores on the HIM variables. This aimed to identify the structure obtaining for the matrix and changes in this structure over time.

4. Intercorrelations were computed for early and late scores on the Sociometric Questionnaire. This aimed to identify the relationship between the variables used in the questionnaire and changes in these relationships over time. The results of this part of the study are to be found elsewhere (see Appendix 10).

The results of Parts 1 and 2 were used to determine which pre-treatment assessment variables should be used and which omitted in order to provide clarity and ease of interpretation of results in relation to the hypotheses in the first study. All the variables from each of the scales were retained for inclusion in the second study, where the interest was in part orientated towards an explication of structure and changes in structure over time.

The sample used for this correlational study comprised the members of the two psychotherapy groups (N = 23). The correlational method used was the Spearman Correlation Coefficient. All correlations reported were significant at the .05 level (* = significant at .01 level).

1. **Intercorrelations between the variables in each of the pre-treatment scales**

   **ICL**

   Table 4 provides the significant intercorrelations between the seven variables used on the scale.

   This table firstly shows a high positive correlation between DOM and IP3 (Assertion), and a high negative correlation between DOM and IP4.
Table 4: Pre-treatment intercorrelations between the I C L variables

<table>
<thead>
<tr>
<th></th>
<th>DOM</th>
<th>LOV</th>
<th>NIC</th>
<th>IP1</th>
<th>IP2</th>
<th>IP3</th>
<th>IP4</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOM</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.36</td>
<td>-</td>
<td>.85*</td>
<td>.71*</td>
</tr>
<tr>
<td>LOV</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-.61*</td>
<td>.59*</td>
<td>-</td>
<td>.47</td>
</tr>
<tr>
<td>NIC</td>
<td></td>
<td></td>
<td>-</td>
<td>.59*</td>
<td>.74*</td>
<td>-</td>
<td>.57*</td>
</tr>
<tr>
<td>IP1</td>
<td></td>
<td></td>
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<td>-</td>
<td>-</td>
<td>.56</td>
<td>.48</td>
</tr>
<tr>
<td>IP2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
<td>.42</td>
</tr>
<tr>
<td>IP3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IP4</td>
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<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Table 5: Pre-treatment intercorrelations between the F I R O-B variables

<table>
<thead>
<tr>
<th></th>
<th>EI</th>
<th>WI</th>
<th>Sum I</th>
<th>DI</th>
<th>EC</th>
<th>WC</th>
<th>Sum C</th>
<th>DC</th>
<th>EA</th>
<th>WA</th>
<th>Sum A</th>
<th>DA</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
<td>-</td>
<td>.70*</td>
<td>.85*</td>
<td>-</td>
<td>.50</td>
<td></td>
<td>-</td>
<td>.51</td>
<td>.49</td>
<td>.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WI</td>
<td></td>
<td>-</td>
<td>.92*</td>
<td></td>
<td>.42</td>
<td></td>
<td>-</td>
<td>.48</td>
<td>.61*</td>
<td>.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>.58*</td>
<td>.69*</td>
<td>.67*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DI</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>.41</td>
<td></td>
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<td></td>
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<tr>
<td>EC</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>WC</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>EA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WA</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Sum A</td>
<td></td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>DA</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(Submission). In addition, there is a high positive correlation between NIC (Acquiescence) and IP2 (Affiliation).

Furthermore, there are moderate positive correlations between NIC and IP1 (Dissaffiliation), between LOV and IP2, between IP4 and NIC, between IP3 and IP1, and a moderate negative correlation between LOV and IP1.

This pattern of correlations in the main links summary scores to quadrant scores. Thus, DOM may be seen as related to the vertical dominance - submission axis of the scale in its positive relationship to IP3 and negative relationship to IP4. Similarly, LOV occupies an analogous position in relation to the horizontal affiliation - dissaffiliation axis, being positively related to IP2 and negatively to IP1.

In contrast, NIC may be seen as occupying a dimension outside the circumplex structure; and is found to have significant positive relationships with three of the four quadrants, the exception being IP3 i.e. a measure of assertion in interpersonal interactions.

There are a few significant correlations between the quadrants. The correlations between IP1 and IP3 and between IP2 and IP4, link together adjacent quadrants. The negative correlations between IP3 and IP4 emphasises the polarity of the assertion - submission axis. The only significant correlation found between the summary scores is a negative one between DOM and LOV.

**FIRO-B**

Table 5 shows the significant correlations between the 12 variables of FIRO-B.
Both the Inclusion (I) and Affection (A) scales show high positive correlations between the Expressed (E), Wanted (W) and Sum Scores. These are particularly high for the sum scores with the other two, E and W. The Inclusion scale also shows negative correlations between the Difference score (D) and the Wanted and Sum Scores; while the Affection scale has a positive correlation between the Difference and Expressed scores.

With regard to the Control (C) scale, there are high positive correlations between the Wanted and Sum scores, and between the Expressed and Difference scores. In contrast, there is also a high negative correlation between the Wanted and Difference scores, and a moderate negative correlation between the Sum and Difference scores.

Furthermore, there is a set of moderate positive correlations between the Inclusion and Affection scales, which particularly relate the Expressed, Wanted and Sum scores of these scales together. In addition, the Difference score for Inclusion has a negative correlation with Wanted Affection.

In summary, the three scales I, C and A exhibit clear internal relationships between their constituent scores. These relationships tend to be strongly positive between the Wanted and Sum scores, and between the Expressed and Difference scores; and negative between the Wanted and Difference scores. The pattern of correlations between the three scales suggests that Inclusion and Affection are closely related to one another; while the Control scale is unrelated to the other two.

PAQ

Table 6 shows the significant correlations between the seven variables on the scale.
Table 6: Pre-treatment intercorrelations between the PAQ variables

<table>
<thead>
<tr>
<th></th>
<th>Sy</th>
<th>PR</th>
<th>SA</th>
<th>SU</th>
<th>SC</th>
<th>L</th>
<th>Adj</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sy</td>
<td>-</td>
<td>-</td>
<td>.49</td>
<td>.36</td>
<td>.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PR</td>
<td></td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td>.42</td>
<td>.42</td>
</tr>
<tr>
<td>SA</td>
<td></td>
<td></td>
<td>.69*</td>
<td></td>
<td></td>
<td>.51</td>
<td>.51</td>
</tr>
<tr>
<td>SU</td>
<td></td>
<td></td>
<td></td>
<td>.44</td>
<td></td>
<td>.86*</td>
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<td>.60*</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>.49</td>
<td>.49</td>
</tr>
</tbody>
</table>

Table 7: Pre-treatment Intercorrelations between the SEIS Variables

<table>
<thead>
<tr>
<th></th>
<th>Re</th>
<th>In</th>
<th>Ta</th>
<th>S-E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Re</td>
<td>-</td>
<td>.61*</td>
<td>.63*</td>
<td>.75*</td>
</tr>
<tr>
<td>In</td>
<td></td>
<td></td>
<td>.94*</td>
<td>.43</td>
</tr>
<tr>
<td>Ta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S-E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This table firstly shows that each of the variables is significantly correlated with the overall measure, Adj, these correlations being particularly high for the two self-concept measures, SA (Self-Acceptance) and SU (Self-Understanding). These two variables are also highly intercorrelated between themselves.

In addition, SA is positively related to PR (Personal Relationships) and to L (use of time); and SU to Sy (Symptom Level) and SC (Social Contacts).

Finally, there is also a positive correlation between Sy and SC, linking together symptom level with adequacy of social contacts.

The foregoing indicates that each of the variables is well related to the overall measure; and suggests that the two variables pertaining to the self occupy a central role in relation to the remaining variables.

SEIS

Table 7 shows the significant correlations between the four variables on this scale.

Positive correlations are to be found between each of the four variables with the exception of Ta (Task Orientation) and S-E (Social-Emotional Orientation).

These correlations are particularly high between Ta and In (Initiating Interaction). These two variables may hence be taken as both measuring instrumental aspects of role taking in interpersonal situations. Similarly, Re (Responsivity) and S-E have their highest correlation with one another; and have in common an orientation towards emotional sensitivity in interpersonal behaviour.
This pattern of correlations suggests that the scale is measuring two distinct but related aspects of individual's perceptions of their social behaviour.

The foregoing has identified the structural relationships between the variables within the four assessment scales. Particularly high correlations were found between the following variables:

For ICL: DOM and IP3.

For FIRO-B: EI and Sum I, WI and Sum I, WC and Sum C, WC and DC (negative), EA and Sum A, and WA and Sum A.

For PAQ: SA and Adj and SU and Adj.

For SEIS: In and Ta, Re and S-E.

All of these correlations were in excess of .75. On this basis and in order to provide parsimony and ease of interpretation of results, the following variables were excluded from the hypotheses tested in the first study: IP3, Sum I, Sum C, DC, Sum A, Adj, Re and In.

2. Intercorrelations between the variables across the pre-treatment scales

ICL and FIRO-B

Table 8 shows the significant correlations between the variables used on these two scales.

Firstly, this table shows a lack of relationship between the ICL variables and the Inclusion scale of FIRO. The only correlation found is between IP2 and EI, which links the affiliation quadrant of ICL to an orientation of expressing inclusion towards others.
Table 8: Pre-Treatment Intercorrelations between the ICL and FIRO-B Variables

<table>
<thead>
<tr>
<th>FIRO-B</th>
<th>DOM</th>
<th>LOV</th>
<th>NIC</th>
<th>IP1</th>
<th>IP2</th>
<th>IP3</th>
<th>IP4</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
<td></td>
<td></td>
<td></td>
<td>.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC</td>
<td>.54*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.68*</td>
<td></td>
</tr>
<tr>
<td>WC</td>
<td></td>
<td>-.67*</td>
<td></td>
<td>.71*</td>
<td></td>
<td>-.49</td>
<td></td>
</tr>
<tr>
<td>Sum C</td>
<td></td>
<td></td>
<td>.49</td>
<td></td>
<td></td>
<td>.71*</td>
<td>-.54*</td>
</tr>
<tr>
<td>DC</td>
<td>.79*</td>
<td></td>
<td></td>
<td></td>
<td>.71*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EA</td>
<td></td>
<td></td>
<td>.63*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WA</td>
<td>.50</td>
<td>.46</td>
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</tr>
<tr>
<td>Sum A</td>
<td>.50</td>
<td>.40</td>
<td>.56*</td>
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</tbody>
</table>

Table 9: Pre-Treatment Intercorrelations between the ICL and PAQ and SEIS Variables

<table>
<thead>
<tr>
<th>PAQ</th>
<th>DOM</th>
<th>LOV</th>
<th>NIC</th>
<th>IP1</th>
<th>IP2</th>
<th>IP3</th>
<th>IP4</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td>.37</td>
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<tr>
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<td>.55*</td>
<td></td>
<td></td>
<td></td>
<td>.41</td>
<td>-.39</td>
<td></td>
</tr>
<tr>
<td>SU</td>
<td>.41</td>
<td></td>
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<td>-.45</td>
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</tr>
<tr>
<td>Adj</td>
<td>.57*</td>
<td></td>
<td></td>
<td></td>
<td>.43</td>
<td>-.50</td>
<td></td>
</tr>
<tr>
<td>SEIS:</td>
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<td></td>
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</tr>
<tr>
<td>Re</td>
<td>.58*</td>
<td>-.41</td>
<td></td>
<td>.48</td>
<td>.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In</td>
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<td>-.61*</td>
<td>.41</td>
<td>.74*</td>
<td>-.81*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ta</td>
<td>.74*</td>
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<td>.42</td>
<td>.67*</td>
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<td>S-E</td>
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<td></td>
<td>.54*</td>
<td>-.37</td>
</tr>
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</table>
Secondly, there are a number of correlations linking ICL variables to the Control scale to FIRO. In particular, both DOM and IP3, which emphasise assertive behaviour towards others are positively related to EC and DC, and negatively to WC. Similarly, IP1, which is a measure of dissaffiliation is positively correlated with EC and DC. Thus, DOM, IP3 and IP1 all relate to expressive aspects of controlling others in interpersonal situations.

In contrast, LOV is negatively related to the same two variables of expressive control; and IP4 (the ICL measure of submission) is negatively related to DC, but positively related to WC and Sum C, which are the FIRO variables measuring seeking control from others.

Thirdly, there is a set of correlations between the Affection scale of FIRO and ICL variables. Both LOV and IP2 (the affiliation quadrant of ICL) evidence positive correlations with EA, WA and Sum A. NIC has positive correlations with EA and Sum A, which suggests a link between social acquiescence and affiliation; and incidentally recalls the earlier correlation found between NIC and IP2. In addition, there is a positive relationship between IP4 (the submission quadrant of ICL) and WA, the FIRO measure of wanting affection from others.

In summary, this pattern of correlations provides evidence for consistent differential relationships between the Control and Affection scales of FIRO-B and the ICL variables. In particular, these link DOM and IP3 positively and IP4 negatively to expressive aspects of control; and LOV and IP2 to both expressive and seeking orientations in relation to affection. In contrast, the Inclusion scale of FIRO-B would appear to be tapping aspects of interpersonal behaviour other than those measured by the ICL.
ICL and PAQ

Table 9 shows the significant correlations between the variables on these two scales.

These correlations mainly associate the dominance - submission axis of ICL to those PAQ variables pertaining to adequacy of personal relationships (PR) and level of self-acceptance (SA), and in addition to the overall level of adjustment (Adj). Thus, both DOM and IP3 evidence positive correlations with PR, SA and Adj; while IP4 shows negative correlations with these variables. In addition, DOM has a positive correlation with SU (Self-Understanding); and IP4 shows a negative correlation with L (use of time).

This pattern of correlations suggests that specific PAQ variables are related to ICL measures of assertion (positively) and submission (negatively). However, it must be stated that the level of these correlations are at most moderate. The Sy (Symptomatology) and SC (Adequacy of Social Contacts) variables were unrelated to ICL variables; and similarly, the affiliation - dissaffiliation axis variables (LOV, IP1 and IP2) of ICL were unrelated to the PAQ measures.

With the exception of the moderate relationships noted above, this suggests that ICL and PAQ are, in the main, oriented towards different aspects of functioning.

ICL and SEIS

Table 9 shows the significant correlations between the variables on these two scales.
These correlations link DOM and IP3 positively and IP4 negatively to all four of the SEIS variables, these correlations being particularly high for In and Ta. Thus, these two measures of instrumental role taking are closely associated with measures of assertive interpersonal behaviour.

They are also more moderately positively related to IPI, the disaffiliation quadrant of ICL. In addition, three of the SEIS variables, Re, In and Ta are negatively correlated with LOV.

This pattern of correlations suggests that the SEIS variables are related to assertive modes of interpersonal behaviour as measured by ICL; and with the exception of S-E, negatively related to affiliative behaviour.

FIRO-B and PAQ

Table 10 shows the significant correlations between the variables on these scales.

The majority of these correlations relate FIRO control scale variables to the PAQ variables concerned with the self and the overall measure. Thus, both WC and Sum C are negatively correlated with SA, SU and Adj; and DC is positively correlated with these same variables. The magnitude of these correlations is higher for SU than for the other two variables. This suggests that level of adjustment, both overall and in relation to adequacy of the self concept, is negatively related to seeking others control in interpersonal interaction.

Other observed correlations link SC to the Affection scale. Thus, both EA and Sum A are positively correlated with SC, which is the PAQ variable measuring the ability to engage in social interaction. These correlations suggest that SC is related to the ability to express positive feelings of affection towards others.
Table 10: Pre-Treatment Intercorrelations between the FIRO-B and PAQ and SEIS Variables

<table>
<thead>
<tr>
<th>PAQ:</th>
<th>EI</th>
<th>EC</th>
<th>WC</th>
<th>Sum C</th>
<th>DC</th>
<th>EA</th>
<th>Sum A</th>
<th>DA</th>
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</thead>
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<tr>
<td>SU</td>
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<td>Adj</td>
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<td>SEIS:</td>
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<tr>
<td>In</td>
<td>.67*</td>
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<tr>
<td>Ta</td>
<td>.63*</td>
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<tr>
<td>S-E</td>
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</tbody>
</table>

FIRO-B Variables

- FIRO-B Variables include El, EC, WC, Sum C, DC, EA, Sum A, and DA.
- Pre-Treatment intercorrelations are shown for each variable pair.
- Correlation coefficients are indicated by numerical values.
- Asterisks (*) indicate statistically significant correlations.

Example:
- The correlation between EI and EC is -.51.
- The correlation between SU and SC is .38.
- The correlation between SC and L is .38.
- The correlation between SEIS and Re is .39.
- The correlation between SEIS and In is .67*.
In addition, there is a positive correlation between EI and L, which indicates a link between being able to include others in one's activities and being able to adequately structure one's time.

In contrast, PAQ indices of the level of symptomatology and the ability to engage in personal relationships are unrelated to the FIRO variables.

In summary, these results provide evidence for differential relationships between the three FIRO scales and specific PAQ variables. These relationships emphasise a link between the various indices of adjustment and the ability to be expressive and non-needy in interpersonal relationships.

**FIRO-B and SEIS**

Table 10 provides the significant correlations between these two scales.

As with the PAQ, the majority of the correlations for SEIS relate to the control scale of FIRO-B. Thus, In (Initiating Interaction) and Ta (Task-Oriented) evidenced positive correlations with EC and DC; and negative correlations with WC. This pattern suggests that the two SEIS measures of instrumental role taking in social situations are related positively to FIRO variables measuring an assertive orientation of expressing control towards others.

The remaining correlations link the Affection scale of FIRO to the remaining two SEIS variables. Thus, S-E has positive correlations with EA and DA; and Re has a positive correlation DA. This suggests that S-E, which aims to measure emotional sensitivity towards others, and Re which aims to measure responsivity, are both associated with the expression of warm feelings of affection towards others.

In contrast, the Inclusion scale of FIRO is unrelated to the SEIS variables.
In summary, clear consistent and differentiated relationships were found between the two scales. In particular, these relate the SEIS variables measuring instrumental role taking to the Control scale of FIRO; and the SEIS variables of interpersonal sensitivity to the Affection scale.

**PAQ and SEIS**

Table 11 shows the significant correlations between these two scales. These correlations, in the main, relate In positively to a variety of adjustment variables, including SA, SU, L and Adj. Thus, the ability to initiate interaction is related here to indices of self concept, ability to structure time and an overall level of adjustment. In addition, Ta is positively correlated with L and Adj.

Thus, both instrumental role taking variables of SEIS are related to various aspects of adjustment; whereas the variables pertaining to interpersonal sensitivity are not so related.

The foregoing provides evidence for the existence for logically consistent differentiated relationships between the four scales, which enables the delineation of areas of commonality and diversity. The main areas of commonality may be summarised as follows (relationships being positive unless otherwise stated):

1. The ICL dominance - submission axis with the FIRO Control scale, PAQ indices of personal relationships, self concept and overall adjustment level, and all four SEIS variables.

2. The ICL affiliation - disaffiliation axis with the FIRO Affection scale, and with the SEIS variables except S-E (negative).

3. The FIRO Control scale with PAQ indices of self concept and overall adjustment, and SEIS measures of instrumental role playing.
Table 11: Pre-Treatment Intercorrelations between the PAQ and SEIS Variables

<table>
<thead>
<tr>
<th>SEIS:</th>
<th>PAQ Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SA</td>
</tr>
<tr>
<td>In</td>
<td>.39</td>
</tr>
<tr>
<td>Ta</td>
<td></td>
</tr>
</tbody>
</table>
4. The FIRO Affection scale with the PAQ indice of social contact, and SEIS measures of interpersonal sensitivity.

5. The PAQ variables of self concept, use of time and overall adjustment level; with SEIS measures of instrumental role taking.

3. Intercorrelations between the HIM variables

Table 12 (early) and 13 (late) shows the significant intercorrelations between the variables which comprise HIM. These variables consist of four measures of style of interaction: Conventional (Cv), Assertive (Ass), Speculative (Sp) and Confrontive (Cf); and four measures of content of interaction; Topic (Top), Group (Gp), Personal (Per) and Relationship (Rel).

In looking at the early relationships between the style variables, Cv and Sp are highly intercorrelated, thereby linking a pre-work with a work category. Sp is also correlated with Cf, which relates the two work style categories together; and Cf is correlated with Ass, these two variables being taken as measures of interpersonal risk taking in interaction.

The early correlations between the content categories emphasise the centrality of Personal (Per) which is positively related to each of the other three, Top, Gp and Rel. In addition, Topic is positively related to Group, which thereby relates the two pre-work content variables to one another.

So far as the relationships between the early style and content variables are concerned, Cv is highly correlated with all four content categories as also is Sp. Cf is significantly correlated with Gp and Per; while Ass is uncorrelated with the content categories. The particularly high correlation between Per and Sp is accounted for by the fact that the majority of early group interactions had the individual members as their
### Table 12: Early Intercorrelations between the HIM Variables

<table>
<thead>
<tr>
<th></th>
<th>Cv</th>
<th>Ass</th>
<th>Sp</th>
<th>Cf</th>
<th>Top</th>
<th>Gp</th>
<th>Per</th>
<th>Rel</th>
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<td>-</td>
<td>-</td>
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</table>

### Table 13: Late Intercorrelations between the HIM Variables

<table>
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<tr>
<th></th>
<th>Cv</th>
<th>Ass</th>
<th>Sp</th>
<th>Cf</th>
<th>Top</th>
<th>Gp</th>
<th>Per</th>
<th>Rel</th>
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</thead>
<tbody>
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<td>.62*</td>
<td>-</td>
<td>.53</td>
<td>.78*</td>
<td>.71*</td>
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<tr>
<td>Ass</td>
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<td>-</td>
<td>.59*</td>
<td>-</td>
<td>.57*</td>
<td>.61*</td>
<td>.91*</td>
<td>.56*</td>
</tr>
<tr>
<td>Sp</td>
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<td>.66</td>
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<td>Gp</td>
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<td>Rel</td>
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</table>
focus; and were characterised by a speculative approach to the material presented.

With regard to the late relationships between the variables, for the style variables, Sp remains positively correlated with both Cv and Cf. However, the early correlation between Cf and Ass is no longer in evidence; and indeed Ass is uncorrelated with any of the other variables.

The late content variables show significant correlations for Per with Top and Gp; though no longer with Rel. This latter absence of relationship may suggest that late in the group, patients become differentiated between those talking about personal and those discussing relationship issues in the group. In contrast, there is now a significant correlation between the two pre-work categories, Top and Gp, which was not in evidence for the early scores.

For the correlations between the late style and content variables, Cv is correlated with three of the content variables, Top, Gp and Per; Ass is uncorrelated with any of the other variables; Sp is correlated with all four content variables, but particularly highly with Per (as with the early scores); and Cf remains correlated with Per; and in addition, is now also correlated with Top and Rel.

Overall, the pattern of correlations between early and late evidences a high degree of consistency. Speculative and Personal are the two most highly intercorrelated variables; and Assertive the least across both sets of scores. The main change refers to the Relationship variable, which early is related to Conventional, Speculative, Topic and Personal; but late is only related to the two work style variables, Speculative and Confrontive. In addition, Topic loses its relationship with Confrontive, but becomes correlated with Group; and the early scores. What these changes have in common is the development from early to late of a differentiation between the pre-work and higher work categories.
A few of the observed correlations are particularly high. For early scores, these comprise the correlations between Conventional and Speculative, Conventional and Personal, Speculative and Personal, and Speculative and Relationship; for late scores they comprise the correlations between Conventional and Group, and Speculative and Personal. However, in view of the small number of variables in each part of the scale i.e. content and style, pre-work and work, and also the above mentioned changes from early to late, it was decided to retain all the variables for inclusion in the hypotheses tested in the first study.

HYPOTHESIS 1

This hypothesis predicted that there would be discrete patterns of relationship between members' pre-treatment profiles and their subsequent behaviour in group. The analysis was based upon all members of the group (N=13).

1:1 Overall group behaviour

The first form of analysis sought to identify the relationships between members' pre-treatment indices and their group behaviour throughout their group career. In order to achieve this, Spearman Correlation Coefficients were generated between members' pre-treatment assessment scores and their mean scores for proportions of group activity within each of the HIM categories across all sessions. (See Table 14). The correlations discussed are significant at the .05 level (* indicates significant at the .01 level).

Overall, involvement in group activity was characterised by individuals exhibiting high scores on self-understanding (SU). In contrast low scores were found on wanting control (WC) and submissive affiliation towards others (IP4).
<table>
<thead>
<tr>
<th>Pre-treatment Variables</th>
<th>HIM Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICL : DMY</td>
<td></td>
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<tr>
<td>NIC</td>
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<tr>
<td>IP4</td>
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<tr>
<td>FIRO: WI</td>
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<td>BC</td>
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<tr>
<td>WC</td>
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<td>PAQ : Sy</td>
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<td>SU</td>
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<td>SC</td>
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<tr>
<td>SEIS : Ta</td>
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Table 14: Correlations between client characteristics and overall group behaviour
This pattern typifies the majority of the HIM categories with the exception of the assertive style for which no significant correlations were found with the pre-treatment indices.

So far as the other style summary scores were concerned, the conventional style was particularly associated with self-understanding (SU = .69*). Concomitantly, negative correlations were found for wanting control (WC = -.68*), and the submissive quadrant of ICL (IP4 = -.59).

The speculative style of interaction was broadly similar in terms of the range and degree of relationship with these pre-treatment indices: SU = .72*, WC = -.64* and IP4 = -.49. In addition however, positive relationships were found with ICL Dominance (DOM = .48), a task orientation towards social interaction (Ta = .54), and self-acceptance (SA = .48).

It is possible that this triad of additional relationships distinguishes the speculative style, with its orientation towards therapeutic work, from the conventional, which appears to be more associated with a good level of social adjustment and positive mental health. The relationships with Ta and SA possibly suggest that the ability to engage in speculative activity is associated with individuals having both a task orientation towards group work and a level of self-acceptance which permits them to tolerate this.

The Confrontive style had positive correlations with SU (.49) and negative with WC (-.62) and DA (-.49). These associations link the category with a high level of self-understanding; a tendency to express control rather than seek it; and a balance between expressing and seeking affection.

With regard to the content categories, topic-centred content was positively associated with DOM (.53) and EC (.50) and negatively with WC (-.47).
This pattern suggests that this form of interaction is characterised by individuals demonstrating assertive, controlling pre-treatment profiles.

In contrast, group-centred interactions had a positive relationship with SU (.55); and negative with NIC (-.48), an ICL measure of social acquiescence, IP4 (-.61), WC (-.66*), and DA (-.62). This indicates that individuals engaging in this type of interaction are characterised by a good level of self-understanding, equal levels of expressing and seeking affection, and low acquiescence and submissiveness.

The individual content category was broadly similar to the speculative style in its relationship with the pre-treatment assessments. Thus, positive correlations were found with Ta (.54), SU (.70), and negative with WC (-.62).

Finally, interactions concerning relationships in the group were positively correlated with Sy (.67), SC (.55), WI (.56) and EA (.52). This pattern differs from the earlier ones in that it associates discussion of relationships with individuals having low levels of symptomatology, an orientation towards an involvement in activities together with others, and a tendency to express feelings of affection towards others.

In summary, several of the pre-treatment indices, particularly SU (positive) and WC and IP4 (negative) were associated with a number of the HIM category types. However, in looking at the patterning of the relationships clear differences in quality and quantity emerge in the profiles of the pre-treatment indices as they relate to the HIM category types.

For the style categories, the assertive style had little relationship with the pre-treatment categories. The conventional and speculative styles were broadly similar, with the latter having additional relationships with Ta, SA and DOM.
For the content categories, topic-centred content was positively associated with a range of indices of emotional well-being; group content was negatively associated with a set of indices, characterised by submissiveness and acquiescence, and positively with SU; individual content was similar to speculative style in its association with a range of indices involving adjustment, assertion and activity; and relationship content was particularly related to indices emphasising involvement with others as well as a low level of symptoms and good general adjustment.

1:2 Early and late group behaviour

In order to look more closely at the continuities in behaviour from pre-treatment to in-group and to establish when during their group careers personality tendencies become operative in group behaviour, the data was further analysed in terms of the relationship between pre-treatment assessments and 'early' and 'late' use of the HIM categories. 'Early' and 'late' were defined in terms of the stages in the group's history, when changes in membership occurred. Thus, blocks of sessions 1, 3 and 5 were designated 'early' and 2, 4 and 6 'late'.

As for the first analysis, Spearman Correlation Coefficients were computed between members' pre-treatment assessment scores and their early and late scores on each of the HIM categories, these latter scores being composed of individuals mean scores on each of the categories across the relevant sessions.

Table 5 shows the significant correlations between pre-treatment indices and HIM categories, correlations being significant at the .05 level (* = .01 level).
Table 15: Correlations between client characteristics and early and late group behaviour

| Pre-treatment variable | HIM Variables
<table>
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<tbody>
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<td></td>
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<td>EA</td>
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<td>SU</td>
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<td>Ta</td>
<td>.48</td>
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<td>S-E</td>
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The conventional style of interaction showed consistency in the nature of its relationships with pre-treatment indices from early to late, in particular with SU (.59 and .76*) and IP4 and WC (-.51 and -.54). However, the size and significance of correlations were increased for later relationships, particularly for WC (negative) and SU (positive). Additionally, there was an early relationship with SA which was not in evidence later on; and a late relationship with Ta (positive) which was not in evidence for early correlations.

The implications of this pattern of relationships are that while early use of the conventional style is associated with those members possessing good levels of adjustment and low submissiveness, this trend becomes more pronounced later on being associated also with members high on assertion.

The assertive style showed no early correlations with pre-treatment indices. However, the late use of this style was significantly negatively correlated with S-E. Late use of this style was thus associated with members having a markedly low level of awareness of others' social - emotional needs in interpersonal situations.

Speculative interactions showed consistency from early to late, particularly in their association with SU, once again the trend being for late correlations to be higher and more extensive than early. In addition, however, early interactions were positively associated with Ta and negatively with IP4, these relationships emphasising early task orientation and low submissiveness.

Late associations related to DOM and SA (positive) and WC (negative). This suggests that late use of speculative interactions was engaged in by individuals whose pre-treatment profiles were high on dominance and self-acceptance, and particularly low on wanting others to take control for them.
The confrontive style of interaction showed early negative relationships with WC and DA, the first indicating a low level of wanting control by others and the second a broadly similar level of wanting and expressing affection. The only significant late relationship for this style was with Sy, suggesting that members with low levels of pre-treatment symptomatology engaged in confrontive interactions late in the group's history.

In looking at the content categories, there was firstly a disjunction between early and late for topic-centred content. Early use of this category was positively associated with EC which emphasises the preference for exerting control over others and SC which relates to the ability to engage others socially.

The late significant relationships for this category were all negative: NIC, IP2, IP4 and WC. These indicated that late use of this category was associated with individuals who were low on acquiescence, affiliation, and seeking control from others. Finally, for both early and late, the correlations, although significant, tended to be generally lower than for other categories.

Group-centred interactions were consistent from early to late in their negative relationships with IP4, WC and DA, suggesting that members engaged in this category were characterised by low submissiveness and seeking control from others, and a balance between expressing and seeking affection from others. Late correlations tended to be higher and more extensive, incorporating also a negative relationship with NIC (i.e. low social acquiescence) and positive with SU (self-understanding).

Interactions, whose content revolves around personally-relevant issues, were engaged in both early and late by members scoring high on Ta (task orientation) and SU (self-understanding), the later correlations generally being higher.
There were additionally, however, differences in the profiles of members engaging in these types of interaction from early to late. Thus early was related positively to DOM (dominance) and negatively to IP4 (submissive), although these correlations were not particularly high. Later use of the category was negatively associated with WC indicating a low level of wanting control.

Finally, for relationship content, there was only one correlation linking early use of this category with the pre-treatment indices, namely Sy. This points up the early use of this category by members exhibiting low levels of symptomatology.

In contrast, late use of the category was related to a range of indices in addition to Sy: LOV (related to a desire to be close to others), IP2 (assertive-affiliative quadrant of ICL), the Inclusion and Affection scales of FIRO-B, and SC (related to the ability to engage others socially). These indices are clearly related to one another and have in common an orientation towards emotional involvement with others.

Apart from looking at each category individually, an additional index was developed, which referred to the extent to which individuals made use of a variety of categories in their interactions with others. This index, which was taken to be a measure of flexibility in interpersonal interaction was derived from the computation of individual’s variances in their mean scores on the eight HIM categories for both early and late. The resulting scores for HIM ‘Spread’ were then correlated with the pre-treatment indices using Spearman correlation coefficients.

The following significant correlations were obtained for the early 'Spread' scores: positive with SU (.52) and Ta (.56) and negative with IP4 (-.51). Thus, there was a clear association between individuals early spread in use of
the categories and pre-treatment variables relating to self-understanding and instrumental social skills; together with a negative relationship with submissiveness in interpersonal behaviour. In general, early interactional flexibility was thus associated with positive pre-treatment characteristics.

1:3 Summary

The foregoing confirms the conclusion of the first analysis that certain pre-treatment indices, notably SU (positive), and WC and IP4 (negative) were related to member's use of a number of HIM categories. Additionally, there were marked degrees of consistency between early and late for certain HIM categories, particularly the conventional and speculative styles and the group and individual content in their relationships with pre-treatment indices.

However, there were also marked differences in the patterns of relationships with pre-treatment indices, both between the categories and also within a category from early to late. Thus, for the style categories there were clear differences in their relationships with the pre-treatment indices; and with the exception of the confrontation style, all showed higher and more extensive correlations late than early.

Similarly, the content categories differed from each other and also from early to late, most particularly for the topic and relationship categories. While the scope of late correlations, with the exception of the relationship category, was not greater for later than earlier relationships, there was a tendency for them to be more significant.

This finding of a greater association between pre-treatment indices and late group behaviour suggests that, although there are continuities in behaviour from pre-treatment to early group behaviour, it is only later on in their group careers that members more fully exhibit their typical modes of behaviour.
These results therefore provide positive evidence for the 'social microcosm' hypothesis of group functioning, but suggest also that this may well be a developmental process of members progressively during their group careers coming to exhibit in the group their usual forms of behaviour. The full operation of the social microcosm mechanism, thus, does not occur early in the group's history but rather is subject to delay.
HYPOTHESIS 2

This hypothesis aimed to investigate the extent to which member's pre-treatment characteristics were predictive of the ways in which they were perceived by themselves and others in the group. All members of the group (N = 13) were included in these analyses.

2.1 Pre-treatment characteristics and early group ratings

Sociometric ratings early in the group were divided into self and other ratings and correlated with the pre-treatment indices using Spearman correlation coefficients. The first five sociometric variables provided scores for both self and other ratings, (i.e. helpful, dominant, sensitive, needs help and able to discuss feelings); the second five provided scores for other-ratings (i.e. like, understand, admire, trust and understands you).

Table 4.6 shows the significant correlations (i.e. significant at the .05 level; * indicates significant at the .01 level) between the pre-treatment indices and the early sociometric ratings, the direction of the correlations having been adjusted so that high scores on the pre-treatment variables are associated positively with high sociometric ratings. S and O refer to self and other-ratings respectively.

In looking initially at the first five sociometric variables, i.e. those orientated towards evaluations of members group behaviour, there was an absence of significant correlations for Helpful. This may well reflect the multifaceted nature of this variable and the idiosyncratic meanings attached to it.

For the self-rated variables, Dominant showed positive correlations with EC (.60) and negative with IP4 (-.49) and WC (-.73*). These associate the variable with high scores on pre-treatment indices of expressing control, and low scores on submissiveness and seeking control from others.
Table 16 - Correlations between client characteristics and early sociometric ratings

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<thead>
<tr>
<th>Pre-treatment Variables</th>
<th>Sociometric variables (early ratings)</th>
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<th>Dc</th>
<th>S</th>
<th>N</th>
<th>Di</th>
<th>L</th>
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<td>SEIS: S-E</td>
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Note: * indicates statistical significance at the .05 level.
Similarly, Sensitive showed negative correlations with IP4 (-.52), and WC (-.71*); and Able to Discuss Feelings had a negative correlation with WC (-.67*).

In addition, Needs Help also showed a positive correlation with EC (.60) but also had a negative correlation with DI (.57), linking the variable to a difficulty in including others in one's activities.

The pattern of correlations for ratings made by others was quite different. Thus, Dominant had a positive correlation with IP2 (.49), the ICL indice of affiliation. In contrast, Sensitive showed negative correlations with EA (-.48), DA (-.74*) and SE (-.49) which suggests that members being rated highly on this variable are characterised by low pre-treatment scores on expressing affection and sensitivity towards others. This indicates a negative connotation to the variable and associates it with vulnerability and problems in the interpersonal sphere. In contrast, the Ability to Discuss Feelings was positively correlated with Sy (.59), which links ratings on the variable to low pre-treatment levels of symptomatology.

The above indicates a clear distinction between self and other ratings on these sociometric variables. Self-ratings were quite obviously related to the control scale of FIRO-B and contrasted on expressive controlling orientation towards others with a submissive orientation. Conversely ratings given by others were more influenced by members affiliative orientation towards others.

With regard to the second five sociometric variables, i.e. those orientated towards individual's personal attractiveness to one another, these were clear and consistent patterns across each of the five variables in relation to the pre-treatment indices. Each of the sociometric variables had correlations with at least five of the pre-treatment indices. This is in marked contrast with the
generally sparse range of correlations found for other-ratings on the first five variables.

Additionally four of the indices (IP2, the affiliative quadrant of ICL; EA, the FIRO variable associated with expressing affection; Sy, level of symptomatology; and SC, ability to engage in social activities); all had significant correlations with all five variables.

Furthermore, SA (self-acceptance) had positive correlations with Understand (.50), Trust (.49) and Understand You (.51); and SU (self-understanding) with Like (.50), Understand (.49), Trust (.52) and Understands You (.48).

The overall impression from these results is of a marked association between ratings on the early sociometric variables and pre-treatment indices of positive mental health. This is particularly the case for the second five (i.e. the Personal Attractiveness) variables. Thus group members tend to like, trust, admire, etc., those individuals scoring high on pre-treatment measures of affiliation and both general and specific aspects of adjustment. Correlations between the pre-treatment indices and ratings given by others on the first five (i.e. the group behaviour) variables tend to be sparser; while self-ratings predominantly relate to the Control scale of FIRO-B. This would suggest that individuals exhibiting deficient interpersonal skills, low levels of adjustment and/or high levels of distress would tend to be negatively evaluated and perceived by other group members.

2.2 Pre-treatment characteristics and late group ratings

The same procedure was followed for the analysis of the relationships between pre-treatment characteristics and late group sociometric ratings as for the early ones. Table 17 shows the significant correlations between these two sets of
Table 17 - Correlations between client characteristics and late sociometric ratings

<table>
<thead>
<tr>
<th>Pre-treatment Variables</th>
<th>Sociometric variables (late ratings)</th>
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<tr>
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<td>FIRO: EI</td>
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<td>WI</td>
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<td>EA</td>
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<td>WA</td>
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<td>DA</td>
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Note: Values indicate correlation coefficients. 
* indicates statistical significance.
indices. Significant correlations were similar, but markedly less extensive than for the early ratings. Thus for self-ratings, Dominant was negatively correlated with WC (−.78*). The ability to Discuss Feelings was similarly negatively correlated with WC (−.57). Needs Help had a negative correlation with DI (−.70*). No significant correlations were found for late self-ratings of Helpful and Sensitive.

Thus, the early association between individuals self-ratings on the group behaviour variables and the extent to which they emphasise control in interpersonal relationships was maintained but attenuated for late ratings.

With regard to other-ratings on the group behaviour variables, the only correlations found were negative associations between Helpful and DA (−.65*); and between Discuss Feelings and WC (−.48). The former links ratings of helpfulness to individuals having a balance between expressing and seeking affection; while the latter relates being able to discuss feelings with low pre-treatment level of needing other's control.

The other-ratings on the second five variables, EA had significant correlations with all five variables, linking the expression of affection to being attractive to other group members. In addition, wanting affection (WA) had a positive correlation with Like (.48). The other correlations in the main related measures of inclusion to these sociometric variables. Thus, EI had positive correlations with Like (.56) and Understands You (.51); and WI with Understands You (.51). However, in addition, Understands You was also related negatively with WC (−.49).

Thus, for late ratings, the sense of being understood by another individual was variously related to pre-treatment scores on all three of the interpersonal orientations i.e. inclusion, control and affection. However, missing from this pattern of correlations in contrast with those found for the early ratings were the associations for each of the personal attractiveness variables with the pre-treatment adjustment variables.
The foregoing suggests that while late ratings in general were less extensively related than early ratings to the pre-treatment indices, the same basic patterns persisted. In particular, these linked scores on the affection and inclusion scales to individual's attractiveness to other group members, but also associated scores on the control scale to members ratings of their own group behaviour.

2.3 Summary

These results provide evidence for an association between pre-treatment characteristics and subsequent in-group patient perceptions of one another. Early in the group there was a clear contrast between self-ratings being associated with the Control scale of FIRO; and other-ratings being linked to the Affection scale of FIRO and a number of P.A.Q. indices of adjustment. In addition, there was a greater degree of relationship between the pre-treatment indices and the sociometric personal choice variables than with those variables, which were more related to group behaviour.

This trend persisted for late sociometric ratings, which suggests that pre-treatment client characteristics had a greater and more persisting effect on individual's attractiveness towards one another than on their evaluations of group behaviour.

However, in contrast with the correlations between pre-treatment characteristics and use of the HIM categories (which increased from early to late), the relationships with both the group behaviour and personal choice variables tended to become fewer over time. This was particularly the case for the I.C.L. and P.A.Q. variables. In contrast the F.I.R.O. scales retained their associations, the Control scale with self-ratings of group behaviour; and the Affection and Inclusion scales with other-ratings on the personal attractiveness variables.
HYPOTHESIS 3

This hypothesis predicted that there would be a relationship between dyadic compositional measures of members existing interpersonal orientation and subsequent levels of group interaction and sociometric choice.

Table 18 shows the significant relationships between on the one hand, dyad's pre-treatment FIRO compatibility scores, and on the other, their tendencies to rate one another highly on the sociometric variables and to engage one another in interaction. The correlations shown are significant at the .05 level (* indicates significant at the .01 level).

The FIRO compatibility scores are of two kinds:

1) Originator compatibility (OC), which measures dyads degree of fit between their expressed and wanted scores on each of the three FIRO scales and overall. These scores are hence considered to provide measures of interpersonal complementarity.

2) Interchange compatibility (IC), which measures dyad's similarity on expressed and wanted scores for each of the three FIRO scales and overall. These scores are thus considered to provide measures of similarity in interpersonal orientation.

3.1 Dyadic Compatibility and sociometric choice

In looking first at FIRO's relationships with the sociometric variables for the OC scales, Inclusion (I) is weakly associated with Needs help (.23), Understand (.22) and Understands you (.17). Dyads with a high degree of complementarity on the Inclusion scale, thus tend to rate each other highly on these variables.

Similarly, the Control (C) scale is related to Helpful (.20) and Admire (.19); and more strongly to the Dominant variable
Table 8 - Correlations between the dyadic compatibility measures and dyadic interactions and sociometric ratings

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<thead>
<tr>
<th>Compatibility Measures</th>
<th>HDM</th>
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Key:
- OCI = Originator compatibility
- IC = Interchange compatibility
- I = Inclusion
- C = Control
- A = Affection
- T = Overall
- HDM = Level of dyadic interaction
In addition, the overall score on originator compatibility is related to the Dominant variable (.19). The Affection (A) scale has significant relationships with eight of the sociometric variables, the correlations with Dominant (.27), Admire (.32) and Trust (.26) being particularly strong.

For the IC scales, Control (C) is significantly related to eight of the ten sociometric variables, and has its strongest correlations with Helpful (.25) and Needs help (.28).

The Inclusion (I) scale has a weak relationship with the sociometric variable Understands you (.17), while the Affection (A) scale and overall scores do not significantly relate to the sociometric variables.

These patterns of relationships indicate an association between dyadic relationship orientation scores and sociometric choice. In particular, dyads complementary on the affection scale or similar on the control scale are likely to rate each other highly on a range of sociometric variables. In addition, the dominance variable is highly related to two of the three OC scores.

Finally, in comparing complementarity and similarity, there is a marked tendency for the former to be more highly implicated in sociometric choice than the latter, i.e. members rate each other highly on sociometric variables where there is a goodness of fit between their expressed and wanted scores, rather than where these are similar.

**3.2 Dyadic compatibility and interaction**

The relationship between the pre-treatment assessment and group interaction as measured by the HIM also provides an opportunity to test whether members interact with one another on the basis of pre-treatment complementarity or similarity in interpersonal orientations. The FIRO-B provides scores for dyads which measure their complementarity and similarity on the three FIRO scales (Inclusion, Control and Affection) and overall, the index for complementarity being termed originator compatibility (OC) and that for similarity, interchange compatibility (IC).
These indices were computed for each pair of dyads in the group and then correlated with the amount of overall interaction between them in the group as measured on the HIM.

The relationship between the FIRO compatibility scores and the amount of interaction between dyads points up interesting differences in the relative importance of complementary and similarity in relation to interaction.

Thus there are strong positive relationships between HIM and the OC scores on the Control scale (.47*) and overall (.35*). This indicates that members complementary to one another on the FIRO scales, particularly with regard to control, are likely to engage one another in interaction.

Conversely significant negative relationships are found between HIM and the overall IC score (-.23) and the IC for Affection (-.27*). This indicates that members with scores similar to one another on the FIRO scales, particularly Affection, are less likely to interact with one another.

The conclusion from this is that interpersonal complementarity is associated positively with dyadic group interaction, while similarity in interpersonal orientation is negatively associated with dyads engaging in group interaction.

3.3 Group compatibility and interaction

The previous data refer to compatibility as measured between dyads. In order to generalise its relationships with process and analyse these in relation to a temporal dimension, it was necessary to investigate the relationships between members compatibility with the group as a whole and early and late group process indices.

Accordingly, mean scores for each individual on the four complementarity and similarity scales (i.e. inclusion, control, affection and total) were computed by summarising across their scores for dyadic compatibility, and these scores correlated
with the process data, using Spearman correlation coefficient. The results relating group compatibility to the sociometric indices are to be found in section 5.4. The following relates group compatibility to use of the HIM categories (see Table 19).

Members complementary with the group on control (GOCC) were correlated with use of a number of the categories, both early and late: for early, Conventional (.41), Speculative (.45), Confrontive (.57), Topic (.41), Group (.52) and Personal (.46); for late, Conventional (.59), Speculative (.61), Confrontive (.45) and Personal (.54).

Complementarity on affection (GOCA) was differentially related to HIM and in most cases negatively. For early, the correlations were with Confrontive (-.64) and Group (-.42). Late correlations were negative with Conventional (-.57), Topic (-.48), Group (-.46), and positive with Relationship (.49).

Overall complementarity (GOCT) was correlated with early and late Personal (.38 and .44, respectively) and with late Speculative (.43).

Complementarity on Inclusion (GOCI) was only negatively related to late use of Relationship (-.45).

The overall tendency therefore is for members complementary with their group on control and overall to engage in significantly more use of a number of HIM categories, particularly Speculative and Personal interactions both early and late. Conversely, members complementary on affection are negatively correlated with use of HIM categories, with the exception of late use of the relationship category. Complementarity on inclusion is generally unrelated to HIM activity.

The correlations for similarity tended to be more isolated than for complementarity. Thus, similarity on inclusion (GICI) was negatively correlated with early Confrontive (-.53); Control (GICC) was positively correlated with early Assertive (.46); and affection (GICA) was negatively correlated with early Group
Table 9 - Correlations between the group compatibility measures and early and late group behaviour

<table>
<thead>
<tr>
<th>HIM Variables</th>
<th>Group Compatibility Indices</th>
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<tr>
<td></td>
<td>GOCI</td>
</tr>
<tr>
<td>CV E E</td>
<td>.41</td>
</tr>
<tr>
<td>CV L L</td>
<td>.59</td>
</tr>
<tr>
<td>Ass E E</td>
<td></td>
</tr>
<tr>
<td>Ass L L</td>
<td></td>
</tr>
<tr>
<td>Sp E E</td>
<td>.45</td>
</tr>
<tr>
<td>Sp L L</td>
<td>.61</td>
</tr>
<tr>
<td>Cf E E</td>
<td>.57</td>
</tr>
<tr>
<td>Cf L L</td>
<td>.45</td>
</tr>
<tr>
<td>Top E E</td>
<td>.41</td>
</tr>
<tr>
<td>Top L L</td>
<td>.41</td>
</tr>
<tr>
<td>Gp E E</td>
<td>.52</td>
</tr>
<tr>
<td>Gp L L</td>
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<td>Per E E</td>
<td>.46</td>
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<tr>
<td>Per L L</td>
<td>.54</td>
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<tr>
<td>Rel E E</td>
<td></td>
</tr>
<tr>
<td>Rel L L</td>
<td></td>
</tr>
</tbody>
</table>

**KEY**

GOC = Group originator compatibility

GIC = Group interchange compatibility

I = Inclusion

C = Control

A = Affection

T = Overall

E = Early category scores

L = Late category scores
(-.53) and late Topic (-.43); while overall similarity (GICT) did not significantly discriminate early or late use of any of the categories.

Once again, therefore, complementarity would appear to be more highly related to group activity than similarity. More essentially, members high on complementarity with the group on control tend to use a variety of the HIM categories both early and late while those having high overall complementarity in particular use the late work categories, Personal and Speculative.

3.4 Summary

The foregoing suggests that members complementarity, i.e. where there is a fit between expressed and wanted scores, is strongly implicated both in sociometric choice and in actual amount of interaction. In particular, dyads complementary to one another with regard to affection tend to rate each other highly on sociometric indices of personal attractiveness; and those complementary to one another on the control scale and overall engage in high levels of dyadic interaction.

In contrast dyadic similarity on control is associated with high mutual ratings on the group behaviour sociometric variables; while similarity on affection is negatively related to interaction.

The findings with regard to group compatibility in relation to interaction are basically highly similar in linking complementarity on control positively to high use of the HIM categories: while in contrast similarity is generally either unrelated or negatively related to interaction.
HYPOTHESIS 4

This hypothesis predicted that the group experience would lead to changes in members' behaviour in the group.

Two sorts of change were hypothesised from early to late:

1) An increase in the range of categories used
2) A movement from pre-work to work categories

4.1 Increase in range of categories

The hypothesis predicted that members' use of the HIM categories would change from a reliance on a few categories early in the group's history to use of a wider spread of categories later on. It was tested as follows:

Use of few categories would be associated with large differences between the proportions of the categories; while, conversely, use of a larger number of categories would be associated with smaller differences between the proportions of the categories.

Accordingly, the early and late means for the eight HIM categories for the group as a whole (based on summing the scores for individuals) were computed. From these means, the variances between the categories for early and late were computed. The Wilcoxon matched-pairs signed-ranks test was applied in order to ascertain whether there was a significant difference between the early and late variances.

No significant difference was found. Accordingly the hypothesis was unproven.

Although no group change in the range of categories used was found from early to late, it appeared likely that there would be individual differences in the extent to which members made use of a number of categories; and that these would be related to the pre-post and process measures. Accordingly, variances were
computed for each individual in relation to their means on the eight HIM categories early and late. These variances provided scores for early, late and change (late minus early) in spread of categories used. These scores were then correlated with the pre-post and process variables using Spearman correlations. These relationships are discussed under the relevant hypotheses.

4.2 Change in use of categories

This hypothesis predicted that members' use of the HIM categories would change over time (i.e. from early to late), involving a decrease in the use of the pre-work categories and a concomitant increase in the use of the work categories. From a descriptive point of view, the two graphs chart the group's use of the HIM categories, 4 style and 4 content categories, providing mean frequencies across the six blocks of sessions (NB that for purposes of analysis, blocks 1, 3 and 5 are considered to be 'early', and 2, 4 and 6 'late') - See Figure 1 for style and Figure 2 for content.

The first observation to be made here is that, throughout, the frequencies of the Speculative style and Individual content (both Work categories) are considerably higher than the other categories. As these scores are based on the proportions of group sessions during which particular categories are used and these two categories are from the outset accounting for a disproportionately large proportion of group interaction, there is accordingly little scope for them to increase over time.

So far as the other style categories are concerned, the Conventional category shows a tendency to decrease over time; the Assertive accounts for a very low proportion of group interaction, being the smallest throughout; and the Confrontive shows little change from beginning to end apart from a modest peak during block 4, which also coincides with the highest value for the Speculative style.

With regard to the content categories, Topic-centred content tends to be the least-used category overall, with little difference in its frequency from the beginning to the end.
Figure 1: Proportional use of the HIV style categories

N.I.H. Blocks of sessions

0 1 2 3 4 5 6

CV  A  S  C
Group-oriented content shows an interesting pattern in that during the initial stages of the group it is second only to individual content in frequency but thereafter decreases. This broad trend is cut across, however, by a second cyclical pattern which indicates a tendency for 'late' blocks (i.e. 2, 4 and 6) to be higher than earlier (1, 3 and 5).

A similar cyclical pattern is also to be found with the Relationship category although the overall trend is in the opposite direction, i.e. use of this category starts off at a low level and increases over time. Indeed, its increase from block 5 to block 6 would appear to be largely at the expense of the Individual content category.

In order to assess the significance of these changes, the mean scores for the categories on early and late blocks of sessions were analysed by means of the Wilcoxon matched-pairs signed-rank test. Significant increases from early to late were found for Group-centred (p = .002) and Relationship-centred (p = .033) interactions, and additionally a non-significant increase for the Speculative style (p = .152). A significant decrease was obtained for the Conventional style (p = .046).

Little or no change was found for the remaining categories, i.e. the Assertive and Confrontive styles, and the Topic and Individual content categories. The first three of these consistently accounted for low proportions of group interaction and the last for a high proportion of group interaction.

These results do provide some evidence for group behaviour changing from early to late in the direction of increased therapeutic work, particularly with regard to the increased use of the Relationship category. However, the early high levels of Speculative and Individual interaction suggest that therapeutic work occurs throughout the group's history.

Additionally, the absence of increase for the Confrontive category and the overall low level of Assertive interactions seem likely to be related to both group composition and leader
variables. These variables may also be implicated in the cyclical trend noted with regard to group-oriented interaction.

4.3 Summary

The group as a whole did not show the predicted increase in range of category usage; although individual scores on 'Spread' have been related to the pre-treatment indices (see results to hypothesis 1) and as will be seen hereunder, were also found to be related to process and outcome measures.

However, there was a clear shift over time in category usage from pre-work to work categories, this being particularly associated with an increase in the Relationship (and to a lesser extent the Speculative) category; and a concommitant decrease in the Conventional category.

The increase in the Relationship category, which codes interactions directed towards members exploration of their relationships with one another, is of particular interest in terms of the interpersonal learning model upon which this present study is based. This increase suggests a developmental aspect to the operation of such learning processes, i.e. members need to learn how to use the group therapy situation before they can engage in such learning. This also emphasises the importance of the evolution of group-based processes for a focus on this form of therapeutic work to develop, i.e. both individual and group processes may be implicated in increased use of this category and the development of interpersonal learning processes.
HYPOTHESIS 5

In general terms, this hypothesis predicted that group experience would lead to changes in the ways in which members were perceived by themselves and the group. More specifically, a series of sub-hypotheses predicted that these changes would be characterised by increases in consensus of ratings between group members of individuals; increases in the complexity of evaluation of others; a movement towards similarity in ratings between self-ratings and ratings made by the group as a whole; and differential relationships between sociometric choice and indices of compatibility and similarity to the group.

5.1 Increased consensus

Over time, group members ratings of individuals change in the direction of consensus across the sociometric variables.

This proposition was tested by computing correlations between group members (excluding self-ratings) in their ratings of individuals for early and late blocks of sessions across the ten sociometric variables.

Table 20 shows the Kendall contingency coefficients for group ratings of each individual early and late, together with the direction of change. Early ratings refer to blocks 1, 3 and 5; and late ratings to blocks 2, 4 and 6. Member 08 is excluded from the calculations as he was only present in the group for one block of sessions.
Table 20: Early and late correlations for group consensus on individuals

<table>
<thead>
<tr>
<th>Member ID</th>
<th>Early</th>
<th>Late</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>.139</td>
<td>.623*</td>
<td>+</td>
</tr>
<tr>
<td>02</td>
<td>.600*</td>
<td>.837*</td>
<td>+</td>
</tr>
<tr>
<td>03</td>
<td>.162*</td>
<td>.183*</td>
<td>+</td>
</tr>
<tr>
<td>04</td>
<td>.097</td>
<td>.083</td>
<td>-</td>
</tr>
<tr>
<td>05</td>
<td>.096</td>
<td>.107</td>
<td>+</td>
</tr>
<tr>
<td>06</td>
<td>.201*</td>
<td>.181*</td>
<td>-</td>
</tr>
<tr>
<td>07</td>
<td>.169</td>
<td>.837*</td>
<td>+</td>
</tr>
<tr>
<td>09</td>
<td>.018</td>
<td>.041</td>
<td>+</td>
</tr>
<tr>
<td>10</td>
<td>.149*</td>
<td>.041</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>.024</td>
<td>.125</td>
<td>+</td>
</tr>
<tr>
<td>12</td>
<td>.087</td>
<td>.038</td>
<td>-</td>
</tr>
<tr>
<td>13</td>
<td>.016</td>
<td>.557</td>
<td>+</td>
</tr>
</tbody>
</table>

Starred (*) results indicate that these correlations are significant at the .005 level.

These results indicate a great deal of variability in the ratings made of individuals by the group, some members being rated with a high degree of similarity by the group and others very disparately. Correlations range from .016 (member 13 early) to .837 (members 02 and 07 late).

However, there was a trend towards higher correlations during late blocks in eight out of the twelve cases. The distribution of these cases was not accounted for by phase of group composition, number of raters involved with a particular individual, or the length of time an individual stayed in the group.

Rather it appeared to be a general tendency for the group, the statistical significance of which was assessed using the Wilcoxon sign rank test. The result of this test indicated that this result was significant at the .05 level.

The general conclusion to be drawn therefore is that ratings made of individuals by the group did move in the direction of greater consensus over time.
5.2 Increased differentiation

Over time, members' ratings of each other became increasingly differentiated over the ten sociometric variables.

This proposition was tested in two ways:

i) For the group as a whole, differentiation would be demonstrated by a decrease in the correlations between the sociometric variables from early to late responses.

However, as noted above in the section on the structural characteristics of the sociometric scale, the correlations for an individual variable, both with another variable and with the scale as a whole, demonstrated a marked consistency from early to late. (Appendix 10).

On this basis, for the group as a whole the proposition is not proven.

ii) For individual group members, differentiation would be demonstrated by a decrease in their own intercorrelations between sociometric variables from early to late responses.

In order to test this, for each group member, mean correlations of their ratings of the rest of the group across the ten sociometric variables were calculated for early and late blocks of sessions.

Table 21 provides the mean correlations between the variables for early and late, together with direction of change for each individual member's ratings of the group.

Member 08 is excluded as he was only present in the group for one block of sessions.
Table 21: Early and late individual differentiations scores

<table>
<thead>
<tr>
<th>Member ID</th>
<th>Early</th>
<th>Late</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>.23</td>
<td>.37</td>
<td>+</td>
</tr>
<tr>
<td>02</td>
<td>.23</td>
<td>.12</td>
<td>-</td>
</tr>
<tr>
<td>03</td>
<td>.22</td>
<td>.14</td>
<td>-</td>
</tr>
<tr>
<td>04</td>
<td>.31</td>
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<td>05</td>
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</tr>
<tr>
<td>06</td>
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<td>+</td>
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<tr>
<td>07</td>
<td>.23</td>
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<td>10</td>
<td>.09</td>
<td>.14</td>
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<td>-</td>
</tr>
<tr>
<td>12</td>
<td>.25</td>
<td>.23</td>
<td>-</td>
</tr>
<tr>
<td>13</td>
<td>.21</td>
<td>.46</td>
<td>+</td>
</tr>
</tbody>
</table>

These results indicated that changes in the correlations split evenly between increases and decreases. Six members increased and six decreased the mean correlation between variables from early to late.

As with the previous hypothesis, the distribution of these scores was independent of group composition phase, size of group or length of time in the group.

The fact that only six members' mean correlation between variables decreased over time indicates that the proposition regarding increased differentiation in ratings over time is unproven.

5:3 Similarity between self and other ratings

It was anticipated that as members develop insight concerning their position within the group, their self ratings on the first five sociometric variables would come to resemble the ratings made of them by the rest of the group.

This proposition was tested by computing the correlations between self-ratings and group ratings of individuals for early and late blocks of responses on the self-included sociometric variables. (+ indicates correlation significant at .05 level).
Table 22: Early and late correlations between self and other ratings

<table>
<thead>
<tr>
<th>Variable</th>
<th>Early</th>
<th>Late</th>
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</thead>
<tbody>
<tr>
<td>1. Helpful</td>
<td>-.31</td>
<td>.35</td>
</tr>
<tr>
<td>2. Dominant</td>
<td>-.03</td>
<td>.30</td>
</tr>
<tr>
<td>3. Sensitive</td>
<td>.11</td>
<td>.37</td>
</tr>
<tr>
<td>4. Needs Help</td>
<td>-.01</td>
<td>.18</td>
</tr>
<tr>
<td>5. Discuss feelings</td>
<td>.63+</td>
<td>.80+</td>
</tr>
</tbody>
</table>

So far as early ratings were concerned, there was a good level of agreement between self and group ratings on the relative abilities of members to discuss feelings. However, on three of the five variables, correlations between self and group were negative (helpful, dominant and needs help) and for three, there was virtually no relationship at all (dominant, sensitive and needs help).

The late ratings demonstrated positive correlations between self and group on all five variables. Discuss feelings remained the most highly correlated variable, while the relationship between self and group ratings on needs help remained slight.

However, the table shows that on all five variables, correlations between self-ratings and group ratings of individuals moved closer together from early to late.

A further use of the data on self and group ratings early and late consisted of analysing the pattern of correlations between the five sociometric variables, i.e. the extent to which self ratings on one variable related to group ratings on another.

The majority of significant correlations involved the ability to discuss feelings.

Early self ratings on this variable correlated with early group ratings of needing help (.67+), suggesting that individuals, who
see themselves as expressing emotion, are viewed by others as needing help early in the group.

This relationship continued to hold for both early self ratings of discussing feelings and late group ratings of needing help (.48+) and also for late self ratings of discussing feelings and late group ratings of needing help (.74+).

This pattern of correlations indicates a marked and consistent association between individual's self perceptions as being able to discuss feelings and group perceptions of them as needing help (or possibly, as engaging in help-seeking behaviour).

Interestingly, early self ratings of discussing feelings were also highly correlated with late group ratings of dominance (.73+), suggesting that individuals, who see themselves as able to discuss feelings early on in their group career are later viewed by the group as being more dominant. However, this significant relationship did not extend to one between either early or late correlations between self and group on these two variables.

A further dimension of the relationship between these three variables was provided by a relationship between late self ratings of dominance and late group ratings of needing help, the correlation being .49+.

This indicates a tendency for members viewing themselves as being dominant in the group being seen by other group members as in need of help. This relationship between these variables was not in evidence for early self and other ratings, which suggests a change from early to late in the group's reaction to and evaluation of behaviours on the part of the individual, which are self-perceived as dominant. Thus, late group perception of needing help was related to self ratings of both dominance behaviour and the expression of feelings.

In addition, late group ratings of sensitivity were related to self ratings of discussing feelings for both early (.66+) and late (.73+).
Finally, a measure of the consistency over time with which individuals are rated on the discuss feelings variable is provided by the finding of close relationship between early self and late group rating with a correlation of .70+ and early group and late self ratings with a correlation of .69+.

5.4 Group compatibility and sociometric ratings

While Hypothesis 3 has investigated the relationships between member's dyadic pre-treatment compatibility and subsequent dyadic sociometric choice, the measures of compatibility also offer a means of investigating these relationships from the point of view of member's compatibility with the group as a whole. Accordingly, individuals compatibility with the group on the eight indices was computed by summing their scores across the dyads of which they were members and, from these totals deriving means scores. The relationship of these scores to the sociometric variables was then assessed by means of Spearman correlation coefficients, the significant correlations being shown in Table 23.

So far as complementarity is concerned, inclusion (GOCI) was positively correlated with late other-ratings of needing help (.47); and Control (GOCC) was correlated negatively with early and late self-ratings of dominance (-.67 and -.61, respectively), early self-ratings of sensitivity (-.36) and early other ratings of ability to discuss feelings (-.42).

Affection (GOCA) was positively correlation with early other ratings of Sensitivity (.39), late self ratings of dominance (.39), late other ratings of helpfulness and dominance (.52 and .39, respectively); and negatively with late self-ratings of needing help (-.43). Overall complementarity (GOCT) was negatively correlated with early and late self-ratings of dominance (-.45 and -.39 respectively).

Thus in general, members complementary to the group on affection tended to be highly rated particularly later in the group on variables relating to positive group behaviour. In contrast, complementarity on control was related to receiving low ratings on such variables; and complementarity on inclusion was associated with being seen as needing help.
### Table 23 - Group compatibility in relation to early and late sociometric ratings

<table>
<thead>
<tr>
<th>Sociometric Variables</th>
<th>Compatibility measures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GOCI</td>
</tr>
<tr>
<td></td>
<td>E</td>
</tr>
<tr>
<td>SH</td>
<td></td>
</tr>
<tr>
<td>SDo</td>
<td></td>
</tr>
<tr>
<td>SS</td>
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<tr>
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<td>ODo</td>
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<td>ON</td>
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<td></td>
</tr>
<tr>
<td>OT</td>
<td></td>
</tr>
<tr>
<td>OY</td>
<td></td>
</tr>
</tbody>
</table>

**KEY**

- **GOCI** = Originator compatibility on inclusion
- **GOCC** = Originator compatibility on control
- **GOCA** = Originator compatibility on affection
- **GOCT** = Overall originator compatibility
- **GICI** = Similarity on inclusion
- **GICC** = Similarity on control
- **GICA** = Similarity on affection
- **GICT** = Overall similarity
  
  - **E** = Early sociometric ratings
  - **L** = Late sociometric ratings
For similarity, inclusion (GICI) was only correlated with late other ratings of sensitivity (.38); Control (GICC) was correlated with early self-ratings of sensitivity (.37) and late self-ratings of helpfulness (.63). Affection (GICA) was negatively correlated with the following late variables: self-rated needing help (-.50), other-rated like (-.35) and other-rated admire (-.42).

Overall similarity (GICT) with the group was positively associated with late self-rated helpfulness (.43), early and late other-rated helpfulness (.37 and .47, respectively), late other-rated ability to discuss feelings (.41); and negatively associated with late other-rated needing help (-.37).

Thus, whereas overall similarity with the group on interpersonal orientation was associated with high ratings on positive group behaviour variables, similarity on the specific scales had a more varied relationship to sociometric ratings. Inclusion was once again generally unrelated; Control was most related to self-ratings; and Affection was negatively related to variables involving person choice between members. Finally, for both complementarity and similarity, there was a trend for late correlations to be more extensive than early, i.e. group compatibility became more linked to sociometric ratings over time.

5.5 Summary

The foregoing indicates that members perceptions of one another evidenced change over time. In particular there was a clear movement from early to late in the extent to which the group became more similar in its ratings of individuals.

Similarly, there was an increase over time in the correlations between self and other-ratings on the first five variables. This increasing agreement between individuals and the rest of the group concerning members group behaviour was particular apparent with regard to the ability to discuss feelings; but the other variables also evidenced higher correlations over time.
In contrast, the predicted group increase over time in differentiation in use of the sociometric variables was not found. In fact, the group split evenly between individuals increasing and decreasing their cognitive-perceptual differentiation over time.

Finally, with regard to the compatibility indices, there was a movement over time for complementarity to the group on affection to become more related to the group behaviour variables; and similarity on affection to become negatively related to the personal attractiveness variables. In contrast, overall similarity became positively related to the group behaviour variables over time.
HYPOTHESIS 6

This hypothesis predicted that there would be a relationship between members' modes of interaction and their perceptions of themselves and others in the group.

6:1 Overall activity and sociometric ratings

This hypothesis predicted that members whose overall activity level in the group was high would be rated by the whole group highly on those sociometric variables which emphasise group involvement, viz Dominant, Helpful, Discuss Feelings and Understand.

In order to test the hypothesis, Pearson correlation coefficients were computed between members' mean scores for group activity as measured by HIM, and the ratings which they received from the rest of the group on each of the sociometric variables, across all sessions.

The only one of the sociometric variables which was significantly related to HIM activity was Dominant (.52). On this basis, the hypothesis remains unproven.

6:2 Level of receiving interaction and sociometric ratings

This hypothesis predicted that members with a high level of receiving interaction from others would be rated by the group highly on the following sociometric variables: Understand, Needs Help and Sensitive.

The hypothesis was tested by computation of Pearson correlation coefficients between members' mean scores for receiving interaction from others and the ratings made of them by the rest of the group on each of the sociometric variables, across all sessions.

Inspection of these correlations revealed a high level of similarity between them and those obtained for the previous hypothesis (6:1) concerning group activity. This similarity is explained by the high level of correlation between members' activity level and receiving interaction (.94).
Once again the only relationship which reached significance was Dominant, which correlated .57 with receiving interaction from others. This hypothesis therefore remains unproven.

6:3 Dyadic interaction and sociometric ratings

This hypothesis predicted that there would be an association between the level of interaction between dyads and their ratings of each other on particular sociometric variables. More specifically it predicted that dyads spending a high proportion of their group interaction in mutual interaction would rate each other highly on the following sociometric variables: Like, Trust, Understand, Understands You, Discuss Feelings and Sensitive.

The hypothesis was tested firstly by computing scores for mean amount of interaction between each set of dyads in the group, i.e. 105 such sets. Dyads were included in this analysis on the basis of being members of the group at the same time, and means were derived from the number of sessions which dyads attended together. These scores were then correlated (using Pearson correlation coefficients) with the mean rankings which each made of the other on the ten sociometric variables.

Results indicated that as with the previous two hypotheses the only sociometric variable which was significantly correlated with level of dyadic interaction was Dominant (.17). The remaining sociometric variables were unrelated and, on this basis, the hypothesis is unproven.

The following table shows the rank ordering of the sociometric variables in relation to the three HIM indices as tested in the above hypotheses.
Table 24: Rank ordering of the Sociometric variables in relation to the interaction indices

<table>
<thead>
<tr>
<th>Sociometric Variable</th>
<th>Activity Level</th>
<th>Receiving Interaction</th>
<th>Dyadic Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpful</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Dominant</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Sensitive</td>
<td>7</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Needs Help</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Discuss Feelings</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Like</td>
<td>9</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Understand</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Admire</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Trust</td>
<td>10</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Understand You</td>
<td>7</td>
<td>8</td>
<td>10</td>
</tr>
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The high level of similarity between these rank orders suggests that interaction in the group as measured by HIM is more highly related to certain of the sociometric variables than others. In particular, Dominant is significantly correlated with all three indices. However, in addition, Needs Help, Discuss Feelings and Understand are consistently more highly ranked also, although the correlations do not reach significance. In contrast, ratings on the following sociometric variables are largely unrelated to group interaction: Trust, Like, Understands You and Sensitive.

6:4 Specific HIM categories and Sociometric variables

This hypothesis predicted that there would be specific relationships between member's use of particular HIM categories and ratings made of them by the group on particular sociometric variables.

This hypothesis represents a more fine-grained approach to the analysis of the relationships between group interaction and sociometric choice. Whereas the previous three hypotheses looked at overall activity as measured by HIM in relation to the sociometric variables, this hypothesis seeks to identify significant relationship between individual HIM categories and sociometric variables. It also introduces a temporal dimension by analysing these relationships early and late in the group's history.
The hypothesis was tested by generating early and late scores for members' use of the eight HIM categories and for ratings made of them by themselves and the rest of the group on the ten sociometric variables (on the first five sociometric variables in the case of self-ratings). These scores were then correlated using Spearman rank order correlations.

Table 25 and 26 show the significant correlations early and late between the HIM and sociometric variables, correlations being significant at the .05 level (* indicates significant at the .01 level).

6:4:1 Early and late relationships between the HIM and sociometric variables.

So far as self-ratings were concerned, significant correlations were obtained between early self-ratings on Dominant and early use of the following HIM categories: Conventional (.49), Speculative (.64), Topic (.55), Personal (.61) and Relationship (.52). Thus members who are generally active in the group early tend to rate themselves as being dominant. Additionally there was a significant early relationship between rating self as needing help and use of the Topic-centred (i.e. a pre-work category) category (.63). Early self ratings of Helpful, Sensitive and Discuss feelings were unrelated to early use of particular HIM categories; while early use of Assertive, Confrontive and Group categories was unrelated to early self-ratings on specific sociometric variables.

On late self-ratings Dominant was again significantly correlated with a number of HIM categories: Conventional (.52), Speculative (.76), Confrontive (.50), Group (.52) and Personal (.68). These differ from the early correlations in that use of the Topic and Relationship categories has been replaced by use of the Confrontive and Group categories.

In addition, late use of the Group category was associated with self-ratings of Helpful (.49) and use of the Speculative category was significantly correlated with self-ratings of being able to discuss feelings in the group (.54). Late self-rankings on Sensitive and Needs Help were unrelated to late use of the HIM
Table 25: Correlations between the early HIM and Sociometric variable

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categories; and late use the Assertive, Topic and Relationship categories was unrelated to late self-ratings on the sociometric variables.

With regard to ratings made by others, in contrast with self-ratings, there were no significant relationships either early or late between the individual HIM categories and ratings made of members by others on the Dominant variable. Additionally there were no early correlations for Helpful, Needs Help and Discuss feelings, or late correlations for Helpful or Discuss feelings. Similarly, there were no correlations for the Conventional, Assertive, Confrontive and Group categories either early or late; or Speculative and Personal early with particular Sociometric variables.

Early significant correlations between ratings made by others and the HIM categories in the main associated the Topic-centred category with a range of sociometric variables: Like (.52), Understand (.52), Admire (.50), Trust (.53) and Understands You (.52). This suggests that early in the group, members were attracted to those individuals who were able to demonstrate social skills, which were not directly related to the therapeutic enterprise, i.e. a pre-work HIM category.

The only other significant early correlation was a negative one between use of the Relationship category and ratings made by others on the Sensitive variable (-.57). Sensitive in ratings made by others had a negative connotation in the sense of an inability to express oneself to others, so this negative association with a category which emphasises the investigation of personal reactions to one another was not surprising.

For late relationships there was a marked change. In particular use of the Speculative and Relationship categories was found to be highly related to a variety of the sociometric variables. For the Speculative category the following correlations were obtained with ratings made by others: Like (.61); Understand (.57); Admire (.62); Trust (.63) and Understands You (.68). This suggests that members engaging in an exploration of problems were chosen by others later in the group's history on a number of indices of attractiveness.
The correlations for the Relationship category were even more significant: Like (.86); Understand (.73); Admire (.84); Trust (.76) and Understands You (.85). In addition Needs Help was also significantly correlated (.48). This suggests that members engaging in discussions of their group relationships late in the group were attractive to other group members but also seen as needing help, possibly because they were exposing painful aspects of themselves in the process.

The other significant late correlations were firstly between use of the Topic-centred category and Need Help (.62). This indicated that a change occurred from early to late in the evaluation made of members using the category.

It will be recalled that early in the group, members' use of the category was associated with self-ratings of Dominance and other ratings of a variety of sociometric attractiveness variables. Late, the self-rating of dominance was no longer found nor were the associations with the sociometric attractiveness variables. Instead use of the category was seen by others as evidence of members needing help, possibly because it was evaluated as a defence against involvement in therapeutic work.

It is also noteworthy that Topic and Relationship, which are at opposite ends of the content spectrum of therapeutic work, were the two HIM categories which were significantly associated with late ratings of needing help.

Additionally, significant relationships were found for the Personal category with Trust (.51) and Understands You (.48). Thus, members who focus on personally-relevant material and problems late in the group tend to be seen as trustworthy and understanding by the rest of the group.

Apart from particular HIM categories, there were also clear relationships between the index of interactional flexibility, 'Spread' and the sociometric variables. Thus, early 'Spread' was positively associated with self-rating Dominance (.64), as were a number of the particular categories. With regard to late 'Spread', this was again correlated with self-rated Dominance (.77) and also the
following personal choice variables: Like (.58), Understand (.55), Admire (.59), Trust (.61) and Understands you (.66). Thus, members exhibiting interactional flexibility late in the group were particularly attractive to other members.

In conclusion, there were clear patterns of relationships between the HIM categories and the sociometric variables, which were subject to change over time. In particular, self-ratings on Dominant were related both early and late to a variety of different HIM categories, but no such association was found for ratings by others on this variable.

Furthermore, members' ratings of sociometric attractiveness, i.e. the Like, Understand, Admire, Trust and Understands You variables, changed over time from an early association with the pre-work Topic category to late significant correlations with the following Work categories: Relationship content, Speculative style and, to a lesser extent, Personal content. This change also extended to an increased relationship of these variables with the interactional flexibility index, 'Spread'.

6.4.2. Relationships between the change scores on the HIM and sociometric variables.

Apart from investigating the relationships between interaction and sociometric rating in terms of early and late periods in the group, it was also decided to look at the extent to which change on one set of variables was associated with change on the other. In order to do this change scores were derived for both use of the HIM categories and level of sociometric rating by subtraction of individual's early from late scores. These two sets of scores were then correlated using Spearman correlations coefficients. The significant correlations are to be found in Table 27. Reported correlations were significant at the .05 level (* indicates significant at .01 level).

Increases in use of the Conventional category were associated with receiving higher ratings from others on Sensitive (.67) and Admire (.49): and decreased ratings from others on Needs Help (-.48).
Table 27: Correlations between the change scores on the HIM and Sociometric variables

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<td>QA</td>
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<td>OY</td>
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<td>.68</td>
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</tbody>
</table>
For Assertive, increases were associated with increased ratings from others of needing help (.61) and decreased ratings from others on Sensitive (-.81) and also decreased self-ratings of needing help (-.64). The contrast between self and other-perceptions of needing help in relation to this category is striking.

Speculative was related to increased self-ratings of dominance (.51) and other ratings of sensitive (.63); while Confrontive showed a negative correlation with other-rated Dominance (-.55).

In contrast, increased use of Topic was positively related to self-rated Dominant (.55). The Group category showed a mixed picture between self and other ratings, on the one hand being linked to decreased self-ratings on Sensitive (-.59) and Able to Discuss feelings (-.50); and on the other to increased other-ratings on Helpful (.48) and Dominant (.61).

Increases in the use of Personal were associated with increases on self-rated Dominant (.61) and Needs Help (.52) and other-rated Sensitive (.51) and Like (.46); while Relationship had positive links with other-rated Dominant (.48) and Admire (.68).

Finally, increases in 'Spread' (i.e. the index of interactional flexibility) were associated with increases in self-rated ability to discuss feelings (.68), and other-rated Dominant (.71), Sensitive (.64) and Able to discuss feelings (.54). Thus increased variety in use of categories was mirrored in increased ratings on the group behaviour variables.

In summary there were clear links between change in use of the HIM categories and change in ratings received on the sociometric variables. The majority of these associated increased use of the categories to increased ratings on the group behaviour variables. In addition, there were clear disjunctions between self and other-ratings in relation to the assertive and group categories. Finally, increased interactional flexibility was particularly related to increases on the group behaviour variables.
6.5 The Relationship of Sociometric Consensus to Process Indices

While as noted above (see section 4.1) the hypothesised increase over time in group-wide consensus was found at statistically significant levels, observations of individual’s consensus levels evidenced a high degree of variability. It was therefore considered appropriate to investigate whether there was any relationship between these individual consensus ratings and other indices of process and outcome.

Accordingly scores were computed for each individual of the extent to which other members of the group ranked them similarly across the ten sociometric variables (see Table 20). These scores were computed for early and late blocks of sessions, and in addition a change score was derived by subtraction of the early score from the late. These three indices were then correlated with the process variables using Spearman rank order correlations. Table 28 shows the correlations for early late and change scores on consensus in relation to the sociometric and HIM variables. Reported correlations were significant at the .05 level (* indicates significant at the .01 level).

With regard to the sociometric variables, early consensus ratings were negatively associated with the following other-rated early sociometric variables: Helpful (-.64), Dominant (-.75), Needs help (-.79), Discuss feelings (-.77), Like (-.62), Understand (-.58), Admire (-.51), Trust (-.64), and Understands You (-.68). Furthermore, the late consensus scores were negatively related to the following late other-rated variables: Discuss feelings (-.57) Like (-.95), Understand (-.93), Admire (-.95), Trust (-.95) and Understand You (-.83). There was thus a marked increase from early to late in the negative correlations particularly associated with members personal attractiveness to one another. In addition the following negative correlations were obtained for the change consensus score with other-rated late variables: Like (-.76), Understand (-.70), Admire (-.69), Trust (-.72), and Understands You (-.73).

With regard to the use of HIM categories, the following correlations were obtained: for early consensus scores there was a
Table 28: Correlations between individual's consensus scores and the HIM and Sociometric variables

<table>
<thead>
<tr>
<th>Sociometric variable</th>
<th>Early</th>
<th>Late</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH</td>
<td>-.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ODo</td>
<td>-.75</td>
<td></td>
<td></td>
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<tr>
<td>ON</td>
<td>-.79</td>
<td></td>
<td></td>
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<tr>
<td>ODi</td>
<td>-.77</td>
<td>-.57</td>
<td>-.76</td>
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<tr>
<td>OL</td>
<td>-.62</td>
<td>-.95*</td>
<td>-.76</td>
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<td>OU</td>
<td>-.58</td>
<td>-.93*</td>
<td>-.70</td>
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<tr>
<td>OA</td>
<td>-.51</td>
<td>-.95*</td>
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<td>OT</td>
<td>-.64</td>
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<tr>
<td>OY</td>
<td>-.68</td>
<td>-.83*</td>
<td>-.73</td>
</tr>
<tr>
<td><strong>HIM variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spec</td>
<td></td>
<td>-.55</td>
<td>-.64</td>
</tr>
<tr>
<td>Gp</td>
<td>.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rel</td>
<td></td>
<td>-.67</td>
<td>-.56</td>
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<tr>
<td>'Spread'</td>
<td></td>
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<td>-.62</td>
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</tbody>
</table>
positive correlation with use of the group category (.55). Late consensus was negatively correlated with Speculative (-.55) and Relationship (-.67); and similarly the change score was negatively correlated with the same two categories (-.64 and -.56 respectively). There is thus a clear negative association between late and increased consensus scores and use of the HIM work categories. The change score additionally evidenced a negative correlation with late 'Spread' (-.62).

Overall, there is thus a trend from early to late for an increasing negative association between consensus and ratings received on the sociometric variables (particularly those related to personal attractiveness) and use of the HIM work categories. Consensus would appear to be more readily attained in relation to those individuals who are unattractive to other members and performing poorly in the group in terms of their engagement in therapeutic work.

6:6 Summary

The foregoing has analysed the changing relationships over time between members modes of interaction and their perceptions of one another. The main lines of evidence may be summarised as follows:

1) Members whose overall activity in the group was high were rated highly on dominance by the rest of the group. The same relationship obtained for individuals who received a large proportion of total group interaction (this being largely accounted for by the high correlation between levels of overall activity and receiving interaction), and for dyads of members engaged in high levels of interaction.

2) Along similar lines, both early and late, members self-ratings of their group behaviour related the dominant variables to use of a variety of the HIM categories.

3) There was a clear shift over time with regard to ratings on the personal attractiveness variable. Early on, these were related mainly to the Topic (i.e. a pre-work) category
whereas late correlations related these variables to the Relationship and Speculative work categories.

4) Interactional flexibility as measured by 'Spread' showed differential relationships to the sociometric variables. Late 'Spread' was positively related to the late personal attractiveness variables; while increased 'Spread' was more related to increases on the group behaviour variables.

5) In contrast, individual's scores on consensus were negatively related early and late with the sociometric variables; and both late and increased scores on consensus were similarly negatively related both to the sociometric personal attractiveness variables and to the HIM work categories, Speculative and Relationship, and 'Spread'.
HYPOTHESIS 7

This hypothesis predicted that changes in members' activity in the group as measured by HIM and in ratings made of them on the sociometric variables would be predictive of post-treatment functioning.

7:1 Late HIM and the Post-treatment variables

As far as the relationship between members' activity in the group and post-treatment functioning is concerned, the aim was to identify differing patterns of post-treatment functioning as a consequence of engaging in specific forms of activity in the group.

This was tested by computing members' scores as the eight HIM categories and correlating these with their post-treatment scores using Spearman correlation coefficients. In view of the fact that correlations between outcome measures and overall use of the HIM categories were highly similar both in nature and size to the correlations between outcome measures and late use of the HIM categories, it is only the latter findings which will be reported.

The initial focus of interest therefore was upon significant correlations between members' late use of the HIM categories and the post-treatment data, which are to be found in Table 29. Correlations reported were significant at .05 level (* indicates significant at .01 level).

Scores on the Late Conventional category were negatively correlated with WC (−.73) and positively with SU (.73). These are consistent with the pre-treatment correlations. However, additionally a negative correlation was found with DA (−.79) and positive with PR (.56). Thus, overall, use of the category was associated with post-treatment profiles which are low on wanting control from others, low on the difference between giving and receiving affection, and high on self-understanding and engaging in close relationships with others.
Table 29: Correlations between the late HIM and post-treatment variables

<table>
<thead>
<tr>
<th>Post-treatment variables</th>
<th>HIM variables</th>
<th>Cv</th>
<th>Ass</th>
<th>Sp</th>
<th>Cf</th>
<th>Top</th>
<th>Gp</th>
<th>Per</th>
<th>Rel</th>
<th>'Spread'</th>
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<tbody>
<tr>
<td>ICL: DOM</td>
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<td>.66</td>
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<td>-.69</td>
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<td>FIRO: EI</td>
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<td>WC</td>
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<td>PR</td>
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<tr>
<td>SU</td>
<td>.73*</td>
<td>.57</td>
<td>.55</td>
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<td>.84*</td>
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<td>SEIS: Ta</td>
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</table>
Use of the Late Assertive category was significantly negatively correlated with EI (-.65) again consistent with pre-treatment. This associates the category with a lack of involvement with others and suggests that late use of this category is associated with a negative response to treatment.

The Speculative category was positively related to SU (.57) and Ta (.55) (consistent with the pre-treatment correlations), which associates this category with high post-treatment levels of self-understanding and having a task orientation towards group situations. However, the range of significant relationships was much reduced when compared with the pre-treatment correlations. Early use of the category was negatively correlated with post-treatment LOV (-.75) indicating perhaps the task rather than personal orientation of such interactions.

Late use of the Confrontive category was significantly related to a set of indices which were not in evidence on pre-treatment correlations.

Thus positive correlations were obtained with DOM (.66), EI (.58), Sy (.55), PR (.71), SC (.84), and Ta (.62). This suggests that use of the category was associated with abilities to assert oneself, include others in one's activities, engage in a range of personal and social relationships, show a task orientation towards group situations, and have a low level of symptomatology at post-treatment.

The Late Topic content category had positive correlations with PR (.72) and negative with WC (-.55) and the submissive quadrant of ICL (-.62). Thus, there were associations with engaging in close personal relationships and a non-submissive orientation towards others, together with a low tendency to seek control from others.
The Late group content category had negative correlations with NIC (-.69), WC (-.74) and positive with SU (.55). These were consistent with the pre-treatment correlations. In addition it had a positive correlation with PR (.58). Late use of this category was thus associated with low levels of social acquiescence and seeking control from others, and high levels of self-understanding and engagement in close relationships with others.

The Late Personal category had no significant correlations with post-treatment indices. This contrasts with the variety of pre-treatment indices which were significantly correlated with this category. The position here is thus very similar to that found with the Speculative category. One way of explaining these findings is by reference to the very large proportion of total group interaction accounted for by these two categories.

The Late Relationship content category was significantly positively correlated with WI (.60) and EA (.51) and negatively with DI (-.59). These relationships were consistent with the pre-treatment correlations, and associated use of this category with individuals oriented towards involving others in their activities, seeking to be included in others' activities and expressing positive feelings of affection towards others.

Finally, the late 'Spread' scores show positive correlations with SU (.57), and Ta (.56), which thus link it to outcome indices of self-understanding and instrumental social skills.

In looking to the extent to which indices have changed in their salience in relation to the HIM categories from pre to post, the most clear changes have occurred on IP4, WC and PR.

The first two of these, IP4 and WC, linked a pre-treatment submissive orientation towards others and a desire to be controlled by others negatively to a number of the interaction categories. A decrease in the number of significant correlations for these
at post-treatment is accounted for by generally decreased scores on these scales by the group as a whole.

In contrast PR was not significantly related at pre-treatment to the HIM categories but at post-treatment was significantly positively related to a number of them. This indicates that being active in the group in terms of late use of a number of categories was associated with high post-treatment scores on PR, which taps the ability to engage in close relationships with others.

7:2 Change in HIM and the Post-treatment variables

The second approach to analysing the relationship between outcome indices and use of HIM categories consisted of analysing the change of use in these categories in relation to the outcome indices. In order to do this, change scores for each of the eight categories were derived by subtraction of early from late scores for use of the category. These change scores were then correlated with the outcome indices using Spearman correlation coefficients, and the significant correlations are to be found in Table 30, reported correlations being significant at the .05 level (* indicates significant at the .01 level).

With regard to the change score on the Conventional category, the following significant correlations were obtained: positive correlations with IP2 (.47) and S-E (.72). This pattern of scores linked the increased use of the category with post-treatment indices of high affiliative behaviour towards others and awareness of others' emotional processes. For the Assertive category, the change score correlated negatively with WA (-.62), SU (-.57) and L (-.59). These correlations implicate increased use of this category with low scores on post-treatment indices of positive functioning.

The Speculative category change score correlated significantly positively with LOV (.72). This correlation linked increased use of the category with affiliative behaviour. The Confrontive category had positive correlations for its change score with EI (.58), SC (.55), Ta (.75) and DOM (.63).
Table 30: Correlations between the HIM change scores and the post-treatment variables

<table>
<thead>
<tr>
<th>Post-treatment variables</th>
<th>HIM change scores</th>
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<tbody>
<tr>
<td></td>
<td>Cv</td>
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<tr>
<td>ICL: DOM</td>
<td></td>
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<tr>
<td>LOV</td>
<td></td>
</tr>
<tr>
<td>NIC</td>
<td></td>
</tr>
<tr>
<td>IP2</td>
<td></td>
</tr>
<tr>
<td>FIRO: EI</td>
<td></td>
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<tr>
<td>WC</td>
<td></td>
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<tr>
<td>WA</td>
<td></td>
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<tr>
<td>DA</td>
<td></td>
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<tr>
<td>PAQ: PR</td>
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<tr>
<td>SA</td>
<td></td>
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<td></td>
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<tr>
<td>SC</td>
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<tr>
<td>L</td>
<td></td>
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<tr>
<td>SEIS: Ta</td>
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<tr>
<td>S-E</td>
<td>.72*</td>
</tr>
</tbody>
</table>

Note: The table shows correlation coefficients between different post-treatment variables and the HIM change scores. The asterisk (*) indicates significance.
This pattern of scores linked increased use of this category with a range of indices emphasising assertive involvement with others.

The change score for the Topic category had significant positive correlations with PR (.55) and SA (.62). This pattern linked the increase use of the Topic category with high post-treatment scores on indices involving personal relationships and self-acceptance. For the Group category, the following patterns of correlations were obtained: positive with SU (.71) and negative with WC (-.81), DA (-.63) and NIC (-.73). Increased use of the Group category is thus associated with low post-treatment scores on indices involved with wanting control from others in interpersonal situations, a low difference between expressed and wanted affection, a high score on self-understanding and a low score on social acquiescence.

The Personal category had a positive correlation with LOV (.88) and negative correlations with Ta (-.54), and DOM (-.59). These scores associate increased use of the category with a high post-treatment affiliative orientation towards others, but low scores on variables involving assertion and having a task-orientation towards social situations. The change scores for the Relationship categories did not have any significant correlations with the outcome indices. The absence of significant correlations with the outcome indices on the change score for this category may well be a function of the fact that the group as a whole increased its use of the category from early to late. This would tend to militate against the change score being able to discriminate between individuals in their responses to the outcome indices. The change score for 'Spread' showed a positive correlation with LOV (.80), thereby associating increased interactional flexibility with high post-treatment affiliation.

In summary this pattern of results indicates that changes in the use of particular HIM categories from early to late were associated with particular forms of outcome. Thus, once again, the Assertive category was negatively associated with good outcome; use of the Confrontive category was associated with high assertion and involvement with others; the Topic
category appeared more related to general factors of adjustment; the Group category was negatively associated with control and positively with self-understanding; the Personal, Speculative and Conventional categories and 'Spread' were particularly implicated in affiliation towards others. The Relationship category did not discriminate between outcome indices.

7:3 Late HIM and Post-treatment Rank Orders

A third approach to the data consisted of rank-ordering the correlations for the late HIM categories in relation to particular post-treatment indices. The indices discussed below were chosen by reference to the study of the scales' structures and relationships as providing measures of a variety of aspects of outcome. Rankings provided are for the first three most positively related, and the least positively related of the HIM categories in the order given.

Assertive behaviour as measured by post-treatment DOM was most highly positively related to the Confrontive, Relationship and Speculative categories, and negatively to the Assertive category.

Affiliative behaviour (EA and EI) was most positively related to Relationship, Confrontive and Speculative (and in addition for EA a tied third with Personal) and negatively to the Assertive category.

Adequacy of social contacts (SC) was linked most to Confrontive Relationship and Conventional and least to Assertive.

Self-understanding (SU) was linked most highly with Conventional Speculative and Group and least with Assertive.
Low levels of symptomatology and emotional distress (Sy) had its highest rankings on Confrontive, Speculative and Relationship and lowest on Group.

Thus, overall these positive post-treatment indices were most highly linked to three of the HIM work categories, Confrontive, Relationship and Speculative. Conversely they were generally negatively correlated with the Assertive category, which again associates use of this category with poor response to treatment.

7:4 Late Sociometric ratings and the post-treatment variables

The relationship between late sociometric choice and the post-treatment indices was investigated with the aim of identifying the ways in which ratings on the sociometric variables were predictive of various forms of response to treatment.

This was evaluated by computing the mean scores which members received on the late sociometric variables (the first five in the case of self-ratings, and all ten for ratings made by others). These scores were then correlated using Spearman Correlation Coefficients with scores on the post-treatment indices. The direction of the correlations was adjusted such that high sociometric rankings were positively correlated with high outcome scores. Table 31 shows the significant correlations between these two sets of variables, correlations being significant at the .05 level.

7.4.1. Self-ratings

In looking at the significant correlations between late self-ratings on the sociometric variables and the post-treatment indices, for Helpful there were negative correlations with NIC (-.59) and WC (-.64) and positive with SU (.68). Thus, members rating themselves highly on being helpful to others tended to have post-treatment profiles characterised by low social acquiescence, low seeking control from others and high scores on the feeling of understanding themselves.
Table 31: Correlations between the late sociometric variables and the post-treatment variables

| Post-treatment Variables | Sociometric variables (late ratings) | H | D | S | S | O | O | S | O | S | O | L | U | A | T | Y |
|--------------------------|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ICL: LOV                 | -0.59                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| NIC                     |                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| IP1                     |                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| FIRO: EI                | -0.71                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| WI                      | -0.75                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| DI                      | -0.62                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| EC                      |                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| WC                      | -0.64                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| EA                      | -0.80                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| WA                      | -0.82                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| PAQ:                    |                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Sy                      |                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| PR                      | -0.71                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SA                      | -0.61                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SU                      | -0.54                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| L                       | -0.61                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SEIS:                    |                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Ta                      | -0.57                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| S-E                     | -0.71                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
Self-ratings on the late Dominant variable correlated significantly and positively with SA (.55), PR (.71), and Ta (.57), linking high self-ratings on the variable with high post-treatment scores on self-acceptance, the ability to engage in close relationships, and to hold a task orientation in interpersonal interactions.

Sensitive had positive correlations with SU (.66), and SE (.71), linking the variable to high post-treatment scores on self-understanding and awareness of others in interpersonal situations.

Late self-rankings of Needing Help were positively related to WC (.63), and negatively to PR (-.61). These emphasise post-treatment profiles which were characterised by relatively high levels of seeking control in relation to others, and low scores on handling close relationships. The positive correlation with WC is in contrast to the negative correlations which that index has with the Helpful variable, while the negative correlation with PR contrasts with that index's positive association with Dominant.

Finally, for Discuss Feelings significant correlations were positive for SU (.67) and SA (.54). These are associated with high post-treatment scores on self-understanding and self-acceptance.

In looking overall at the relationships between these late self-ratings and post-treatment indices, there are thus distinct differences in the ways in which sociometric self-rating on different variables was associated with different facets of outcome. The only outcome index which to any extent cut across the five variables was SU. Notwithstanding this, with the exception of Needs Help, high self-ratings on the other sociometric variables were almost uniformly associated with positive outcome indices. Additionally, this set of correlations does
not show any consistency with those obtained between the pre-treatment indices and self-ratings on the sociometric variables. The earlier correlations in the main related the variables negatively to indices such as Sum C, WC and IP4 which emphasised the problematic areas of members' personalities; whereas the present set shows positive relationships with positive aspects of functioning at post-treatment.

7.4.2 Other-ratings

With regard to the relationship between post-treatment indices and ratings made of individuals by others, the significant correlations are described below.

The results for the Helpful variable in relation to post-treatment scores are at first sight confusing. Thus there were negative correlations with EI (-.71), WI (-.75), EA (-.80) and WA (-.82) which related the variable negatively to being interested in including others in one's activities and showing affection.

Two explanations are available to explain this discrepancy. Firstly, the perception of help-giving behaviour in the group may be a function of behaviour other than those tapped by the inclusion and affection scores of FIRO. It will be remembered that the Helpful variable did not discriminate significantly the pre-treatment indices, thus providing evidence of its variability.

The second form of explanation refers to the fact that in looking at the pre-treatment and post-treatment scores on inclusion and affection there was a general tendency for the group as a whole to change from pre- to post. The most evident changes were a general increase in EI and decrease in WA. There would thus be a possibility for members high on EI post treatment to be negatively evaluated on Helpful, as a result of group wide changes on the variable.
Late ratings of Dominance similarly showed a negative correlation with WI (-.58). However, additionally there were positive correlations with LOV (.62), DI (.62), DA (.69) and SA (.81). This pattern of scores links the variable to a set of positive post-treatment indices. It indicates that late rankings of dominance in the group were associated with individuals, who are able to offer affection, include others in their activities and be accepting of themselves.

The correlations for late ratings on Sensitive were positive with post-treatment scores on Sy (.72), SA (.67) and DA (.64). These indicate that late ratings of being sensitive were related to post-treatment profiles exhibiting low levels of symptomatology and high levels of self-acceptance and expressed affection.

In comparison with the correlations between early Sensitive and the pre-treatment indices (i.e. negative correlations with Sy, EA and DA), the present pattern of correlations indicates a change in the valence and meaning attached to the concept of Sensitive. This change may be characterised as a movement from viewing the concept in terms of an ability to cope with close relationships, associated with high levels of symptomatology, to a more positive connotation with improved coping in terms of both the self and relationships.

Needs Help had positive correlations with post-treatment NIC (.65), DA (.63) and Sy (.61). This pattern of relationships is similar to those found for the Dominant and Sensitive variables, and links the variable to a set of indices which emphasise post-treatment positive mental health.

At first sight this may appear surprising. However, a comparison with the variables' correlations with late group behaviour (Hypothesis 6) is consistent with this pattern.
There, a significant correlation was found with the Relationship category, i.e. the highest Work content category of HIM. In contrast, early ratings of Needing Help were unrelated to either pre-treatment indices or early group behaviour.

The most likely explanation for this group of findings is as follows. Late in the group, individuals being seen by others as needing help become focii of the group attention and work. They also themselves engage in group behaviour involving therapeutic work directed towards their reactions to and relationship with others in the group. On the basis of this they derive benefits, the results of which are seen in high post-treatment scores.

It should also be noted that this pattern of relationships with post-treatment indices for other late rankings of Needing Help was in sharp contrast with those obtained for late self-rankings of Needing Help. Whereas the former was linked with positive outcome, the latter was related to post-treatment profiles of poor adjustment and relationships, and an emphasis on the seeking of control from others.

Late ratings of the ability to discuss feelings were positively related to post-treatment Sy (.76) and negatively with EC (-.53), linking the variable with low levels of symptomatology and of expressing control over others.

In comparison with self-ratings, there is a clear difference with regard to the salience of particular outcome indices to sociometric response by others. Thus, while self-ratings were cut across by SU, other ratings were generally correlated with Sy, DA and SA.

For late ratings on the second five sociometric variables, the following correlations were obtained. Like correlated positively with the use of time scale (L) of PAQ (.55); Understand correlated positively with L (.62) and Sy (.55) and negatively with IPI (-.53), the hostile quadrant of ICL; Admire correlated positively with Sy (.54). Similarly, Trust correlated positively with Sy (.59). Finally, Understands You correlated
positively with Sy (.55).

These patterns of correlation associate the second five sociometric variables with good post-treatment scores on level of symptomatology. However, the overall impression from these results is that the second set of five sociometric variables, which are mainly oriented around members' attractiveness to each other, was only weakly related to response to treatment. The main exception to this was the Sy index, suggesting that people were attracted to those members showing low levels of post-treatment symptomatology.

There was thus a distinct contrast between, on the one hand, the lack of relationship between the attractiveness variables and post-treatment indices and, on the other, clear patterns of significant association between good post-treatment functioning and the first set of five sociometric variables, i.e. those related more to the perceptions of members' group behaviour.

Indeed, this is a reversal from the situation that obtained between the sociometric variables and the pre-treatment indices. There, the attractiveness variables were related to a variety of indices and the group behaviour variables were, with a few exceptions, generally unrelated.

Finally, clear differences emerged in comparing self and other-ratings in relation to the outcome indices. In particular self-ratings were most related to SU on three of the five variables; whereas other-ratings were related to Sy, DA and SA. This suggests a distinction between self-ratings being related to post-treatment levels of self-understanding; and other-ratings to levels of symptomatology, self-acceptance, and an orientation towards expressing affection.

7.5 Sociometric change scores and the post-treatment variables

As with the HIM, change scores were computed for individual's mean ratings on the sociometric variables by subtraction of early from late means. These change scores were then correlated with scores on the outcome indices using Spearman Correlation.
Coefficients in order to uncover the relationships between changes in the group's perception of members and their post-treatment functioning. Table 32 details the significant correlations between these sociometric change scores and the outcome variables, correlations being significant at the .05 level.

7:5:1 Self ratings

In looking firstly at the self-ratings, increases on Helpful were negatively correlated with post-treatment DOM (−.62) and positively with LOV (.57). These link increases on the variable to high affiliation and low dominance at post-treatment. Increased self-ratings on Dominant correlated positively with LOV (.65) and SA (.73) and negatively with DOM (−.65). These link the variable with high self-acceptance and affiliation but low dominance scores at post-treatment.

Sensitive correlated positively with WC (.55) and NIC (.63). These suggest that increased self-ratings on the variable were related to seeking control from others and being socially acquiescent at post-treatment.

Increased self-ratings on Needs Help had no significant correlations with the post-treatment indices.

Increased self-ratings on the ability to discuss feelings correlated positively with EA (.56), DA (.68), IP2 (.49) and IP4 (.48). These associate the variable with high post-treatment scores on a range of indices related to affiliation towards others.

The foregoing suggests that increased self-ratings on both Helpful and Dominant were related to high affiliation and low dominance at post-treatment. Increases on sensitive particularly related to a tendency to be acquiescent and seek others control. In contrast, those seeing themselves as able to discuss feelings were particularly associated with outcome indices oriented towards affiliation.
Table 32: Correlations between the sociometric change scores and the post-treatment variables

<table>
<thead>
<tr>
<th>Post-treatment variables</th>
<th>H S</th>
<th>O S</th>
<th>Do O</th>
<th>Se S</th>
<th>N O</th>
<th>Di O</th>
<th>L</th>
<th>U</th>
<th>A</th>
<th>T</th>
<th>Y</th>
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<tbody>
<tr>
<td>ICL: DOM</td>
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<td>LOV</td>
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<td>FIRO: EI</td>
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</table>

Correlation coefficients are shown for each pair of variables.
7.5.2. Other-ratings

As far as changes in ratings made by others were concerned, higher ratings on Helpful from early to late were negatively correlated with the ICL quadrants and a number of FIRO indices as follows: IP1 (-.59), IP2 (-.66), IP4 (-.69), EI (-.59), WI (-.66), WC (-.61), EA (-.61) and WA (-.55). These correlations with the inclusion and affection scales of FIRO are consistent with those obtained for late ratings on the variable.

The implication of these negative correlations is that members increasing their ratings on being helpful in the group tend to have low post-treatment scores on a variety of indices relating to involvement with others. A possible explanation is to be found in the section on the relationship between late sociometric ratings and outcome scores (Section 7.4.2.)

For the Dominant variable, correlations were similarly negative for EI (-.56), WC (-.71) and EA (-.53), linking increased ratings on the variable with low post-treatment scores on indices from all three FIRO scales.

The Sensitive change score correlated positively with SU (.68) and L (.65), associating higher rating with high post-treatment scores on self-understanding and use of time. These findings again suggest a change from a negative to a positive connotation for the variable from early to late in relation to other-ratings.

In contrast, the Need Help change score correlated negatively with SU (-.57), associating it with a low level of post-treatment self-understanding.

The change score on the Discuss Feelings variable was negatively correlated with NIC (-.65), and positively with DI (.72), associating higher ranking on the variable with low acquiescence and a tendency to express inclusion rather than seek it.
The correlations for the Like change score were similar to those found for Helpful and Dominant, linking increases on the variable to low post-treatment scores on the FIRO scales as follows: WI (-.53), EC (-.74), WC (-.74) and EA (-.64).

Understand shows a similar pattern, being correlated negatively with EI (-.71), WI (-.74), WC (-.72) and WA (-.68).

Thus higher rankings on Understand were negatively associated with the inclusion and control scales of FIRO.

The Admire change score had a positive correlation with SU (.67), associating it with high post-treatment scores on self-understanding.

The Trust change score correlated positively with EA (.53) and WA (.61), linking higher rankings to high post-treatment scores on the affection scale.

Finally, the change score for Understands You had positive correlations with DOM (.69) and PR (.63), linking high rankings to members scoring high on dominance and the ability to handle close relationships.

The foregoing suggests that changes in the ratings which individuals receive from early to late are differentially related to outcome indices. Thus, increased ratings as Helpful, Dominant, Like and Understand were all related to low post-treatment scores on the FIRO scales, with Like being particularly related negatively to the control scale. Increases on Sensitive and Admire were positively related to self-understanding, while Needs Help was negatively related to the indice. The ability to discuss feelings was linked to indices associated with expressive interpersonal behaviour and, similarly, the sense of being understood was related to indices associated with social and interpersonal skills. Finally, increases in Trust were mainly associated with post-treatment scores on the affection scale of FIRO.
7.6 Sociometric consensus and the post-treatment variables

As noted above (Section 5.1), there was a trend for the group to increase its consensus in ranking of individuals across the ten sociometric variables over time. Evidence has been presented (Section 6.5) to indicate that individuals consensus scores, as computed from the early and late correlations between group members in their ratings of individuals (see Table 17), are negatively related to other process indices.

It remains to be seen now whether these consensus scores were related to outcome. Accordingly, individuals early and late consensus scores were correlated with the outcome variables using Spearman rank order correlation coefficients. Table 33 shows the significant correlations for early, late and change scores on consensus in relation to the outcome variable, correlations being significant at the .05 level.

Table 33: Correlations between individual's consensus scores and the post-treatment variables

<table>
<thead>
<tr>
<th>Post-treatment variable</th>
<th>Consensus variables</th>
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<tbody>
<tr>
<td></td>
<td>Early</td>
<td>Late</td>
<td>Change</td>
<td></td>
</tr>
<tr>
<td>FIRO:-</td>
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<tr>
<td>Wanted Inclusion</td>
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<tr>
<td>Expressed affection</td>
<td></td>
<td></td>
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<tr>
<td>Wanted affection</td>
<td></td>
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<tr>
<td>P.A.Q.</td>
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</tr>
<tr>
<td>Symptomatology</td>
<td>-.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-understanding</td>
<td></td>
<td></td>
<td>-.65</td>
<td></td>
</tr>
<tr>
<td>Use of time</td>
<td></td>
<td>-.55</td>
<td>-.63</td>
<td></td>
</tr>
</tbody>
</table>

So far as early consensus scores are concerned, these showed a negative correlation with post-treatment Sy (-.75). Early consensus was thus associated with individuals showing high post-treatment levels of symptomatology.
The late consensus score showed a negative correlation with post-treatment L (-.55) while the change score showed negative correlations with the following post-treatment indices: EA (-.59), WA (-.89), WI (-.56), SU (-.65) and L (-.63). Those scores associate consensus negatively with post-treatment indices oriented towards inclusion, affection, self understanding and productive structuring of time.

Thus as with the process variables, the foregoing indicates that consensus, particularly where this increases over time is related to negative response to treatment. The implication of this is that group members find it easier to reach agreement on individuals who score lowly than on those who gain high post-treatment scores.

7.7 Cognitive/Perceptual Differentiation and the post-treatment variables

While the group as a whole did not show the change over time in the direction of increased differentiation in their responses to the sociometric questionnaire, the high degree of variability between individuals suggested that it would be important to assess its relationship to outcome. Accordingly scores on an index of cognitive differentiation were derived for each individual. These scores represented the extent to which they rated others dissimilarly across the ten sociometric variables, the scores being estimated from member's standard deviations from their mean correlation of their ratings of the group across the ten sociometric variables. These cognitive differentiation scores were computed early, late, and a change score derived from the subtraction of early from late. These scores were then correlated with the post-treatment variables using Spearman rank order correlation coefficients.

With regard to the relationship between cognitive differentiation and outcome, the following correlations were obtained between the late score and the outcome indices: EC (-.69), DI (.57), Sy (.59), SC (.58). This pattern of correlations links cognitive differentiation to high post-treatment scores on indices of inclusion,
social contact and low level of symptomatology; and also low scores on the index of expressed control. The cognitive differentiation change scores had a positive correlation with post-treatment LOV (.75) linking it to affiliation.

Overall, these scores suggest that cognitive differentiation has a positive relationship to outcome being related to indices of adjustment, inclusion and affiliation.

7.8 Group compatibility and the post-treatment variables

In order to investigate the relationship of group compatibility to outcome, individual’s dyadic compatibility scores were summed and means derived in order to provide scores for their compatibility with the group on each of the eight measures, i.e. complementarity and similarity measures on each of inclusion, control, affection and overall. These provided the following indices: GOCI, GOCC, GOCA, GOCT, GICI, GICC, GICA and GICT, the first four comprising the complementarity and the second four the similarity measures i.e. these same measures as used in the results of hypotheses 3.3 and 5.4.

These scores were then correlated with the outcome indices using Spearman correlation coefficients. Table 34 shows the significant correlations for each of the compositional measures in relation to the outcome indices, correlations being significant at the .05 level.

In looking firstly at the relationship of complementarity with outcome, inclusion (GOCI) correlated negatively with NIC (-.76) associating the measure with low post-treatment acquiescence.

Complementarity on control (GOCC) was positively correlated with DOM (.86), PR (.57), and Ta (.77); and negatively with LOV (-.66). These link the measure to high scores on dominance, ability to engage in personal relationships, instrumental social skills, but also low affiliation.
Table 34: Correlations between the group compatibility indices and the post-treatment variables

<table>
<thead>
<tr>
<th>Post-treatment variables</th>
<th>Group compatibility indices</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>GOCI</td>
</tr>
<tr>
<td>ICL: Dominance DOM</td>
<td>.86</td>
</tr>
<tr>
<td>Affection LOV</td>
<td></td>
</tr>
<tr>
<td>Acquiescence NIC</td>
<td></td>
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<tr>
<td>Disaffiliation IP1</td>
<td></td>
</tr>
<tr>
<td>FIRO: Wanted affection WA</td>
<td>.61</td>
</tr>
<tr>
<td>PAC: Personal relationships FR</td>
<td>.57</td>
</tr>
<tr>
<td>Self-acceptance SA</td>
<td></td>
</tr>
<tr>
<td>Social contacts SC</td>
<td></td>
</tr>
<tr>
<td>SEIS: Task orientation Ta</td>
<td>.77</td>
</tr>
</tbody>
</table>

Key
- GOC: Group originator compatibility
- GIC: Group interchange compatibility
- I: Inclusion
- C: Control
- A: Affection
- T: Overall
The affection measure (GOCA) had a positive correlation with WA (.61) and a negative correlation with PR (-.58). These associations on the one hand emphasise wanting affection from others, but on the other an inability to handle close relationships.

Overall complementarity (GOCT) showed positive correlations with DOM (.76) and Ta (.79) and a negative correlation with LOV (-.56). This pattern was thus highly similar to that found for the control measure.

With regard to similarity, inclusion (GICI) showed negative correlation with IPI (-.49) and SC (-.57), thus associating the measure variously to low scores on both disaffiliation and the ability to engage in social activities. The control measure showed no significant correlations with the outcome indices.

Similarity on affection had negative correlations with PR (-.65) and SA (-.58), associated with low score on post-treatment indices of the ability to deal with close relationships and self-acceptance. The overall measure (GICT) similarly had a negative correlation with PR (-.58).

In summary, these patterns of relationship suggest that individuals pre-treatment levels of compatibility with the group were at best a mixed blessing in relation to outcome. Complementarity on affection was associated with neediness; while the control and overall scales were related to high dominance and instrumental social skills, but low affiliation. The correlations on the similarity measures related these negatively to a variety of the adjustment variables.

The main conclusion to be drawn from the foregoing is that those individuals who were most similar to the rest of the group at pre-treatment were apt to show negative response on the outcome indices. The corollary to this is that members making most positive change at post-treatment were characterised by incompatibility and/or dissimilarity from the rest of the group on these pre-treatment measures.
7.10 Summary

The main lines of evidence regarding the relationships between interaction and sociometric ratings and subsequent outcome may be summarised as follows:

i) Late use of the HIM categories was found to be differentially related to the outcome indices. In particular positive outcome was associated with the conventional, speculative, confrontive, group and relationship categories; and negative outcome with the assertive category.

ii) Increased use of the HIM categories particularly linked increases on Confrontive, to beneficial outcome; and Assertive to negative outcome.

iii) Rank ordering of the HIM category in relation to a specific set of positive outcome indices emphasised the importance of three of the work categories, Confrontive, Relationship and Speculative to beneficial outcome and again, negatively linked the Assertive category to this.

iv) Interactional flexibility as measured by 'Spread' of category usage was found to be positively related to beneficial outcome.

v) High late self-ratings on the sociometric variables with the exception of Needs help, were associated with beneficial outcome; as also were increased self-ratings on Able to discuss feelings.

vi) High late other-ratings on the group behaviour variables were related to positive outcome; whereas the extent of relationships between the personal choice variables and outcome was markedly less. Increased ratings from early to late were contradictory in linking a number of the sociometric variables to negative outcome.
vii) The measure of cognitive/perceptual differentiation had positive relationships to outcome indices of adjustment, inclusion and affiliation.

viii) Group consensus increased for those individuals who showed a negative response to treatment suggesting that it was easier for the group to agree on those individuals who did poorly than on those showing positive change.

ix) Pre-treatment compatibility with the group in terms of both complementarity and similarity was related to negative outcome.
Hypothesis 8

This hypothesis predicted that general structural characteristics of members participation in the group would be related to outcome.

The mechanisms by which members derive benefit from group therapy at their most general may be conceptualised as being constituted by on the one hand the vicarious observation of others activity, or alternatively as a consequence of active involvement in ongoing group processes.

In order to identify which of these is the prime mode whereby change occurs, the following hypotheses were tested.

i) Change is a function of group attendance (as a test of the vicarious observation mechanism).

ii) Change is a function of member's activity level in the group; and/or of being the focus of group activity (as a test of the active involvement mechanism).

8.1 Attendance and outcome

The number of sessions which members attended (during the course of the study) was taken as an index of the opportunity for observations of other's activity. This index was then related to the outcome data using Spearman correlations coefficients, reported correlations being significant at the .05 level.

The only significant correlations obtained with the post treatment indices were negative with IP1 (-.70), IP2 (-.62) and IP4 (-.58). These scores thus link attendance negatively with a variety of interpersonal styles. On this basis, the hypothesis is thus unproven. Thus, vicarious observation does not appear to be an effective form of learning in group therapy.

8.2 Activity and outcome

In view of the high correlation found between activity and receiving interaction (.94), it was decided to focus on activ-
ity and analyse the extent of its relationships with outcome. Accordingly, scores were derived for each member of their total use of the HIM categories i.e. summing of scores across the eight categories. In addition, a score for change in activity level was derived by subtraction of early from late overall use of HIM in order to see the extent to which increases in activity level from early to late were associated with outcome.

These two scores, overall activity level and increased activity level were then correlated with the outcome indices using Spearman correlation coefficients, reported correlation being significant at the .05 level.

Although overall activity level was related to pre-treatment indices, particularly those emphasising positive aspects of functioning (see results for Hypothesis 1), its relationship to outcome was much sparser. The only positive finding linked it to post-treatment Ta (.58), task-orientation. This suggests that overall activity level was not particularly related to outcome. A comparison with the correlations found between outcome and the use of specific HIM categories (see section 7.1) indicated that beneficial change on the outcome indices was much more related to the quality of interaction rather than its amount.

There was, however, some evidence that increased activity from early to late was associated with favourable outcome. Correlations for the change score link this index positively to post-treatment SA (.59), LOV (.77) and IP2 (.51). Thus, members accounting for increased proportions of group activity from early to late tended to show post-treatment profiles characterised by high levels of self-acceptance and affiliative orientation towards others.

In summary, the overall conclusions of the results for this hypothesis suggest that pure attendance level was unrelated to outcome; overall activity level, although clearly related to pre-treatment indices, appeared largely unrelated to outcome; but increased activity level from early to late was related
to positive outcome on indices emphasising self-acceptance and affiliation towards others.
Hypothesis 9

Broadly, this hypothesis predicted that the nature of individuals' relationships with the therapist would be related to their response to therapy. The relationship with the therapist was defined in terms of the amount of interaction with the therapist and the sociometric ratings given to the therapist on the ten sociometric variables.

9.1 Interaction with the therapist and the post-treatment variables

This hypothesis was tested by computing scores for individuals of the extent to which they directed their interactions towards the therapist and were in receipt of interactions from the therapist. These two sets of scores were then correlated with the outcome indices using Spearman correlation coefficients, the reported correlations being significant at the .05 level.

As far as the group members directing interactions towards the therapist was concerned, no significant correlations were found; and the hypothesis was accordingly unproven.

With regard to interaction received from the therapist, the only significant correlation with the outcome indices was a positive association with WA (.59). This links being spoken to by the therapist with high post-treatment scores on wanting affection. Once again, the low pattern of correlations between level of interaction received from the therapist and the outcome indices suggests that the hypothesis remains unproven.

9.2 Sociometric ratings of the therapist and the post-treatment variables

Members' ratings of the therapist on the ten sociometric variables were correlated with the post-treatment assessment scores and also with individual's levels of attendance, using Spearman correlations coefficients, the correlations being adjusted to take account of the fact that high ratings were denoted by low numbers and vice versa. The reported correlations were significant at the .05 level.
Table 35: Correlations between the sociometric ratings of the therapist and the post-treatment variables and levels of attendance

<table>
<thead>
<tr>
<th>Post-treatment variables</th>
<th>Sociometric ratings of the therapist</th>
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<td>ICL: IP1</td>
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<td>IP2</td>
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<td>IP4</td>
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<td>FIRO: WI</td>
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<td>SU</td>
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<td>Attendance</td>
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* Indicates statistical significance.
Significant positive correlations were obtained between ratings of the therapist on Helpful and the following post-treatment indices: IPL (.69), the disaffiliation quadrant of I.C.L.; IP2 (.53), the affiliative quadrant of I.C.L.; IP4 (.60), the submissive quadrant of I.C.L.; and a negative correlation with SU (-.59). These associate seeing the therapist as helpful with a variety of interpersonal styles, but with low levels of self-understanding at post-treatment.

For Dominance, a positive correlation was obtained with IPL (.49) and negative with DA (-.51), suggesting that members with a preference for expressing affection over wanting it post-treatment tend to rate the therapist low on dominance; while those who are disaffiliative rate the therapist highly.

With regard to Needs Help, significant positive correlations were obtained with IPL (.59), IP2 (.77), IP4 (.64) and Sy (.68). The first three of these are similar to the correlations obtained on the Helpful variable. This pattern of results suggests that the ability to see the therapist as needing help (i.e. fallible and human) is predictive of high scores at post-treatment on a variety of different indices, including various interpersonal styles and level of symptomatology.

For Understand, significant negative correlations were obtained with WI (-.60), and Sum I (-.62), linking the variable negatively to outcome indices of involvement with others. On Understands You a positive correlation was obtained for IPL (.53), linking high ratings on being understood by the therapist with a high level of disaffiliation post-treatment. No significant correlations were found for Sensitive, Able to discuss feelings, Like, Admire and Trust.

In summary, the major post-treatment index associated with high ratings of the therapist was IPL, which links high ratings of the therapist on the relevant sociometric variables with high levels of post-treatment disaffiliation.
Individual levels of attendance were also correlated with the ratings of the therapist in order to assess the influence of the therapeutic relationship on members attendance level. The correlations for attendance with all the sociometric variables were highly significantly negative. This indicates that the extent to which individuals attended the group was more related to their relationships with other members than to their relationships with the therapist. If level of attendance is taken as an estimate of individuals tendency to continue in therapy, then peer relationships seem to be a much more important determinant of this than individual's relationships with the therapist.

The overall conclusions from this is that the quality of the relationship with the therapist is not strongly linked to outcome. The association with post-treatment disaffiliation is highly suggestive that high ratings of the therapist are reflecting difficulties in peer relationships. In contrast, the ability to see the therapist as in need of help is the one sociometric variable, which bears a positive relationship to outcome.
Chapter 8: Discussion of the Results

8.1 The 'Social Microcosm' Hypothesis

As noted above, part of the rationale for group therapy rests upon an assumption that members bring to the group situation their typical modes of behaviour and relating. These are then held to be available to the group for identification, working on and change, where they are dysfunctional for the individual.

This notion has remained at the level of speculation, although a theoretical rationale for it has been presented by Yalom (1970), and its importance has been emphasised by Bednar and Kaul (1978). Moreover, other theorists e.g. Scheidlinger (1968) have argued that the nature of the group therapy situation with its artificiality and ambiguity is more likely to prompt members to behave in uncharacteristic modes, in particular generating regressive and dependant and/or counterdependant phenomena.

Hypothesis I aimed to investigate whether continuities did in fact occur between member's pre-treatment assessment profiles and their subsequent behaviour in-group as a test of the social microcosm hypothesis.

In broad terms, members group activity overall was clearly related to their pre-treatment profiles. Thus, active members were characterised by high scores on pre-treatment indices measuring self-understanding and the ability to exert control rather than seek it in interpersonal situations. In contrast, low activity was associated with members who sought others control in inter-personal situations and were submissive and unassertive in relationships. The compelling conclusion from this is that mentally healthy individuals were the most active in the group overall.

These patterns of relationship between pre-treatment profiles and group activity held also for member's use of the HIM style and content categories. However, there was additionally some evidence
for differential associations between the particular HIM categories and pre-treatment indices.

Firstly, the relationship content category which in terms of level of therapeutic work is the highest of the content categories, was particularly correlated with indices tapping active involvement with others, i.e. the inclusion and affection scales of FIRO-B and the SC scale of PAQ, and additionally with the Sy scale of PAQ, which measures the level of symptomatology. Thus, these correlations evidence consistency between pre-treatment profiles and type of group activity.

Secondly, the use of the speculative style of interaction, which is characterised by an exploration of problems with the aim of developing understanding, was associated with members scoring high on pre-treatment indices involving having a task-orientation towards social situations and the ability to be accepting of themselves.

Thirdly, the topic category, which is orientated towards impersonal interaction was particularly linked to dominance and expressive control in terms of pre-treatment characteristics. Thus, it was unrelated to variables pertaining to the self; and either unrelated or negatively related to those oriented towards affiliation.

Thus, all three of these patterns provide evidence of consistency between pre-treatment profiles and in-group behaviour; and are suggestive of the forms of group activity which might be expected of individual's scores on particular pre-treatment indices.

So far as the temporal dimension is concerned, correlations between the pre-treatment indices and the HIM categories for early and late group activity showed evidence of a mixture of consistency and disjunction. Thus, the following categories showed similar correlations from early to late with pre-treatment indices: Conventional, Speculative, Group and Personal, although there is a marked tendency for later correlations to be higher than early ones.
The other categories showed more evidence of disjunction. Thus the late Assertive category's negative correlations with S-E of SEIS suggest that member's whose pre-treatment profiles include sensitivity towards others, exhibit this late in their group careers in use of this self-oriented category.

Similarly, member's with low levels of symptomatology (the Sy scale of PAQ) pre-treatment were associated with late use of both the Confrontive and Relationship categories (i.e. the highest of the style and content work categories respectively), although there was also a significant correlation between Sy and use of early Relationship category.

However, the late Relationship category was also correlated with a range of pre-treatment indices oriented towards personal and emotional involvement with others, which were not in evidence for early use of the category. These included LOV, IP2, SC and expressed and wanted scores for the inclusion and affection scales of FIRO-B. Bearing in mind the fact that the relationship category is the one which showed most increase from early to late, it is possible that the association between members pre-treatment profiles loading heavily on interpersonal involvement and late use of the category is a function of an interaction between individual's typical behavioural orientations and phase changes in group activity over time.

Given that the distinctive patterns of correlation occurred between pre-treatment indices and early use of the HIM categories, there is evidence for continuities between pre-treatment and early ingroup behaviours. However, the fact that correlations tended to be higher and more extensive between pre-treatment and late use of categories suggests that the 'social microcosm' mechanism has a developmental feature. This suggests that it is only over a period of time that members come to exhibit in the group their usual forms of behaviour. This is particularly the case for the Assertive and Relationship categories, whose late uses were associated with pre-treatment profiles emphasising disengagement and active emotional involvement with others,
respectively. Further evidence regarding structural features of member's pre-treatment functioning, and the relationship of these to group process will be presented in the second study.

Thus, while the findings described above tend to support Yalom's theoretical speculations, the delay in the full functioning of the 'social microcosm' mechanism does leave room for the possibility that aspects of early group behaviour may be seen as uncharacteristic of the individuals involved.

Attempts to describe such early 'uncharacteristic' group behaviour may be found primarily in the writings of analytically-oriented group theorists. On the one hand they emphasise defensive-regressive reactions to the group situation (Scheidlinger, 1968); and on the other, theorise about group phase movements. These latter find their clearest exposition in the writings of Bion (1961), who considered early group behaviour to be oriented around the issue of member's sense of being dependant on the group or group-therapist.

In general terms, the foregoing provides qualified support for the concept of a 'social microcosm' mechanism and suggests that this is a developmental aspect of group process. However, the relationship of this mechanism to other aspects of group process and its importance in relation to outcome require further investigation.

Finally, if the above results regarding its developmental nature are found to be of general application; and if involvement in a social microcosm is one of the main group processes lending to beneficial outcome (as has been suggested by Bednar and Kaul (1978), this implies that therapy groups require to be run over a sufficient time-span for such processes to emerge.
8.2. The Nature of Patient’s Perceptions

Studies of patient’s perceptions in group therapy have tended to focus on two main areas. A number of studies have investigated perceptions of therapeutic factors, including McCanne (1977), who found that the importance of these varied according to type of group (therapy vs growth groups); Butler and Fuhriman (1980), who found differences according to type of problem (day-patient schizophrenic vs out-patient neurotic); and Schaffer and Dreyer (1982), whose findings differentiated staff from patient perceptions. The importance of particular mechanisms for patients is claimed by Marcovitz and Smith (1983) in relation to catharsis, altruism and group cohesiveness; by Freedman and Hurley (1980) for interpersonal learning and catharsis; and by Weiner (1974) for genetic insight. Rohrbaugh and Bartels (1975) also found differences in the importance of the mechanisms according to group type but additionally noted difficulties in distinguishing the factors from one another; and drew attention to the fact that member’s perceptions of the value of these mechanisms may have little relationship to their in-group behaviour or outcome.

Secondly, a smaller number of studies have looked at member’s perceptions of the therapist. As reviewed by Gurman and Gustarson (1976) the results of these are much less clear-cut in demonstrating the importance of the therapeutic relationship in group therapy than has been found in the individual therapy context.

Apart from these two areas, the study of group member’s perceptions of their group experience is virtually barren. Hurley (1978) in a study of quasitherapeutic groups found a relationship between on the one hand, self-acceptance and acceptance of others and on the other ratings of helpfulness.

Both Wyrick (1979) and Piper et al (1977) investigated the relationship between self and other-perceptions in group therapy; and failed to find any significant correlations between them. Piper et al additionally failed to find any relationship between the sociometric indices and outcome after three months of therapy.
Beck and Peters (1981), using a sociometric questionnaire and studying leadership roles in therapy groups, found evidence for Bales' distinction between task and social-emotional leaders, the former being frequently occupied by the group therapist. They were unable however to find evidence for two other hypothesised roles: the scapegoat and the defiant leader.

Sprouse and Bush (1980) studied a quasitherapeutic group using a multidimensional scaling approach based on member's ratings of each other's similarity. They found three main dimensions underlying members' perceptions of each other: self-disclosure, participation and race. The salience of these varied over time, self-disclosure remaining stable over time, participation increasing and race decreasing in importance over time. They additionally found that members increasingly over time tended to view one another along these same interpersonal dimensions.

Although these studies did not directly investigate the development of group therapy patient's perceptions of each other, their investigations of personality characteristics and group ratings, use of sociometry, and change in importance of dimensions of interpersonal perceptions over time are relevant to the present study.

8.2.1 The influence of pre-treatment characteristics

The results of Hypothesis II, which investigated the relationship between pre-treatment indices and ratings obtained on the ten socio-metric variables, found consistent differentiated relationships from early to late with regard to both self-ratings and ratings made by others.

Interestingly, in view of Hurley's findings linking helpfulness to self and other acceptance, none of the pre-treatment indices differentiated early ratings of helpful in the present study. Late ratings were only linked negatively to DA for ratings made by others which associates it with members having a balance between expressing and seeking affection.
So far as self-acceptance is concerned, the SA scale of PAQ had positive early correlations with Understand, Trust and Understands You. These are suggestive of an association between self-acceptance and high ratings on sociometric variables relating to personal contact and self-disclosure between group members early on in their group careers, although they were not found with late sociometric ratings.

With regard to acceptance of others, the indices in the present study, which appear closest to this concept, are IP2 (the affiliative quadrant of ICL) and the Inclusion scale of FIRO. For early ratings both of these indices were mainly related to the personal choice sociometric variables, i.e. members were attracted to those individuals who expressed affiliative behaviour. Although the correlations for IP2 were not significant with late sociometric ratings, those for the Inclusion scale were consistent with the early ones.

However, apart from IP2 and the Inclusion scale, other indices were equally related to the personal choice sociometric variables, most notably Sy, SA, SU and SC of PAQ with early ratings, and EA from the Affection scale of FIRO with both early and late ratings.

Thus, ratings on the personal choice variables early in the group were clearly related to indices tapping inclusion, affection and various aspects of adjustment; while late ratings continued to be related to members pre-treatment scores on the ability to include others in their activities and express affection.

Nature of Patients Perceptions

Individual ratings on the first five variables, i.e. those related to member's behaviour in the group had fewer correlations
with pre-treatment indices. Those that were in evidence in the main linked self-ratings to the control scale of F.I.R.O. In particular, individuals high on expressing control in interpersonal relationships rated themselves high on dominance, being able to discuss feelings, but also needing help; while those who needed other people's control rated themselves low on dominance and ability to discuss feelings.

It is interesting to note the disjunction between self-ratings on the first five variables (with the exception of Helpful for which no correlations were obtained) with their association with scores on the Control scale from other-ratings on the second five variables with their associations with Inclusion and Affection. In addition, other-ratings on the first five variables link the Affection scale negatively with Sensitive and IP2 positively with Dominant, i.e. other group members rated affiliative individuals as dominant in the group, but not sensitive. In relation to early group process, the measuring of sensitive appears to refer to vulnerability rather than empathy. Thus, while self-ratings of dominance related to the individuals sense of expressing control in relationships, other-ratings were more influenced by affiliative behaviour.

The main conclusions from the above indicate that pre-treatment characteristics had their main effect on members attractiveness to one another. In particular, individuals were attractive to other members, where they had high levels of adjustment (for early ratings) and affiliative behaviour (for both early and late ratings). In contrast, self-ratings mainly reflected a polarity between assertive controlling and submissive styles of relating.

8.2.2. Changes in the nature of patient's perceptions

The notion that over time patient's perceptions of one another should change is one which has face validity, but up until now has lacked empirical investigation. The issue however is important in providing information regarding group process generally, the nature of individual's experience
of others in the group, the changing saliency over time of different aspects of person perception, and the relationship of sociometric measures to outcome.

Hypothesis 4 predicted that changes in patient perception would be characterised by two main developments: increases over time in differentiation and consensus. Increases in differentiation would be based on decreased correlations between the sociometric variables for individual's ratings of other group members, i.e. in their use of the variables across the rest of the group. Increases in consensus would be based on correlations between group members in their ratings of each individual across the ten sociometric measures; and on correlations between members ratings of themselves and the rest of the group's ratings of them on the first five variables, i.e. the self-included variables.

Differentiation

The predicted increases in differentiation for the group as a whole, which were expected on the basis of 'social penetration' theory (Altman and Taylor 1973) did not occur to any significant extent. Analysis of the early and late correlational structure of members ratings of others on the sociometric questionnaire for the group as a whole showed evidence of marked consistency from early to late in the mean correlations between pairs of variables.

However, certain variables were clearly more central than others at different times. Early correlations with the other variables were particularly high for the variable measuring the individual's sense of being understood by another (Understands You). In addition, the other variables relating to members personal choice i.e. like, trust and admire, were all highly intercorrelated and correlated with Understands You. The interesting exception to this pattern was Understand, which both early and late was the third least correlated with each of the other variables. Thus, ratings on the sense of understanding another person are hence more variable and idiosyncratic than liking, trusting etc. There was a tendency for early sociometric ratings to be organised around the individual's feelings about
other members, particularly the feeling of being understood by them; while in contrast ratings on the group behaviour variables were more differentiated and less central.

For late ratings, like, admire and trust continued to exhibit high inter-correlations: but helpful appeared as the most highly correlated variable with the other variables in the scale. Both early and late, Dominant and Needs Help were the least correlated variables, indicating that members were rating each other on these variables on the basis of different perceptions and cognitions than for the other variables.

The slight increase in the saliency of Helpful and decrease in that of Understands You from early to late in relation to the other variables is suggestive of a possible shift over time in the factors influencing member's perceptions. This shift may be described as a movement from the early influence of member's feeling about each other to a later focus on group behaviour; or alternatively characterised by a shift from an inner-directed to an outer-directed focus for perceptions of one another.

While the group as a whole failed to show the predicted increase in differentiation over time, individuals were varied, splitting half and half between increased and decreased differentiation over time. These differentiation scores were found to be correlated with other aspects of process and outcome, as will be discussed hereunder.

Consensus

So far as consensus is concerned, the evidence was more positive. Over time, there was a significant increase in the extent to which members ratings of individuals on the ten sociometric variables became more similar. Although correlations for group ratings of individuals were again highly variable (early range: .016 to .60; late range: .083 to .84), for the majority of individuals there was an increase in consensus.
This finding has important implications both from the point of view of the individual being rated, and also for an understanding of group process. For the individual, it suggests that over time they are likely to be seen more similarly by others; there is a concomittent possibility that these perceptions will become codified into a system of roles and expectations; and that their behaviour will come to be interpreted in terms of these roles and expectations.

From the point of view of group process, increased similarity of perceptions provides evidence suggestive of an increased level of agreement between members about each others behaviour, which may well relate to a sense of group cohesion. Thus, it may well be that the achievement of agreement between members concerning individual's roles in the group is a constituent of the development of group cohesion. In addition, the shift from idiosyncratic to common ratings of each other is suggestive also of an increased level of public knowledge concerning one another, which may be related to increases in self-disclosure. However, the elucidation of the relationship between the observed increases in consensus and these two group process mechanisms awaits further research.

In addition, the pattern of correlations for the consensus ratings with other process and outcome indices consistently made the link between high levels of consensus and low levels on other indices. Thus, consensus ratings for individuals as assessed for early, late and change were associated with low other-ratings on the majority of the sociometric variables; with low scores on the HIM work categories, particularly Speculative and Relationship; and with low post-treatment scores on PAQ and the Inclusion and Affection scales of FIRO.

Thus, although there was a general trend for consensus to increase over time for the group as a whole, members appeared to find it easier to agree with one another about 'weaker' individuals than those who were active, highly rated sociometrically, and showed high post-treatment response. A possible corollary to this is that members continue to evidence differing perceptions of those individuals who do well in therapy. This may suggest that such individuals are more varied in their
positive response to therapy than those who don't do so well.

The other evidence pertaining to increased consensus refers to the degree of similarity between self and other-ratings of individuals on the first five sociometric variables. Early correlations, with the exception of discuss feelings were either negative or virtually non-existent, indicating a considerable level of disagreement between self and other-ratings on variables relating to member's behaviour in the group.

Late correlations were uniformly positive and although varied (ranging from .18 for Needs Help to .80 for Discuss Feelings), indicated a consistent increase in agreement between self and other-ratings. This suggests that over time, the individual's perception of their position and behaviour within the group comes to resemble the perceptions that others have of them.

However, the patterns of correlations for self and other ratings between these five variables also provides interesting pointers concerning the different meanings of behaviour from the point of view of the agent and the group.

Thus, both early and late, self-rated ability to discuss feelings was highly correlated with other-ratings on this variable. However, in addition, both early and late, self-ratings on this variable also correlated highly with other-ratings of needing help, suggesting that the discussion of feelings was viewed by the group as evidence of needing help. Moreover, early self-ratings on the ability to discuss feeling were associated with late other-ratings of dominance, which indicates that members who saw themselves early on as engaging in task-relevant therapeutic behaviour came to occupy dominant roles in the group later. However, late self-ratings of dominance were correlated with late group ratings of needing help, an association which was not in evidence for early ratings, suggesting a shift in the group's perceptions of members who saw themselves as dominant.

These findings of increased consensus between self and other ratings are in accordance with those obtained by Silver and Mood (1971) on T. groups. They were additionally able to demonstrate
that such increases were found more in heterogenous than in homogenous groups. They are however discrepant from the lack of correlation reported by Piper et al (1977) between self and other ratings on sociometric measures after three months of group therapy. This latter 'negative' finding emphasises the developmental nature of such consensus i.e. three months may not have been a long enough time span for consensus to develop.

The fact that self and other-ratings of individuals on variables measuring group behaviours became more similar over time indicates an increase in consensus. However, the explanation for this remains unclear. A number of alternatives are possible.

Firstly, as members go through the process of getting to know each other, increases in self-disclosure may lead the group as a whole to come to see individuals more as they see themselves, i.e. group ratings move towards self-ratings. Alternatively, on the basis of receiving feedback from others, members may modify their views of their own position in the group and move towards seeing themselves more similarly to the way that the group sees them, i.e. self-ratings move towards other-ratings.

Social psychological theories of group action are unable to suggest which of these alternatives is most plausible. Theories emphasising the influence of the individual or minorities in determining group behaviour (e.g. see Pruitt, 1971) would support the first of these explanations. Those explaining group behaviour in terms of social pressure, conformity and dissonance (e.g. Crutchfield, 1955; Harrison and Lubin, 1965) would argue the latter. In terms of the evidence available in the present study, another possibility presents itself.

Thus it appears likely that both types of rating are subject to group processes, which lead to change. It will be recalled that early group ratings of individuals were themselves highly variable; but that these consensus correlations increased from early to late. Additionally, there
was a marked disjunction between early self and other-ratings in relation to the pre-treatment indices, the former being more related to scores on the Control scale of FIRO; the latter to scores on the Inclusion and Affection scales.

The increased similarity between self and other variables may well be a consequence of increased accuracy of perceptions by both self and others on the basis of the development of consensual validation (Sullivan, 1953; Bednar and Kaul, 1978). This refers to a process of correcting perceptual distortions via mutual reality-testing; and a priori appears to be a therapeutic mechanism which is particularly applicable to group therapy.

In summary, the present findings have indicated the presence of differentiated relationships between members pre-treatment personality characteristics and their sociometric perceptions of one another; these characteristics having a more extensive and persistent effect on member's personal attractiveness to one another than on their perceptions of both their own and others group behaviour. Changes in the structure of sociometric perceptions provide evidence for increased group consensus (particularly in relation to 'weaker' members); increased similarity between self and other ratings, for which an explanation in terms of 'consensual validation' is proposed; and a tendency for the saliency of particular variables to change over time in relation to the sociometric scale as a whole. This last in particular implicates a shift from ratings being based upon personal feelings towards evaluations of individual's contributions to the group task.

8.3. Group Composition

The issue of group composition, in common with other areas of group therapy research, is one which has suffered from problems in determining the most relevant dimensions upon which to compose groups. Clearly the main aim of composition is to maximise productive group interaction and intermember relationships in order to facilitate positive outcome in group members.
However, the range of possibilities for relevant dimensions appears to be almost unlimited. Thus Gibb (1971) has offered the following as of possible relevance: group homogeneity-heterogeneity, premorbid history, current adjustment, emotional and intellectual resources, and group compatibility. In addition, Melnick and Woods (1976) note that apart from those already mentioned, additional dimensions which have been suggested as of relevance or been researched include dominant emotional group climate, severity of disturbance and level of interpersonal skill.

In terms of attracting research interest, the heterogeneity-homogeneity dimension has proven to be particularly popular, although it has to be stated that the majority of this research was conducted on laboratory groups composed of college students and the number of group sessions was usually small. This makes problematic the generalisation of their findings to long-term therapy groups. Notwithstanding the difficulty involved in determining the variables which are of most relevance to the dimension, certain broad trends are evident in the literature.

Thus, homogenous groups tend to come together more quickly; offer support to their members; promote less conflict and enable more rapid symptomatic relief. However, heterogenous groups are considered to be effective in producing deeper levels of interaction and more basic change in interpersonal learning. (Harrison, 1975; Pollack, 1971; Reddy, 1972).

In a suggestion, which has become part of group therapy's common wisdom, Whitaker and Lieberman (1964) have argued that composition should maximise heterogeneity for conflict areas and patterns of coping, while maximising homogeneity for degree of vulnerability and capacity to tolerate anxiety.

So far as studies on therapy groups are concerned, Powermaker and Frank (1953) studied neurotic outpatient groups. They found an interaction effect between patient characteristics and group climate in affecting subsequent drop-out rate. Thus, dependent passive personalities and those high on fear of affect were more likely to drop out of nonsupportive and emotionally charged groups respectively, than those low on these variables.
they found that groups homogenous for competition, aggressiveness and low self-disclosure had fewer dropouts than groups heterogenous for these variables. These results point up the importance of matching individual needs to group climate.

Among the few other studies done on therapy groups, Koran and Costell (1973), also researching neurotic outpatient groups, found no relationship between group composition as based on FIRO interchange compatibility and either group dropout rate or a measure of group cohesion.

Utilising the same group composition index and the same type of group, i.e. neurotic outpatient, Yalom and Rand (1966) also found no relationship between group composition and dropout rate. Thus, groups differing in degree of interchange compatibility did not tend to have different levels of dropout rate. However, individual compatibility scores did relate to drop-out rate. Thus members having lower compatibility scores with the group as a whole were more likely to drop out. Additionally, they found a relationship between group interchange compatibility and a measure of group cohesion; and also that members with extreme levels of interchange incompatibility with at least one other group member were less satisfied with the group.

The present study did not aim to compare the effects of homogeneity-heterogeneity across different groups, but rather to investigate the relative effects of different forms of composition measures in relation to process and outcome. The findings do however bear on both the homogeneity-heterogeneity issue and also point up the role of different styles of interpersonal orientation in relation to models of group functioning.

Both Yalom and Rand (1966) and Schutz (1961) have suggested that interchange compatibility, which measures the similarity of group members in the three areas of interpersonal orientation, is likely to most closely relate member's interpersonal orientation to the group's atmosphere. As noted above, Yalom and Rand (1966) did find interchange compatibility related to group cohesion and member satisfaction. Additionally, Schutz (1961) found that T-groups composed of members similar to one another on FIRO scores interacted with more depth and understanding around a single
area than did groups heterogenous for these characteristics. However, an additional study by Yalom et al (1967) was unable to relate FIRO compatibility to measures of outcome. The main predictor of outcome in this study was popularity; and measures of compatibility were not significantly related to it.

Apart from interchange compatibility, Schutz (1958) also provided another form: originator compatibility, which is a measure of the fit between an individual's expressed and wanted behaviour and that of another person or group. Thus interchange and originator compatibility refer to similarity and complementarity in interpersonal orientation, respectively. Findings in the present study, both with regard to dyadic compatibility and compatibility between an individual and the rest of the group indicate that these two measures were differentially related to measures of process and outcome.

So far as dyadic compatibility was concerned, complementarity was strongly positively related to members interacting with one another. This was particularly the case with regard to complementarity on the Control scale and overall. Thus members with a fit between their expressed and wanted scores on control and overall were more likely to interact with one another. In contrast, similarity was negatively associated with dyadic interaction with regard to the Affection scale and overall. Thus members with similar expressed and wanted scores were significantly less likely to interact with one another. On the basis of these results it would appear that complementarity is positively associated and similarity negatively associated with dyadic interaction.

The relationship between dyadic compatibility and sociometric ratings was more complex. For complementarity there were significant relationships between the Affection scale and all five personal choice sociometric variables (i.e. like, understand, admire, trust and understands you) and helpful and dominant. Thus, dyads with a fit between their expressed and wanted scores on affection tended to rate each other highly on these variables. The Control scale was significantly related to three of the variables: helpful, admire and in particular
dominant. The inclusion scale related to needing help, understanding and sense of being understood; and the overall scale to ratings of dominance.

So far as similarity was concerned, the main predictor of sociometric rating was the Control scale, which had significant correlations with eight of the ten sociometric variables, including all five group behaviour variables, these being particularly strong with helpful and needing help. The other similarity measures i.e. inclusion, affection and overall, were not generally related to sociometric rating.

In general, therefore, members ratings of one another on those sociometric variables, which emphasise the personal relationship between members, were influenced by their complementarity on the affection scale. Thus, members were attracted to those individuals to whom they were 'fitted' in their interpersonal style. On the other hand, ratings on the group behaviour variables were clearly related to member's similarity on the control scale, members with similar levels of control being particularly likely to rate each other highly on helpful and needing help.

The fact that the overall compatibility measures were barely related to the sociometric variables points up the importance of not using these measures as the sole predictors, but rather investigating the relative contributions of the three styles of interpersonal orientation to compatibility.

Providing a gross measure of the relative strengths of the relationship between the two types of compatibility and sociometric rankings, a simple adding up of the number of significant correlations between the measures and the sociometric variables indicated that complementarity had a stronger relationship to the sociometric variables than did similarity. It will be recalled that whereas all four complementarity scores had significant correlations with sociometric variables, only two of the similarity scores did so.
Thus, dyadic complementarity would appear to be more influential in determining both degree of interaction and sociometric ratings than similarity in interpersonal orientation.

While complementarity cannot be equated with heterogeneity and similarity with homogeneity, it is possible that these results do have implications for an understanding of that dimension. In particular, the changing contributions of the Control and Affection scales are of interest. Thus, whereas complementarity on Control was related to level of member interaction, similarity on this scale correlated with sociometric rating, particularly on variables related to group behaviour. Conversely, complementarity on Affection was related to sociometric ratings on the personal choice variables; whereas similarity was negatively related to level of interaction.

On this basis, it is plausible to suggest that groups composed of individuals with heterogenous scores on Control, but where there is a fit between expressed and wanted scores, would be high on interaction. On the other hand, groups of individuals homogenous on the Affection scale would be expected to have low levels of interaction.

Along similar lines, in order to compose a group of individuals, who would be attractive to one another, it would be important to build in heterogeneity and fit between expressed and wanted behaviour on the Affection scale; while for a group to be oriented towards member's group behaviour, it may be useful to have some degree of similarity between them on the Control scale.

Apart from dyadic compatibility, the present study also investigated the effect of members degree of compatibility with the group as a whole on process and outcome. Both complementarity (originator compatibility) and similarity (interchange compatibility) were found to be differentially related to process indices.
For complementarity, both the control and overall scales were related to early and late use of a number of HIM categories, but particularly the work categories. These findings evidence consistency between dyadic and group complementarity, and indicate high levels of group activity by those members who were complementary to the rest of the group in terms of their levels of control and overall interpersonal orientation. In contrast, complementarity on the affection scale was negatively associated early and late with use of a number of HIM categories, with the interesting exception of a positive correlation with late use of the Relationship category.

Similarity was generally unrelated to the use of particular HIM categories. Such correlations as did occur were in the main negative. These findings are again in broad agreement with those obtained for dyadic compatibility, and indicate that member similarity in interpersonal orientation is not predictive of behaviour in the group.

With regard to sociometric ratings, complementarity on the Affection scale as with dyadic complementarity was correlated with being highly rated on sociometric indices relating to group behaviour (i.e. positive with helpful, dominant and sensitive; negative with needing help). However, in contrast with the findings for dyadic complementarity, the Control scale was negatively correlated to sociometric ratings, particularly self-ratings; and the Inclusion scale positively related to being seen as needing help.

For similarity, the main associations linked the Affection scale negatively to late personal attractiveness variables; and the overall scale positively to late ratings on positive group behaviours. This indicates that the strength of members overall interpersonal orientation in relation to the group i.e. the extent to which their scores across all three scales were similar to the group mean, was more predictive of their receiving high ratings on variables relating to group behaviour than was their similarity on any of the individual scales.
The foregoing relates also to a controversy in the group composition field regarding what is the most efficacious approach in terms of the heterogeneity-homogeneity dimension. At either end of the continuum are theories emphasising the value on the one hand of dissonance and diversity, and on the other of cohesion.

Dissonance theory (e.g. Harrison and Lubin, 1965) suggests that change occurs as a result of previous patterns of behaviour becoming maladaptive and previous assumptions being challenged. Heterogeneity in group composition is likely to produce more dissonance than homogeneity. The work of Greening and Coffey (1966) and Reddy (1972), among others, demonstrates that members of T-groups, who were most discrepant in their behaviour from the prevailing group culture tended to show the greatest change. However, the aforementioned study by Powermaker and Frank (1953) and further studies by Stock and Luft (1960) point up the short-comings of too much heterogeneity in therapy groups, particularly in generating premature termination.

Cohesion theory argues that in order for change to occur, members need to feel sufficiently safe and supported by the group in order to engage in self-disclosure, explore their motives and feelings, and take risks in changing their behaviour. On this basis, some measure of homogeneity or similarity between members appears to be important in promoting therapeutic change. The aforementioned studies by Yalom and Rand (1966) and Yalom et al. (1967) link similarity to group cohesion and member satisfaction; and popularity in the group to outcome.

However, the above mentioned studies comparing homogenous with heterogenous groups consistently emphasise the relative shallowness and low levels of change in homogenous as opposed to heterogenous groups. A further problem arises with regard to the equation between on the one hand dissonance and heterogeneity, and on the other cohesion and homogeneity. Thus, it appears possible that members similar to one another may well offer as much if not more challenge to each other than
those dissimilar. Furthermore, the relationship between homogeneity and cohesion is one, which has been challenged particularly by Bednar et al. (1974) who concluded that self disclosure and interpersonal feedback were of prime importance in the development of cohesion, i.e. group behaviours which are not typically associated with the shallow and stagnant modes of behaviour which have been described as characteristic of homogenous groups.

One additional problem refers to the differing client populations of studies. Thus, while the studies supporting cohesion tend to have been conducted on therapy groups, those favouring dissonance have emerged from laboratory studies. It appears plausible to suggest that T-groups meeting for a shorter period of time with individuals who are more confident interpersonally may well be able to handle greater degrees of conflict and interpersonal dissonance than would therapy groups composed of individuals who are, apart from other things, in need of support and a sense of being part of a cohesive group. Moreover, particularly in the early phases of group development, the maintenance of the group as a whole appears to be an important issue in therapy groups. This suggests that conflict and dissonance may need to be at a minimum level in the service of group maintenance, the development of a group culture and the avoidance of premature termination.

Between the two extremes of dissonance and cohesion, has emerged a third alternative which argues for a balance between homogeneity and heterogeneity. This approach has been characterised as the support plus confrontation model and has been in the first instance presented by Harrison (1965). In essence it recognises that both support and confrontation are required for learning to occur. The studies by Powdermaker and Frank (1953), Stock and Luft (1960) and Harrison (1965) each point out the difficulties associated with groups composed at the extremes of the homogeneity-heterogeneity dimension and argue for a mixture of the two. Along similar lines, findings in the present study indicated that differing forms of compatibility give rise to differing effects on group process.
The foregoing has linked group compatibility indices to group process variables. However, there has been little research effort, particularly in the group therapy field, to link composition to outcome. So far as research on laboratory groups is concerned, Lieberman (1958) found that group members most attuned to the prevailing group culture changed least. Reddy (1972) found that incompatible groups made greater gains in self-actualisation and became more inner-directed than did compatible groups.

The findings in the present study which relate to outcome were the correlations for individual's compatibility with the group as a whole. So far as complementarity is concerned, the control scale was particularly positively associated with indices relating to dominance and assertion and negatively to affection. The affection scale was associated with a negative response to treatment involving high scores on needing contact with others and low scores on the ability to handle close relationships. The overall complementarity score correlated positively with post-treatment dominance but negatively with affection. With regard to the similarity scales, the associations with outcome were much fewer and in the main, negatively related to the ability to handle close relationships.

Thus, in general, complementarity was linked to post-treatment assertiveness, but also to a variety of indices of 'negative' outcome; and similarity to negative response to therapy. This suggests that positive change is associated with members being dissimilar from the group as a whole at pre-treatment, which accords with the findings obtained in laboratory groups by Lieberman (1958) and Reddy (1972).

In summary, the compositional measures used in the present study have been found to be variously related to process and outcome indices. Indices of complementarity were particularly related to both levels of interaction and ratings on the personal attractiveness variables; while similarity was more connected to ratings on the group behaviour variables. With regard to outcome, while compatibility on control was related to high post-treatment assertion, similarity with the group appeared to be mainly associated with negative response to treatment.
8.4 Interpersonal interactions

Notwithstanding the importance attached to such putative curative factors as group composition, cohesion, structure, self-disclosure and the therapeutic relationship, it is arguable that the key characteristic of group therapy, which marks it off from other mechanisms of individual change, is the opportunity which it affords members to engage one another in interaction. Such interaction is presumed to be the sine qua non of interpersonal learning.

This viewpoint is one which has been particularly championed by Coons (1957; and Coons & Peacock, 1970), who has argued that interaction is the essential dynamic of change. This viewpoint clearly is at odds with alternative explanations, which emphasise the development of insight and the nature of the content of such interaction.

Evidence concerning the prepotent importance of interaction over insight is mixed. Thus, both Coons (1957) and Poser (1966), studying groups for inpatient schizophrenic patients found interaction-oriented groups more effective in promoting positive outcome than those concerned with insight-promotion.

However, Roback (1972) studying the same type of client group found no differences between groups emphasising interaction and insight, most gains being made by groups which combined the two approaches. Similarly, the results of a study by Semon and Goldstein (1957) found no difference between insight and interaction-oriented groups for the same type of client population.

A study by Abramovitz and Abramovitz (1974) found a differential response to insight and interaction-oriented groups in terms of level of psychological-mindedness, members high on this responding most favourably to the insight approach.

A further strand to this issue is the distinction between interactions which concern the here-and-now of what is occurring between people and the there-and-then, which more frequently but not invariably consists of the relating of past experiences
by individuals and the reactions, interpretations and comments of other group members about such material.

Theorists emphasising the importance of interpersonal learning in groups (e.g. Yalom, 1970) claim the importance of both members and therapists attending to interactions occurring between individuals in the group in contradistinction to the discussion of experiences and events extraneous to it.

However, Abramovitz and Jackson (1974) studying groups composed of out-patient college students found most gains made by groups where interactions were mixed between there-and-then and here-and-now, while least benefit was obtained by groups whose main focus was on the here-and-now.

The main trends of evidence from this admittedly small body of research firstly emphasise the importance of client characteristics, inpatient schizophrenics tending to do better in some studies with an interaction-based approach; while psychologically-sophisticated outpatients respond better to group formats emphasising the development of insight. The second main conclusion points up the relative weakness of effects obtained by groups which operate a pure approach in contrast with the superiority of those utilising mixed orientations or interventions. Results of the survey conducted as part of the present study indicated that regardless of type of group, a majority of therapists opted for use of mixed interventions in preference to those having a more specific focus.

Evidence regarding the determinants of interaction in groups is mixed. Thus, Aries (1976) found sex differences, which suggested that males were more likely to occupy leadership roles and females to provide support; while Thune et al (1980) provided evidence suggesting that status was a more important predictor of interaction than sex.
Silbergeld et al (1980) investigating marital group therapy, using the HIM, found that initially husbands engaged in more interactions and tended to use the personal and confrontive categories, this latter being taken as evidence of more instrumental role-taking. In contrast, wives made more use of the relationship and conventional categories, the latter being associated with a more social-emotional supportive role. However, over time these differences were attenuated, females increasing their overall proportion of interaction; both sexes employing less conventional and more confrontive interactions; and males increasing their use of the relationship category. This study also found that the nature of group interaction changed over time in the direction of increased therapeutic work i.e. changes in the proportions of interactions utilising the pre-work and work categories.

Hill (1965) considered that interaction is influenced by three variables: group composition, therapist style and group development. With regard to the first of these, he quoted a study conducted by Gross (1959) who used FIRO-B scores to compose groups homogenous and heterogenous so far as their orientation towards personal or interpersonal issues was concerned. The study was concerned with looking at the early stages of group interaction. Findings indicated that homogenous groups with an orientation towards personal issues predominantly made use of the HIM Personal category; similarly, groups homogenous for an orientation towards the interpersonal used mainly the HIM Relationship category. However, heterogenous groups mainly made use of topic interactions. Thus, whereas homogenous groups were able early on to operate in their preferred therapeutic work modality, heterogenous groups had to operate initially at a pre-work level.

The issue of early group development was also addressed by Bednar and Battersby (1976) in relation to the effect of structure on subsequent group behaviour. They found that in student groups the provision of specific pre-group behavioural instruction led to higher levels of group cohesion; improved attitudes towards the group experience; and higher frequencies of work-oriented and lower
frequencies of conventional interactions, as measured by use of
the HIM quadrants 4 and 1 respectively.

A further study by Lee and Bednar (1977) investigated the
effects of sex, risk-taking disposition, level of structure, and
nature of group tasks on group behaviour, as measured by HIM,
a questionnaire concerning attitudes towards the group experience
and a measure of group cohesion. The main effect indicated
that therapeutically relevant behaviour i.e. use of the four
HIM work categories, was related to the provision of a high
level of group structure and engaged in by members with a high
level of risk-taking disposition. Surprisingly, levels of group
cohesion and attitudes towards the group experience were
negatively correlated with level of meaningful interpersonal
communication. Additionally, the provision of structure was
particularly influential in increasing the levels of target
behaviours for low risk-taking subjects.

These studies provide support for the model presented by
Bednar et al (1974) which suggests that the provision of structure
may be expected to decrease ambiguity and consequent anxiety
(which is associated with low levels of productivity and efficiency);
and hence enhance risk-taking and subsequent assumption of
responsibility by group members. In turn, this may be expected
to facilitate the development of therapeutically productive
group processes. The emphasis on the dynamic interplay of
structure and risk-taking within the model suggests that it has
points in common with the aforementioned support plus confronta­
tion model proposed by Harrison (1965).

So far as therapist style is concerned, both Hill (1965)
and Liebroder (1962) found differences between group's use of
the HIM categories on the basis of the therapist's theoretical
orientation. Thus, for example, group-analytic groups were
characterised by high numbers of interactions on group, relation­
ship and confrontive categories; psychoanalytic on personal,
relationship and speculative categories; non-directive on topic
and conventional; and didactic on topic and speculative. These
findings indicated marked differences in the type of interactions
which were found to characterise different types of group.
With regard to group development, the Liebroder study also investigated the interactions in different types of group over a time-span of 20 sessions. Although the aforementioned differences between the groups were maintained over time, they also provided evidence of some common developmental trends. Similarities between the groups included trends for topic and conventional (i.e. pre-work) interactions to continue at a similar rate throughout the groups history, and in some instances to increase. This is seen as evidence of the continuing importance of the socio-emotional support provided by such interactions. In addition, a tendency for personal to decrease and relationship to increase over time was evident. This common pattern suggests a change in orientation over time from concern with member's individual problems towards a developing focus on the relationships between each other.

While the issue of group composition has already been discussed, and that of therapist style will be further considered hereunder, the notion of group development requires further elaboration here.

The idea that groups pass through a set of more or less consistent stages is one, which has attracted the interest of a number of theorists. Thus Bion (1961) has analysed group development in terms of his basic assumption cultures, claiming that groups pass through the following stages: dependency; fight-fight and pairing. Psychoanalytic writers (Saravay, 1978) have alternatively argued that groups recapitulate in their development the individual's progress through the oral, anal and phallic stages. Implicit within focal-conflict theory (Stock-Whitaker and Leiberman 1964) also is the idea of group stages; while Schutz (1958) has made similar claims for his inclusion, control and affection trilogy.

However, quite clearly, attempts to describe distinguishing
characteristics between different stages rely heavily on the underlying theory being used. Thus, for example, the early stages of a group will be somewhat differently seen and described by a Bionian theorist, who will identify themes relating to dependency, and a Freudian theorist, who will emphasize material relating to the oral phase of development. Moreover, these hypothetical concepts have proven to be particularly refractory to empirical investigation or validation.

An alternative approach exemplified by Mann (1967) attempted to define member's participation in group interaction in terms of an evolving role structure. This role structure is particularly related to, on the one hand, the concept of 'work' in group activity, and on the other, the relationships which members have with the group leader. Mann hypothesised that at different times in its history, individuals occupying particular roles come to the forefront of the group's attention. Such roles are presumed to be the resultant of an interaction between individual's interpersonal styles and the role structure which the group is required to develop in order to achieve its goals.

On the basis of empirical investigation, Mann was in fact able to obtain evidential support for his hypothesis, and identified the following main roles: heroes, enactors, resisters, distressed females and scapegoats. Members occupying these roles became active during different stages of the group, for which he identified the following: initial complaining, premature enactment, confrontation, internalisation, separation, termination. It must be emphasised that both role structure and developmental stages were arrived at on the basis of an analysis of non-therapy groups. Differences in members characteristics, group task and leader style are therefore likely to make generalisation to therapy groups difficult.

However, although his work was conducted on laboratory groups, similar approaches by Heckel et al (1971) and Bogdanoff and Elbaum (1978) on therapy groups provide useful insights to an understanding of group development in terms of the interaction between individual
characteristics and group processes.

Hypothesis 3 of the present study predicted that specific forms of change would characterise members interaction over time. Firstly, that the group as a whole would increase the range of categories used. This prediction was based on the notion that whereas early on, members would tend to use a relatively restricted set of categories, based on their preferred modes of interacting, as a result of group experience they would expand these on the basis of learning new modes of interaction.

Although this prediction was not observed for the group as a whole, individual increases in the spread of categories used did in fact relate to other aspects of group process, i.e. the sociometric ratings made of such individuals, and also to outcome. These findings are further described and discussed hereunder in the Interaction-Perception Relationship and Determinants of Outcome sections, respectively.

The second prediction made was that the group would change in its use of categories in the direction of decreased pre-work i.e. Conventional, Assertive, Topic and Group, and increased work, i.e. Speculative, Confrontive, Personal and Relationship.

Within the present study the predicted movement over time from use of the pre-work to the work categories was in fact observed. This finding is thus in agreement with similar findings obtained by Hill (1965), Liebroder (1962), Thune et al (1980) and Silbergeld et al (1980). Furthermore, as with these other studies, the most significant change in use of the categories consisted of an increase in the proportion of group interaction accounted for by the Relationship category.

Use of this category started off at a low level in the early stages of the group's history, but increased consistently apart from a dip during block 5. It will be recalled that the analysis was based on 6 blocks of sessions, but that due to changes in group membership after blocks 2 and 4, these 6 were sub-divided into early and late: early blocks being 1, 3 and 5 and late
blocks being 2, 4 and 6. These changes in group membership thus provided a natural experiment concerning changes in the functioning of reconstituted groups and the ways in which they react to the inclusion of new members. The increases in the Relationship category were largely at the expense of the Personal category, although this latter was throughout the most highly used content category.

Moreover, the dip that occurred in use of the Relationship category during block 5 coincided with an increase in the use of Personal. It appears plausible to suggest that the change in group membership which had occurred between blocks 4 and 5 led to a temporary decline in the group's ability to operate at the relationship level and a reversion to the earlier preferred mode of personal content interactions.

Use of the Relationship category has been variously interpreted and used. Thus, both Hill (1965) and Silbergeld (1980) consider it to be evidence of a here-and-now focus for interaction; while Lee and Bednar (1977) used it as a measure of interpersonal feedback, which was a dependant variable in their study of the effects of group structure and risk-taking disposition on group development. Used in this way, it clearly has a conceptual link to the work of Jacobs and her associates (Jacobs et al 1973a and b, Jacobs et al 1974) on the relative efficacy of different forms of feedback (viz positive versus negative; behavioural versus emotional) in relation to credibility, desirability and group cohesion. Moreover, it is also possible that a developing and late emphasis on relationships in the group is related to Bion's speculations about later group stages being characterised by pairing between members. More importantly, as will be seen here-under, use of this category was particularly linked to positive outcome.

So far as the other categories are concerned, the other main change in the present study consisted of a cyclic variation in the use of the Group content category. Although this category showed a significant increase from early to late, the overall trend from the beginning to the end of the study was in a downward direction. Thus, while a focus on the group's own working was
a significant characteristic of the initial stages of the group, this declined over time.

The cyclic variations consisted of an increase between blocks 1 and 2, a decline at block 3, an increase at block 4, and a subsequent decline at blocks 5 and 6. This pattern suggests that as with the Relationship category, the groups use of the Group category suffered interference as a result of changes in membership after blocks 2 and 4. The increases at blocks 2 and 4 suggest that an interest in its own processes was an important dynamic so far as group development and maintenance was concerned. However, this became less important over time and was superceded by a focus on relationships occurring within the group.

It should also be noted that the role of the therapist may well have had an important influence in orienting the group towards Group content; and hence in affecting the norms regarding appropriate and task-relevant forms of interaction. Thus his overall theoretical orientation lay within the group-analytic field. Of the theoretical schools used by Hill in his validation of the HIM, this is the one which had the highest use of this category.

With regard to the style categories, Speculative was by far the most used throughout, and in fact showed a non-significant increase from early to late. This increase would appear to have been largely at the expense of the conventional category, which was the second most used style overall, but which showed a significant decrease both from early to late and also from beginning to end.

The two categories which in Hill's terms are most involved in interpersonal risk, i.e. assertive and confrontive, were in this study the lowest overall of the style categories with regard to proportion of group interaction for which they were accounting. It appears likely that both group composition and leader style variables were implicated in the low and relatively unchanging proportions of these two categories. Therapist style in this study was more oriented towards speculative than confrontive
work; and as the study of leadership in encounter groups by Lieberman et al (1973) has shown, the style of the therapist is implicated in the development of particular types of group atmosphere and the forms of interaction associated with them. Specifically so far as confrontive and assertive interactions are concerned, these are related to the style of leadership characterised by Lieberman et al as energisers. Within their study, they found that this form of leadership was particularly associated with increased levels of premature termination and negative response to the group situation.

Within the present study, use of these two categories were differentially related both to outcome and also to the perceptions by the rest of the group of members using them. In general, use of the assertive category carried a negative connotation and use of the confrontive a positive connotation.

Once again, as with the personal content category, the over-riding use of Speculative across all six blocks indicates that for style also, therapeutic work was occurring throughout the group's history. However, the rise in Speculative and decrease in Conventional suggests that the amount of therapeutic work-oriented interactions increased from early to late.

These findings of a change over time in the directions of increased levels of therapeutic work are in accordance with the finding of Liebroder (1962), Heckel et al (1971), and Silbergeld et al (1980). The increase in the Relationship category is of particular interest with regard to an interpersonal learning model of group therapy as this is the category which is most related to group member's reflecting upon their interactions with one another. Increases in this category over time may thus be taken as evidence for the idea that one of the major processes operative in therapy groups is the development of interpersonal learning.

Finally, as will be seen hereunder, use of this category and also the measure of range of categories used ('Spread') which is taken as an index of interactional flexibility in this study, were both related to beneficial outcome.
8.5 The Interaction-Perception Relationship

The idea that the forms of interaction in which group members engage will be related to their perceptions of one another is one which has received surprisingly little attention in the study of group process. This relationship is arguably central to the development of an understanding of interpersonal learning processes, the evolution of role structures, and member's experience of one another. However, it appears to have been less attractive to group researchers, including group therapy researchers, than the study of such macro-level concepts as group cohesion, structure, composition and satisfaction with the group experience.

Studies of group interaction patterns (see previous section) tend to have attempted to relate interaction to these concepts or identify its determinants; while studies of member's perceptions of each other are virtually non-existent.

Only a few studies were found, which relate to this relationship. Shawver and Lubach (1977) in a study of therapy groups investigated the attribution of value to participants verbalisations in terms of praise and blame. They found that individuals involved in the situation tended to defend themselves against blame and attribute this to others. Conversely, members not personally involved tended to be more critical of what was being presented, but had a non-biased attitude towards it.

Shaw et al (1979) investigated T-groups using Bales IPA system in terms of the effect of different types of activity on group perceptions of members contributions. They found that members ratings of others contributions were most highly influenced by activity involving giving information, ideas and suggestions for problem solution. Conversely, an objective assessment indicated that such activities as asking questions, seeking clarification, etc were in fact more influential in facilitating peer learning.
Additionally, the work of Jacobs et al (1973 a and b; 1974) on the credibility and desirability of different types of feedback is related to this issue; as also more directly is the study by Weigel et al (1972) which found a positive association between self-disclosure and liking in an out-patient therapy group; and Flowers et al's (1981) finding of an association between self-disclosure and high group cohesiveness as measured by the extent to which members attended to the speaker.

Within the present study, hypotheses were developed which specified that members overall activity level, level of receiving interaction, and level of dyadic interaction would be differentially related to particular sociometric variables. These differential relationships were not found at statistically significant levels, apart from the fact that member's levels of interaction on each of the three indices was related to being rated highly by others on Dominant.

The analysis of the early and late relationships between use of specific HIM categories and ratings received on specific sociometric variables opens up a more complex and detailed understanding of the interplay between interaction and perception, and also shows the ways in which this changes over time.

With regard to self-perception in relation to activity, the majority of the significant relationships both early and late linked self-ratings of dominance to use of a variety of both pre-work and work categories, but particularly to the late use of Speculative and Personal. Thus, members engaged in high levels of activity and late use of the work categories viewed themselves as dominant late in the group. Similarly, late use of Speculative was related to seeing oneself as able to discuss feelings, which again associates a group work category with a sociometric variable related to task-relevant behaviour.

Conversely, early seeing oneself as needing help was related to use of the topic category. Moreover, being seen by the rest of the group as needing help late was also related to use of this category late. Thus, pre-work activity was viewed by the
individual (early) and the group (late) as evidence of problems within the individual.

In the relationship between use of HIM categories and the group's perceptions of others, early correlations associated use of the Topic category with high ratings on those sociometric variables which relate to members' feelings about each other, i.e. like, understand, admire, trust and feel understands you. An important element in early group process thus consisted of members being attracted to those individuals using the pre-work category, which has been associated with a group building function (Hill, 1965).

However, this changed dramatically for late associations. These aforementioned correlations with the Topic category decreased considerably; and in their place, these variables were related to Speculative, Personal, and particularly Relationship, and in addition to 'Spread' the measure of variety of categories used.

Thus, over time the attraction to members using a pre-work category changed to an attraction to those using work categories and particularly those, whose group activity involved interactions oriented towards work on relationships occurring within the group, i.e. those engaged in interpersonal learning and feedback; and who demonstrated interactional flexibility.

Apart from these associations, the other significant correlations for other-perceptions linked early use of Relationship negatively with Sensitive. This is explicable in terms of the early negative connotation associated with this variable, viz, a difficulty in coping with interpersonal situations. Early use of Relationships was thus related to being seen as capable of active engagement in interpersonal situations. It will be recalled that this category similarly was related to pre-treatment indices emphasising active involvement with others, high overall adjustment and low levels of symptoms.

In addition, late ratings of needing help were related both to Topic (as noted above) and Relationship, i.e. the content categories at either end of the work spectrum. One explanation for this is that member's late perceptions of others needing help
were divided between two forms of group involvement, i.e. those who were continuing to function at the pre-work level and, hence, not contributing the group task; and another set who by involving themselves in the relationship work level were exhibiting their problems and difficulties; and thus making themselves amenable to help.

Use of the following categories both early and late was generally unrelated to member's perceptions of each other: Conventional, Assertive, Confrontive and Group apart from associations for each of them with self-ratings of dominance. Similarly ratings on the following sociometric variables did not significantly discriminate between various forms of group interaction: Helpful, Dominant and Discuss Feelings.

However, changes in category usage were associated with changes on sociometric measures. Thus, increased use of Conventional, Speculative and Personal were all related to increased ratings received from others on sensitivity; whereas conversely increased use of Assertive was negatively related to sensitive and positively to other-rated needing help (although negatively to self-rated needing help).

A similar disjunction between self and other perceptions was found for increased use of the group category. Thus, it was negatively related to increased self-ratings of sensitivity and ability to discuss feelings, but positively associated with other-ratings on helpful and dominant.

In addition, increased use of Relationship was linked to increased ratings on both dominance and being admired; while increased interactional flexibility ('Spread') was associated with increased ratings on a variety of group behaviour variables.

These findings suggest that group process is characterised by developmental changes in the relationships between member's forms of interaction and their perceptions of one another. Thus the finding that members attractiveness to others shifts over time according to the level of therapeutic work activity in which they are engaged is suggestive of a change in the value associated with particular forms of group behaviour. This may be characterised
as a shift from attractiveness being related to behaviour which is primarily social or sociable in nature (Topic category) to behaviour which involves an exploration of personal problems and more particularly, of relationships within the group.

More surprising is the relative lack of significant relationships between the interaction categories and the sociometric variables concerned with the perception of member's group behaviour. The main exceptions to this are firstly the relationships between self-ratings of dominance and use of the Speculative, Confrontive and Personal categories. As will be seen hereunder, these variables were all related to positive outcome. Secondly, the associations between late other-ratings of needing help and use of the Topic and Relationship categories. As noted above, being seen as needing help late is related to two very different forms of group involvement, i.e. utilization of a social form of interaction on the one hand, and on the other, engagement in therapeutic work related to the exploration of relationships in the group.

Thirdly, increased interactional flexibility was particularly related to improved ratings on the group behaviour variables.

Finally, in relation to an interpersonal learning model of group therapy, it is significant that individuals engaged in attempting to develop understanding and comprehension and whose focus was upon relationships in the group became more attractive to other members; and those who gave evidence of flexibility in interpersonal interaction were both positively evaluated in terms of their group behaviour and also personally attractive to other members.

8.6. Therapist factors

The role of the therapist within group therapy and the influence of therapist characteristics on outcome remain areas of research which are far from being clarified.

The different models of group therapy clearly enjoin upon the therapist the adoption of different behaviours, (although therapist style is frequently unrelated to the label used).
In general terms, these differences may be viewed as a continuum from the 'blank-screen' approach of the psychoanalysts to the 'leader-participant' stance of the encounter movement. Research on therapist self-disclosure (Dies, 1977) emphasises that the effect of this is multi-dimensional and factors influencing it include type and stage of group among others.

Furthermore, the evidence for the importance of Roger's therapist offered conditions (particularly in relation to patient's perceptions of the therapist) is nowhere near as clearcut in relation to groupwork as it is in the individual therapy context (Gurman and Gustravson, 1976).

However, the study of encounter groups by Lieberman et al (1973) has been able to demonstrate the differential effects of various types of leadership on both group atmosphere and outcome, in particular associating caring and meaning attribution with positive effects; and emotional stimulation and confrontation with negative effects.

Within the present study, the investigation of the therapeutic relationship was secondary to the study of member's interactions with and perceptions of one another. The variables used to investigate this relationship comprised individual's overall scores on amount of interaction directed to and received from the therapist and their overall ratings of the therapist on the ten sociometric variables.

The two interaction indices were found to be generally unrelated to outcome. Thus, the proportion of group time which individuals spent in interaction with the therapist was not predictive of outcome. These findings contrast with those results obtained in individual therapy of an association between outcome and active involvement with the therapist (Lorr and McNair, 1964) and patient initiation of interaction (Tovian, 1977).

These findings are however in agreement with those obtained by Coons (1957) on therapy groups, who found improved outcome associated with patient to patient rather than patient to therapist communications.
Furthermore, there were consistent negative correlations between level of attendance and sociometric rankings of the therapist which suggest that members attractiveness to the group (and possibly by implication their continuation in therapy) was more related to their involvement in relationships with other members than with the therapist.

So far as outcome is concerned, high ratings of the therapist were associated mainly with high post-treatment scores on a measure of disaffiliation from others.

Moreover, the sociometric variable most highly related to positive outcome was needing help. This suggests a clear association between being able to see the therapist as a fellow human being and beneficial outcome on a variety of indices.

These findings therefore do not accord with the results of studies into individual therapy, which emphasise the importance of the patient's feelings towards the therapist in relation to outcome, e.g. Tovian (1977), on the influence of patient's acceptance of the therapist; and Salzman et al (1976) regarding the importance of both understanding the therapist and experiencing emotional reactions focussed on the therapist.

The foregoing suggests that the influence of the relationship with the therapist is less than prepotent. Interaction with the therapist was generally unrelated to outcome. The results of the sociometric ratings suggest that on indices of attendance level, members relationships with one another were more important than their relationships with the therapist.

With regard to outcome the most significant factor related to positive outcome was the ability to see the therapist as being in need of help, i.e. a fellow human being. In addition rating the therapist highly on a number of other variables was related to high levels of disaffiliation. This association may well implicate high ratings of the therapist with a failure to develop satisfactory peer relationships within the group; and thereafter, an inability to establish relationships of equality and intimacy outside the group.
However, it has to be admitted that the therapeutic relationship was not a specific focus for this study; and hence it cannot claim to have investigated its dynamics and influence in any great depth. These issues await further research; but the present findings do suggest in line with Gurman and Gustavson (1976) that member's relationships with one another are more influential in promoting change than is their relationship with the therapist. In turn, this may indicate that in order for interpersonal learning processes to occur, members need to be involved in interactions involving mutuality and reciprocity, i.e. social relationships of relative equality, rather than ones which are structured in terms of dependancy or counter-dependancy.

8.7. Determinants of Outcome

Within the research literature, certain broad lines of evidence are available concerning the influence of group treatment on subsequent outcome. However, given the diversity of presenting problems, client characteristics, group formats, process variables, therapist factors, and instrumentation, it has proven difficult to compare across studies or to achieve any degree of conceptual unification which might enable some level of specification with regard to answering the key questions in therapy research i.e. what kind of treatment given by what therapist under what conditions to what kinds of people leads to what kinds of therapeutic outcome?

One of the main aims of this study has been to investigate the relationship between process and outcome in long-term outpatient group psychotherapy. Lewis and McCants (1973) among others have noted the deleterious effect on theory and conceptualisation of fragmentation in group therapy research and have argued the importance of developing a unifying paradigm to bring together process and outcome aspects of research into group therapy. Moreover, Yalom (1970) has argued that on the one hand patients presenting problems can be construed in terms of difficulties in interpersonal relationships; and on the other, the group therapy situation provides as one of its major change mechanisms an opportunity for interpersonal learning. Additionally it can readily be seen that the majority of the so-called 'curative factors'
identified by Corsini and Rosenberg (1955) and redefined by Yalom (1970) are interpersonal in nature.

The present study agrees with Piper et al (1977) on the utility of measuring clients pre-treatment problems, group process, and outcome in terms of a particular criteria, i.e. interpersonal functioning; and each of the process and outcome scales used here has interpersonal referents. On the basis of the relationships found between process and outcome, a further aim has been the development of a model of group therapy based on viewing this as involving interpersonal learning, leading to increased role flexibility. The concept of role flexibility is considered to provide a measure of positive interpersonal functioning (Horney, 1950; Heckel, 1972), and also a bridge between process and outcome aspects of group therapy. From this perspective, the development of an interpersonal learning model of group functioning involves an operationalisation of the concept of 'role flexibility' in terms of the relationships found between the variables studied.

However, before doing so, it is necessary to draw out certain lines of evidence from the research literature relating process to outcome and link these with results from the present study. Additionally, in view of the paucity of studies in the group therapy literature on this relationship, it was found to be necessary to include studies from the individual therapy literature, where these were pertinent. However, even here, detailed enquiry into specific forms of patient behaviour and experience in the therapeutic situation is sparse.

It is also necessary to acknowledge a gap in this literature. Notwithstanding the theoretical interest in and process studies of the various aforementioned 'therapeutic factors', there has been a failure to link these to outcome. Bednar and Kaul (1978) concluded that 'many of the primary and unique variables of group treatment are not being subjected to empirical test... with a few exceptions, the contemporary group research is devoid of any vigorous effort to test these assertions'. A review by Bloch et al (1981) came to the same conclusion; and suggested that the following may provide some explanation for this state of affairs: differences in classification and use of terms between researchers;
difficulties in achieving controlled systematic manipulation of factors; inadequacy of measurement devices; and uneven development of theoretical models of therapeutic factors.

8.7.1. Structural features

The most thoroughgoing review of studies of the relationship between process and outcome is provided by Orlinsky and Howard (1978). In looking first at the temporal aspects of therapy, they found that of 33 studies dealing with number of sessions, 20 found positive relationships with outcome, seven obtained no significant findings and six reported curvilinear relationships. They conclude that given the erratic association between treatment length and outcome, 'quantitative variations in the course of therapy are secondary to qualitative variations in therapeutic process'.

In looking specifically at group therapy, Malan et al (1976) found no relationship between length of treatment and outcome. The main predictor of beneficial outcome in this study was previous experience of individual psychotherapy.

Within the present study, number of sessions attended was found to be unrelated to outcome. The most significant associations, which this variable had was negative correlations with member's sociometric ratings of the therapist. This suggests that attendance for group sessions, and possibly by implication, motivation to continue in therapy is related to patient's satisfaction with peer relationships rather than their relationship with the therapist.

A further structural aspect, which has been found to relate to both continuation in group therapy and outcome is the provision of pre-group training. A number of studies have found that providing such training leads to improvements in member's group behaviour (e.g., Heitler, 1973, found improved patient participation; and D'Augelli and Chinsky, 1974 obtained higher levels of interpersonal communication).

Moreover, Truax et al (1966) also found that pre-training led to improved self concept in institutionalised mental patients, though this finding was not replicated with juvenile delinquents. Additionally, Warren and Rice (1972) found a beneficial effect with regard
both to level of group drop-outs and personal change. These findings are circumscribed by a study by Wogan et al (1977) who found no effect from pre-training on either group behaviour or outcome. The most significant predictor of outcome in this study was the therapist's behaviour in attending to here-and-now group issues.

8.7.2. Patient behaviour

With regard to patient's actual behaviour in the therapeutic situation, amount of talking appears to be unrelated to outcome (Smith et al, 1960). Their study was conducted on therapy groups for adult offenders. Results of the present study are in agreement with this, so far as overall activity in use of the HIM is concerned.

However, when number of interactions was split up into early and late activity, members increasing their proportional share of group activity from early to late were significantly associated with positive outcome. It would appear from this that members who learn to use the group situation and increase their level of active involvement in it derive beneficial outcome. In particular, increased activity was associated with positive outcome on self acceptance and affiliation.

So far as more specific patient behaviours are concerned, both Truax (1971) studying group therapy for juvenile delinquents and Mintz et al (1973) studying individual psychotherapy found positive outcome associated with the expression of negative affect. Additionally, Crowder (1972) found that patients in individual therapy using the hostile-competitive quadrant (IP3) of the Interpersonal Checklist early in therapy were more successful. Successful patients also tended to seek more support in the early and middle stages of therapy suggesting a combination of assertive and help-seeking early behaviour was related to positive change. However, differences in interpersonal behaviour late in therapy did not distinguish successful from unsuccessful patients.

The data within the present study, which relates more specific forms of patient behaviour to outcome, refers in particular to group
members use of the HIM categories. This was related to outcome primarily in terms of the significant correlations between members late use of the categories and increased use of them from early to late.

Additionally, it should be noted that the correlations between outcome indices and overall use of each of the HIM categories (i.e. early and late) were highly similar to those found for late use of the categories alone. For this reason, only correlations with late use of categories were reported, and it can be inferred that such observed relationships were also found for overall scores for each category. The interpretation of these relationships was complicated by group-wide changes both in the use of the categories (e.g. a general increase by the group in the use of the Relationship category) and in the scores on particular outcome indices (e.g. a general increase by the group on the expressed inclusion (EI) scale and decrease on the wanted control (WC) scale of FIRO).

This has meant that relationships between the categories and the indices have been affected and probably skewed by both changes in the proportions of group activity accounted for by each of the categories; and also changes in the patterns of scores on the outcome indices. A consequence of this has been that categories have changed in the extent to which they distinguish between individuals. Thus whereas both early and late use of the Speculative and Personal categories discriminated between individuals on a number of pre-treatment indices, these categories did not do so to anywhere near the same extent for post-treatment indices. Similarly, the overall group increase in use of the Relationship category led to an obscuring of the category's link with the inclusion and affection scales. In contrast, whereas, the Confrontation category both early and late was barely related to the pre-treatment indices, its late use distinguished between members on a wide range of post-treatment indices.

Similar sorts of changes were also to be found for the pre-post indices. Thus whereas IP4 and WC pre-treatment were significantly negatively correlated with a number of categories, the general decrease in scores at post-treatment led to a decrease in both the range and size of their correlations with the late HIM categories.
The same type of problem arises when there are group wide increases in scores. An example of this is provided by EI.

Whereas some indices thereby became less discriminating from pre to post, others increased their saliency in regard to the categories. This was particularly the case for PR, which although generally unrelated pre-treatment to the HIM categories, was able at post-treatment to discriminate between individuals on a number of the categories, both with regard to early and late use of the categories.

An additional less hardnosed approach to the data consisted of picking post-treatment indices, which were representative of particular areas of positive functioning, and rank ordering the HIM categories in terms of their correlations with these indices. This approach was more qualitative and able to uncover trends in the data which might have been missed by paying attention only to the significance level of correlations.

**Interactive style**

Some evidence in support of the above findings of Truax, Mintz et al and Crowder regarding the beneficial effect of expressing negative effect was provided by the present study. Thus, early use of the Assertive (which codes angry aggressive behaviour) and the Confrontive (which codes interpersonal challenge) categories of HIM was associated with low levels of symptomatology at post-treatment.

However, these results did not generalise to late use of these categories. Indeed, late use of the Assertive category was the behavioural index which was most related to negative outcome in this study. Significant correlations linked it to low post-treatment levels of involvement with others (EI).

Moreover, increases in the use of the category from early to late were also associated with low post-treatment scores on affection (WA), self-understanding (SU) and structuring of time (L). These findings in relation to this category
may well link up with Lorr and McNair's (1964) conclusion that patients viewing their behaviour towards the therapist as being hostile and controlling were associated with negative outcome.

Late use of the other pre-work style category, Conventional, appeared to be related to outcome profiles characterised by low levels of control (low WC) in interpersonal situations, a high level of self-understanding (SU) and high ability to engage in close personal relationships (PR). Increased use of the category was related to high affiliative (IP2) orientation and awareness of others emotional processes (SE).

For the work style categories, Speculative was related to high levels of self-understanding (SU) and a task-orientation (Ta) towards social situations. Increased use of Speculative was additionally associated with an affiliative orientation towards others (LOV).

Late use of the Confrontive category was associated with a wide range of positive outcome indices as also was increased use of the category. These included high scores on assertiveness (DOM), including others in activities (EI), good levels of social contacts (SC), social skills with regard to having a task orientation (Ta), the ability to engage in close relationships (PR) and low levels of symptomatology (Sy).

**Interactive content**

With regard to the content categories, late use of Topic was related to the ability to engage in relationships (PR), low levels of submissiveness (IP4) and seeking control (WC). Increased use of the category was linked to the foregoing, but additionally to high levels of self-acceptance (SA). This suggests a tendency towards a controlling assertive orientation towards others, together with high levels of adjustment as being the main forms of outcome associated with this category.
For both late and increased use, the Group category was linked to low levels of control and acquiescence (low WC and NIC) and high scores on close relationships (PR) and self-understanding (SU). In many respects, it thus resembles the Conventional category.

Increased use of the Personal category linked it to high affiliation (LOV), but low assertiveness (DOM). Late use of the Relationship category was primarily related to high scores on inclusion (WI) and affection (EA), which emphasises its association with outcome indices specifically tapping the quality and orientation of members relationships. In contrast, its increased use was linked to low scores on task-orientation (Ta).

Finally, use of variety of the categories i.e. scores on 'Spread', was related to post-treatment self-understanding (SU) and task-orientation (Ta). Its increased use is related to high post-treatment scores on affiliation (LOV). 'Spread' is taken as an index of interactional flexibility which can be seen here to be related to a variety of outcome indices.

In summary, an analysis of the extent to which members use and increase their use of the specific forms of interaction coded by the HIM categories has been found to relate to particular outcome indices.

Utilising broad generalisations, these may be characterised as follows:-

Both Conventional and Group are related to indices of self-assurance and social confidence, the former being also related to affiliation. The Assertive category appears primarily linked to negative response to therapy. Speculative appears oriented towards therapeutic work and self-understanding, together with affiliation; while Confrontive is related to a wide range of social and interpersonal skills. Topic is related to assertive and social skills. The Personal category is associated with an orientation towards affiliation and low assertiveness; while Relationship is particularly linked to indices of close affectionate involvement with others.
Additional trends

A further approach to the data and one which aimed to pick out trends consisted of rank ordering the HIM categories on the basis of their correlations with a more limited set of indices. These indices were chosen as representing specific aspects of outcome: Assertive behaviour by DOM; Inclusive by EI; Affiliative by EA; Social confidence by SC; Self-Understanding by SU and level of symptomatology by Sy.

In looking at the three highest and one lowest categories ranked in relation to those post-treatment indices, the vast majority of high ranking places were occupied by three of the HIM work categories: Confrontive, Relationship and Speculative. Conversely, the lowest ranking in the majority of cases was the Assertive category. The main exception to this pattern was for SU, whose rankings in order of magnitude, were Conventional, Speculative and Group.

First and second rankings were occupied by Confrontive and Relationship for DOM, SC sand Sy; these placings were reversed for EI and EA.

The overall conclusion of these rankings emphasises on the one hand the links between the higher work categories and a variety of disparate positive aspects of outcome; and on the other the association of the Assertive category negatively with these indices.

Categories as roles

While the meaning of these relationships remains unclear, some sense can be made of them perhaps by viewing use of the categories as part of a developmental emerging role system within therapy groups. The other parts of this role system include member's experience of one another, which will be considered hereunder; the therapist; and member's relationships with the therapist, which are discussed in another section.
From this perspective, it may be plausible to consider that use of these categories is performing particular sets of functions within the group, possibly at different times in its history; and that certain forms of outcome are associated with engaging in such functions.

Use of the Conventional and Group categories appear to be related to group building and maintenance functions. Thus, Silbergeld et al (1980) and Liebroder (1962) both considered conventional interactions as providing social-emotional support which may continue to be an important feature of group process throughout its history. Moreover, in the present study both categories were highly ranked with regard to member's late sociometric ratings on the Helpful variable. Evidence in relation to outcome suggests that Conventional is engaged in by members who at post-treatment are socially skilled and self-assured, and also interpersonally sensitive and affiliative.

The same sort of pattern is in evidence with regard to the Group category. It appears likely, although empirical evidence is absent, that use of this category, which involves discussion of group processes, is involved in the development of group cohesion.

So far as the Assertive category is concerned, Hill (1965) has identified this with an index of interpersonal risk. The relationship between its early use and decreased symptomatology at post-treatment does provide support for Traux (1971) claims regarding the beneficial results of expressing negative affect. From this perspective, it may well serve the function within the group of drawing members attention to those individuals, who are in need of help.

However, its late use appears to evidence conflicts within the individual for which the therapeutic situation is unable to provide solutions. As a consequence, there is a marked association between late use of the category and negative outcome.
Late use of the Topic category may be seen as analogous to Conventional in its provision of a group maintenance function and evidence for this is provided by its association with post-treatment indices emphasising good general adjustment and assertiveness.

However, it is noteworthy that Conventional, Topic and Group all evidenced associations with the Control scale of FIRO. In contrast, they showed no links with post-treatment indices related to involvement with others. This may suggest that late use of these pre-work categories represents a defensive manoeuvre aimed at avoidance of close involvement with others and engagement in therapeutic work orientated towards interpersonal learning.

Some related evidence, for this latter explanation is provided by Truax and Wittmer's (1971) finding that good outcome was associated with patients use of personal rather than non-personal references in individual therapy.

The Personal category itself appears to be related to self-disclosure. Thus, it consists primarily of individuals presentation of problems, experience and concerns to the groups and the groups response to such material. In the variety of types of group studies by Hill (1965) and also in the present study it accounted for by far the largest amount of interaction content. Its focus is historical and there-and-then in the main and its aim appears to be the development of insight.

Additionally, it is likely insofar as member's self-disclosure leads to the identification of problems which are shared by other members, its use is also involved in other therapeutic factors such as cohesiveness, universality and identification. In the absence of empirical validation, this suggestion remains conjectural.

However, Strassberg et al (1975) found that self-disclosure was a reciprocal process, i.e. one member's doing so led to others
doing so while Ribner (1974) using a contract for members self-disclosure found that this led to both increased self-disclosure and also increased group cohesiveness. Additionally, Kirshner et al (1978) in a study of experimental groups found that higher levels of self-disclosure led to greater group cohesiveness.

The value of patients being able to identify with others experiences in group therapy has been particularly related to outcome by Jeske (1973). Additionally, Lieberman et al (1973) in their study of encounter groups found positive outcome associated with the ability to use group events in which the individuals were not themselves active.

Within the present study, its preponderant use by a majority of the group meant that it did not particularly differentiate between individuals in relation to outcome. However, increase in its use was related positively to post-treatment affiliation and negatively to dominance. This provides a contrast of sorts with the abovementioned pre-work categories which were associated with expressing control over others but had no links with post-treatment indices of involvement with others.

The counterpart of Personal so far as style is concerned would appear to be the Speculative category. Again the focus is mainly there-and-then; the behaviour itself consists of an attempt to make sense of the material being presented by both actor and recipients; and the function is related to the provision of meaning and cognitive structure regarding whatever is being discussed.

The importance of providing such meaning and structure has been emphasised by Lieberman et al (1973 as an aspect of the therapist's role. Shauble and Pierce (1974), studying individual psychotherapy, found patient's increasing levels of cognitive differentiation associated with better outcome. Moreover, Beck (1978) has placed cognitive structure at the centre of his theories and treatment strategies of depression.
Within the present study, Speculative was particularly engaged in by members with high post-treatment scores on task-orientation, which accords with its problem-solving nature; and self-understanding which relates to its involvement in developing meaning and cognitive structure. There is, however, an interesting shift from early to late. While early use is related negatively to post-treatment affiliation and thus suggests a non-personal orientation, its increased use from early to late is associated positively with the same index.

The focus of the Confrontive category is very much here-and-now. As the 'highest' of the work style categories, it involves a high degree of interpersonal risk-taking, and is related by Hill (1965) to the mechanisms of interpersonal feedback, reality testing and corrective emotional experience. Its function within the group is thus the provision of various forms of interpersonal feedback.

The role of feedback holds an important theoretical position within the T-group movement (e.g. Miles, 1960). It is considered to provide an 'unfreezing' role with regard to the individual's self-concept and unrealistic assumptions, expectations and attitudes; and also to provide consensual validation. Evidence regarding the effectiveness and credibility of different forms of feedback e.g. positive versus negative, emotional versus behavioural, is provided by Jacobs et al (1973 a, b; 1974) which offers some confirmation of these theoretical claims.

It also seems likely that use of this category is related to Melnick and Wood's (1976) suggestions regarding the value of conflict and dissonance in promoting interpersonal learning, although they also point up the importance of tempering confrontation with support, particularly in therapy groups.

However, claims regarding the importance of the here-and-now focus must be set against the findings of Roback (1972) and
Abramovitz and Jackson (1974) who found a primary here-and-now focus less effective in promoting patient change than a mixture of here-and-now and there-and-then. Moreover, Weiner (1974) has argued against Yalom's claim for the superiority of interpersonal learning over genetic insight, although Dickoff and Lakin (1963) found patient's retrospective estimates of therapeutic benefit related more to interpersonal factors than to 'insights gained'.

The link between use of the category and feedback suggests that it is also related to the development of increased interpersonal flexibility. While its early use in the present study was specifically linked to decreases in symptomatology, its late and increased use also associates it to a wide range of other positive outcome indices involving assertion, social skills, good personal and social relationships, high overall adjustment, including others in activities, and increased self-understanding.

The Relationship category provides the content counterpart of Confrontive. It also involves a here-and-now focus, specifically on the relationship between members in the group. The importance of this focus in group therapy is claimed by proponents of a variety of different theoretical persuasions (e.g. Foulkes, Rogers, Bach, Yalom, among others) and it is related to the same set of interpersonal learning mechanisms as the confrontive category. In turn this associates the category with the concept of role flexibility.

Evidence for the importance of attending to relationships in the here-and-now is largely absent, apart from an early study by Kirtner and Cartwright (1958), who found positive outcome associated with patient's immediate dealing with relationship problems in individual therapy.

As noted above, in the present study this category was the one which showed most change from early to late. This increase accords with findings of other studies (e.g. Hill, 1965) and suggests that its development and use is linked to changing norms and values in the group, which are part of a learning
type of interaction and discover its value and benefits.

These latter appear specifically to refer to positive aspects of interpersonal orientation at post-treatment, consisting of a willingness to be involved with others and an ability to express feelings in relationships, particularly affection. One interesting change over time in use of the category is that early use is associated with post-treatment dominance, whereas late use is not. This suggests that engaging in this level of therapeutic work early on is engaged in (and perhaps modelled by) those members, who at outcome are the more assertive.

Finally, there is evidence that individuals exhibiting interactional flexibility in the group, i.e. ('Spread') are associated with a variety of positive outcome indices including instrumental social skills, affiliation and self-understanding. This variety is suggestive that such individuals may well be performing a number of different functions in the group, e.g. both group maintenance functions and engagement in therapeutic work.

8.7.3. Patient experience

Evidence regarding the relationship between on the one hand patients perceptions of themselves and each other, and on the other outcome is sparse, the majority of studies having been conducted in the individual therapy situation.

Thus, so far as self-perception is concerned, Saltzman et al (1976) found a positive relationship between patients seeing themselves as openly expressing their thoughts and feelings early in therapy and outcome. Additionally those who felt they had a better understanding of their therapist's communication had better outcomes.

The aforementioned study of Kirtner and Cartwright (1958) associating patient's ability to discuss feelings about 'immediate relationship problems' is in agreement with this finding.
Additionally Tovian (1977) found patient's acceptance of the therapist related to positive outcome; while Lorr and McNair (1964) linked patient's self-perception of acting in a hostile-controlling manner to the therapist to poorer outcome. Furthermore, Sloane et al (1975) found patient likeability as rated by the therapist related to positive outcome, although this finding is qualified by Prager's (1971) study indicating that an association between likability and outcome success only occurred later in therapy. This raises problems with regard to the identification of causal direction.

With regard to group therapy, two studies are of relevance to this issue. Firstly, Yalom et al (1967) found a positive relationship between patient popularity in the group and outcome. Secondly, Jeske (1973) found an association between positive outcome and patient's ability to identify with the experiences of others.

Clearly, both the nature of patients perceptions and the relationship of this to outcome are likely to be highly complex. In the present study, it was therefore felt to be necessary to sample these over a variety of different dimensions, some of which are related to patients perceptions of each others group behaviour (the GB variables); others being more concerned with their feelings about one another (the personal choice (PC) variables).

**Perceptions of group behaviour**

Patients ratings of themselves and other group members on the sociometric questionnaire is the main source of data linking patients perceptions to outcome in the present study. As with HIM, correlations between the sociometric variables and outcome were reported for late and change (late minus early) scores on the sociometric questionnaire, and also for early scores, where these were appropriate and significant.

So far as self-perceptions are concerned, patients ratings of themselves on the variables were differentially related to outcome indices:-
Members rating themselves as being helpful in the group late were associated with high post-treatment scores on self-understanding (SU), low levels of control in interpersonal behaviour (WC) and low social acquiescence (NIC). Increased self-ratings were mainly associated with high affiliation (LOV) and low dominance (DOM).

Both late and increased self-rated dominance was associated with positive outcome on a range of indices including having a task orientation (Ta), high affiliation (LOV), and high scores on self-acceptance (SA) and the ability to engage in personal relationships (PR). An interesting change occurred so far as post-treatment dominance is concerned. Thus early self-ratings were associated positively with post-treatment DOM; late self-ratings were unrelated; but increased self-ratings were negatively correlated with DOM. It appears likely that early self-ratings were being made by individuals who are generally dominant in social situations; whereas late self-ratings were being made by members who were becoming more active in the group as it progressed.

Self-rated sensitivity was related to high scores on self-understanding (SU), and awareness of others emotional processes (SE). In contrast, however, there was also evidence for increased seeking control from others for increased ratings, (high NIC and WC).

The correlations for late self-ratings on needing help linked it to negative post-treatment functioning on interpersonal indices (high WC and low PR). These correlations were not in evidence for early self-rankings, which suggests that patients late self-perceptions of needing help were more crucial in predicting low levels of post-treatment functioning than were their early ones.

Finally, self-perceptions of the ability to discuss feelings were related to indices emphasising high self-concept for late ratings (SU and SA), and high affiliation (EA, IP2) for increased rankings. However, increased rankings were also associated with submissiveness (high IP4).
These correlations accord with the findings of Saltzman et al (1976) and Kirtner and Cartwright (1958) in individual therapy which linked self-perception of discussing feelings to positive outcomes.

However, on the basis of the foregoing, it would appear that perceiving oneself as being able to discuss feelings in the group therapeutic situation is neither the only nor best predictor of outcome. Seeing oneself as being dominant in the group is related to a variety of positive indices involving the self-concept, interpersonal behaviour and social skills; self-perceived helpfulness is related to high affiliation and self-understanding and low acquiescence and need for control; and sensitivity is linked to high awareness of self and others at post-treatment.

Moreover, the complexity of these associations with outcome is emphasised by the correlations of sensitive and discuss feelings with indices of negative outcome, i.e. high submissiveness and need for control. In contrast, both helpful and dominant were negatively correlated with need for control. Overall, with the exception of needing help, high self-rankings on the sociometric variables were related to positive outcome.

This complexity is increased in considering member's perceptions of one another. With regard to being helpful, both late and increased rankings on other-perceived helpful were negatively correlated with indices of inclusion and affection. This would suggest that members assign helpfulness ratings to those individuals who are least including of and affectionate towards others.

The most likely explanation for this refers to the general group change in scores on the FIRO scales from pre to post. This is particularly the case for EI, which generally increased, and WA, which generally decreased. Thus the group as a whole post-treatment were more able/willing to include others in their activities and less wanting/needing affection.
Moreover, early ratings of helpfulness were correlated with post-treatment indices of affiliation, (IP2, LOV and DA), self-acceptance (SA) and low symptomatology (Sy).

It would appear therefore that early ratings by others of helpfulness are positively related to a variety of outcome indices. However, the relationship between being rated high on helpfulness late in the group and outcome remains unclear.

For other-rated dominance, late ratings were related to positive outcome indices associated with high self-acceptance (SA), inclusion (DI) and affiliation (LOV and DA). The correlations for change in ratings were similar to those for helpful, and thus no clear conclusions can be drawn from them.

Sensitivity was also linked to positive outcome indices, including level of symptomatology (Sy), self-acceptance (SA), and affiliation (DA). Increased rating was linked to self-understanding (SU) and use of time (L). When compared with the correlations between pre-treatment indices and early ratings on this variable, there is a clear change in the meaning attached to the concept of sensitivity. Thus, previously negative correlations with Sy and DA, which indicated a quality of non-coping, have been reversed and evidence a more positive connotation.

Late other-ranked needs help also shows a set of positive correlations, with positive outcome indices, including level of symptomatology (Sy) and affiliation (DA). This pattern is thus highly similar to those found for dominant and sensitive although there was additionally a correlation with post-treatment acquiescence (NIC).

At first sight, it may appear surprising that being seen by others as needing help late in the group was related to positive outcome. However, as noted in the Results chapter, this variable also has a positive correlation
with late use of the Relationship category of HIM. This suggests that being seen as needing help may well be related to engaging in therapeutic work. It is suggested therefore, that such engagement draws member's attention to individuals seeking help for their problems; and as a result, beneficial outcome is obtained, particularly on those indices relating to their interpersonal behaviour. Moreover, these findings have points in common with Crowder's (1972) findings in individual therapy of a link between positive outcome and patients who were described as 'support-seeking' during the early and middle stages of therapy.

This picture is however, markedly different from that which obtained for self-perceived needing help late in the group, where the associations are with poor adjustment and relationships, and wanting/needing others control and guidance at post-treatment. Thus, it would appear that whereas other-perceived needing help is related to doing therapeutic work, self-perceived needing help is related to difficulty in managing to do this. Evidence for this latter suggestion, i.e. as association between self-perceived needing help and low engagement in therapeutic work is not available, other than a significant correlation between early self-rated needing help and early use of the Topic (i.e. pre-work) category.

The ability to discuss feelings was also linked to positive outcome, late ratings being associated with level of symptomatology (Sy) and change scores with being more expressive than needy in interpersonal orientation (DI) and low acquiescence (NIC).

Thus, with the uncertain exception of helpful, both late and increased other-ratings on each of the group behaviour variables is associated with beneficial outcome. 'Improvements' in interpersonal orientation are to be found on all four; low symptomatology on sensitive, discuss feelings (and also helpful); and high self-acceptance on dominant and sensitive.
Perceptions of Personal attractiveness

In contrast, the variables relating to members personal feelings about one another were much less strongly related to outcome indices for late rankings, although increased rankings do show more positive associations.

Late ratings are primarily associated with level of symptomatology (Sy). Thus, members tend to understand, admire, trust and feel understood by individuals who are mentally healthy at post-treatment. In addition, use of time (L) is associated with like and understand and low scores on disaffiliation (IP1) with understand.

With regard to the change scores, increased ratings on like are particularly related to low levels of control in interpersonal orientation; admire is related to high post-treatment self-understanding (SU); trust to high affection; and feeling understood to high levels of dominance (DOM) and ability to engage in close relationships (PR).

However, there was also a set of negative findings, which linked increased ratings on like and understand with affiliative behaviour (low IP2 and low EA). Again these findings are puzzling and in some cases contradictory unless partially explained by group-wide changes on these indices.

Notwithstanding this, there is a marked tendency for members increasing their rankings on these personal choice variables to be associated with positive outcome. This is particularly the case for admire, trust and feeling understood. However, late ratings themselves were poorly linked to outcome apart from the level of symptomatology index.

These results do not provide much in the way of evidence for Yalom et al's (1967) finding of a positive association between popularity and outcome. While it is difficult to ascertain the
bases upon which his subjects rated popularity, it appears likely that this would have been more related to the personal choice (particularly 'like') than group behaviour variables in the present study. Moreover, their findings were primarily related to early group ratings of popularity, whereas the early personal choice variables were generally unrelated to outcome in the present study. Furthermore, these findings contrast with those obtained in individual therapy (e.g. Sloan et al 1975), which related client likeability to positive outcome.

With regard to Jeske's (1973) finding of an association between members' ability to identify with others and positive outcome, the closest variable to this in the present study would appear to be the feeling of being understood. Both early and late ratings on this variable were generally unrelated to outcome apart from correlations for late ratings with level of symptomatology (Sy).

However, increased ratings on this variable from early to late are associated with a range of positive indices. This suggests that members who are seen by others as increasing their ability to empathise have positive outcome. It is also of relevance that late and increased rankings on this variable were significantly correlated with late and/or increased use of all four HIM work variables. This emphasises the fact that members' feelings of being understood are linked to those individuals who are engaged in high levels of therapeutic work.

**Comparison between perceptions of group behaviour and personal attractiveness**

In looking at the relationship between the sociometric variables generally and outcome, the main conclusion to be drawn is that positive outcome is more related to members' ratings on the group behaviour variables than on those describing personal choice. Thus, in relation to the outcome indices, members distinguish between one another much more in terms of their perceptions of behaviour than their feelings about one another.
This is in marked contrast to the situation which obtained for the correlations between the pre-treatment indices and sociometric ratings. The pre-treatment indices were much more highly related to the personal choice than to the group behaviour variables, both early and late.

This suggests that member's pre-treatment personality characteristics exerted an immediate and continuing influence on members feelings about one another and their consequent ratings of one another on the PC variables. However, the association between pre-treatment characteristics and ratings on the GB variables was virtually non-existent both early and late, suggesting that members were rating one another's group behaviour in relation to factors other than their pre-treatment personalities. In contrast, for outcome indices, the position is reversed. The GB variables for both self and other-rankings were related to outcome in a number of different aspects, whereas the PC variables were only slightly related.

In particular, the following links with positive outcome are suggested:-

a) Late and increased self-ratings on helpful, dominant and able to discuss feelings; and late self-ratings on sensitive.

b) Late and increased other-ratings on dominant, sensitive, needing help and able to discuss feelings.

c) Increased other-ratings on admire, trust and feeling understood.

d) In contrast, late self-ratings on needing help relate to negative outcome.

The sociometric data also provides information relating to outcome for two other indices:-
a) The extent to which the group as a whole rates individuals similarly i.e. members scores on consensus from which have been derived early, late and change scores.

b) The extent to which individuals tend to rate other individuals differently across the ten sociometric variables i.e. a measure of cognitive-perceptual differentiation, which also yields early, late and change scores.

a) **Individual consensus**

It will be recalled that there was a significant movement over time for the group as a whole to increase its level of consensus in rating individuals on the sociometric variables, and also for increased correlations to be found between self and other rankings from early to late (see section 8.2 on Patient's Perceptions).

However, the question arises as to whether such consensus is more able to be achieved with some individuals than others. In relation to outcome, the main finding is of a negative association between consensus level and beneficial outcome, which is also in accord with the results of the associations between consensus level and the process measures.

Thus early levels of consensus were negatively related to post-treatment level of symptomatology (Sy). Late consensus level was negatively related to post-treatment use of time (L), as also was the change in consensus score. This latter was additionally related to negative outcome with regard to post-treatment indices of self-understanding (SU), and interpersonal affiliation (WI, Sum I, EA, WA).

Overall, the implication is that group members tend to find themselves in agreement with one another in their ratings of those individuals who do poorly at post treatment; and that this is particularly the case, where consensus about an individual increases over time. This suggests that as a result of individuals behaviour in the group, members are more able to form a common impression of those, who are going to do less well than of those,
who benefit from group therapy.

b) Cognitive-perceptual differentiation

The measure of cognitive differentiation (CD) is based on the extent to which an individual rates others differently across the sociometric variables.

Late CD is particularly associated with post-treatment level of symptomatology (Sy), degree of social contact (SC), a tendency to express rather than seek inclusion (DI) and low expressed control in relationships (EC). Additionally, increased CD from early to late is linked to post-treatment affiliation (LOV).

The main lines of evidence link late and increased CD scores to beneficial outcome. Although based upon a different form and approach to the measurement of CD, this agrees with the findings of Schauble and Pierce (1974) in individual therapy. They found that patients expressing higher and increasing levels of CD in their problems, feelings and concerns obtained significantly better outcome.

On the basis of these findings, CD would appear to provide a measure, which is related to active engagement with others. It is suggested that such engagement is involved in the ability to develop complexity in one's perceptions and evaluations of others. This link is particularly suggested by Altman and Taylor's (1973) theory regarding social penetration processes in the development of interpersonal relationships.

Moreover, the association between increased CD and post-treatment affiliation (LOV) recalls the similar association for increased 'Spread' with this index. Thus, it would appear that members increasing their scores on both interactional flexibility and cognitive-perceptual differentiation have high levels of affiliation post-treatment. This suggests that 'Spread' and CD are both implicated in interpersonal flexibility, the former providing an external behavioural measure of this; the latter providing an 'internal' cognitive-
structural measure of it. As such, both would appear to provide important process measures of engagement in interpersonal learning processes in the group.

The following section summarises the main evidence from this study relating process to outcome, including the evidence relating to group composition (see Section 8.3).

8.7.4. Summary

The following summarises the main evidence from the present study regarding outcome:

1) With regard to the group as a whole, the main changes in the direction of positive response to treatment consisted of increases in EI (including others in ones activities); DC (a preference for exerting rather than needing control); Sy (level of symptomatology); PR (ability to engage in close relationships); SU (level of self-understanding); L (productive structuring of time); Adj (overall level of adjustment); Re (ability to respond to others); In (ability to initiate interaction) and S-E (ability to be aware of others emotional reactions). Along with these goes concommitent decreases in NIC (social acquiescence); IP4 (submissiveness); and WC (needing the control of others).

The criterion used for inclusion of an index in this list was that change in score from pre to post should be shown by a majority of the group for whom there existed both pre and post-treatment data.

2) Various forms of compatibility with the group based on pre-treatment scores on the FIRO scales were found to be negatively associated with beneficial outcome i.e. most change was evidenced by those members who were least compatible with the group as a whole in terms of their interpersonal orientation.
3) Overall activity level in the group was unrelated to outcome (as was level of attendance). However, members increasing their level of activity from early to late were associated with positive outcome.

4) The spread of the HIM categories used was positively related to beneficial outcome. This was the case both for late and increased spread.

5) Early use of categories emphasising the expression of negative affect and interpersonal challenge (i.e. the assertive and confrontive categories) was associated with low levels of symptomatology from pre to post.

6) The use of specific HIM categories has been found to be differentially related to particular outcome indices.

7) Late and increased use of the HIM work categories, Personal, Speculative, Confrontive and Relationship was associated with beneficial outcome.

8) Late and increased use of Assertive category was associated with negative response to treatment.

9) The extent to which individuals differentiated their ratings of others across the ten sociometric variables i.e. their scores on a measure of cognitive/perceptual differentiation was found to be generally predictive of positive outcome.

10) In contrast, members for whom the group achieved a measure of consensus in their rankings were associated with negative outcome, i.e. it was easier for the group to agree about individuals who did poorly than about those who did well.
11) High late and increased self-rankings on helpful, dominant sensitive and ability to discuss feelings were associated with beneficial outcome.

12) High late and increased self-ranking on needing help was associated with negative outcome.

13) Early ratings by others of helpfulness; and late and increased ratings by others on dominant, sensitive, needing help, and able to discuss feelings (i.e. the Group Behaviour sociometric variables) were all related to a variety of indices of positive outcome, including high scores on indices of interpersonal orientation, decreased symptomatology, and improved self-concept.

14) Late ratings on the sociometric personal choice variables were generally unrelated to outcome indices apart from Sy (level of symptomatology).

15) Increased ratings on the PC variables, admire and understands you, were related to positive outcome.

8.8 Summary of major findings

1) Evidence supports the 'social microcosm' hypothesis linking pre-treatment to group interaction variables, but suggests that this has a developmental aspect in that correlations between pre-treatment indices and late interaction variables were greater than for early interaction variables.

2) A larger proportion of group activity was engaged in by those individuals who were relatively more mentally healthy on pre-treatment assessment than by those who were less so.

3) Pre-treatment measure of dyadic compatibility were significantly related to both amount of dyadic interaction and ratings on sociometric variables given and received by dyads. In particular, interpersonal
complementarity in relationship orientation was more predictive than interpersonal similarity of both levels of dyadic interaction and sociometric ratings.

4) With regard to patient's perceptions of one another, the evidence suggests that pre-treatment client characteristics were more related to member's personal attractiveness towards one another than to their perceptions and evaluations of each others group behaviour. With regard to the latter, there were clear differences between self and other ratings, the former being more related to the control scale and the latter to the affection and inclusion scale of FIRO-B.

5) The nature of group interaction changed over time in the direction of increased use of the HIM work categories and a concommitment decrease in the use of the pre-work categories. This change mainly consisted of an increase in the use of the Relationship and decrease in the use of the pre-work categories. Evidence did not however support the predicted group increase in the 'Spread' of categories used from early to late.

6) Over time, the group as a whole showed an increase in consensus regarding sociometric ratings made of individuals. Such consensus was particularly related to those members doing poorly on process measures of activity and sociometric status. Concommittantly, there was also an increase over time in the consensus between individuals self-ratings and ratings made of them by others. However, the group as a whole did not show evidence of the predicted increased differentiation in ratings across the sociometric variables from early to late.
7) With regard to the relationship between member's interactions and their perception of one another, there were clear patterns of association and changes over time.

a) Individuals overall activity and levels of dyadic interaction were related to being seen as dominant.

b) Self-ratings differentially related to use of specific categories, dominant and able to discuss feelings being linked to the Speculative and Personal work categories; and needing help to the Topic pre-work category.

c) Overall use of the HIM categories, particularly the work categories was more associated with ratings members received on the personal attractiveness than the group behaviour socio-metric variables.

d) Members attractiveness to one another showed a shift over time from an association with use of the pre-work Topic category to use of the work categories, particularly the Relationship category.

8) On the indices used on the present study member's interaction with and perceptions of the therapist were less important than their activity and perceptions in relation to one another. The main finding was that positive outcome was linked to seeing the therapist as a fallible fellow human-being.

9) So far as outcome is concerned, the following were the main indices predictive of outcome:
a) For beneficial outcome, late and increased use of the HIM work categories; an overall increase in activity from early to late; late and increased scores on interactional flexibility as measured by 'Spread' of categories used; late scores on the measure of cognitive-perceptual differentiation in use of the sociometric scale; late and increased high self-rankings on the sociometric variables (with the exception of needing help); late and increased high rankings by others on the sociometric variables relating to group behaviour, and increased rankings on the personal choice variables, admire and understands you.

b) For negative outcome, high scores on the measure of compatibility with the group; late and increased use of the assertive category; high scores on the measure of consensus in sociometric rating by the group; and high late and increased self-ratings on needing help.
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Chapter 9: Rationale to the second study

The first study has essentially utilised conventional correlational techniques in order to uncover significant relationships between variables and major trends in the data. This has enabled the testing of hypotheses and discovery of suggestive findings with regard to such major areas of group work as the social microcosm hypothesis, effects of group composition variables, the development and change in members perceptions of one another and their modes of interaction, the relationship between interaction and perception, the role of the therapist and the relationship between process and outcome.

However, given the small number of subjects and size of data base, more complex analyses of the data utilising traditional statistical techniques such as factor analysis have been unwarranted. Thus for example although it has been possible to identify the differential effects of various forms of interpersonal compatibility on patients level of dyadic interaction, it has not been possible to specify what forms such interaction take as a consequence of these different types of interpersonal orientation.

An additional problem is presented by the fact that the relationships between the variables e.g. process and outcome indices are subject to multiple influences. Thus not only are the relationships between variables being affected by changes in these relationships over time but also by changes in their constituents over time also. For example the observed correlation between use of the relationship category and the wanted control index is being affected by both group changes in scores on wanted control and also in use of the category. It appears highly likely that these two variables are varying both in relation to one another and also independently of one another.
Although the findings already presented are important in delineating certain aspects of group process and in linking these with outcome, they do not on the one hand lead to the development of a coherent model of group functioning, nor on the other specifically distinguish patterns of individual change. As noted earlier in the rationale chapter of the first study, the development of an appropriate model for group therapy has been impeded by the fact that the majority of the existing models have either been imported into the group field from individual therapy or are utilising concepts for which adequate operational definitions have not been developed. In addition there has been a marked failure to link the dynamics of therapy groups to social psychological theories of group action.

Furthermore the criticism of the group comparison approach to therapy outcome i.e. that it obscured individual differences in response to therapy, indicates the importance of attending to individual patterns of change. Thus it appears likely that not only will individuals differ globally in their response to therapy, i.e. some improving, some staying the same and some actually getting worse, but differences will also be observed with regard to specific aspects of functioning. Thus some people may obtain symptomatic relief; some improvement in interpersonal functioning; and some beneficial changes in self concept.

Part of the aim of the second study was to both uncover and delineate the key variables in an adequate model of group therapy; and also focus on individual patterns of change.

While conventional statistical approaches appear to be either inappropriate or unable to approach these issues with the present data, the development of multi-dimensional scaling techniques do offer a methodology which is capable of both investigating the structure of the relationships between variables and also analysing
patterns of individual change. Their use in the present study is based upon two considerations, firstly the small size of patient sample being studied and secondly, the non-parametric nature of the data gathered.

Multidimensional scaling is the general term given to a set of models which permits information to be represented by sets of points in space. The arrangement of these points geometrically reflects the empirical relationships between the variables (or individuals) represented by the points. Thus in a space of N dimensions the degree of distance/closeness between the points reflects the dissimilarity/similarity between the referents of the points. The mapping of a set of variables onto such a space by means of multidimensional scaling techniques thus provides a pictorial representation of the correlations between them.

The application of multidimensional scaling requires account to be taken of three aspects (Coxon 1982):

i) The data, which provides information on how the individuals or variables are related to one another. In the main this consists of measures of (dis)similarity obtained directly (e.g. via individual's responses to questionnaires) and/or aggregated (e.g. in the form of measures of association or correlation).

ii) The model, which interprets the data in a particular way. The model aims to represent the relationships between the variables in terms of spatial distance, such that the "final configuration" so far as possible maintains the original relationships between the variables and maps them onto the smallest number of dimensions consistant with this aim.

iii) The transformation, which defines the use made of the original data within the multidimensional scaling
procedure. This transformation essentially makes use only of the rank orders (e.g. in a set of scores or correlation matrix); and the aim of the procedure is to find a configuration of points such that the distances between them reflect the rank ordering within the original data.

The utility of multidimensional scaling to the data set in the present study rests upon a number of considerations:

a) Multidimensional scaling procedures make no assumptions about the parametric nature of the data. They are thus appropriate for use in relation to data based upon a small sample such as in the present study.

b) In view of their use of rank orders, they also require no assumptions to be made about the metric nature of the data. In practice, this means that a wide range of data and measures can be accommodated so long as they provide measures of similarity/dissimilarity.

c) The use of rank orders also permits the identification of ordinal scaling within the data. This is of particular utility in the present study with regard to the identification of the individual patterns and levels of change in response to group therapy.

d) The use of geometrical representation permits a more ready identification of relationships within a complex set of data. In addition the procedures enable the identification of the structure within such relationships e.g. dimensionality.

A fuller account of the particular procedures used, ways of estimating the adequacy of the "final configurations", and the approaches taken to the analysis and interpretation of the resulting space diagrams will be provided in the Methods chapter.
In summary, the use of multidimensional procedures meets the requirements of the data set in the present study in being able to accommodate data derived from a small sample based on a variety of different measures. In addition, they offer approaches designed to identify structural relationships within a complex set of variables and to uncover individual levels of response in terms of an ordered scale, if such structures and order exist in the original data.

Apart from the use of a different set of approaches and procedures to the data, it was also considered important to expand the size of its base. The first study essentially consisted of an indepth investigation of one group. Although significant and logically consistent results were obtained to the hypotheses of that study which clearly related to the interpersonal learning model, the robustness and generalisability of these findings remain to be tested.

One way of approaching this would have been via a direct replication of that study, i.e. testing the same hypotheses in another group or groups. This would have provided a measure of verifiability in relation to the findings of the first study. However, it would not have contributed to the identification of individual patterns of response; nor have addressed the issue of the key structural relationships between the variables in an integrated interpersonal learning model of group therapy.

The alternative chosen was to collect the same data set from a second group and to amalgamate this with the data from the first group. As will be described hereunder in the Methods chapter, the same pre-treatment, process and outcome measures were accordingly collected from the second group as from the first.

However, it was also necessary to ascertain that the two groups were comparable in their essential components
i.e. client population, type of problem and type of therapy offered. Evidence for this comparability will be provided hereunder in the Methods chapter.

The aims of amalgamating the data sets from the two groups may be described as follows:-

a) The increased number of individuals being studied from pre-treatment through group process to outcome permits both the identification of factors of variability and generality in response to group therapy and the delineation of groupings in terms of level of such response.

b) The larger number of subjects also allows the investigation of the relationship of such varying levels of response to possible antecedents e.g. pre-treatment levels of functioning and background data.

c) The use of data from two groups provides on the one hand an opportunity to evaluate the nature and degree of commonality of the problems being presented by individuals entering group therapy in different organisational contexts; and on the other, a test of the suitability and the validity of the measures used in the study.

d) Although it would have been possible to apply multidimensional scaling procedures to the data derived from the first group alone, the applications of such procedures to the amalgamated data set from both groups provides increased confidence in the stability of the structural relationships uncovered by such analyses.

In summary, this second study has two focii and aims: the identification of individual patterns of response to group therapy; and the delineation of the key structural relationships between variables studied, with the aim of developing an integrated model of group therapy. In order to achieve these aims a second group matched to the first on its essential components was studied and the same set of pre-treatment, process and outcome data collected. The sets from the two groups were amalgamated and submitted to multidimensional scaling procedures.
Table 36: Background data on patients in the second study

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<th>Age</th>
<th>Sex</th>
<th>Marital Status</th>
<th>S-E Status</th>
<th>PPH Medication</th>
<th>PPT Join</th>
<th>Leave</th>
<th>Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>28</td>
<td>F</td>
<td>M</td>
<td>D</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>6</td>
</tr>
<tr>
<td>15</td>
<td>46</td>
<td>M</td>
<td>S</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>35</td>
<td>M</td>
<td>M</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>30</td>
<td>F</td>
<td>M</td>
<td>S</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>34</td>
<td>F</td>
<td>D</td>
<td>M</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>27</td>
<td>M</td>
<td>S</td>
<td>S</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>2</td>
</tr>
<tr>
<td>20</td>
<td>23</td>
<td>F</td>
<td>S</td>
<td>D</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
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<tr>
<td>21</td>
<td>27</td>
<td>M</td>
<td>D</td>
<td>S</td>
<td>Y</td>
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<td>N</td>
<td>2</td>
</tr>
<tr>
<td>22</td>
<td>34</td>
<td>F</td>
<td>S</td>
<td>D</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>2</td>
</tr>
<tr>
<td>23</td>
<td>32</td>
<td>M</td>
<td>D</td>
<td>D</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>2</td>
</tr>
</tbody>
</table>

Key:
- M = Male
- F = Female
- S = Single
- D = Divorced
- Y = On medication
- N = Not on medication

Previous experience of psychotherapy and medication:
- Y = Yes
- N = No

P.P.T.: Previous psychiatric history:
- 0 = No previous contact
- 1 = Outpatient
- 2 = Inpatient experience

P.P.H.: Previous hospitalization:
- 0 = No previous hospitalization
- 1 = Outpatient
- 2 = Inpatient

Leave: Refers to the last block of sessions at or before which the patient left the group.

Join: Refers to the block of sessions at or before which the patient joined the group.
Chapter 10: Methods used in the second study

The broad approach taken to methodology in the second study paralleled that which obtained for the first, although certain structural features of the second group necessitated modifications in the data collection process. The basic methodology used is therefore to be found in the Methods chapter of the first study (see sections 6.1, 6.2 and 6.3), and will be summarised here in terms of the tripartite structure used in that study.

10.1 Diagnostic elements

Specification of the client population

Individuals taken into the group were referred from a variety of sources; and had in common neurotic difficulties with associated problems in interpersonal functioning.

Their difficulties in functioning were assessed and quantified using the same pre-treatment questionnaires as in the first study, i.e. I.C.L., F.I.R.O-B, P.A.Q. and S.E.I.S.

The researcher met each group member in individual interviews prior to their joining the group, in order to administer the pre-treatment questionnaires; provide a rationale for the study; describe when sessions would be taped and questionnaires administered; obtain written permission for use of the questionnaires and tape recordings; and provide assurance of confidentiality.

Details of members' background data are to be found in Table 36. Group members' I.D.'s are numbered to follow from these of the first group.

The table indicates that 10 individuals were members of the group during its one year history. Their mean age was 33.9 years (mean age for group 1 was 31.4 years) with a range of 23 - 50. With regard to sex composition, there
was a slight preponderance of females (N=6). As with the first group, there was a disproportionately large number not in permanent relationships (again only two married); and the majority came from socio-economic classes 2 and 3.

With regard to previous psychiatric history (PPH), five had a history of outpatient contact; three previous inpatient admission; and two of no previous contact with psychiatric services. In addition, five were on medication for mental health problems at the start of their group therapy; and five had previous experience of a talking type of therapy (PPT).

In terms of times when people joined and left the group, six individuals entered the group at its beginning. Of these, one left after the first session; another one before block 2 of the recorded sessions, (i.e. within two months); and a third between blocks 2 and 3. The remaining three stayed the course. A further three individuals entered the group between blocks 1 and 2, two of whom stayed until the end, while the third left between blocks 5 and 6. An additional individual entered the group between blocks 2 and 3, and stayed until the end.

Thus, as with the first group this group suffered a significant problem with premature termination, particularly during the early phases. These changes posed similar sorts of methodological difficulty as were found for the first group. However, as the pattern of leaving and joining differed across the two groups, it was necessary to derive "early" and "late" scores for individuals on the process variables from different sets of data.

For the second group, the majority (9 out of 10) of individuals had joined the group before block 2; and of the premature terminators, the majority (3 out of 4) had left before block 3. Thus, it became more feasible to derive
"early" and "late" scores for individuals on the process variables on the basis of the groups chronological history. Thus, early scores were derived from blocks 1, 2 and 3; and late scores from blocks 4, 5 and 6.

In general terms, the foregoing suggests that the two groups were highly comparable in terms of background data (and as will be seen hereunder, on indices relating to type of therapy offered, types of presenting problems, and level of functioning). This provides a part of the rationale for combining their scores in the second study. A full account of the comparisons between them is to be found hereunder in section 10.5.

**Specification of target problems**

As with the first group, this was based upon problems for which individuals stated they were seeking therapy in the section at the end of the P.A.Q.; and an analysis of their responses to the pre-treatment questionnaires.

Detailed descriptions of these targeted problems for both groups are to be found in the chapter on "Individual patterns of change".

**Assessment of clients expectations of therapy**

No formal attempt was made to assess this factor, or to control for or investigate it's effect. However, patients were provided with the same sort of preparation by the therapist as the first group (see proforma in Appendix 4); and the content of their expressed problems (i.e. those identified in the section at the end of the P.A.Q.) may be inferred to relate to their expectations of benefit from group therapy.
Specification of the type of therapy offered

The group was set up to run on a weekly basis for one and a half hours per session over a period of one year. It took place in a room in a community mental health centre, which was equipped with audio facilities, but not a one-way mirror (unlike the first group). The therapist had had six years experience of running such groups, and as with the first group's therapist, had been trained in the group-analytic approach.

The therapist filled in the Group Therapy Questionnaire before the start of the group and after one year as a check on consistancy of the type of therapy offered. The questionnaire provided scores for therapist style across eight scales; Directive, Nondirective, Group-Individual, Silence, Authoritarian, Interpretation, Question, Feeling and Support.

On both administrations the highest scores for the therapist in the second group were on the Directive, Interpretation and Group categories. These emphases in style were the same as those which were found for the therapist in the first group, and were also broadly consistent with the group-analytic approach. This indicates a good degree of comparability in type of therapy offered across the two groups. The second therapist's pre-treatment responses also contained a significant proportion of responses on the Individual scale which decreased on the second administration of the questionnaire.

Problem of providing adequate controls

As with the first group, the aim of the study was to investigate individual patterns of change from the pre-treatment through group process to post-treatment, rather than to compare across groups. Patients were thus used as their own cases in order to elucidate factors of variability and generality in response to group therapy,
i.e. to investigate the ways in which group therapy brings about differential changes in members over time.

Along with this, there was an attempt to ensure that comparability was achieved in terms of patient's characteristics, presenting problems, and type of therapy offered across the two groups studied. Evidence for these forms of comparability will be provided hereunder.

10.2 Conceptualisation and measurement of group process

Specifications of group process variables to be studied and levels of analysis to be employed

The same rationale and procedures for use of the scales, development of variables, and definitions regarding levels of analysis were used on the second group as were used on the first group. Thus, there was an emphasis on member-to-member interactions, categorised in terms of the eight H.I.M. summary categories; together with use of the same sociometric questionnaire as was used in the first study.

The H.I.M. variables were developed via conversion of number of interactions into proportions of total group activity during each session; and comprised individual and group scores for overall level of activity, and early, late and change scores on each of the H.I.M. summary variables, i.e. Conventional, Assertive, Speculative, Confrontive, Topic, Group, Personal and Relationship, together with indices of interactional flexibility (i.e. "Spread").

Similarly, the Sociometric Questionnaire yielded early, late, and change scores for each individual on the fifteen variables, i.e. five self-rated variables, five other-rated group behaviour variables and five other-rated personal attractiveness variables, together with scores for ratings of the therapist on the ten variables.
In view of the fact that the structural arrangements for the second group differed from the first i.e. the room in which the second group took place lacked a one-way mirror and the time-span was one year rather than eighteen months, the data collection procedure required modification.

It was decided to sample group behaviour over six blocks as with the first study; but to use two consecutive sessions rather than four. In addition, due to the lack of a one way mirror, it proved infeasable to tape whole sessions. Accordingly, the H.I.M. scores were based upon recordings of the first hour of each session.

This latter reduction in time sampled for group interaction per session was not considered to adversely alter the reliability of the data obtained. Evidence from previous studies suggest that time samples as small as three minutes (Truax et al, 1966) and ten minutes (Billings et al 1978) provide representative measures of group interaction; while Piper et al (1979) found a time sample of 45 minutes to be highly representative of 90- minute group sessions in using the H.I.M.

The same mode of administration of the sociometric questionnaire was employed as in the first study, i.e. at the end of the sessions, which had been taped, the researcher handed out the questionnaires and required individuals to complete them without discussion. Similarly, the same raters were used to analyse the tapes using the H.I.M. member-to-member interaction categories, the same scoring sheets, and deriving the same summary statistics.

The six blocks of two consecutive sessions comprised the first two and last two sessions, together four additional blocks spread throughout the year at approximately ten week intervals. As noted above in the section on Specification of the client population, the pattern of individuals joining and leaving the group differed from that found in the first group; and necessitated a modification in the derivation of the early and late process scores for individuals.
Thus, whereas for the first group, the definition of early and late was provided by blocks 1, 3 and 5 for early, and blocks 2, 4 and 6 for late; those used for the second group were more related to the chronological history of the group, and consisted of 1, 2 and 3 for early, and 4, 5 and 6 for late.

In practice, an observation of individual's process scores as described in Chapter 13, hereunder, indicates that this variation in data sets across the two groups has not adversely affected the reliability of the resulting scores, i.e. they remain representative of individuals level and type of interaction and sociometric status in the group.

**Specification of type of therapy provided**

As with the first study, the main sources of data on the therapy provided consisted of levels of therapist activity and use of the particular H.I.M. categories over the six blocks of sessions, together with the sociometric ratings of the therapist provided by group members.

In terms of activity level, this therapist also showed a tendency to increase over time and subsequently to decrease again. The following shows the proportions of total group interaction accounted for by the therapist's activity.

<table>
<thead>
<tr>
<th>Block</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.02</td>
</tr>
<tr>
<td>2</td>
<td>.07</td>
</tr>
<tr>
<td>3</td>
<td>.04</td>
</tr>
<tr>
<td>4</td>
<td>.14</td>
</tr>
<tr>
<td>5</td>
<td>.07</td>
</tr>
<tr>
<td>6</td>
<td>.07</td>
</tr>
</tbody>
</table>

In qualitative terms, the majority of this therapist's interactions were in the personal content, and speculative and confrontive style categories, although in addition, group content started high (Blocks 1 and 2) and decreased thereafter.
Assessment and control of external influences

As with the first study, no formal attempt was made to control for or investigate this set of variables for the same reasons as are to be found in the corresponding section in the first study (see section 6.2).

Assessment of the effect of conducting research on client experience and behaviour

With the exception of the issue regarding observation of the group from behind a one-way mirror in this section of the Methods Chapter in the first study, the remaining factors in that section apply to the second study also.

10:3 Assessment of outcome

Development of improvement criteria

The development of improvement criteria followed the same procedure as for the first study. Thus, there was an emphasis on indices of improved interpersonal functioning, together with a broad-based measure of change on indices of adjustment (the P.A.Q.); an analysis of change on targeted problems; and the development of an operational definition of role flexibility, which aimed to integrate improved interpersonal functioning on both process and outcome variables.

Post-treatment assessments were conducted by the researcher in individual interviews within one month of the group finishing. At that time, the post-treatment scales were administered i.e. I.C.L., F.I.R.O., P.A.Q. and S.E.I.S. The exceptions to this were the premature terminators, who were contacted at the time they dropped out of the group. One of these individuals responded and attended for an assessment; the remaining three did not respond and were lost to the post-treatment assessment.
This provided a set of seven individuals on whom there were pre and post-treatment data for inclusion in the study of individual patterns of change.

**Relationship of specific change to experience and behaviour in therapy.**

In a sense, this factor goes to the heart of the aim of the present study. The major objectives in this second study consisted of utilising multidimensional scaling techniques in order to explore the following factors in group therapy:

1) The structural relationships between process and outcome variables and changes in these structural relationships over time.

2) The structures and changes in structures over time for each of the pre-post and process scales used in the study.

3) Patterns of individual change in experience and behaviour from pre-treatment client characteristics through early and late group process to response to treatment as measured by the outcome scales.

4) An integration of these first three factors into an interpersonal learning model of group therapy, which in particular focuses on the development of the concept of role flexibility to link process to outcome.

**Social validation of change**

Although external sources of assessment of change would provide an additional check on the reliability of the changes found on the process and outcome instruments used in the study, the extent to which such sources may be considered more objective is questionable. The reasons for questioning such "objectivity" are to be found in
this section of the Methods chapter in the first study.

In practice, the relative degree of social isolation in which many of the patients were living precluded the identification of a "significant other", who would be able to provide such "validation of change".

As with the first group, the alternative used was to use group members perceptions of one another as provided by their responses to the sociometric questionnaire; and hence to investigate the relationship of member's evaluation of one another to other aspects of group process (i.e. the H.I.M. variables) and outcome.

The foregoing has summarised the application of the tripartite methodological structure to the data set for the second group. The following section analyses the bases for amalgamating this data set with that obtained from the first group by demonstrating that in relation to their key ingredients these two data sets are comparable to one another. Thereafter, the multidimensional scaling procedures applied to the resulting combined data set are described.

10.4 The comparability of the two groups

In order to justify the amalgamation of the data from the two groups studied for analysis by multidimensional scaling procedures, it was necessary to demonstrate that they were similar to one another with respect to their key constituent aspects. As has been seen above in section 10.1, the training background and main therapeutic styles of the therapists (as measured by the Group Therapy Questionnaire) were highly similar across both groups. Additionally, as will be seen hereunder in chapter 12, the nature of individuals presenting problems were also found to be very comparable.
With regard to the background data, Table 37 summarises the information on age, sex, marital status, socio-economic status, previous history of psychiatric contact whether on medication when joining the group, previous experience of psychotherapy and number of individuals terminating therapy prematurely, for the two groups. In comparing these figures, it should be remembered that the total membership of the two groups varied; for group 1, N = 13; for group 2, N = 10.

For age, the majority in both groups are between 26 and 35, the mean age for group 1 being 31.4 and for group 2 being 33.9. The main difference between the two groups is that the age range for group 2 is somewhat more spread than for group 1.

For sex, there is a slight preponderence of males in group 1 and of females in group 2. Marital status in both groups evidence a majority of single individuals; (although group 2 shows a proportionate excess of married and separated/divorced); and similarly for socio-economic status, both groups have a majority of their membership drawn from categories 2 and 3.

For previous psychiatric history, both groups have more members with out-patient contact than the other two categories. The second group shows evidence of having proportionately more individuals on medication at the start of the group and also more with previous experience of psychotherapy.

Finally the levels of premature termination for both group are remarkably similar, in both instances amounting to some 40% of the total membership.

One additional point can be made with regard to the relationship between process and outcome. As noted
Table 37: Summary data on sociodemographic categories for the two groups

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Sex</th>
<th>Marital</th>
<th>Socio-Economic</th>
<th>PPH</th>
<th>Medication</th>
<th>PFT</th>
<th>P.T.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20-25</td>
<td>26-30</td>
<td>31-35</td>
<td>36-40</td>
<td>40+</td>
<td>Male</td>
<td>Female</td>
<td>S</td>
</tr>
<tr>
<td>Group 1</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>7</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Group 2</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>
above, the duration of the two groups varied, group 1 being conducted over eighteen months, and group 2 over one year. However, in looking at the number of sessions attended by those individuals included in the process and outcome study to be described hereunder (i.e. those for whom it had been possible to obtain pre and post-treatment data), the amount of group therapy actually received is highly similar across the two groups. Thus, for these individuals, the mean number of sessions attended was as follows: for group 1, 34.4; and for group 2, 38.

In summary, it was considered that the two groups evidenced high levels of similarity on indices related to therapist factors, presenting problems, amount of therapy received, premature termination level and a variety of demographic and other background data. The main differences found were in the greater proportions of individuals in group 2, who were on medication and had previous experience of some form of psychotherapy. On the basis of the foregoing, it was considered that the two groups showed sufficient comparability for their data sets to be amalgamated for subsequent analysis via the multidimensional scaling procedures described hereunder in Section 10.5.

10.5 The multidimensional procedures used in the study

As noted in the Rationale chapter, (see chapter 9), the aim of multidimensional scaling procedures is to provide a pictorial representation of existing relationships between variables in a set of data in order to facilitate the identification of structure in such relationships.
The basic non-metric model utilizes data derived from measures of (dis)similarity; represents the relationships between variables in terms of the distance between different points in an N-dimensional space; and does this via a transformation of the original data into rank-orders. Thus, the aim of these procedures is to find a "final configuration" of points such that the distances between them reflect the rank ordering within the original data.

The "final configuration" represents the best fit between the arrangement of points and the original rank ordering in the data; and is arrived at by an interactive process of successive approximations. It is also usually rotated to principal components. This is achieved via the identification of a line of axis dimension through the configuration which account for maximum variability in the relationships between the variables (the first principal component); and thereafter a second axis orthogonal to the first, which is statistically independant of the first component and accounts for a maximum amount of the remaining variation. This procedure continues until the level of remaining variation is trivial.

The evaluation of the goodness of fit of the final configuration with the original ranks ordering of the data is arrived at via two values: the stress level and the coefficient of alienation. These values are related to the monotonicity criterion, which requires that the ordinal scaling in the data fits the original rank ordering. As described by Kruskal (1964), when the dissimilarity between variables i and j is less than the dissimilarity between k and l, then the distance between i and j should be at least as small as that between k and l. This formulation is commonly referred to as the Weak Monotonicity criterion, in that it permits equal distances to unequal data; in contradistinction
to the strong monotonocity criterion, which preserves in the solution inequalities in the original data.

The level of stress in a solution is arrived at via computation of the differences between distances in the final configuration and the "distances" arrived at by the monotonic regression of the original rank orders. Where these two sets of distances are the same the stress level will be zero. In general the level of stress is likely to be higher, where more points (i.e. variables) are being required to fit into the solution, and/or where the numbers of dimensions which are being used to fit the points are smaller.

The measure of alienation (Guttman, 1968) is arrived at in essentially the same fashion, the main difference being that whereas stress is computed in relation to the weak monotonicity criterion, alienation is computed in relation to the strong criterion. This means that measures of alienation are higher than measures of stress.

The question arises as to what constitutes satisfactory levels for these goodness of fit measures. As noted above, stress level is related to the number of dimensions used in arriving at a solution, which will pictorially represent the relationships between the variables as distances between the points. One of the aims of multidimensional scaling is to provide a solution which fits into the smallest space (i.e. the minimum number of dimensions) to satisfactorily represent these relationships. In general, the higher the number of dimensions the lower the level of stress because increasing dimensionality provides more freedom to arrange the points. Thus, zero stress would be achieved where the number of dimensions used was equal to \( N-1 \) (where \( N = \) the number of variables or points).
However, such a solution would be uninterpretable in practice and the aim of the procedure is not to achieve zero stress; but instead a simple representation of the points, which shows the basic dimensions needed to account for the relationships between them. In general terms, if such relationships exist, they should be demonstrated in a space of small dimensionality (i.e. up to three dimensions) and with adequately low levels of stress (Subkoviak 1975).

The exact determination of what constitutes adequately low levels of these measures of fit remains to be decided. In practice, this means that goodness of fit values at present must be measured against conventions in the literature. For example, Bailey (1974) reports coefficients of alienation of up to .30 in two dimensions.

Within the present study, levels of both stress and alienation are given for each of the analyses reported; and all values are below .30. In the majority of instances, adequate levels of goodness of fit and interpretable structures were obtained in two dimensions. In some instances (e.g. the late H.I.M. smallest space analysis, hereafter referred to as S.S.A.) it was possible to reduce this to a one-dimensional structure. In others, although the goodness of fit measures in two dimensions were adequate, the addition of a third dimension provided a fuller description of the structure underlining the relationships between the variables (e.g. the pre and post-treatment S.S.A's). In one instance the goodness of fit values for two dimensions were inadequate and the solution required a three-dimensional structure (the post-treatment P.A.Q. S.S.A.).

The following described the particular multidimensional scaling procedures used in the present study, with particular reference to the approaches taken towards the interpretation of the analyses.
Smallest Space Analyses (S.S.A.)

Smallest space analyses (S.S.A's) aim to provide a visual representation of points within a space of minimum dimensionality. The points may either represent objects (i.e. individuals) or variables. The basic input to the analysis is a symmetrical table of correlation coefficients, and the output is a configuration of points which represents these correlations as distances between points such that the smaller the correlation, the greater the distance. The major aspect of the correlation table utilised in order to achieve this is the rank ordering between the correlations (Lingoes 1973).

The final configuration is output in the form of space diagrams, which consist of two-dimensional plots containing the position of the points on each of the dimensions being analysed. Thus, in a two-dimensional solution, one space diagram is provided, which shows the position of each point in relation to these two dimensions. For a three dimension solution, three space diagrams are provided, the first showing the co-ordinates for the points on dimensions 1 and 2, the second on dimensions 1 and 3, and the third on dimensions 2 and 3. Each analysis also provides the values for the goodness of fit measures, i.e. Kruskal's stress and Guttman-Lingoes coefficient of alienation.

A variety of approaches to the interpretation of such space diagrams are available in the literature. Amongst those mentioned by Coxon (1982) are the following:-

1. Identification of the dimensions (i.e. orthogonal axes) which span the multidimensional space. The major characteristics of such dimensions are that they represent higher order organising constructs which can be thought of as varying continuously; that they be bipolar; and that they define a major pattern of variation in the data. Such identification depends upon attending to those points
which are most extreme (i.e. furthest away from zero). The highest and lowest co-ordinates are then examined in order to identify the bipolarity of the dimensions. This in turn aids the naming of the dimensions.

2. An inspection of those regions of high and low density of points. These indicate that within the overall diagram, there exists sub-sets of points, the relationships within which are stronger than those between them (Lingoes 1977). Such regional areas suggest local structure between the variables represented by points within the area. Additionally, regions may be hierachically ordered i.e. a region or regions of high density points being embedded within a configuration of lower density points. These lower density points may still possess empirical or logical relationships between themselves and with the variables in the high density region.

3. A partitioning of the space by means of simple structures. Such partitioning may result from empirical patterns in the data. Alternatively they may be derived from the structure of a mapping sentence within Guttmans 'facet theory' methodology. Within this theory, the mapping sentence serves to provide a prioric 'facets'. A facet may be any way of categorising observations as long as the elements of the category scheme are mutually exclusive, (Canter 1983). For example, sex and intelligence may both be considered as facets, the former containing two elements; and the latter as many elements as there are test scores. Thus, facets consist of categories (i.e. aspects of the populations experience or behaviour) to which attention is drawn both in looking for the anticipated
relationships between the variables and also the type of structure to be expected from their predicted relationship.

Amongst the more common structures are the following:

a) The simplex - a sequential chaining of points from those closest to those furthest apart.

b) The circumplex - a circular arrangement of points.

c) The radex - the use of two or more concentric circles with lines emanating from the centre dividing the space into wedgelike sections.

In addition, Levy (1985) has argued that different types of facet partition space and hence generate particular structures according to their internal characteristics. Such partitioning stems particularly from the ways in which the elements of the facets are ordered or unordered. Facets, which divide the space into wedges such that each element corresponds to a different direction in the S.S.A. space emanating from a common origin, are considered to be unordered and to play a polar role in relation to other facets.

In contrast, those whose elements fall in circular bands around the common origin, provide an example of a simply ordered facet, which plays a modular role. Simply ordered facets can also play axial roles when the notion of order is unrelated to that of other facets; or joint roles when the notion of order is the same as that for other facets.

Bailey (1974) has argued that the use of all three of these approaches to interpretation, i.e. dimensional, regional and simple structures, offers a fuller interpretation of the space diagram than reliance on just one. In particular, he has emphasised the utility of the
identification of the main co-ordinates i.e. dimensions, spanning the space, in contrast with a reliance upon regional interpretations. This is because, while the overall configurations tends to be stable, the exact positioning of individual points in relation to one another may be less so. However, in contrast, Subkoviak (1975), while endorsing both approaches, has warned against an over-reliance on and over-evaluation of the labels attached to the particular dimensions.

In the present study, S.S.A's were used to investigate the structural relationships between the variables for each of the following sets of variables: pre-treatment, post-treatment, early process, late process, pre-treatment and early process, post-treatment and late process, separate pre and post-treatment on each of the outcome scales, i.e. I.C.L., F.I.R.O-B and P.A.Q. (S.E.I.S. was excluded from these individual analyses as it had insufficient variables); and separate early and late process for each of the process scales, i.e. the H.I.M. and sociometric variables.

For each of these analyses the original data set consisted of the scores of individuals from both the groups on the relevant variables. In practice, this meant that the size of the data sets varied across different analyses as post-treatment information was not available on all individuals. Thus, whereas the pre-treatment analyses were based upon N = 23, the post-treatment ones were based upon N = 17. Examples of each of the three above-mentioned approaches, to interpretation (i.e. dimensional, regional and simple structure) were used, where these appeared to be appropriate in providing useful information on the structure underlying the relationships between the variables. These analyses are reported in chapter 11.
Multi-dimensional Scalogram Analysis (M.S.A.)

Multidimensional Scalogram Analysis (M.S.A.) is one of a set of procedures, which aims to identify the smallest space within which the relationships between a set of objects or variables can be pictorially represented in order to show the structural order within the data set (Lingoes 1973).

As with other multidimensional scaling approaches, it requires no assumptions to be made about the metric nature of the data or about its parametric distribution. Thus, it is particularly useful with data sets based on small samples and for the analysis of qualitative data. In addition, it can equally readily be used to analyse the relationships between objects (e.g. individuals), items or variables.

M.S.A.'s utilise profile data in the form of category scores. Such category scores may refer to the presence or absence of an attribute (i.e. the categories are mutually exclusive); or to the definition of categories in relation to scores on a particular variable or set of variables. Thus, for example, if the interest is in looking at whether or not individuals change as a result of involvement in group therapy, a category score of 1 may be given to those individuals not evidencing change on each of a particular set of variables, and a category score of 2 to those individuals showing change on each variable: in this instance, the attribute in question is the presence or absence of change. Alternatively, category scores may be based upon the scores on a variable or set of variables, low scores being given a category score of 1, and high scores a category score of 2, for example.

In either instance, each individuals profile i.e. set of category scores will be mapped by the M.S.A.
onto a space diagram of minimum dimensionality, each individual being represented as a point on the space diagram. Thus, for a set of four variables, an individual scoring high on all four would obtain a profile of 2222 and an individual scoring low on all four a profile of 1111. These two individuals would then be represented by two points at extreme opposites from one another on the space diagram.

Thus, M.S.A.'s utilise profile data in order to derive spatial representation of a set of individuals (or alternatively, items or variables) within a small dimensional space. In this way, the relationships between the individuals can be identified, e.g. in relation to the extent to which they exhibit ordering or grouping in their response across the set of variables used in the analysis. The identification of such ordering may well suggest the existence of a scale of response to the variables included in the analysis.

Apart from an overall space diagram, which represents the individuals as points, space diagrams are also given for each variable. These contain the same arrangement of points as in the overall space diagram, but in this case, the points are represented as the individuals category scores on each variable. This form of representation permits the identification of structure in the response on each variable in terms of the extent to which category scores are found to occupy particular regions on the space diagram. Thus, for example, if on a specific variables space diagram, all category 2 points are to be found on the left hand side of the diagram, and all category 1 points on the right hand side, then the variable may be partitioned by a vertical line between the two sets of points. This vertical partition defines the structure of the variable in relation to the overall space diagram.
Although these regional boundary lines between the categories may in practice take any shape, a number of shapes are considered to provide evidence of strong structuring: vertical, horizontal, L-shaped, inverted L-shaped and diagonal.

Within a given set of variables, the extent to which each one shows evidence of its structure taking the form of one of these strong shapes defines the extent to which it is contributing to the structure observed in the overall space diagram; and is hence contributing to the differentiation and ordering of the individuals.

Moreover a comparison of the regional structures across the set of variables enables the identification of relationships between the variables, i.e. the extent to which category scores are similar or overlap across different variables. Thus, for example, if two variables show the same shape of regional structuring and identical category scores, then they are clearly highly positively correlated; conversely, if the regional structuring is the same but the category scores are reversed, then this is evidence for a high negative correlation between them.

Thus, M.S.A.'s provide a spatial representation of a set of individuals in relation to their category scores on a set of variables. This representation can be used to derive groupings and ordering of the set of individuals. Additionally, the specific variable's space diagrams provide evidence of regional structuring, from which can be inferred the structural contributions of each variable to the overall space diagram; and also the structural relationships between the variables.
Within the present study, M.S.A.'s were used to analyse individual patterns of change on the process and outcome variables. Thus, separate M.S.A.'s were conducted on individuals change scores on each of the outcome scales, I.C.L., F.I.R.O.-B., P.A.Q. and S.E.I.S., on the sets of variables upon which most individuals evidenced change (the Mainchange M.S.A.), on a set of interpersonally-orientated variables, which were drawn from the four outcome scales (the Interpersonal M.S.A.), on the overall and change scores on each set of the process scales (i.e. the H.I.M. and Sociometric scales), and on a set of variables drawn from both process and outcome scales (the Process-Outcome M.S.A.)

The approaches adopted for the analysis and interpretation of these M.S.A.'s were substantially the same as those described above. Firstly, the extent to which each specific variable's space diagram exhibited structure was investigated and the regional shape of such structures defined. Secondly, on the basis of these regional structures the relationships between the variables were analysed. Thirdly, the original space diagram was divided into quadrants. The category scores for each variable were then mapped onto these quadrants in order to identify the salient characteristics of individuals occupying these quadrants. This procedure facilitated, fourthly, the identification of grouping and ordering in the set of individuals with regard to their overall response on the set of variables, i.e. an interpretation of the plot on the overall space diagram.

As the main focus for these analyses was upon change in individuals from pre to post-treatment and from group process to outcome, the set of individuals included in these analyses essentially comprised those for whom there existed both pre and post-treatment data (N=16). However, within the results reported, their original
I.D. numbers have been retained in order to facilitate cross-referencing and comparison with their background data (see Tables 1 and 36).

These analyses are reported in chapter 12.

Correspondence Analysis

Correspondence analysis is a multidimensional scaling technique developed by Benzecri (1973), which in common with other such techniques aims to provide a geometrical representation of the relationships between a set of variables with a space of minimum dimensionality. It has been suggested by Greenacre (1984) as being of particular utility in the analysis of categorical data, which is the major use to which it has been put in the present study.

The analysis assumes that the data can be represented by a two-dimension data matrix (usually a contingency table). It utilises the frequencies within each cell of the table in order to derive a matrix of probabilities based upon product-moment correlations. This matrix is then used in order to compute weights for each row and each column, which will maximally relate the rows to the columns. These weights refer to the percentage of variance accounted for within the probability matrix by each co-ordinate within an N-dimensional space. This provides both an estimate of the minimum number of dimensions required to account for the relationships between the rows and the columns in the original contingency table; and also defines the co-ordinates (i.e. spatial positions) of each variable in the resulting space diagram.
The analysis provides separate two-dimensional space diagrams for the position of each row variable, i.e. the positions of each of these in relation to one another as they have been structured by the columns; each column variable, i.e. the positions of each of these in relation to one another as they have been structured by the rows, and an overall plot, providing the positions of each variable in relation to all the others.

The interpretation of Correspondence Analysis utilises the same approaches to the space diagrams as those described above for the S.S.A's and M.S.A's. This refers on the one hand to the identification of the dimensional structure under-lining the space; and on the other to the delineation of regional areas, within which points are related to one another. More specifically with regard to the latter, attention is focussed upon those areas, where row variables and column variables are spatially related to one another. In addition, structure within the diagram and relationships between the variables can be investigated via the use of simple structures i.e. by partitioning of the space, e.g. into quadrants.

As noted above, Correspondence Analysis is particularly useful in the analysis of categorical data. In the present study, it was used in order to examine the relationships between the following data sets:

a) Patient's background data and response to therapy.

b) Patient's background data and group process data.

c) Patient's background data and premature termination.

The results of these analyses are reported in Chapter 12 (section 12.8).
Chapter 11: The Structural Relationships between the Variables

In order to investigate the structure underlying the variables in the present study, smallest space analyses (hereafter referred to as SSA's) were carried out on the pre-treatment, post-treatment, early process, late process, pre-treatment and early process, and late process and post-treatment data sets.

The aim was to identify the relationships existing between complex sets of variables and the way in which such relationships changed over time. The identification of the patterning of such relationships would then provide clues regarding the structure underlying these relationships, which could in turn be used to develop hypotheses concerning a model of group functioning.

As one of the basic models of multidimensional scaling, SSA's provide a geometrical plot of the relationships between variables such that the distances between points reflect the empirical relationships between the variables.

The description provided above in the previous section of approaches taken to the analysis and interpretation of multidimensional scaling procedures indicated that this can be pursued in three ways:

1) Identification of the major dimensions, which account for the majority of the variance in the plots.

2) Identification of regional groupings of points which may also be hierarchically ordered, i.e. regions of high density embedded within regions of lower density.
3) A partitioning of the space in terms of simple structures, which possess logical consistency.

Examples of each of the three approaches to interpretation outlined above will be provided in the following discussion of the SSA's conducted in the present study. The discussion will firstly focus on the structure of each SSA in turn, and then move on to a consideration of changes over time.

In the first instance, the structure of each of the pre to post-treatment scales, I.C.L., F.I.R.O-B., and P.A.Q. (excluding S.E.I.S. as this possessed insufficient variables for analysis) will be analysed together with the changes in these structures over time. This will enable specific conclusions to be drawn concerning the structural nature of presenting problems and some of the main dimensions of post-treatment response to therapy. Following these analyses of the individual scales, there will be an analysis of the structures of the combined pre-treatment and post-treatment variables, together with a consideration of changes over time in these.

The same procedure will be followed for the process scales i.e. separate early and late analyses of the H.I.M. and Sociometric variables, the combined early and late process variables, and an investigation of changes in these over time.

Thereafter, the relationships between the pre-treatment and early group process variables and late group process and post-treatment variables will be investigated; and the major structural changes over time discussed.
Table 38: Pre-post and process variables used in the Smallest Space Analyses

(Key to the space diagrams)

<table>
<thead>
<tr>
<th>Pre-post variables</th>
<th>Process variables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ICL</strong></td>
<td><strong>H.I.M.</strong></td>
</tr>
<tr>
<td>DOM - Dominance</td>
<td>Cv - Conventional</td>
</tr>
<tr>
<td>LOV - Affection</td>
<td>Ass - Assertive</td>
</tr>
<tr>
<td>NIC - Acquiescence</td>
<td>Sp - Speculative</td>
</tr>
<tr>
<td>IP1 - Disaffiliation</td>
<td>CF - Confrontive</td>
</tr>
<tr>
<td>IP2 - Affiliation</td>
<td>Top - Topic</td>
</tr>
<tr>
<td>IP3 - Assertion</td>
<td>Gp - Group</td>
</tr>
<tr>
<td>IP4 - Submission</td>
<td>Per - Personal</td>
</tr>
<tr>
<td><strong>FIRO</strong></td>
<td><strong>Sociometric:</strong></td>
</tr>
<tr>
<td>EI - Expressed inclusion</td>
<td>sH - Self-rated helpful</td>
</tr>
<tr>
<td>WI - Wanted inclusion</td>
<td>SD - Self-rated dominant</td>
</tr>
<tr>
<td>sI - Sum of inclusion</td>
<td>SS - Self-rated sensitive</td>
</tr>
<tr>
<td>DI - Difference in inclusion</td>
<td>SN - Self-rated needs help</td>
</tr>
<tr>
<td><strong>PAQ</strong></td>
<td><strong>SD - Self-rated able to discuss feelings:</strong></td>
</tr>
<tr>
<td>Sy - Symptomatology</td>
<td>sA - Sum of affection</td>
</tr>
<tr>
<td>PR - Personal relationships</td>
<td>DA - Difference in affection</td>
</tr>
<tr>
<td>Sa - Self-acceptance</td>
<td><strong>OS - Other-rated sensitive:</strong></td>
</tr>
<tr>
<td>Su - Self-understanding</td>
<td><strong>ON - Other-rated needs help:</strong></td>
</tr>
<tr>
<td>Sc - Social contacts</td>
<td><strong>OF - Other-rated able to discuss feelings:</strong></td>
</tr>
<tr>
<td>L - Use of time</td>
<td><strong>OL - Other-rated like:</strong></td>
</tr>
<tr>
<td>Adj - Overall adjustment</td>
<td><strong>OU - Other-rated understand:</strong></td>
</tr>
<tr>
<td><strong>S.E.I.S.</strong></td>
<td><strong>OA - Other-rated admire:</strong></td>
</tr>
<tr>
<td>Re - Responsivity</td>
<td><strong>OT - Other-rated trust:</strong></td>
</tr>
<tr>
<td>In - Initiating interaction</td>
<td><strong>OY - Other-rated understands you:</strong></td>
</tr>
<tr>
<td>Ta - Task-orientation</td>
<td><strong>Sociometric:</strong></td>
</tr>
<tr>
<td>Se - Social-emotional awareness</td>
<td></td>
</tr>
</tbody>
</table>
11.1 Relationships between the pre and post-treatment variables

11.1.1 The individual pre and post-treatment scales

Separate S.S.A.'s were conducted on each of the pre and post-treatment scales, I.C.L., F.I.R.O-B and P.A.Q. in order to determine their major structural characteristics and change over time.

a) Pre and post-treatment S.S.A.'s on the I.C.L.

The pre-treatment S.S.A. (see Figure 3) had the following goodness of fit scores: Guttman - Lingoes coefficient of alienation = .08; and Kruskal's stress = .05 in two dimensions. These two dimensions were identified as the following:-

1) A horizontal dimension, whose poles consisted of DOM and LOV. This contrasts individuals scoring high on dominance with those scoring high on affiliation.

2) A dimension, which was diagonal to this first, which was spanned by LOV to IPI. This refers to a dimension, whose poles were provided by affiliation versus disaffiliation.

There was however also some evidence that a parsimonious structural interpretation was provided by just one dimension, goodness of fit values being given as: Guttman-Lingoes coefficient of alienation = .28; and Kruskal's stress = .21. This dimension provided the following ordering of the variables: DOM, IP3, IP1, NIC, IP2, IP4, LOV.

The implication of this structure is that members pre-treatment interpersonal behaviours were structured in terms of a bipolar contrast between assertive and
Figure 3: The pre-treatment I.C.L. S.S.A.
affiliative behaviour, i.e. those who scored high on assertive tended to score correspondingly low on affiliative, and vice-versa.

Secondly, there was a clear disjunction between the quadrant scores. Thus, IP3 (assertive) and IPI (disaffiliative) were markedly separated in the space diagram from IP2 (affiliative) and IP4 (submissive). This suggests there was a link pre-treatment between assertive and disaffiliative behaviours on the one hand; and affiliative and submissive behaviours on the other. This contrast provided the major structural differentiation between individuals in terms of their pre-treatment interpersonal styles as measured by the I.C.L.

The post-treatment S.S.A. (see Figure 4) had goodness of fit values as follows: Guttman-Lingoes coefficient of alienation = .19; Kruskal's stress = .13, in two dimensions.

These dimensions may be described as follows:-

1) A horizontal dimension, whose poles were provided by NIC and DOM. This dimension thereby contrasts acquiescence with dominance.

ii) A vertical dimension, whose poles were given by LOV and IPI, which thus may be defined in terms of affiliation versus disaffiliation.

Once again it was also possible to interpret the space diagram in terms of one dimension (Guttman-Lingoes coefficient of alienation = .27; Kruskal's stress = .16). It is of interest to compare the composition of this dimension with that obtained for the pre-treatment one-dimensional structure. The structure of the present dimension was as follows: NIC, IP4, IPI, IP2, LOV, IP3, DOM. Using this structure, acquiescence and dominance may be seen as the poles of this dimension.
Figure 4: The post-treatment I.C.L. S.S.A.
Affiliative behaviour lies between these two, but is somewhat closer to the dominant pole. The submissive and disaffiliative quadrants lie next to the acquiescent pole; and the assertive quadrant adjacent to the dominant pole.

The main changes from pre to post-treatment may be described as follows. Firstly, there was the emergence of a clearer two-dimensional structure at post-treatment. This structure is more normative in the sense that it clearly resembles the structure of the scale described for normal populations (LaForge and Suczek, 1955). In essence, this provides two axes for interpersonal behaviour as follows: dominant - submissive; and affiliative - disaffiliative.

Secondly, there was a movement together of the quadrant variables which suggests that differences between the scores on those variables have become attenuated and flattened from pre to post-treatment. This indicates that members have become less extreme in their interpersonal behaviour. In particular, IP2 and IP3 moved closer together, suggesting that members changed from being either affiliative or assertive to being both, thereby providing evidence for an increased flexibility of response.

Thirdly, along with the emergence of an increasingly differentiated dimensional structure and the movement together of the quadrant variables, there was a separating out of the summary score variables. In particular, NIC moved from a central position in relation to the other variables and became a pole of one of the axes; and DOM moved away from the rest of the variables (but particularly from IPI) and occupied the other pole of that axis.
b) Pre and post-treatment S.S.A's on the F.I.R.O.

The pre-treatment S.S.A. (see Figure 5) had goodness of fit values as follows for two dimensions: Guttman-Lingoes coefficient of alienation = .20; Kruskal's stress = .16. These dimensions may be defined as follows:

i) A horizontal dimension, whose poles were DI and DC. This dimension thus contrasts on orientation towards including others in activities with a tendency to prefer to express control over rather than seek it from others.

ii) A vertical dimension spanned by DC and DA, which contrasts the control orientation with a preference for expressing rather than seeking affection.

The presence of DC as a pole on both of these axes emphasises the differentiation of control from both inclusion and affection on pre-treatment responses to F.I.R.O. (and incidently recalls the pre-treatment polarity between DOM and LOV on the I.C.L. S.S.A.)

The overall structure of the space diagram tends to emphasise this point further. Thus, all four variables on the affection scale (E, W, Sum and D) were clustered together and close to the inclusion scale variables, EI, WI, and Sum I, although the two scales can be seen as occupying spatially distinct areas. The exception to this pattern was DI, which stood as an isolated variable away from the rest of the variables in the space diagram. In contrast, the control scale variables were split: EC and DC formed a pair of variables away from the rest; while WC and Sum C were separated from them, but somewhat closer to the area occupied by the inclusion and affection variables.
Figure 5: The pre-treatment F.I.R.O.-B. S.S.A.
The basic components of this structuring for each of the three scales were as follows:

1) For inclusion, both E and W were close to the Sum score but separated from D.

2) For Control, E was closely related to D; and W closely related to Sum; but these two pairs were separated from each other.

3) For affection, all four scales were spatially linked, Sum lying midway between W and E; and D occupying a space close to E.

In general terms therefore, it was possible to distinguish scores on the three scales, but similar patterns of scores on inclusion and affection were observable (with the exception of DI); while the control scale was split between those scoring high on WC and Sum C; and those scoring high on EC and DC. This suggests that needing others control was more related to affiliative behaviour than was expressing control. Overall the patterns of scoring on DC, EC and DI tended to be discrepant from those found on the rest of the variables i.e. these variables tended to be spatially distant from the remainder.

For the post-treatment S.S.A. (see Figure 6), goodness of fit values for two dimensions were found as follows: Guttman - Lingoes coefficient of alienation = .13; Kruskal's stress = .10. These dimensions were defined as follows:-

i) A horizontal dimension, where poles were Sum A and DC. This axis thereby contrasts the overall importance of affection in interpersonal relationships with a tendency to express rather than seek control.
Figure 6: The post-treatment F.I.R.O.-B. S.S.A.
ii) A vertical dimension, whose poles were Sum C and DI. This axis is characterised by on the one hand the overall importance of control, and on the other a preference for including others in one's activities over seeking to be included.

However, this second dimension was relatively poorly articulated. The main characteristics of the space diagram consisted of an embedded region of variables in one corner of the diagram and two variables in the opposite corner, with a relatively isolated variable lying between them.

The embedded region consisted of two smaller regions. The larger of these comprised the E and W scores on all three scales, Inclusion, Control and Affection. The smaller one contained the Sum scores for the three scales. The two variables in the opposite corner from this embedded cluster were DC and DI; while the isolated variable in between was DA.

A number of conclusions stem from this diagram. Firstly, post-treatment scores for expressed and wanted behaviour were highly similar across the three scales. These scores were distinct from but related to the Sum scores. Secondly the similarity between E and W created the distance between these scores and the difference (D) scores, particularly with regard to Inclusion and Control, and to a lesser extent for Affection.

In comparing this post-treatment S.S.A. with the pre-treatment one, the following main changes can be identified:

i) The E and W scores on all three scales moved closer together and became more tightly clustered. This was mainly accounted for by increases on EI and decreases on WI and WC.
This suggests that at post-treatment, members have become less needy in their interpersonal relationships and more able to include others. It also suggests that the differentiation in orientation between control on the one hand, and inclusion and/or affection on the other has been attenuated. Thus members were now able to be more flexible in their interpersonal orientation, and exhibit some degree of alternation between the three scales.

ii) The movement together of DC and DI (which at pre-treatment had occupied polar positions on one of the dimensional axes) provided additional evidence for increased flexibility. Both emphasise expressive over wanted behaviour; and their closeness in the space diagram suggests the development of a link between the abilities to control and to include others.

iii) The relative isolation of DA (both from DC and DI and also from the embedded cluster of the other variables) would appear to be a consequence on the one hand of the small number of individuals showing change on this variable in comparison with DC and DI; and on the other was due to the movement together of EA and WA, largely as a consequence of decreases in the latter.

c) Pre and post-treatment S.S.A's on the P.A.Q.

The pre-treatment S.S.A. (see Figure 7) had the following goodness of fit values for two dimensions: Guttman - Lingoes coefficient of alienation = .17; Kruskal's stress = .13.

These two dimensions were identified as follows:
Figure 7: The pre-treatment P.A.Q. S.S.A.
i) A horizontal dimension, whose poles were provided by SY and PR. This dimension thus contrasts level of symptomatology with the ability to engage in personal relationships. At a more abstract level, it refers to a distinction between concerns with inner functioning and outer behaviour.

ii) A vertical dimension whose poles were SC and L. This dimension can be characterised as measuring the ability to cope with social situations as opposed to the ability to productively structure time. Again, this may refer to an axis contrasting an orientation towards others with an orientation towards one's own functioning.

However, these dimensions are perhaps less important than the way in which the variables were configured. Within the space diagram, Adj (overall adjustment) occupied a position which was central so far as the other variables were concerned. It was most closely related to SA (self acceptance) and SU (self understanding); while SC (ability to socialise) and PR (ability to handle close relationships) were slightly further away from it. In contrast, SY and L were relatively isolated, being separated from Adj and the other variables around it, and also from each other. This indicates that pretreatment scores on SY and L were somewhat unrelated to scores on other variables of the scale.

The closest variable to SY was SU, which suggests an empirical link between level of symptomatology and self-understanding. For L, the closest relationship was with SA, thereby associating the ability to use time with self-acceptance.

Overall adjustment (Adj) was most closely related to self-understanding and self-acceptance; but also to
the abilities to handle social situations (SC) and personal relationships (PR).

The overall structure suggests that each of the variables are empirically distinct from one another, but clearly related to the overall scale, i.e. each one contributing to a general notion of adjustment. The relationships between SY and L and this overall scale are less close than are the relationships obtaining for the other four variables.

For the post-treatment S.S.A. (see Figure 8), the first problem encountered in analysis was the unacceptably high values found for the goodness of fit scores in two dimensions: Guttman - Lingoes coefficient of alienation = .34; and Kruskal's stress = .24. This indicates that the group's pattern of scores on the P.A.Q. scales was too varied to be contained within two dimensions.

It was therefore necessary to analyse this pattern of scores in terms of three dimensions. The corresponding goodness of fit values were as follows: Guttman - Lingoes coefficient of alienation = .20; and Kruskal's stress = .15.

The following dimensions were identified:

1) A vertical dimension whose poles were provided by SA and SU, which contrasts self-acceptance with self-understanding.

2) A horizontal dimension spanned by PR and SU. This dimension thereby contrasts the ability to engage in close relationships with self-acceptance. On a more abstract level it provides an axis of other versus self-orientation.
Figure 8: The post-treatment P.A.Q. S.S.A.
3) A perpendicular dimension, whose poles were provided by SY and L. This dimension thus contrasts levels of symptomatology with the ability to productively make use of time.

In analysing the three-dimensional plots, Adj occupied a central position in relation to the other variables. The closest variables to it were SA, SC, and L. The remaining three variables, SY, PR and SU tended to be separated both from the region of space occupied by these four variables and also from each other.

It may be inferred that SY, PR and SU were the variables upon which the pattern of scores for the group as a whole were most varied at post-treatment. Thus, it was the pattern of scores on one or more of these three which necessitated the increase in dimensionality required to adequately spatially represent the post-treatment P.A.Q. variables.

So far as changes from pre to post-treatment are concerned, the required increase in dimensionality on the post treatment S.S.A. indicates that responses on the variables and by implication the various aspects of adjustment measured by the variables, have become more differentiated from the pre to post-treatment. By focussing on the variables occupying more discrete areas of the space, this suggests that the pattern of response to the P.A.Q. varies between changes on SY (level of symptomatology), PR (ability to engage in close relationships) and SU (level of self-understanding). Thus, there was a trend for members to increase on one or other of these variables rather than two or three of them together.

In contrast scores on the other variables, SA, SC, L and Adj, tended to vary together more. Thus, there has been a change in the relationships between Adj and three
of the other variables: L has become more closely related to the overall scale; while PR and SU have tended to move away somewhat. Sy remains relatively distant and distinct.

In summary, the structures of the relationships between the variables on each of the three outcome scales analysed here have undergone change from pre to post-treatment.

The I.C.L. has altered from an essentially one-dimensional structure which contrasted dominance with affiliation to a more normative two-dimensional structure comprising dominance/acquiescence and affiliation/disaffiliation. At the same time, there was a movement together of the four quadrant variables, suggestive of an increased flexibility in interpersonal behaviour.

The F.I.R.O.-B changed from a structure, which contrasted a control orientation on the one hand with inclusion and affection orientations on the other, to a clustering together of expressed and wanted scores on all three scales at post-treatment. Once again, this may be seen as evidence of increased similarity of scores across inclusion, control and affection; and hence increased flexibility in interpersonal behaviour, both across the three scales and also with regard to expressed and wanted aspects of interpersonal orientation.

For the P.A.Q., the main change from pre to post-treatment structure consists of a separation and differentiation of three of the variables from the 'internal' cluster around the overall scale, Adj. The resulting increased dimensionality suggests that changes on Sy, PR, and/or SU are relatively independant both of one another and of change on the remaining variables.
The foregoing has analysed the structures and change in the individual scales. The two following analyses investigate the structural relationships between them (including the S.E.I.S.) in order to identify the major themes concerning pre-treatment client characteristics and post-treatment response.

11.1.2 The combined pre and post-treatment scales.

The Pre-treatment SSA

The space diagram for this analysis is to be found in Figure 9. So far as goodness of fit is concerned, for two dimensions the Guttman-Lingoes coefficient of alienation had a value of .24; and Kruskal's stress = .23. The corresponding values for three dimensions were .17 and .15 respectively.

The two main dimensions spanning the space consisted of:

1) A horizontal dimension, whose poles were provided by DOM and WC. This dimension clearly refers to a dominance-submission axis.

2) A vertical dimension, whose poles were Re and IP4. This axis is more difficult to characterise. However, it does appear to refer to a dimension of interpersonal behaviour comprising on the one hand an ability to respond to the needs of others and on the other, a submissive need to be affiliated.

For the third dimension, there was in addition the following:

3) A dimension, whose poles were EC and EI. These clearly refer to opposites in expressed interpersonal behaviour, contrasting the exerting of control over others with including them in ones activities.
Figure 9: The pre-treatment S.S.A.
A consideration of the areas of high density identify two such areas:-

Area 1 - this space was occupied by the PAQ variables (with the exception of Sy) and Ta. It thus in the main refers to adjustment behaviour and a task-orientation to social situations.

There is additionally evidence for hierarchical ordering in relation to this region as it was bounded by a second set of points, comprising DI, DC, DA, Sy, Re, In and SE, i.e. variables emphasing interpersonal and social skills and a low level of symptomatology.

Area 2 - this space was not so tight knit as area 1, but possessed logical consistency, being occupied by LOV, NIC, IP1, IP2, WI, WC, EA, Sum I, Sum C and Sum A. It thus refers to variables particularly tapping interpersonal orientation and need.

In general terms, this structure provided evidence for a clear separation of three behavioural domains in terms of members pre-treatment functioning. The variables relating to adjustment were closely linked together in an area which was quite separate from those relating to an interpersonal affiliative orientation; and these in turn were separated from those such as DOM, EC and IP3, which refer to assertive modes of relating to others. Variables pertaining to social skills may be seen as clustering around the central set of adjustment variables; and also providing a bridge between these and the assertive variables.

The Post-Treatment SSA

For goodness of fit in two dimensions, Guttman - Lingoes coefficient of alienation = .23; and Kruskal's stress = .21. The corresponding values for 3 dimensions were .14 and .13, respectively.
The dimensions spanning the space (see Figure 10) consisted of:

1) A horizontal dimension, whose poles were provided by In (initiating interactions) and DI (difference in inclusion). This axis is hard to interpret and possesses little logical sense.

2) A vertical dimension, whose poles were provided by IP3 and Sum A. This axis thus refers to a contrast between assertive and affiliative interpersonal behaviour.

The third dimension additionally provided the following:

3) A dimension whose poles were IP1 and SA, which contrasts a negative hostile orientation towards others with a positive acceptance of the self.

Two areas of high density were observable:

Area 1 - this space was occupied by the four ICL quadrants, IP1-IP4 which identify the space as referring to various types of interpersonal orientation.

Area 2 - this space was occupied by EI, WI, EC, DC, DA, SU, L and Adj. It thus refers to a mixture of expressive interpersonal skills and adjustment behaviour.

However, in this instance, both dimensionality and regionality appear less useful in the interpretation of the underlying structure between the variables than the use of simple structure. A sequential chaining of points i.e. a simplex gives rise to an S-shaped configuration which can be seen to possess a good degree of logical consistency. The progression through the points using this structure bears resemblance to a chain of association in relation to different aspects of functioning. The main characteristics of this chain may be defined as follows: acquiescence - variety in interpersonal
Figure 10: The post-treatment S.S.A.
style-orientation towards close relationships - Adjustment - Expressive interpersonal behaviour - Level of symptomatology - Importance of interpersonal contact - Self-acceptance - Responsivity - Interpersonal need - Dominance - Instrumental social skills.

It will be noted that within this structure there is an intermingling of the interpersonal domain with that pertaining to aspects of adjustment. In addition, the close links between the four I.C.L. quadrants (IP1-IP4), between DC and DA, between Sum C, Sum I and Sum A, and the closeness together in the configuration of DOM and LOV are all suggestive of the emergence of a marked degree of interpersonal flexibility in this structure.

The Pre and post-treatment SSA's compared

Attempts to compare multidimensional configurations across space diagrams in order to assess their similarity have focussed on the relationship between the points representing the variables. Thus, Poor and Wherry (1976) developed an 'index of invariance' based on product-moment correlations of the interpoint distances between the two configurations. Invariance is here defined by the correlations of one configuration with another. Such one-to-one mapping is, of course, never achieved but the index provides a value for the extent to which the configurations map onto one another. Their use of interpoint distances emphasises the relative density of points in the configurations. Additionally they provide measures of significance for various values of the index in terms of two parameters: number of points and number of dimensions.

This approach has been criticised by Leutner and Borg (1983), who argued that the use of product-moment
correlations is incorrect and that interpoint distances are too susceptible to random fluctuation across analyses to provide an appropriate basis for an index of comparison. In place of the invariance index, they provide a coefficient of congruence. The calculation of this coefficient makes no assumptions about and pays no attention to distance or density. Instead it uses the original distances between the variables to construct for each configuration a one-dimensional string of variables. It is then the ordinal position of the variables in these two strings, which are correlated to provide the coefficient of congruence.

Within the present study, for the pre and post-treatment SSA's, the coefficient of congruence = .89 in 2 dimensions, and .92 in three dimensions. This indicates that the ordinal positioning of points within the two SSA's shows a high degree of congruence and suggests that the basic structure of the relationships between the variables is retained from pre to post-treatment. It is with this as the main context that the following changes need to be considered.

Firstly, the post-treatment SSA did not exhibit the same degree of regional closeness between the variables as did the pre-treatment. Variables on the former showed a marked scattering, this being particularly the case for adjustment variables PR, and SA, and for Ta. In contrast EI, WI, EC, DC and DA moved closer together and towards the remaining adjustment variables. This general separation of the variables is suggestive of an increased degree of differentiation between individuals at post-treatment.

Secondly, the pre-treatment interpersonal orientation and need area was split up, particularly by a separation of the ICL and FIRO scales, but also by a movement away from the other ICL scales by LOV and NIC. LOV moved closer to PR and Adj; while NIC became an isolated
variable at post-treatment. However, the four ICL quadrants, IP1 to IP4, became more closely linked together.

Thirdly, the pre-treatment polarity between DOM and WC was overturned, and indeed at post-treatment, these two variables were adjacent to one another in the simplex.

It is assumed that these changes have been brought about by the impact of the treatment intervention on the underlying relationship structure between the variables.

In particular, treatment would appear to have had differential effects on PR and SA in that both have moved away from the remaining adjustment variables in comparison with the other adjustment variables. This may suggest that group treatment has a more specific and differentiating effect on variables tapping satisfaction with personal relationships and self-acceptance than other aspects of adjustment.

Additionally, scores on expressive interpersonal behaviour moved closer together, and were linked to adjustment variables. A possible explanation for this is that group treatment leads to the development of variety (or flexibility) in such interpersonal behaviour, individuals benefitting from treatment being more able to express inclusion, control or affection. Moreover, such abilities are related to overall adjustment and self-understanding at post-treatment.

The movement together of DOM and WC provides a hint concerning a problematic aspect of DOM. In essence, this appears to refer to an impersonal orientation towards others, which may be regarded as arrogance or a defensive self-assertion. The fact that DOM's closest other links are with In, Ta, and Adj at post-treatment indicates a positive
association with social skills and general adjustment variables. In contrast, its links with WC suggest that its problematic aspect is linked particularly to issues of interpersonal behaviour, especially in the area of control.

Finally, the separation of the ICL and FIRO scales (i.e. LOV, IP1 and IP2 from Sums I, C and A) again suggests differential effects of treatment on these two sets of variables. The movement of scores on LOV towards PR and Adj links post-treatment affiliation with satisfaction with relationships and general adjustment. The movement together of the four ICL quadrants suggests that members scores on these became more similar at post-treatment, which is again evidence of a greater degree of flexibility in interpersonal orientation at post-treatment.

11.2 Relationships between the early and late process variables

Separate S.S.A.'s were conducted on the early and late H.I.M. and Sociometric variables in order to determine their main structural characteristics and change over time.

Early and Late S.S.A.'s on the H.I.M.

The early S.S.A. (see Figure 11) had the following goodness of fit values for two dimensions: Guttman—Lingoes coefficient of alienation = .17; Kruskal's stress = .13. The two dimensions were identified as follows:

1) A horizontal dimension whose poles were Assertive and Relationship. This dimension thus contrasts a pre-work style category, which codes angry self-defensive interactions with a work content category, which codes interactions orientation towards an understanding of relationships occurring between group members.
Figure 11: The early H.I.M. S.S.A.
2) A vertical dimension spanned by Confrontive and Topic. This dimension also contrasts a work with a pre-work category, in this instance differentiating interactions involving interpersonal challenge from those involving a discussion of everyday topics.

In terms of the configuration within the space diagram, four of the variables occupy spaces adjacent to one another: Relationship, Speculative, Personal and Conventional. This region thus links three of the work categories together with Conventional, which although a pre-work category has been identified as performing a group building function within group-therapeutic process.

The Topic category is somewhat separate from this cluster, but linked to Personal and Speculative. In contrast, Confrontive and Group are spatially distant from the region and although separate from one another, have their closest relationships with each other.

This structure suggests that early group interactions are characterised by members tending to vary their contributions similarly on Conventional, Personal, Speculative and Relationship (and to a slightly lesser extent Topic). In contrast, most differentiation between members occurs in their use of Assertive, Confrontive and Group interactions.

The late H.I.M. S.S.A. (see Figure 12) has the following goodness of fit values in two dimensions: Guttman - Lingoes coefficient of alienation = .13; Kruskal's stress = .10.

However, the corresponding values for one dimension Guttman - Lingoes coefficient of alienation = .16, and Kruskal's stress = .13, suggest that an adequate structural interpretation is given by this dimension.
In fact, the space diagram shows the categories strung across one dimension as follows: Assertive, Group, Topic, Conventional, Personal, Speculative, Confrontive and Relationship.

**Figure 12**: The late H.I.M. S.S.A.

<table>
<thead>
<tr>
<th>Ass</th>
<th>Gp</th>
<th>Cv</th>
<th>Sp</th>
<th>Cf</th>
<th>Rel</th>
</tr>
</thead>
</table>

This arrangement graphically illustrates a scale of increasing level of therapeutic work: the first four variables comprise the pre-work variables; the next two are work categories; and the final two are the highest work categories.

In comparison with Hill's scheme, the arrangement of the work categories is in accordance with this scheme and suggests for example, that individuals using the Relationship category are also likely to use the Confrontive category and vice-versa. In contrast the pre-work categories are reversed. Topic and more especially Conventional are more closely related to the work categories which again emphasises their group-building and maintenance function. In contrast Assertive and to a lesser extent Group are clearly separated from the work categories.

It will be recalled that in the first study, late use of these two categories was least related to positive outcome; whereas both Topic and Conventional had a number of positive correlations with beneficial outcome indices.

Thus the main changes from early to late have consisted of a decrease in dimensionality; and the emergence of a one-dimensional structure, which can be readily characterised as being related to level of therapeutic work. The dimension has maintained the early polarity of Assertive and Relationship, but these may now be interpreted as lying at opposite ends of a continuum of therapeutic work.
This change has also involved the movement of Confrontive towards the other work categories, particularly Relationship and Speculative. At the same time, Confrontive and Group have separated, the latter moving closer towards the other pre-work categories and occupying a position between Assertive and Topic along the dimension. This change may well relate to the suggestion found in the first study that use of the group category shows a change in the valence attached to it from early to late process. Early on, it may be viewed as task relevant and implicated in the development of a group culture; whereas its late use represents a failure to move on to use of the work categories. Similarly, use of Assertive represents a failure to engage in productive group interaction and is particularly related to negative outcome.

Early and late S.S.A.'s on the Sociometric scale

The early Sociometric S.S.A. (see Figure 13) had the following goodness of fit values in two dimensions: Guttman - Lingoes coefficient of alienation = .19; Kruskall's stress = .17. These dimensions comprised the following:

1) A horizontal dimension, whose poles were provided by other-rated dominance and self-rated sensitive. Both of these variables refer to perceptions of group behaviour. However, their distinguishing characteristics are two-fold: firstly a contrast between self and other perceptions of behaviour; and secondly between 'strength' (dominance) and 'weakness', sensitivity early in the group being equated with vulnerability on the sociometric variables.

2) A vertical dimension whose poles were other-rated trust and other-rated sensitive. This dimension thus contrasts a variable involving members feelings
Figure 13: The early sociometric S.S.A.
about one another (trust) with one which refers to perceptions of group behaviour (sensitive). As with the other dimensions, there is also at a more abstract level a conception of positive and negative about this polarity.

However, apart from the dimensional structure, the major defining characteristic of the space diagram is it's division into three distinct and logically independant areas as follows:-

**Area 1** - occupied by the self-rated group behaviour variables; Helpful, Dominant, Sensitive, Needs Help and Discuss Feelings.

**Area 2** - occupied by the other-rated group behaviour variables: Helpful, Dominant, Needs Help and Discuss Feelings. The exceptions to this pattern is other-rated Sensitive, which stands outside the cluster but has it's closest links with other-rated Needs Help. This relationship provides additional evidence of Sensitive having a problematic connotation for early group process.

**Area 3** - occupied by the other-rated personal choice variables: Like, Understand Trust, Admire and Understands you.

This division of the space into these three areas suggests that members early scores on the sociometric variables, i.e. the mean ratings which they receive during early group sessions, are differentiated by these three parts of the scale. In contrast, scores within these three areas tend to be relatively undifferentiated, particularly on the Personal choice variables, which occupy the most highly clustered of the three areas. Within this area, Understands you occupies the most central position, which possibly suggests that the sense
of being understood by another person is implicated in other personal choices such as like and admire. This variable was also the most central variable for early ratings in the correlational study of the structure of the Sociometric questionnaire (see Appendix 10).

Within the other two areas, for self-ratings, Helpful is the most central variable within Area 1, suggesting that ratings on the other variables are organised around this one. Interestingly, in view of what has been said above about Sensitive, the most separate variables in this area are Sensitive and Needs Help.

This area also shows the most dispersion, which suggests that early self-ratings tend to be more varied and idiosyncratic across the variables than ratings given by others.

For area 2, no variable occupies a central position, but other ratings on Dominant and Helpful are closest to one another; and in contrast Needs Help and Discuss Feelings are most separate from one another, suggesting that members are less likely to give each other similar ratings on these two than on the others.

The late Sociometric S.S.A. (see Figure 14) had the following goodness of fit values in two dimensions: Guttman - Lingoes coefficient of alienation = .17; and Kruskal's stress = .14. These dimensions comprise the following:

1) The horizontal dimension had as its poles self-rated helpful and other-rated like. Once again, this provides a contrast between self and other rating and also between a group behaviour and a personal choice variable.
Figure 14: The late Sociometric S.S.A.
2) The vertical dimension was spanned by self-rated sensitive and other-rated needs help. Apart from another example of a dimension contrasting self and other perceptions of group behaviour, the interesting thing about this polarity is a suggestion that for late group process, sensitive is seen as in some sense opposed to being needy; whereas for early group process, it was related to vulnerability.

Within the space diagram only one clearcut regional area can be identified, which is occupied by the personal choice variables: Like, Understand, Admire, Trust and Understands you. This area is much more tightly grouped than was the corresponding area in the early S.S.A. and Understands you continues to be the most central variable within the cluster. This suggests that from early to late group process, members ratings on these variables become increasingly undifferentiated. Thus for example, late ratings on Understands you become increasingly predictive of ratings on Like, Trust, etc. and vice-versa.

In contrast, the other two areas delineated for the early S.S.A. are no longer in evidence on the late S.S.A. The self and other-rated group behaviour variables have become more related to one another.

This becomes apparent from the identification of a simplex structure within these variables, i.e. drawing lines between those variables which are closest to one another spatially. This simplex structure provides the following sequence:—other-rated Dominant, self-rated Dominant, self-rated Discuss feelings, other-rated Discuss feelings, other-rated Sensitive, self-rated Sensitive, other-rated Helpful, self-rated Helpful.

It will be noted that self and other-ratings on each of the variables are adjacent to one another in the
simplex. This clearly represents a marked change from early process; and provides confirmatory evidence of the findings in the first study of an increase in correlations between self and other ratings from early to late.

While the general space occupied by these variables is fairly differentiated, if any can be identified as occupying central positions, they are other-rated dominant and self-rated ability to discuss feelings. It is plausible to suggest that these two are the ones most highly implicated in member's evaluations of each others group behaviour.

In contrast, missing from the simplex are the self and other-rated Needs help variables. These have their closest relationships with one another and are spatially distant from the rest of the variables. The perception of individuals needing help (both by self and other) has thus been differentiated from early to late from other aspects of sociometric perception and evaluation. In turn, this suggests that members receiving high scores on these two variables are likely to receive correspondingly low scores on the other variables and vice-versa.

To summarise, the process scales show evidence of clear structural changes over time, which are both logically and empirically consistant and comprehensible.

For the HIM, this change consists of the emergence for late group interaction of a clear dimensional structure, which is identified as pertaining to level of therapeutic work. The main characteristics of this dimension are the positionings of the pre-work. Assertive and Group categories (whose late use was found in the first study to be least related to beneficial outcome) at one end of the dimension, and the higher work categories, Confrontive and Relationship at the opposite end.
For the sociometric scale, the main structural changes found were the movement together over time of self and other ratings on the group behaviour variables; the linkage of these variables within a simplex structure; an increased clustering together of the personal choice variables, within which Understands you retains a central position; and a separating out from the other variables of self and other-ratings of needing help.

The two following analyses investigate the relationships between group inter-action and perception separately for early and late group process, together with a consideration of structural change over time.

The Early Process SSA

For this S.S.A. (see Figure 15) the goodness of fit scores were as follows: Guttman - Lingoes coefficient of alienation = .25; Kruskal's stress = .23 for two dimensions. The corresponding values for three dimensions were .14 and .12, respectively.

The main dimension spanning the horizontal axis has as its poles Speculative and SD (self-rated dominance), which suggests that early engagement in therapeutic work is a polar opposite to seeing oneself as dominant in the group. It will be recalled that self-rated dominance was also related to self-rated needing help, and both associated with low levels of therapeutic work in the first study.

The vertical axis has SN and Topic as its poles. This dimension thus contrasts the self-perception of needing help with use of a pre-work HIM category.
Figure 15: The early process S.S.A.
In terms of density, two areas were observed, each of which also gave evidence of hierarchical regional ordering:

**Area 1** - this space is occupied by the following HIM categories: Speculative, Topic, Personal and Relationship, i.e. a clustering together of three of the work categories, plus Topic. A second space around the first delimited the remaining HIM categories.

**Area 2** - this space is occupied by the sociometric personal choice variables (i.e. like, understand, admire, trust and understands you). Around this space, there is a second region which includes self-ranked dominant and discuss feelings, and other-ranked helpful, dominant, sensitive, needs help and discuss feelings.

The overall configuration therefore clearly separates use of the HIM categories from sociometric ratings with two areas of high density being occupied by the HIM work categories and the sociometric PC variables. Self-rated helpful, sensitive and needs help tend to be relatively separated from the other variables. It will be recalled that early self-ratings were poorly correlated with other-ratings on the sociometric scale in the first study.

**The Late Process SSA**

On this S.S.A. (see Figure 16) the goodness of fit scores were as follows: Guttman - Lingoes coefficient of alienation = .19; Kruskal's stress = .17 for two dimensions. The corresponding values for three dimensions were .13 and .11 respectively.
Figure 16: The late process S.S.A.
The dimensions spanning the space were as follows:

1) A horizontal dimension, whose poles were provided by other-rated needs help and Confrontive. This axis therefore refers to a contrast in group behaviour between being perceived as having problems and being able to operate at a high level of therapeutic work.

2) A vertical dimension, whose poles were provided by self-rated needs help and other-rated helpful. This axis can therefore be characterised as describing a dimension of helpful versus helpless.

While this dimension was defined by the most northerly and southerly points in the space diagram, an alternative dimension was discernable through the point of origin, whose poles are provided by self-rated needs help and Relationship. This axis thus refers to a dimension of needing help versus engaging in here-and-now therapeutic work, and is thus similar conceptually to the first dimension.

Three areas of density were observable:

**Area 1** - this space comprised the five sociometric PC variables (like-understands you), which hence related it to members feelings about one another.

**Area 2** - this space was occupied by SD, SS, SF, OD, OS, OF. It was thus specifically connected to both self and other ratings of members group behaviour.

**Area 3** - this space comprised the following HIM categories: Conventional, Speculative, Confrontive, Personal and Relationship. It thus included all four HIM work categories together with Conventional, which has been previously
identified as performing a social-supportive group maintenance function.

The overall configuration thus separated HIM work categories, sociometric PC variables, and sociometric GB categories. Self and other-ranked helpful and needs help appear as isolated from the three main clusters, while the HIM pre-work categories are strung across the middle of the space diagram forming a bridge of sorts between the HIM work categories and the sociometric PC variables.

Early and late process SSA's compared

As with the pre and post-treatment SSA's, a configuration analysis was conducted to assess the degree of similarity between the two plots. The Leutner-Borg coefficient of congruence was computed and provided the following values: .95 in two dimensions; .96 in three dimensions. Once again, these scores indicate that the ordinal positioning of points within the two SSA's evidence a high degree of congruency; and that the basic relationship structure of the variables is maintained from early to late. It is within the context of this overall similarity that the following changes from early to late are discussed.

The first change to note is the emergence of a clearer dimensional structure from early to late. The dimensions which emerge in particular embody the distinction between on the one hand needing help and on the other, either being seen as helpful or engaging in high levels of therapeutic work. This dimensional structure is also associated with an increased differentiation of the variables and changes in their relationships to one another.
Thus, on the one hand, the Personal Choice variables remain highly clustered together, suggesting that members' scores on these variables are very similar to one another both early and late; and that one or two of these variables may hence be taken as representative of them all. On the other hand there is a separation from early to late of the PC from the GB variables. It will be recalled that the first study also found an increased differentiation in the sociometric variables from early to late. The present finding suggests that the main differentiating effect is in terms of this separation of PC from GB variables.

With regard to the latter, there is also a clear movement together of the self and other indices for each of the five variables which provides confirmatory evidence of the increased consensus from early to late between self and other ratings as found in the first study.

The HIM categories show a movement together over time of the work categories, and conventional. In particular, the confrontive category becomes more linked to the other work categories and assumes a central position within the area. Conversely, the relationship category tends to separate out more from the other work categories. It will be recalled that in the first study, this category showed most increase from early to late. This separation provides additional evidence of the differentiation of this category from the other HIM categories. The other pre-work categories are differentiated from the work categories both early and late, this tending to increase over time. In particular, the assertive category moves closer to self-rated needing help. In the first study, these two late indices were the process variables most associated with negative outcome.
The foregoing two sections have analysed the structures and changes in such structures separately for the process and outcome aspects of group therapy. The following sections aims to investigate the structural relationships between these two aspects. On the one hand, this enables analysis of the influence of pre-treatment client characteristics on subsequent group behaviour and sociometric perception; on the other, it provides links between group process and outcome response to treatment.

11.3 Relationships between the pre-treatment, group process and outcome variables

In order to facilitate the delineation of relationships between these sets of variables and identify changes over time, it was decided to conduct separate S.S.A.'s on the pre-treatment and early process, and late process and post-treatment variables. It will be recalled that the first study found increased relationships for late process with the pre-treatment variables. However, in order to enable a focus on change over time, both in process and outcome and in the relationships between them, the analysis proceeded by linking pre-treatment to early process and late process to post-treatment.

The Pre-Treatment and early process SSA

For this analysis (see Figure 17) on goodness of fit, the following values were obtained: Guttman - Lingoes coefficient of alienation = .26; Kruskal's stress = .24, in two dimensions. The corresponding values for those dimensions were .17 and .16 respectively.

Using the co-ordinates of the space diagram, the following dimensions were derived:
Figure 17: The pre-treatment and early process S.S.A.
1) A horizontal dimension whose poles were provided by Speculative and depending on the rotation used, either other-ranked Understand or self-ranked Dominant. This dimension thus contrasts therapeutic work with sociometric ratings.

2) A vertical dimension, whose poles were Confrontive and IP4. This axis clearly refers to a dimension of active working with others as opposed to a submissive wish to be affiliated.

Within the space diagram, a number of regional areas are discernable:

**Area 1** - a space occupied by the following HIM categories: Conventional, Speculative, Personal, Relationship, and also In, Ta, and DC. This space thus associated variables having a work orientation with instrumental social skills.

**Area 2** - this area was occupied by the PAQ variables and Group content. It thus refers to various aspects of adjustment and group-based interactions.

**Area 3** - an area occupied by the following other-ranked sociometric variables: Dominant, Discuss feelings, Like, Understand, Admire, Trust, and Understands you. It thus associates the sociometric PC variables and two of the GB variables.

**Area 4** - this space was occupied by IP2, EI, WI, EA, WA, Sum I and Sum A. This area clearly links together the majority of the pre-treatment variables, which relate to having an affiliative orientation towards others.

**Area 5** - an area occupied by DOM, IP1, IP3, EC and Topic. This space brings together variables orientated towards control, assertion and independance.
However, apart from the above-mentioned dimensions and areas, the overall configuration yields a structure which shows a radex form, i.e. lines can be drawn from the point of origin to the border of the diagram to divide the space up into a number of logically consistent segments. Moreover, the arrangement of these segments also shows marked logical consistency, and in essence may be considered to provide a map of the relationships between pre-treatment characteristics and early group process.

The top right hand quadrant is occupied by three segments. The first comprises only one variable DI, which is essentially isolated from the rest of the diagram. The second segment is occupied by SN and ON, and is thus related to the sociometric perception of needing help. The third segment comprises the variables in Area 3, i.e. the sociometric PC variables and the other-rated GB variables: OH, OF, OD, OS.

The bottom right-hand quadrant comprises two segments. The first is occupied by sociometric self-rating variables: SH, SD, SS, SF. The second segment brings together variables relating to submissiveness in interpersonal behaviour, viz NIC, IP4, WC and Sum C.

The bottom left hand quadrant is occupied by a segment, which in the main comprises Area 4, i.e. those variables which emphasise an affiliative orientation towards others. In addition, the segment includes LOV and DA, both of which are clearly logically related to the others.

The top left-hand quadrant comprises four segments. The first is composed of variables in Area 5, which are mainly oriented towards dominance and control. However, this segment also has within it S-E, which refers to sensitive awareness of others. The second segment comprises Area 1, which contains HIM work categories, DC, In and TA, and has been identified as an area related to a work or task orientation. This segment also includes Re, which
refers to the ability to be responsive towards others. The third segment consists of Area 2, i.e. the adjustment variables, together with the HIM group content and confrontive style categories. The fourth segment consists of only one variable, HIM assertive style which appears as relatively isolated from the others.

Thus, with the exceptions of the first and last segments mentioned, the following sequence can be identified: Needing help, Other-rated sociometric ratings, Self-rated sociometric ratings, Submission, Affiliation, Control and Assertion, Work/Task Orientation, and Adjustment.

In looking at the links between process and outcome, the sociometric variables tend to be articulated within themselves, spanning three segments, but not particularly related to the pre-treatment variables. In contrast, the HIM categories are included within three segments which link them to pre-treatment variables: Topic in the control and assertion segment: Conventional, Speculative, Personal and Relationship within the work/task orientation segment; and Confrontive and Group in the adjustment segment.

Apart from dividing the space into segments, it is also possible to draw circles around the point of origin in order to identify modular ordering in the variables. By drawing three such circles, the following order is obtained. The first contains only one variable: other-rated sensitivity. The second includes self and other rated helpful, self-rated sensitivity, DA, S-E, Re, PR and L. The third incorporates other-rated dominant, self-rated discuss feelings, Sum C, WI, EA, DOM, SA, SC and Adj. This suggests that such ordering as does occur in the data comprises a scale from being seen by others as sensitive (the meaning of which in this instance refers to vulnerability), through an attitude of helpfulness and awareness of others needs, to a more assertive expression of interpersonal behaviour, positive
The Late Process and Post-Treatment SSA

For this S.S.A. (see Figure 18), for goodness of fit, the following values were obtained: Guttman-Lingoes coefficient of alienation = .28; Kruskal's stress = .26 for two dimensions. The corresponding values for three dimensions were .19 and .18, respectively.

The main dimensions spanning the two-dimensional space are as follows:

1) A horizontal dimension, whose poles were Sy and other rated understands you. This dimension poses difficulties of characterising, other than possibly suggesting a contrast between an absence of inner distress and an outer-directed perceived ability to empathise.

2) A vertical dimension, whose poles were provided by Sum C and Topic content. This dimension also lacks formal consistency, other than contrasting a variable related to interpersonal behaviour (in this instance, the importance of control) with one whose main focus is impersonal in nature.

In addition, however, the three-dimensional space provides a further axis:

3) The poles were provided by Assertive style and Relationship content. This dimension thus clearly refers to level of therapeutic work, in particular contrasting a defensive angry posture with an ability to deal with here-and-now issues concerning relationships in the group.
Figure 18: The late process and post-treatment S.S.A.
Three main regional areas of variables were apparent in the two dimensional space:

Area 1 - occupied by EI, WI, WC, EA and WA. This area thus brings together the expressed and wanted scores as each of the three FIRO scales, with the exception of EC. This enables it to be described as a space relating to interpersonal orientation.

Area 2 - occupied by the following PAQ variables: SA, SU, SC L and Adj. It thus refers to various aspects of adjustment and coping ability, including adequacy of the self-concept and overall adjustment.

Area 3 - occupied by the five sociometric PC variables: Like, Understand, Admire, Trust and Understands you. It thus refers to the members attractiveness to others and the feeling that they have about one another.

In terms of simple structure, this SSA clearly takes the form of a circumplex, i.e. points having a circular arrangement around the space diagram. As with the pre-treatment and early process SSA this structure also lends itself to the division of the space into wedge-like segments. These segments possess logical consistency both within themselves and in their ordering around the circumplex; and hence provide a map of the structure of the late process and post-treatment variables.

The top right hand quadrant is mostly occupied by one segment comprising the following variables: LOV, NIC, IP2, IP4, DA, Ta and In. It thus in the main refers to affiliative modes of interpersonal behaviour, but also acquiescence and instrumental social skills.

The bottom part of this quadrant and the top part of the bottom right hand quadrant comprises the following: DOM, IP3, DI, Sy, Confrontive and Relationship. Thus, it brings together variables relating to dominance, expressive inclusion
low levels of symptomatology and high levels of therapeutic work. These variables appear to have in common an ability to assertively engage others and provide evidence of positive mental health.

The middle segment in the bottom right hand quadrant is occupied by the same variables as Area 2, i.e. the following PAQ variables: SA, SU, SC, L and Adj; and hence refers to various aspects of adjustment behaviour.

The remaining segment in this quadrant is occupied by PR, Speculative and Personal. Thereby, it brings together an ability to engage in close personal relationships and two of the HIM work categories.

The bottom left hand quadrant has two segments. The first of these is occupied by IPI, DC, Conventional, Assertive, Topic, Group, SN (self-ranked needing help) and ON (other-ranked needing help). With the exception of DC, these variables refer to difficulties in handling relationships, low levels of therapeutic involvement and being seen as needing help. In various ways, they have in common a sense of being needy, negative response to treatment, and low levels of therapeutic work.

The second segment in this quadrant contains the same variables as Area 3 i.e. the sociometric PC variables and hence relates to members feeling about and attraction towards each other.

The upper left hand quadrant contains three segments. The first of these consists of SD, SS, SF, OD, OS, OF, Re and S-E. These variables include self and other ratings on three of the sociometric GB variables, i.e. dominant, sensitive and discuss feelings; and in addition two outcome variables, which emphasise sensitivity and responsitivity towards others. What they appear to have in common is an awareness of and responsiveness to one's own and others behaviour and experience.
The second segment in this quadrant contains SH, OH, and EC. Thus, it brings together sociometric variables of helpfulness in the group with the exerting of control over others.

The final segment consists of the same variables as Area 1 (EI, WI, WC, EA, WA) and Sum I, Sum C, and Sum A. It brings together the expressed wanted and sum scores on all three of the FIRO scales: inclusion, control and affection, with the exception of EC, which lies in the adjacent segment.

Thus, moving in a clockwise direction around the circumplex, the following sequence can be identified and described: Affiliation, Assertive engagement, Adjustment, Personal Relationships and Therapeutic Work, 'Neediness', Intermember Attractiveness, Perceptions of Group Behaviour and Interpersonal Awareness, Helpfulness and Control, Interpersonal Orientation.

So far as links between process and outcome are concerned, the sociometric variables span four adjacent segments, which suggests a fair degree of differentiation between them. In three of these segments, they are associated with outcome indices, the exception to this being the PC variables. The HIM variables are also differentiated from one another, particularly in terms of level of therapeutic work. They occupy three segments in each of which they are linked to outcome indices. This association between HIM work categories and positive outcome indices accords with the findings of the first study, particularly with regard to the higher work categories, confrontive and relationships: and contrasts with the lack of such associations for the pre-work categories.
The uncovering of an ordering factor within this SSA is problematic in that apart from a group of variables (IP1, In, Ta and S-E) close to the point of origin, a majority of the other variables are spread around the perimeter of the space diagram.

The Pre-Early and Late-Post SSA's compared

In comparing the overall configurations, the most apparent change from the Pre-Early (PE) to Late-Post (LP) SSA's consist of an overall separation of the points from one another, i.e. a decrease in overall clustering. This is evidenced by the identification of smaller numbers of clustered areas for LP and the difficulty in uncovering a modular ordering in the data. The LP variables have tended to spread out towards the perimeter of the space diagram and at the same time assume a more clear circumplicial structure. This indicates an overall increased level of differentiation between the variables.

Although both configurations have been demonstrated as possessing logical consistency and structure with regard to the ordering of their segments, there have been clear changes over time with regard to the nature of these segments and their constituents.

The main characteristics and changes in structure on these two SSA may be described as follows:

1) The adjustment variables remain relatively close-knit from PE to LP. However, PR tends to separate out from the other PAQ variables as was observable on the Post-treatment SSA. This confirms the finding in the first study of PR being one of the main outcome indices which were subject to change, and also suggests that post-treatment ability to engage in personal relationships serves to differentiate between people.
Furthermore, the PE Link between the adjustment variables and Group content is broken at LP, with this latter process variable moving into a segment associated with 'Neediness'. This also confirms a finding in the first study, which suggested that the early use of group content was task relevant whereas its late use was associated with negative outcome and evidence of a failure to move on to use of the work categories in group interaction.

In contrast, although occupying adjacent segments, the closest process variables to the PAQ variables on the LP SSA are the HIM work categories, Speculative and Confrontive, which provides confirmatory evidence of the association between engagement in therapeutic work and positive adjustment at post-treatment.

2) The sociometric personal choice (PC) variables remain highly clustered from PE to LP. Their lack of differentiation suggests that members are continuing to rate each other very similarly on each of these variables from early to late.

Such differentiation as does occur tends to separate out the PC variables from the other-ranked GB variables from PE to LP. This suggests that one aspect of group process refers to the development over time of differing perceptual/cognitive constructs whereby individuals evaluate and rate each other. A major line of distinction between such contracts consists of a delineation between members attractiveness to each other and their perceptions of individual's behaviour in the group.
In addition, the PC variables are largely unrelated to outcome indices on LP which is in line with the findings of the first study. Their closest links in an adjacent segment are with Re and S-E, both of which are related to interpersonal responsiveness.

3) The sociometric group behaviour variables (GB) are less highly clustered than the PC variable on both PE and LE. However, with the exception of SN and ON (self and other-rated needing help), they are included within two adjacent segments: dominant, sensitive and discuss feelings in one segment; and helpful in the other. The most clear change in the structure of these variables is the movement together of the self and other variables (as was found in the Late Process SSA), which confirms the findings in the first study of increased consensus between self and other ratings from early to late.

The GB variables are also related to outcome indices in the LP SSA; whereas on PE, there were no clear associations between the GB variables and the pre-treatment indices. Thus, dominant, sensitive and ability to discuss feelings occupy the same segment as Re and S-E, which suggests that the segment as a whole may be characterised as referring to sensitivity and responsivity to others interpersonal behaviour. This generally positive connotation also provides some evidence for a change in the construing of the sensitive sociometric variable (as was found in the first study) from an early association with vulnerability to a later construing in terms of an ability to be empathic with others.

Additionally, the helpful variables occupy the same segment as EC, which links the perception of being helpful late in the group to an ability to exert control. In addition, they lie in an adjacent segment to the FIRO variables, which suggests that
both self and other rated helpfulness late in the group are linked to a variety of outcome variables to do with interpersonal orientation.

4) Both self and other-rated needing help remain separate from PE to LP from the other sociometric variables. However, over time they do become more associated with the HIM pre-work categories and IP1 (disaffiliation) and DC (difference in control). Together they comprise a segment occupying an area which is associated with 'neediness' or a failure to engage in therapeutic work.

This segment is separate from those occupied by positive outcome indices. This provides evidence confirming the finding in the first study of a negative association between on the one hand needing help and using pre-work categories late in the group, and on the other beneficial outcome.

However, the first study did find associations between other-rated needing help and use of the relationship category, linking these two variables to positive outcome; and also between use of the conventional category and beneficial outcome. These associations are not found in this present analysis, although conventional and topic both lie adjacent to a segment occupied by PR and the speculative and personal work categories.

5) The emergence at LP of this 'neediness' segment would appear to reflect a more clear structuring of an important element, namely the problem of utilising the therapy adequately. It additionally points up changes in the status of particular variables. Thus, whereas the needs help variables occupied a segment of their own at PE, they now link in with other variables which are logically consistent. This segment also includes the HIM pre-work categories, which had previously been dispersed around other
segments: Conventional in the task orientation segment; Assertive, which had been separate and isolated from the other variables; Topic in a segment associated with dominance and control; and Group which had been related to the adjustment variables. As noted above, there is a clear shift over time in the evaluation of use of the Group category from an early positive to late negative connotation.

In addition, IP1, which is a measure of disaffiliation moves from the dominance and control segment and becomes a negative outcome index. Similarly, DC moves from the task-orientation segment, although the association of this variable, which emphasises expressive over wanted behaviour, with these other indices is more difficult to logically comprehend or explain.

6) In contrast, the PE segment associated with dominance and control tends to be dispersed over time. This suggests that whereas these constructs play an important organising role in relation to the variables at pre-treatment, this role becomes diminished over time and the variables more fully differentiated. In particular, the following changes occur: DOM and IP3 (which are clear measures of an assertive orientation) move into a segment characterised by assertive engagement with others; EC (expressed control) becomes linked to the helpful sociometric variables and also moves closer to the other FIRO measures of interpersonal orientation; IP1 (a measure of disaffiliation) and the HIM Topic category are linked in the 'Needy' area of the space diagram; and finally SE (sensitivity to others), whose inclusion in this segment had lacked logical sense, is included at LP in a segment characterised by interpersonal responsivity.
Similarly, the PE segment which was identified with submission and included NIC (acquiescence), IP4 (submissiveness), WC and Sum C becomes dispersed over time. This split is characterised by a movement apart over time of the ICL and FIRO variables. The former two became associated with variables which define expressive affiliation: LOV, IP2, DA, In and Ta, although these last are somewhat separate from the others and lie in the centre of the space diagram. The latter two move into a segment occupied by the majority of the other FIRO variables.

The same sort of change is to be found for the PE segment associated with affiliation, i.e. a separation of the ICL and FIRO variables, although these variables continue to occupy adjacent segments at LP, which suggests that they share properties in common.

So far as the FIRO scales are concerned, the main change over time consists of a movement of the Sum and Wanted scores on control towards the inclusion and affection variables i.e. the scores on all three scales become more similar. This is largely accounted for by decreases in WC, which has been identified as a negative indicator of mental health. The movement together of the three scales was also found on the Post-treatment SSA; and is taken as evidence suggestive of an increased degree of flexibility in interpersonal behaviour over time.

There is also a tendency over time for the PE segment related to a work/task orientation to be dispersed. This segment had comprised DC, In, Ta and the following HIM categories: Topic, Speculative, Personal and Relationship. As noted above, DC and Topic became associated with indices of neediness; and In and Ta with indices of affiliation. The Speculative and Personal work categories become
linked to PR, one of the indices of positive outcome which showed most change overall. The Relationship work category moves into a segment characterised by high levels of therapeutic work and positive outcome.

10) This latter segment is one which emerges at LP from a number of different directions. It includes DOM and IP3 both indices of an assertive orientation from the PE Control segment; Sy, which is a measure of low level of symptomatology, from the space occupied by the adjustment variables; DI (a variable emphasising the tendency to include others in ones activities rather than seek to be included) which had been an isolated variable at PE; and the Confrontive and Relationship categories, i.e. the highest of the style and content work categories which originated in the Adjustment and Work orientation segments of PE respectively.

This space thus brings together indices which emphasise assertion, inclusion, positive mental health and high levels of here-and-now therapeutic work; and provides a graphic illustration of the relationship between indices of group process and outcome of therapy.

In more general terms, certain other structural changes may be described. Firstly, there is a movement of In, Ta, S-E and IPl towards the centre of the space over time. As noted above, although the general dispersion of the variables makes it difficult to identify a modular ordering structure in the data, the presence of these variables at the centre suggests that if ordering of the variables is occurring, it may well be in terms of a distinction between various aspects of social skills and a hostile disaffiliating orientation towards others.
Secondly, the effect of putting together the process and outcome indices would appear to have had differential effects. Thus, the effects of the process data on the outcome data has been as follows: the PAQ and FIRO variables become separated from each other (compare with Area 2 of the Post-treatment SSA) and more closely knit together with variables from their own scales; the SEIS variables remain linked with one another; but in contrast the four ICL quadrants are split up.

With regard to the effect of the outcome variables on the structure of the process variables, the sociometric variables remain related to one another in two areas (one occupied by the PC variables, and one by the GB variables). The main effect has been to split up the HIM work categories (compare with the Late Process SSA). This split has particularly occurred in relation to level of work i.e. the Speculative and Personal categories being separated from the Confrontive and Relationship.

Thirdly, there has been a loss from PE to LP of a dimensional structure to the space diagram. This suggests that certain constructs, which had served an organising focus for the data early on have been superseded. Amongst the more obvious are those characterised by Assertive Control, Submission and Work orientation. In contrast, other constructs have emerged over time most notably those related on the one hand to high levels of therapeutic work and positive outcome; and on the other to 'neediness' and a failure to profit from therapy.

In addition, the loss of dimensionality may well be related to the development of a more circumpliccial structure at LP. The emergence of this structure would appear to be associated with a general increased differentiation between the variables over time.
Although variables are not equatable with individuals, this increase in differentiation between the variables raises an interesting possibility, namely that individuals also become increasingly differentiated over time. This can most simply be described as some getting better, some staying the same, and some getting worse. However, the notion that as a result of group treatment people are more dissimilar at the end than at the beginning is an intriguing one and will be pursued further in the following chapter, in the analysis of individual patterns of change.

11.4 Summary

The foregoing has analysed the structural relationships between the variables both on the individual process and outcome scales and a combination of these scales. This has permitted the identification of structural characteristics of pre-treatment functioning, the relationship between pre-treatment functioning and early group process, structural changes in group process from early to late, the relationship between late group process and post-treatment functioning and the structural characteristics of post-treatment functioning.

This analysis has focussed on these changing structural relationships for the group as a whole. The following chapter will describe and analyse individual patterns of change.
Chapter 12 : The Nature of Individual Change

Central to the study of therapeutic outcome lies an attempt to assess and measure the extent to which individuals change as a result of undergoing certain forms of experience and being provided with the opportunity to engage in certain forms of behaviour.

The various methodologies outlined in the first study have all attempted in different ways to describe the effects of therapy in terms of patient change. Thus the early case study approaches relied on descriptive impressionistic accounts which were largely couched in terms of the narrator's underlying theory. The between-groups comparison approach measured pre-post differences on one or more dependent variables; and used a process of averaging across individuals in order to obtain group means. It is these means which were then used to assess the effectiveness of a particular treatment intervention either by comparison with a control group or with an alternative form of treatment.

Manipulative studies have sought to change one aspect of the therapeutic situation in order to assess the contribution of that variable to patient outcome. Again, implicit in this approach is a comparison between groups and an averaging process to demonstrate (or investigate) an effect. Single-case methodology has relied on systematic measurement of dependent variables from an initial baseline assessment through the therapeutic process to the endpoint of therapy across a number of cases with the aim of identifying parameters of generality and variability in patient response to a particular form of treatment. Finally, multivariate studies have been advocated as a way both of standarising the data-gathering process and also enabling account to be taken of the complexity of the therapeutic situation.
This last approach remains to be put into operation, in part because the development of large-scale collaborative studies remains an elusive goal, (Bergin and Strupp, 1970). However, one of the motivations for suggesting such an approach is undoubtedly the difficulty in comparing across studies utilizing different patient samples, therapists, outcome measures and criteria for change.

This is an issue which has also been addressed by the meta-analysts, (Smith et al, 1980), who have sought to aggregate data across studies in order to derive summary statistics of the effects of particular forms of treatment in terms of an index, which they term the 'effect size'.

A description and critique of each of the above methodologies is to be found in the first study. However, an additional problem with each of them is that they have all been developed within the individual therapy context; and their applicability to the study of long-term therapy groups remains questionable.

Thus, as with the issue of models of therapy, so also with that of methodology. It is arguable that there remains still to be developed both adequate models of group therapy; and also an appropriate methodology for its study.

The first study of the present project has been able to demonstrate using correlational techniques the presence of significant associations between particular classes of variables for the group as a whole as follows:-

a) Pre-treatment indices and group process variables

b) Different classes of process variables e.g. HIM interaction categories and sociometric variables

c) Group process variables and outcome indices
Additionally it has been found that certain pre-post variables have been more prone to change than others, which suggests that group treatment is having differential effects generally on those aspects of functioning measured by such variables.

Moreover, there are clear changes over time in the use of particular HIM categories; and also changes in the meaning, saliency and internal relationships of the sociometric variables. These changes evidence developmental group processes, which have been investigated and specified both in the first study; and also in the section of the present study, which addresses the issue of the structural relationships between the variables.

However, as has been previously noted, these patterns of change are associated with a high degree of differentiation between individuals with regard to their presenting problems, pre-treatment level of functioning, activity in and experience of therapy, and outcome response.

In order to investigate patterns of individual change, it was therefore necessary to look at individual's scores on each of these classes of variables.

12.1 The definition of individual problems

Individuals included in this analysis were restricted to those for whom there was both pre- and post-treatment data (N=17).

Two data sources were available to enable the specification of individual problems: expressed problems and test data indices.

I : Expressed Problems

At the end of the PAQ there was a section which requested
individuals to express in their own words the problems for which they were seeking help from group therapy.

This section permitted identification of up to three problems per person, (see Table 39); and a content analysis of the problems expressed by individuals indicated that these could be grouped into three main categories:

a) Problems relating to the self

b) Problems relating to contacts with others

c) Problems which were more idiosyncratic

The following description provides a more detailed account of the problems expressed. The figures in brackets refer to the number of individuals who identified the problem as one for which they were seeking help (see Table for identification of individuals with expressed problems):-

a) Problems relating to the self

These could be broadly divided up as follows:-

i) Confidence (8).

ii) Self-acceptance (6). Included in this grouping were the following sub-sets of problems: self-acceptance (3); self-esteem (1); guilt (1); and accept feelings (1).

iii) Self-understanding (6). Included in this grouping were: self-understanding (4); self-awareness (1); identify (1).

iv) Person in own right (1). Arguably this problem could be included within the Confidence section.
### TABLE 39 Individual expressed problems

<table>
<thead>
<tr>
<th>ID</th>
<th>Expressed problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Increased confidence, decreased anxiety</td>
</tr>
<tr>
<td>3</td>
<td>Increased self-acceptance; to have a full life</td>
</tr>
<tr>
<td>4</td>
<td>Increased confidence; Oversensitive</td>
</tr>
<tr>
<td>6</td>
<td>Increased sympathy for others; increased confidence; increased assertion</td>
</tr>
<tr>
<td>7</td>
<td>Increased ability to express feelings; and to communicate; more friends</td>
</tr>
<tr>
<td>9</td>
<td>Increased confidence; improved communication with opposite sex; increased ability to express feelings</td>
</tr>
<tr>
<td>10</td>
<td>Become a person in own right; improved ability to express anger; increased confidence in communication</td>
</tr>
<tr>
<td>11</td>
<td>Improved communication; self-identity; and assertion</td>
</tr>
<tr>
<td>12</td>
<td>Increased ability to express feelings; and increased self-awareness</td>
</tr>
<tr>
<td>13</td>
<td>More realistic; increased consideration for others; and self understanding</td>
</tr>
<tr>
<td>14</td>
<td>Increased confidence; and self-understanding</td>
</tr>
<tr>
<td>15</td>
<td>Increased ability to cope with work; improved relationships; and increased self-understanding</td>
</tr>
<tr>
<td>18</td>
<td>Increased confidence and self-understanding; over-sensitive; more useful and joy in life</td>
</tr>
<tr>
<td>19</td>
<td>Increased self-acceptance; and assertion; decreased guilt</td>
</tr>
<tr>
<td>20</td>
<td>Improved relationships with opposite sex; increased confidence; improved general relationships</td>
</tr>
<tr>
<td>22</td>
<td>Improved self-esteem and relationships</td>
</tr>
<tr>
<td>23</td>
<td>Accept feelings; increased friendships; increased enjoyment and assertion</td>
</tr>
</tbody>
</table>
b) Problems relating to contact with others

These could be broadly divided as follows:

i) Communication difficulties (8), including these more specific aspects: assertion (4); communication (2); communication with the opposite sex (1); and confidence about communicating (1).

ii) Expression of feelings (5), including the following: express feelings (2); express anger (1); show sympathy for others (1); and show consideration for others (1).

iii) Relationship development (6), including these: general relationships (3); make friends (2); relationships with the opposite sex (1).

iv) Oversensitivity (2).

c) Idiosyncratic problems

This set were more variegated than the above and included: anxiety (1); coping with work (1); being useful (1); being more realistic (1); to have a full life (1); and increased enjoyment of life (2).

12.2 Operational definition of expressed problems

In view of the relative unreliability of patient's self-reports of change and the concommittent need to develop objective operational definitions of indices of change, the above three sets of expressed problems were related to specific pre-post variables from the four assessment scales, ICL, FIRO-B, PAQ and SEIS.

a) With regard to problems relating to the self, the issue of self-confidence is clearly both general and multi-faceted; and could both logically and conceivably be related to a majority of the variables. However, an inspection of the raw scales identified two variables which directly referred to confidence: IP3 from ICL, and SA from PAQ. The two other main sets of problems in this set, self-acceptance and self-understanding could quite readily be translated into the
The remaining problem - 'person in own right' - appeared to in part refer to the need for confidence; but also to a need to be less acquiescent, hence relating either to IP3 and SA, or NIC.

b) For problems referring to contacts with others, the following sorts of translation were made:-

i) Problems in general communication were considered in part to refer to difficulties in utilising appropriate social skills, hence the use of the SEIS scales; and in part a need to increase expressive behaviour as measured by E scores on the FIRO scales.

ii) Problems of assertion were readily translateable into the relevant indices on ICL and FIRO, i.e. the need to increase DOM, IP3, EC and/or DC; and to decrease NIC, IP4 and WC.

iii) Problems in the expression of feeling were more varied and translation involved a variety of scales including the need to increase scores on IP2, EA, EI, Re and S-E and a concommittent need to decrease scores on IPl. IP2 was included on the basis of its association with affiliation and showing concern for others; EA and EI both involve the expression of a positive orientation towards others; and Re and S-E are measures which involve the abilities to be responsive to and aware of other feelings. In contrast IPl refers to a movement away from others and hence, low emotional involvement with them.

The problem of expressing anger posed difficulties as there was no clearly equivalent variable. However, the problem could be interpreted as in part a tendency to be over-acquiescent (which enabled the use of NIC) and in part an inability to express hostility (which could be translated into IPl).
iv) Relationship difficulties were seen as involving the same sort of problems as indentified under communication and emotional expression problems. They were thus translated in terms of a need to increase scores on LOV, IP2, E and D scores on the FIRO scales and the SEIS variables; and concommittently to decrease IP1, and the W scores on FIRO. In addition, increases on PR and SC were identified as being needed, i.e. the PAQ scales related to the abilities to engage in close personal relationships and to handle social situations, respectively.

v) Oversensitivity was alternatively conceptualised as an excess of emotionality associated with high scores on S-E and low on Ta; or as being associated with submissiveness (IP4) or high need as measured by the wanted scores; particularly on affection and inclusion i.e. WA and WI.

c) The more idiosyncratic problems for the most part could fairly readily be related to various of the PAQ scales. Hence, changes in anxiety could be measured via Sy; the ability to cope with work is specifically an item in the SC scale; the sense of being useful appeared in part to refer to the self (SA), but also to the adequate structuring of time (L) and overall adjustment (Adj); the same indices were considered appropriate for defining having a full life and enjoying life.

However, the problem of realism lacked a clear counterpart amongst the scales. In part, the problem appeared susceptible to being viewed as a general adjustment issue, hence the use of Adj. Alternatively, the development of a task-orientation to interpersonal issues could arguably be considered a necessary corrective to unrealistic attitudes, on which basis Ta could also be used as a measure.
II Test data Indices

The second major source of data referring to patient problems came from the pre-treatment assessments. An analysis of member's scores on the pre-treatment scales, ICL, FIRO-B, PAQ and SEIS yielded indices for each person which were evidence of problems in functioning. Scores were taken as evidence of problems according to the following criteria:

a) Extreme i.e. greater than one standard deviation away from the published norms, scores which were low on DOM, LOV, IP2, IP3; and the expressed and difference scores on the FIRO scales; and high on NIC, IP1, IP4, and the wanted scores on the FIRO scales. The exception to this was where both expressed and wanted scores on a particular FIRO scale were both equally high, thereby yielding small difference scores.

b) Scores on the PAQ scales which were greater than one standard deviation below the population norm.

c) Scores on the SEIS scales which lay within the bottom quantile of scores for the group as a whole.

Before progressing further, it must be acknowledged that with both the translation of expressed problems into operationalised variables and also the identification of problems via use of the pre-treatment test data, certain value judgements are being utilised.

Firstly, it is considered preferable to be capable of expressing assertion in interpersonal communication and conversely to decrease submissiveness and acquiescence. Indeed, a proportion of members identified the need to increase assertion as a problem.

Secondly, the ability to be interpersonally affiliative is considered preferable to having a disaffiliative orientation towards others. Again, a number of members identified improved relationships as a target for treatment.
Thirdly, high scores on the E scales i.e. expressive behaviour, and lower scores on the W scales, i.e. wanted behaviour of FIRO are considered to represent 'healthy' interpersonal orientations. The rationale for this lies in the fact that E scores are held to represent the ability to be interpersonally active, whereas W scores evidence neediness.

Fourthly, low scores on both the adjustment variables of PAQ and social skills variables of SEIS are considered to either represent or generate problems in functioning, and hence to require change i.e. increased scores from pre to post.

Having identified change indices for each individual with regard to both expressed problems and test data, both sets of indices were then amalgamated to yield a composite set of target indices.

Variables were included in these composite sets on the following bases:-

i) All test data indices which met the above criteria were included.

ii) Where one or more test data indices coincided with the index (or indices) derived from the operational definition of an expressed problem, the expressed problem was considered to be 'covered' by the test data indices (see underlined variables in Table 30). For example, if an individual expressed 'self-confidence' as a problem and had IP3 as an identified test index problem, IP3 would be included in the composite set, but not SA (the other index which is used in the operational definition of 'self-confidence').

iii) Where an expressed problem is not 'covered' by a test data index, the variable or variables used will be determined by the operational definition of the problem. Where two or more alternative variables are provided
by the operational definition, the variable chosen for inclusion in the composite set will be the one on which the individuals test score provides more evidence of a problem. The exception to this is the following point.

iv) Where there are alternative conceptualisations of a problem e.g. 'oversensitive' being alternatively construed as an excess of emotionality or based on high need, variables relating to both of these aspects will be included in the composite set.

v) Where more than one expressed problem is defined in terms of the same variable, alternative variables will be used for each problem. For example, if an individual expressed problems with regard to both 'communication' and 'relationships'; and evidenced problems on the SEIS variables, these variables would be considered to 'cover' the expressed 'communication' problem and an alternative variable such as PR would be included in the set to refer to the 'relationship' problem. Thus, each expressed problem was assigned a different variable or variables.

As might be expected the size of these composite sets varied considerably across individuals (range = 4-15; mean = 8.9). The size of these sets perhaps gives an indication of both the relative severity of member's pre-treatment levels of functioning and the variability across individuals in such functioning.

The two sets of indices also evidenced a high degree of overlap for each individual i.e. the same indices being found in both the expressed and test data sets. Indeed, looking at the group as a whole, a total of 48 expressed problems were collected (i.e. an average of 2.8 per individual) and translated into operational indices. Of these 48 indices, there was an overlap with the test data in 35 instances. Thus, nearly three-quarters of the problems expressed by members
had been picked up in their pre-treatment test responses.

12.3 The assessment of individual change

In order to begin to identify patterns of individual change consequent to involvement in group therapy, the initial focus was upon the above-mentioned composite set of indices. For each individual, the constituent variables of their composite set were analysed in order to determine which had changed in the predicted direction from pre to post-treatment.

Table 40 shows the results of this analysis. Underlined variables are those which are common to both expressed problems and test data indices for the individual. Variables in brackets represent indices from the expressed problems, which do not overlap with test data indices.

The results are given as follows: + indicates a change of the score on the variable from pre to post in the desired direction; - indicates no change in the score from pre to post; X indicates a negative change in the score from pre to post.

This table illustrates the multi-dimensional nature of patient change. Beneficial change was not restricted to any particular behavioural modality or scale, but tended to cut across these. The fact of making beneficial change in one area did not imply global improvement. There were no indices on which all members for whom it was targeted show improvement (or the converse, i.e. no indices on which none show improvement).

Furthermore, level of beneficial change was related neither to treatment group (group 1 = ID up to 13; group 2 = ID 14 plus); nor to severity of pre-treatment level of functioning i.e. number of indices in the composite set. Thus, high levels of successful change were found for both patient 7, who had a composite set size of 15, and also patient 19, whose set size was 7.
<table>
<thead>
<tr>
<th>ID</th>
<th>ICL</th>
<th>FIRO</th>
<th>PAQ</th>
<th>SEIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>↓IP1(+), IP2(-), IP3(x)</td>
<td>EI(+), EA(-), DA (+)</td>
<td>Sy(+)</td>
<td>S-E(+)</td>
</tr>
<tr>
<td>3</td>
<td>IP2(-), IP3(+)</td>
<td>BC(+), ↓WC(+), DC(+)</td>
<td>PR(+), SA(x) SU(+)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>IP3(x)</td>
<td>BC(-), ↓WA(-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td><a href="-">DOM</a>, IP3(x)</td>
<td>BC(-), ↓WC(+), DC(+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>IP2(+), IP3(+), ↓IP4(x)</td>
<td>EI(+), BC(+), ↓WC(+), DC(+)</td>
<td>Sy(+), SU(+), Adj(+)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>IP3(±), ↓IP4(x)</td>
<td>EI(+), BC(x), ↓WC(+), DC(+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>IP3(x), IP4(+), ↓IP4(+), <a href="x">IP1</a>,</td>
<td>BC(+), ↓WC(±), DC(±)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="+">NIC</a>, <a href="+">DOM</a></td>
<td>WA(-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>IP3(+), <a href="+">DOM</a></td>
<td>DI(+), EA(+),</td>
<td><a href="-">SU</a>, SC(+)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>↓IP1(+), ↓IP4(-), ↓NIC(+)</td>
<td><a href="-">EA</a>, ↓BC(+)</td>
<td><a href="x">SU</a></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>↓IP1(x), ↓IP4(x)</td>
<td>EI(+), DI(+), ↓WC(+)</td>
<td>SA(+), SU(+), L(+)</td>
<td>Re(+)</td>
</tr>
<tr>
<td>14</td>
<td>IP3(x), IP4(+)</td>
<td>BC(-), DC(x)</td>
<td></td>
<td>In(x), Ta(x)</td>
</tr>
<tr>
<td>15</td>
<td>↓IP1(+), IP3(x)</td>
<td>↓WC(+)</td>
<td></td>
<td>Re(+)</td>
</tr>
<tr>
<td>18</td>
<td>↓IP1(-), ↓IP4(+)</td>
<td>EI(+)</td>
<td>Sy(+), <a href="x">SA</a></td>
<td><a href="x">US</a></td>
</tr>
<tr>
<td>19</td>
<td><a href="+">DOM</a>, IP3(+), ↓IP4(+)</td>
<td>BC(+)</td>
<td>SA(+), SU(+), Adj(+)</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>↓IP1(-), IP2(-), IP3(+)</td>
<td>PA(-)</td>
<td></td>
<td>Re(+), SE(+)</td>
</tr>
<tr>
<td>22</td>
<td>IP3(+), ↓IP4(+)</td>
<td>BC(+)</td>
<td><a href="-">PR</a>, SA(+)</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td><a href="+">DOM</a>, ↓IP3(-), ↓IP4(+)</td>
<td>BC(+), ↓WC(+)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following table summarises the data from Table 30 and provides percentages for improved indices to the size of the composite set.

**TABLE 41 - Summary of results of target problems**

<table>
<thead>
<tr>
<th>ID</th>
<th>No of identified problems</th>
<th>Improved (%)</th>
<th>Same</th>
<th>Deteriorated</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>8</td>
<td>5 (62.5)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>6 (66.6)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>0 (0)</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>4 (57.1)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
<td>14 (93.3)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>7 (70)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>12</td>
<td>8 (66.6)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>7</td>
<td>6 (85.7)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>7</td>
<td>3 (42.8)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>11</td>
<td>9 (81.8)</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>10</td>
<td>4 (40)</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>6</td>
<td>2 (33.3)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>8</td>
<td>5 (62.5)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>7</td>
<td>7 (100)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20</td>
<td>7</td>
<td>4 (57.1)</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>22</td>
<td>9</td>
<td>7 (77.7)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>15</td>
<td>10 (66.6)</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

On the basis of this summary, it is possible to begin to identify groupings of individuals in terms of the extent of their pre to post-treatment response to group therapy. Utilising the percentages of successful improvement the following broad and admittedly unrefined groupings can be delineated:

**Major improvers (% > 75)**
Patients 7, 11, 13, 19, 22

**Moderate improvers (%60 - 74)**
Patients 2, 3, 9, 10, 18, 23

**Stayed same (%50 - 59)**
Patients 4, 6, 20 (patient 4 included here rather than as a
disimprover because most of their scores stayed the same).

Disimprovers (% < 50)
Patients 12, 14, 15

It is arguable that these last two categories might be taken together as treatment failures, since both failed to show a positive result from group treatment. Hence they may be inferred to have continued at the end of their treatment to suffer from the same sorts of problems, which brought them to group treatment in the first place.

In turn, this would yield three groups of almost equal numbers, i.e. one-third benefitting significantly; one-third benefitting moderately; and one-third not benefitting from group treatment.

12.4 The multi-dimensional scaling approach to individual change

As noted above, individuals showed a great deal of variability with regard both to the nature and severity of their pre-treatment levels of functioning and also to their response to treatment. The multi-dimensional nature of such change has been demonstrated in the previous section with regard to individual's improvement on the composite set of targeted problems. This has enabled a rough grouping of individuals into three categories according to the degree of change on this composite set.

However, clearly individual change is not restricted to change on indices targeted as being problematic. In addition, the patterning and structure of response underlying such change remains to be determined; as does the relationship of change from pre to post-treatment with group experience and behaviour. Thus, it is necessary to establish the nature of the relationship for individuals between process and outcome, as has already been done for the whole group of subjects.
Given that individuals are evidencing beneficial change on some indices, no change on others and deteriorating change on others; that some indices are more prone to change across individuals than others; and that improvement in some aspects of functioning may or may not be related to improvements in other areas and/or more general improvement, the complexity of the data requires the use of techniques which will enable order and patterning to be uncovered if it exists.

The use of multidimensional scaling techniques (in this instance SSAs) was able to identify such order and patterning in the variables for the group as a whole; and at the same time generate evidence bearing on the hypotheses and results of the first study.

The present aim was to identify order and patterning in the behaviour of individuals given a set of complex data. This data set consisted of individual changes on 30 pre-post indices (7 ICL variables, 12 FIRO variables, 7 PAQ variables and 4 SEIS variables) and 23 process indices, (the 8 HIM categories and 15 sociometric variables). For this purpose, individual's responses on the indices were analysed initially using Multiple Scalogram Analyses (hereafter referred to as MSAs).

MSAs utilise profile data i.e. individual's scores on a set of variables. This profile data consists of a reduction of the original raw scores into a set of categorical data. For example, in looking at change from pre to post on the ICL the categories used for the seven variables might be increased scores (=3); no change (=2); decreased scores (=1); or alternatively, increased scores (=2); no change or decreased scores (=1). This would yield a profile of seven scores for each individual with possible ranges of 1 to 3 or 1 to 2, respectively. The resulting ideal profile for the latter case would be 2222222 and the least ideal profile 1111111.
This data is then ordered and represented as a spatial configuration of points, which refer to the individuals included in the analysis. Thus an MSA plots each individual's multivariate profile onto a 2-dimensional space. This resulting spatial configuration is the result of an organisation of the data into the best possible fit between individual's scores on the variables included in the set and the most simple and interpretable structure. Structure in this instance refers to the positioning of the points in the space diagram so that different regions of the space can be delineated by the configuration of the points; and such that the nearness or distance between points indicates degrees of similarity and difference between individuals in their scores across the set of variables.

Apart from generating the space diagram for the overall set of variables, the MSA also provides space diagrams for each of the variables included in the analysis, such that there is an equivalence in the positioning of points i.e. individuals, on these specific space diagrams and the configuration for the whole set.

The points on these specific variables space diagrams are occupied by numbers referring to individual's profile scores on each variable, and hence these diagrams themselves yield simple structures indicating the patterning of responses on each variable. The most clear structures identified are obtained by partitioning of the space into five types: horizontal, vertical, diagonal, L-shaped and inverted L-shape. The nature of this structuring also relates to the contribution which each variable makes to the structure within the overall space diagram for the set.

Thus both the overall and specific diagrams provide indications of how individuals differ in their scores, and enable the identification of groupings of individuals i.e. the spatial representation and categorisation of differing levels of responder.
12.5 Analysis of the Pre-Post-treatment MSAs

Each of the four scales used in the assessment of outcome can be seen as measuring a particular behavioural domain: ICL - interpersonal aspects of personality; FIRO - interpersonal orientation and preference; PAQ - various aspects of adjustment; and SEIS - self-perceptions of social abilities. This is notwithstanding the findings reported above of significant relationships and similarities between variables from these different scales.

Accordingly, it was decided in the first instance to analyse individual's responses to each of the four scales in turn. In order to provide a clear focus on change, individual's difference scores from pre to post treatment on each variable were collapsed into two categories and coded as follows: increased scores from pre to post treatment = 2; no change or decreased scores = 1. These categorical scores were then analysed by means of MSAs, yielding point configurations within two-dimensional space diagrams both for each scale and for each variable.

With regard to the SEIS analysis, it was found that the small number of variables (4) and similarity of response across individuals (9 of the 17 individuals included within the analysis improved on all four scales and hence had the same profile, 2222) made it difficult to differentiate individuals into groupings according to level of response. Associated with this, it was also hard to identify interpretable structures both for the scale as a whole and for the individual variables.

In order to facilitate these two aims i.e. the identification of groupings of individuals and structure in the data, members profiles on SEIS were amalgamated with those on ICL on the basis that both referred to individual's behaviour with others. The resulting space diagram is thus a resultant of a multivariate combination of members scores on the variables on each of these two scales. However, for
ease of analysis, they will be described separately.

12.5.1 The ICL MSA

The following space diagram (Figure 19) illustrates the positioning of individuals, according to their overall responses on the seven ICL variables.

The individual diagrams (Figure 20) illustrate the structure for each of the seven ICL variables, with the exception of IP1 for which no clear structure was identifiable.

The first point to make about the particular diagrams is the high degree of similarity between those for IP2 and IP3, both of which are partitioned vertically. Thus, it would appear that the same set of individuals are increasing their scores on both indices of affiliation and assertion.

The inverted L shape for DOM indicates that members occupying the left hand side of the diagram show increases on this variable as well as IP2 and IP3. In contrast, the horizontal partitioning of LOV suggests that this variable, which emphasises the showing of affection and support towards others, cuts across the groupings established for IP2 and IP3. The L-shaped partitioning of IP4, the variable related to submissiveness, shows a degree of overlap with LOV; while NIC (associated with social acquiescence) is again largely contiguous with IP2 and IP3, with the exception of the top left-hand side of the diagram.

In dividing the overall diagram into quadrants, the following major characteristic can be identified:-
Figure 19: The I.C.L. M.S.A.
Figure 20: Space diagrams for the I.C.L. M.S.A.
A comparison of this division of the space into quadrants with the original space diagram suggests that the major group of respondents is to be found in the left hand side of the diagram. Amongst this group, most change is associated with members occupying the bottom left-hand quadrant. In contrast, least change is to be found in individuals occupying the right hand side of the diagram, in particular, those in the top right hand quadrant.

The line drawn on the space diagram delimits a group of six individuals (3, 7, 11, 13, 19 and 22) who show most change on ICL, this being defined on the basis of obtaining a positive difference between pre and post treatment scores on at least four of the seven scales.

This analysis has also shown that a clear structure underlies the change in individuals on this scale. This structure is particularly characterised by a clear demarcation in patterns of response on IP2 and IP3 between those who improve on these variables and those who don't. The patterning for these two variables is highly similar to that found for DOM, but it is cut across by the structure of response found for LOV.
Furthermore, the analysis of this structure has enabled the identification of a group of individuals, who illustrate most change on the scale as a whole. Parenthetically, it may be noted that five of these six individuals (i.e. 7, 11, 13, 19 and 22) are exactly the same ones as comprise the group of 'major improvers' identified in the analysis of individual's improvement on the composite problem set.

12.5.2. The FIRO-B MSA

The following space diagram (Figure 21) shows the positioning of individuals in relation to each other in terms of their response overall to the FIRO variables:

The individual diagrams (Figure 22) illustrate the structure of response in terms of the spatial partitioning for each of the FIRO variables with the exception of WA for which no clear structure emerged. It should also be noted that the structure for WC is an approximate one based upon the most parsimonious form of partitioning, i.e. the line drawn for WC shows the spatial partitioning for the majority of individuals.

In looking at these structures, the most clear delineations occur for EC which is vertically partitioned; and WI, DC and Sum A, which all show a diagonal partitioning. Although no clear ordering function is observable across the variables, there are clearly structural similarities and relationships between them.

Thus the plots for EI and DI are highly similar to each other with the exception of one individual, which suggests that increases in DI are largely accounted for by increases on EI. Similarly, the plots for WI and Sum A are identical indicating that individuals, who increase their scores on wanting to be included in others activities, also do so with regard to the overall importance of affection in their interpersonal relationships.
Figure 21: The F.I.R.O.-B M.S.A.
Figure 22: Space diagrams for the F.I.R.O.-B, M.S.A.
In addition, the similarly vertical partitionings of EC and EA indicate that individuals who increase their scores on expressive behaviour with regard to affection do likewise with regard to control, although the smaller area taken up by EA indicates that a number of individuals increase on EC but not EA. There is also evidence for some degree of overlap between EC and Sum C, particularly with regard to individuals occupying the right hand side of the space diagram (increasers on both) and the bottom left hand area (decreasers on both); and between EC and DC in regard to the bottom right-hand area (increasers on both) and top left-hand area (decreasers on both).

In contrast, there is also evidence for inverse relationships between some of the variables, i.e. increases on one being associated with decreases on the other. This is particularly the case for DC which shows negative relationships with WI, WC and Sum A. DC measures the extent to which individuals prefer to express rather than seek control in interpersonal situations. Individuals who increase their scores on it may hence be seen as becoming less needy with regard to both control and inclusion, and in addition less concerned generally with the issue of affection.

Looking at the scales as a whole, most change is provided by decreases on the wanted variables, WI, WC and WA, and increases on EI. On the basis of the individual variables' space diagrams, it is possible to divide up the original overall space diagram into quadrants and to identify the most salient change characteristics within different groups of individuals:
This division suggests that individuals responses to the FIRO may be differentiated into four main groupings:

i) Individuals increasing their scores across all three scales i.e. inclusion, control and affection, are to be found in the top right-hand quadrant. Two individuals are thus identified: 3 and 7.

ii) Individuals whose main increases are the control scale are to be found in the bottom right-hand quadrant. Again, two individuals are so identified: 10 and 19.

iii) Individuals whose main increases are on the inclusion scale are to be found in the top left-hand quadrant. Included in this group are 2, 4, 9, 11, 12, 14, 18 and 23.

Within the group, ID11 is of interest in that this individual is positioned away from the rest of the group. The main factor influencing this would appear to be the general improvement, which this individual also shows on the affection scale.
iv) Individuals who in general show an absence of improvement on the FIRO scales are to be found in the bottom left-hand quadrant. This group comprises the following: 6, 13, 15, 20 and 22.

Apart from the fact that this analysis has demonstrated that individuals can be differentiated into the above four groups, two other conclusions can be drawn from it. Firstly, there is a general tendency with some exceptions for individuals to show improvement with regard to their interpersonal orientation either towards inclusion or towards control.

These improvements are largely accounted for by increased abilities to express inclusion towards others and decreased levels of seeking inclusion from others; and decreased needs to seek control from others, respectively.

Secondly, changes on the affection scale would appear to contribute less to the structural differentiation of individual's responses to the FIRO scale as a whole than do changes on the other two scales. This would appear to be a consequence of the fact that on the one hand very few individuals (N=3) increase their scores on EA; and on the other hand, a majority of individuals (N=14) either decrease or show no change in scores on WA.

12.5.3. The PAQ MSA

The following space diagram (Figure 23) illustrates the positioning of individuals on terms of their overall responses on the seven PAQ variables:

The individual diagrams (Figure 24) illustrate the basic structure for each of the seven variables with the exception of L, for which no clear structure could be determined.
Figure 23: The P.A.Q. M.S.A.
Figure 24: Space diagrams for the P.A.Q. M.S.A.
The analysis of these individual diagrams suggests that there is an ordinal structure underlying responses to the PAQ overall, i.e. individuals can be grouped into varying levels of response.

Thus, a comparison of the structures for Sy and SA indicates that for both the space is partitioned by a diagonal running in the same direction. However, the level of this diagonal differs for the two variables with the space occupied by improvers (i.e. those scoring 2) being greater for Sy than SA. The implication of this is that members increasing their score on SA (i.e. improving their level of self-acceptance) uniformly also show improvement in level of symptomatology; although the converse is not always the case, i.e. improved symptomatology is not necessarily associated with increased self-acceptance.

Similarly, although not demonstrating the same structural characteristics, PR (with a diagonal structure) and SC (with an inverted L-shaped structure) are partitioning the space in the same direction (i.e. 2 and 1 occupying similar positions) and areas. This suggests that increases on one are broadly similar to increases on the other, i.e. individuals increasing their scores on the ability to cope with close relationships also increase on a measure of satisfaction with range of social contacts and vice versa.

In contrast, there is some evidence to suggest a contrary relationship between PR and SU. Both partition the space with diagonals running in the same direction, but the positionings of 1 and 2 are reversed. This suggests that apart from a group of individuals, who increase their scores on both variables i.e. the area of overlap between the variables for scores of 2, there are additionally two other groups: one of these increase scores on PR but not SU; and the other shows the reverse. A similar relationship obtains
between PR and Sy, there being a tendency for those who increase on one to decrease or stay the same on the other, with the exception of individuals occupying the bottom left-hand quadrant who show improvement on both.

Finally, Adj shows an inverted L-structure with high scorers being particularly located within the bottom left-hand area of the diagram. In comparing Adj with the other variables diagram, this area is largely accounting for beneficial responders on each of the other variables.

In dividing the overall diagram into quadrants, the following major characteristics can be identified:

| High PR | High PR |
| High SC | High SU |
| Low Sy | Low Sy |
| Low SA | Low SA |
| Low SU | Low Adj |
| High Sy | High Sy |
| High PR | High SU |
| High SA | Low PR |
| High SU | Low SC |
| High SC | High Adj |

This makes clear the nature of the different groups of improvers in relation to particular PAQ variables. The top left-hand quadrant is occupied by individuals making gains on those variables (PR and SC) related to interaction with others. The top right-hand quadrant is occupied by people making improvements on both PR and SU. The bottom left hand quadrant is occupied by those who show gains across all the variables. It should also be noted here that although the L variable (which is taken as a measure of the ability to structure time productively) showed no clear structure, the
majority of individuals, who increased on this variable are also to be found within this quadrant. Finally the bottom right-hand quadrant includes members who increase on both Sy and SU.

However, apart from delimiting individuals in terms of the types of changes they have made on the PAQ, it is also possible to categorise them in terms of the degree of change. As noted above, there is clear evidence to suggest an ordinal structure in individuals improvement on the scale. The lines drawn on the overall space diagram delineate groups of individuals in terms of the number of PAQ variables on which they show beneficial change from pre-to post-treatment. They also show that the direction of such improvement lies broadly on a diagonal from the top-right hand corner (minimal change) to the bottom left-hand corner (most change). This analysis yields the following groups of individuals:

a) Individuals changing on 6+ variables: -  
   7, 11, 18, 19
b) Individuals changing on 5 variables: -
   4, 10, 13, 20, 22
c) Individuals changing on 4 variables: -
   9, 12, 14, 23
d) Individuals changing on less than 3 variables: -
   2, 3, 6, 15

Once again, it may be noted that there is a good degree of fit between improvers on the PAQ and on the composite set of targeted problems. The group of 'major improvers' on the latter were constituted by individuals 7, 11, 13, 19 and 22, three of whom are included in a) and the remaining two in b).
Figure 25: The S.E.I.S. M.S.A.
12.5.4 The SEIS MSA

As noted above, the SEIS contained too few variables and too few different profiles of response to permit a meaningful analysis of an MSA run on the scale alone. Individuals profiles on SEIS were therefore combined with their profiles on ICL. The resulting space diagram thus consisted of a multivariate configuration of individuals positions determined by their responses on the two scales. The rationale for combining SEIS with ICL referred to the fact that both aim to measure aspects of behaviour related to contact with others. Interpretable structures and differentiation of individuals has already been demonstrated for the ICL. (See section 2.5.1). An analysis of the space diagram (Figure 25) will now be conducted with regard to the SEIS.

The individual diagrams (Figure 26) show the basic structure for each of the four SEIS variables:

Figure 26 : Space diagrams for the S.E.I.S. M.S.A.

![Diagram of SEIS MSA](image-url)
As would be expected from the fact that eight of the seventeen individuals included in the analysis increased on all four variables, there is a marked degree of overlap in the space partitioned by the four variables. Structurally Re and Ta both show the same form (inverted L shape) although the size of the areas being partitioned differ. The area occupied by 2 is smaller for Ta than Re. This indicates that all individuals showing an increased score on Ta, which is taken as a measure of the ability to show a task-orientation to social situations, also improve their score on Re (the ability to be responsive to others); but not necessarily vice-versa.

In addition, the space occupied by improvers on Ta is also occupied by improvers on In and S-E. However, the L-shaped structure of S-E illustrates the fact that there are a group of improvers on this variable who do not show change on In or Ta, i.e. those occupying the top left-hand area of the space diagram. The step shaped structure of In is much less clear-cut than that found for the other variables, which suggests that it is making less of a contribution to the overall structure and differentiation.

The following division of the overall space diagram into quadrants illustrates the major characteristics of individuals within each quadrant:

<table>
<thead>
<tr>
<th>High SE</th>
<th>Low Re</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low In</td>
<td>Low In</td>
</tr>
<tr>
<td>Low Ta</td>
<td>Low Ta</td>
</tr>
<tr>
<td>Low SE</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High Re</th>
<th>High SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>High In</td>
<td></td>
</tr>
<tr>
<td>High Ta</td>
<td></td>
</tr>
<tr>
<td>High SE</td>
<td></td>
</tr>
</tbody>
</table>
Once again, it can be seen that the bottom left-hand and top right-hand quadrants distinguish between two extreme groups of responders on the SEIS, the former being characterised by individuals making most positive change; the latter by those making least.

The two other quadrants are occupied by individuals lying between these extremes. Both include individuals improving on S-E, and a mixture of improvers and non-improvers on Re. The main difference between these two quadrants is that the top left-hand one also contains individuals who fail to improve on both In and Ta; whereas the bottom right-hand one includes a mix of improvers and non-improvers on these two variables.

As with the PAQ there is also some evidence for the existence of an ordinal structure in the grouping of individuals according to their level of improvement on the four variables. The lines drawn on the overall space diagram identify groups of individuals according to the number of variables on which they show improvement. They also show that (as with the quadrant diagram) the direction of beneficial change lies on a diagonal from top-right (least change) to bottom-left (most change). The groups delimited by these lines are as follows:

i) Improvement on all four variables:
   7, 9, 10, 11, 13, 18, 19, 23

ii) Improvement on three variables:
   3

iii) Improvement on two variables:
   2, 6, 12, 20

iv) Improvement on less than two variables:
   4, 14, 15, 22
The presence of such structure and ordering between individuals in this space diagram is all the more impressive given that it included data on these individuals taken from a different behavioural domain, i.e. the ICL. Indeed, a comparison of group (i) with the group of main changers on ICL (3, 7, 11, 13, 19, 22) shows a marked degree of overlap, the exceptions from this latter group being individuals 3 and 22. Moreover, group (i) also shows a high degree of similarity to the 'main improvers' group on the composite set of targeted problems (i.e. individuals 7, 11, 13, 19 and 22), the exception again being individual 22.

Although the ordering of the above four groups on SEIS has been demonstrated as possessing structural validity, the presence of only one individual in group (ii) does argue for the collapsing of these four into two major categories of almost equal size: 'Improvers' and 'Non-improvers', as follows:

a) Improvers: 
   3, 7, 9, 10, 11, 13, 18, 19, 23

b) Non-improvers: 
   2, 4, 6, 12, 14, 15, 20, 22

12.5.5 MSA analyses across the outcome scales

The MSA analyses on the individual outcome scales have provided information concerning individual change and the structural relationships of the variables with regard to change on each of these scales. However it remains to be seen whether the groupings derived and the structures uncovered extend beyond the scales themselves. It therefore becomes necessary to look at the structures of change across the four scales.
Clearly the use of all 30 outcome variables was unfeasible for inclusion in a single analysis. Accordingly some criteria had to be found to determine which variables from each of the scales to include in an across-scales analysis. One possibility would have been to use those variables which showed clear structure on the individual scales MSAs. However, this also would have yielded too many variables for interpretable analysis. Accordingly, it was decided to utilise a two-pronged approach to the problem.

Firstly, an analysis was made of those variables on which most individuals made positive change. It was considered that this would enable comparison to be made of individual patterns of change across a variety of different behavioural domains. The fact that a majority of individuals showed change on these indices would provide a firm test of the structural relationships between the variables.

Secondly, an analysis was made on 'positive' indices which directly related to interpersonal behaviour. This analysis would thereby enable the uncovering of groupings and structural relationships across the scales with regard to improvement on a more specific aspect of behaviour.

Once again, for both of these analyses the basic data used was a binary division of the pre to post-treatment difference scores: increased scores being coded as 2; and those which stayed the same or decreased being coded as 1.

The 'Main Change' indices MSA

The following variables were identified as those upon which most members have shown change from pre to post-treatment: NIC, IP4, EI, WC, DC, Sy, PR, SU, L, Adj, Re, In, S-E. Of these thirteen variables, it will be noted
that for the majority, increased scores (i.e. a category coding of 2) represent improved functioning. The exceptions to this are NIC, IP4 and WC, where increased scores represent disimproved functioning from pre to post-treatment.

The following space diagram (Figure 27) shows the positioning of individuals in relation to one another in terms of their overall response to the 'Main Change' indices.

The individual diagrams (Figure 28) show the spatial structure of response for each of the variables individually with the exceptions of IP4, PR and Adj; for which no clear structures were discernable.

The most clear structures which emerge are vertical partitionings for Sy and In; and horizontal ones for SU and WC. In addition, NIC shows an L-shaped partition; EI an inverted L-shape; and Re and S-E both diagonal shapes.

With regard to relationships between the variables, the spaces occupied by individuals are highly similar on Sy and In (and to a lesser extent for L). This indicates similar improvements for individuals on level of symptomatology, ability to initiate interaction and ability to satisfactorily structure time.

The horizontal partitioning of SU and WC in contrast shows an inverted relationship i.e. increases in self-understanding being associated with decreased levels of needing control from others.

The high level of overlap evidenced in the diagonal partitionings of Re and SE (both SEIS variables) suggests that increases in responsivity to others and awareness of others emotional processes are associated with one another.
Figure 27: The 'Main Change' M.S.A.
Figure 28: Space diagrams for the 'Main Change' M.S.A.
The contrast between the vertical partitioning of Sy and In, and the horizontal partitionings of SU and WC suggests that these variables are the ones, which are having the strongest influence in the partitioning of the overall space diagram, i.e. they are having most effect in differentiating between individuals.

Further analysis of the particular variable's space diagrams yields the following quadrant analysis, which identifies the salient change characteristics of individuals occupying each of the quadrants.

| High: EI, Sy, L, Adj, Re, In, S-E, WC | High: WC |
| Low: IP4 | Low: NIC, DC, L, Re, S-E |

| High: EI, DC, Sy, SU, L, Re, In, S-E, IP4 | High: DC, SU, Re, S-E |
| Low: WC | Low: Sy, In, WC, IP4 |

It can readily be seen that individuals occupying the top right-hand and bottom left hand quadrants are exhibiting opposite patterns of response. The former is characterised by high scores only on WC, a 'negative' improvement index, and low scores on a variety of other mainly positive indices. In contrast, the latter illustrates improvement on a range of positive indices (but also increases on IP4), and low scores on WC. These two quadrants may thus be considered to differentiate overall high and low improvers on this set of indices.
The remaining two quadrants show somewhat mixed characters. However, their distinguishing characteristics may be delineated as follows. The top-left hand quadrant contains high scorers on Sy and In, but also on WC; whereas the bottom right-hand quadrant is occupied by low scorers on all three of these indices. The top left-hand quadrant also shows high scorers on El, L and Adj; while the bottom-right hand quadrant has high scorers on SU and DC. Apart from these qualitative differences, the overall impression is that the top-left quadrant is more associated with positive change than is the bottom right-hand quadrant.

As with previous analyses it is also possible to group individuals in terms of their degree of change across the variables. Furthermore, these groupings can also be drawn onto the overall space diagram. Although the space partitionings do not show a clearcut scale of improvement, there is a clear delineation of a group of main improvers; and a major differentiation of this group from those individual's who show minimal change. Essentially, three groups can be identified, composed of virtually equal numbers. Once again, it is instructive to compare these with the groups obtained on the composite set (see section 2.3). It will be readily seen that a considerable degree of overlap exists. The identified groupings are composed of the following individuals (figures in brackets refer to the numbers of indices on which the groups made improvement:–

Main improvers (10+)
7, 9, 10, 13, 18, 19
Moderate improvers (8-9)
2, 3, 4, 11, 22, 23
No change or disimprovers (<8)
6, 12, 14, 15, 20

The Interpersonal MSA

The variables included in this analysis were chosen on the basis of providing positive measures of change in
interpersonal functioning, and comprised the following: DOM, LOV, IP2, IP3, EI, EC, DC, EA, PR, SC, Re and S-E. The following space diagram (Figure 29) shows the positioning of individuals relative to one another in terms of their overall response to these twelve variables. The structural partitionings for each of the variables are shown in the following individual space diagrams (Figure 30). It should be noted that those shown for EI and DC are approximate in that they represent the partitionings for the majority of individuals.

These diagrams show clear relationships between several of the variables. Thus IP2, IP3 and EA each have a vertical partitioning. The space occupied by category 2 for IP3 is larger than for the other two variables, which suggests that individuals showing improvement on IP2 and EA also show improvement on IP3, although the converse is not always the case. In concrete terms, this means that members who increase on affiliative behaviour and expressed affection also increase on assertive behaviour. In addition there is a marked degree of overlap between these variables and DC which measures the preference for exerting over seeking control in relationships. Furthermore, the spatial partitionings of IP3 and DC for category 2 also contain within them those individuals who obtain a score of 2 on EC. Thus increases on expressed control are associated also with increases on DC and IP3. All three variables have in common an assertive style of interaction.

LOV and Re both show partitionings which are essentially horizontal. In this case, the space occupied by category 2 is larger for Re, which indicates that individuals, who increase their scores on LOV tend also to show improvements in their ability to be responsive to others. Re also shows a high degree of overlap with S-E, an association found above, which links increased responsiveness with increased awareness of others emotional processes. In addition, Re and S-E also show similar structures to EI.
Figure 29: The Interpersonal M.S.A.
Figure 30: Space diagrams for the Interpersonal M.S.A.
In this instance, the space occupied by category 2 is smallest on EI, which indicates that individuals increasing on the ability to include others in their activities also increase on RE and S-E, though not necessarily vice-versa.

Finally, three variables show an inverted-L structure: DOM, PR and SC. The areas occupied by PR and SC are largely contiguous suggesting that there is a high degree of similarity between individuals in regard to showing improvement on the ability to engage in personal relationships and being adjusted in terms of having an adequate social life. These two variables also show overlap with DOM, which relates improved satisfaction with these two areas of relationships to an increased ability to express assertion.

In terms of their contribution to the overall structure, the strongest influences would appear to be IP3 (with its midline vertical partitioning) and Re, which shows an essentially horizontal structure. Thus, overall differentiating structure in the diagram is provided by dimensions of assertion and responsivity.

Mapping of the categories onto the original space diagram yields the following most salient change characteristics for individuals occupying each of the quadrants of that diagram:

<table>
<thead>
<tr>
<th>High: EI, PR, SC</th>
<th>High: DOM, IP2, IP3, DC, PR, SC, SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low: LOV, IP2, IP3, EC, EA, Re, SE</td>
<td>Low: LOV, EI, EC, EA, Re</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High: Re, S-E</th>
<th>High: DOM, IP3, EI, EC, DC, EA, PR, Re, S-E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low: DOM, IP2, IP3, EC, EA, PR</td>
<td></td>
</tr>
</tbody>
</table>
This diagram suggests a clear line of demarcation between individuals occupying the left and right hand sides of the space diagram. Individuals occupying positions on the right hand side show improvement on a variety of these interpersonal indices. The bottom-right hand quadrant in particular is associated with positive change across indices from all four scales; while the top right-hand quadrant shows improvement on indices of assertion, adjustment and awareness of others needs.

In contrast, the left hand side is generally characterised by individuals showing little or no improvement. Such improvements as do occur are split between the quadrants: the top left quadrant shows improvement on the inclusion and adjustment indices; while the bottom left quadrant shows improvement on the social skills indices.

Delineation of groupings in terms of the number of indices upon which productive change was observed can be seen from the lines drawn upon the original space diagram. This yields the following three groups (numbers in brackets again refer to the number of indices on which improvement was made): -

Main improvers (8+)
3, 7, 11, 13
Moderate improvers (5-7)
9, 10, 18, 19, 20, 22
No change or disimprovers (<5)
2, 4, 6, 12, 14, 15, 23

12.5.6. Summary and conclusions

The above analyses on the outcome scales have indicated that individuals differ in their response over time both quantitatively and qualitatively. Quantitatively, both on particular scales and across the scales, there is evidence that individuals can be categorised in terms of the number
of variables on which they show beneficial change and also
the extent to which such improvement is either more or less
global or specific to a particular behavioural domain.
Qualitatively, it has been possible to demonstrate that
the structure of response to the variables differs, e.g.
on ICL the respective vertical and horizontal partitionings
made by the group on DOM and LOV suggest that approximately
one-half of individuals increasing their scores on DOM
also increase their scores on LOV, and vice versa.

In terms of the specific scales, on ICL it has been
possible to delimit groups of individuals both in terms
of the level of improvement on the scale as a whole; and
also with regard to changes on the two main axes of the
scale, i.e. the affiliative/affective dimension and the
dominant/assertive dimension.

FIRO has less clearly defined groups in terms of
individuals overall response to the scale although a
clear group of non-improvers can be differentiated. The
main structural differentiation on FIRO would appear to
be provided by a distinction between individuals, whose
main improvement is on the inclusion scale, and those who
improve mainly on the control scale.

In contrast, the PAQ shows a clearly ordered structure
with regard to individual's level of improvement across
the seven variables, which enables categorisation into
four groups of more or less equal size. In addition
there is evidence to suggest that cutting across this
ordinal structure there is a second structural feature.
This consists of a distinction between individuals, whose
main improvements are on the variables relating to contact
with others (PR and SC); and those who improve on self-
understanding (SU) and symptomatology (Sy).

The SEIS also shows an ordered structure of response,
thereby enabling grouping of individuals in terms of
their level of improvement across the four variables.
Apart from this ordinal grouping, the main structural differentiation would appear to consist of a distinction between individuals, who improve on both having a task-orientation to social situation (Ta) and an ability to be aware of other emotional reactions (S-E), and individuals whose main improvement is on the latter.

Each of these four scales is oriented towards somewhat different behavioural domains; and on each it has been possible to group individuals in terms of the extent of their improvement. The question arises, however, as to whether individuals can also be logically grouped together in terms of their response across the four scales.

The analyses made of the 'Main change' and Interpersonal MSA's have shown the presence of structural similarities in individual's responses to variables from different scales. From the 'Main change' MSA: similar structures of response to Sy, In and L, and inverted structures of response to SU and WC; and from the Interpersonal MSA: similar structures for IP2, IP3 and EA; IP3, DC and EC; LOV and Re; Re, S-E and EI; and DOM, PR and SC. Moreover both of these analyses have enabled the specification of groupings of individuals in terms of the extent of their improvement. The groupings derived from the 'Main change' analysis refer to improvement across a variety of aspects of functioning; while those obtained from the Interpersonal MSA refer specifically to improved abilities in interpersonal behaviour. However, both are broadly comparable with the groups derived from the analysis of the composite problem sets.

In order to conclude this analysis, an estimate of overall improvement for each individual was calculated. To achieve this, individuals MSA scores (i.e. 1 = decrease or no change; and 2 = increased scores) were summed across the four scales. Of the 30 variables (ICL=7; FIRO=12;
PAQ = 7; SEIS = 4), 27 were used in this analysis. The exceptions were the FIRO Sum scores on I, C and A. These were excluded as they did not give clear measures of improvement, because increases on them could be a result of increases on either E or W. Improvement so far as the other variables are concerned was defined in terms of the following:

a) For ICL: increases on DOM, LOV, IP2, IP3 and decreases on NIC, IP1 and IP4.

b) For FIRO: increases on E and D; and decreases on W on each of the three scales.

c) For PAQ: increases on each of the variables.

d) For SEIS: increases on each of the variables.

This summing of scores yielded the following totals for improvement on the 27 variables:

Table 42

<table>
<thead>
<tr>
<th>ID</th>
<th>TOTAL</th>
<th>%</th>
<th>ID</th>
<th>TOTAL</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>13</td>
<td>48</td>
<td>13</td>
<td>19</td>
<td>70</td>
</tr>
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<td>3</td>
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<td>56</td>
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<td>37</td>
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<td>4</td>
<td>13</td>
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<td>15</td>
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<td>9</td>
<td>33</td>
<td>18</td>
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<td>67</td>
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<td>7</td>
<td>23</td>
<td>85</td>
<td>19</td>
<td>17</td>
<td>63</td>
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<td>9</td>
<td>16</td>
<td>59</td>
<td>20</td>
<td>13</td>
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<td>10</td>
<td>16</td>
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<td>11</td>
<td>20</td>
<td>74</td>
<td>23</td>
<td>15</td>
<td>56</td>
</tr>
<tr>
<td>12</td>
<td>9</td>
<td>33</td>
<td></td>
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</tr>
</tbody>
</table>

This table enables individuals to be grouped in terms of their overall improvement across the four scales as follows (figures in brackets indicate the number of variables on which improvement is observed):
i) **Main improvers** (17+)
   7, 11, 13, 18, 19

.ii) **Moderate improvers** (14-16)
   3, 9, 10, 22, 23

.iii) **Essentially the same** (10-13)
   2, 4, 14, 20

.iv) **Disimprovers** (<10)
   6, 12, 15

What is striking about these groupings is the marked degree of similarity, which they show with the groupings in section 2.3, based on degree of improvement on the composite problem sets. An example for comparison is provided by the group of 'major improvers' on those sets which comprised the following individuals: 7, 11, 13, 19 and 22. This group is virtually the same, with one exception to the group of 'main improvers' derived from scores on all 27 pre-post variables.

Moreover, there are similarly high levels of agreement between the two category systems with regard to individuals showing moderate improvement, essentially no change and disimprovement.

Thus, level of improvement in response to group therapy would appear to provide the same differentiation of individuals whether it is based on change in identified problem areas (where the number of change indices varied between four and fifteen) or on response across all the variables.
12.6 Individual change on process aspects of group therapy

The analyses described above indicated that individuals change from pre to post treatment in their response to group therapy in ways which are consistent and logical; and that on the basis of these changes, they can be grouped in terms of both level and type of improvement. It remains to be seen both whether they can be similarly categorised with regard to their ingroup behaviour; and also the extent to which such ingroup behaviour is related to the outcome variables.

In applying the methodology of multi-dimensional scaling to the process data, problems are encountered in determining what constitutes productive improvement on these variables. For the outcome variables, these issues were approached firstly by defining composite sets of problems (based on a combination of expressed problems and test data indices) and measuring individual change on these; and secondly by dividing all the variables into positive and negative change indices and looking at individual change on these.

However, for the process variables, such a distinction is not readily made. Thus, for the HIM variables, a majority of these were associated with positive outcome in the first study, the exception being the Assertive category; and the sociometric variables also generally have a positive valence, with the exception of self-rated needing help. Some guidance is provided however in the results of Hypothesis 6 in the first study and the SSA's conducted in the second study. Both of these sources related improvement to scores on the HIM work categories and the sociometric group behaviour (GB) variables; rather than the pre-work categories or personal choice (PC) variables.
A second problem refers to the issue of level. The main form of data available to uncover change on the variables consisted of individual's early and late scores on the process variables. In reducing this data to the categorical form required for multidimensional scaling analysis, it became necessary to establish criteria for assignment of individual's scores to e.g. category 1 or category 2 (where a simple binary categorisation was being used). Two alternative approaches suggested themselves here:

1. Category assignment on the basis of the group's mean score early and late for each variable i.e. a score of 1 being assigned to individuals below the group mean; and a score of 2 for individuals above the group mean on each variable. This system enables ready grouping of individuals in terms of their activity in the group and ratings on the sociometric variables both early and late; and also enables the identification of individuals who show major changes on each variable. The main problem associated with it consists of the fact that it is restrictive in terms of its definition of change i.e. in order to show change from early to late by a change in categories, an individual has to alter his/her score sufficiently to move across the group mean. It would thus tend to exclude those individuals who on each variable are showing relatively subtle changes from early to late. This stringent form of definition for change also makes it less likely that a structure of the group's pattern of change both within and across variables would be identified. This in turn would make problematic the differentiation of individuals into groupings according to type or level of response/change.
2. Category assignment (i.e. scores of 1 or 2) on the basis of each individual's change score from early to late on each variable. Thus, if an individual shows an increase or decrease on a variable from early to late, they would be assigned a score of 2 or 1, respectively for that variable. By using each individual as their own control in this way, it becomes possible to identify individual's type of change i.e. increase or decrease, on each variable; and also their patterns of change across variables. This in turn is likely to yield more in terms of structure so far as response to the variables is concerned. Such structure may then be used (as was seen above for the outcome variables) to differentiate individuals into groupings based on level/type of response.

The major problem with this approach is that it introduces problems of the 'ceiling effect'. The 'ceiling' effect is especially prone to operate on the sociometric variables, which have a limited set of possible scores.

Thus if an individual scores high early on a sociometric variable, e.g. being ranked as the most helpful individual in the group, the best that they can expect is to remain the same for their late score, and it is more likely that they will somewhat decrease their score (in both instances receiving category scores of 1). In contrast, the individual who is ranked least helpful early need only increase their late score by a little in order to be assigned to the category of 'increaser' and hence receive a score of 2.
However, the same sort of problem arises for the HIM categories. Thus, if an individual scores high on Relationship or Confrontive early and maintains this for late interaction, once again they would only receive a category score of 1, while an individual with a low early score will more readily increase this and hence receive a category score of 2.

The way in which this problem was resolved in the first instance was to utilise both approaches. Accordingly, MSA's were conducted as follows:

i) Separate MSA's were conducted on the HIM and sociometric variables with category assignment (1 or 2) being based on individuals scores on each variable in relation to the group's means across early and late scores. A category score 1 was assigned to scores below the group mean; and 2 to scores above the group mean. Thus each individual had separate early and late profiles across the variables included in the analyses; i.e. two points are provided for each individual on each space diagram for early and late codings.

The aim of these analyses was to differentiate individuals in terms of their level of contribution to group activity (in the case of the HIM MSA) and in terms of their sociometric status in the group (in the case of the sociometric MSA).

ii) A combined process MSA was conducted on individuals HIM scores and sociometric ratings. In this case, category assignment (1 or 2) was based upon individuals difference scores from early to late. A score of 1 was assigned to scores showing a decrease or remaining the same from early to late; and a score of 2 to scores increasing from early to late.
iii) The aims of this MSA were as follows:

a) To differentiate individuals in terms of their change on the HIM and sociometric variables.

b) To identify and analyse the structural relationships between the variables (both within and across the HIM and sociometric scales) in relation to patterns of individual change.

Two additional methodological procedures should be noted. Firstly, in order to facilitate subsequent analysis of the relationship between the process and outcome, the analyses described hereunder only include individuals for whom there exists also pre and post-treatment data i.e. those on whom the previous outcome analyses were conducted. Secondly, for the sociometric variables on which low scores represent high ratings, the category codes have been reversed in order to make them comparable with the HIM category codes i.e. a category score of 1 represents lower sociometric ratings and decreased HIM scores; and a category score of 2 conversely refers to higher sociometric ratings and increased HIM scores from early to late.

12.6.1. The HIM MSA

The following space diagram (Figure 31) shows the positioning and movement of individuals in terms of their early and late scores on the eight HIM variables. The arrows on the diagram refer to movement by individuals from early to late. Those individuals who are circled have made no change relative to the rest of the group from early to late.
Figure 31: The H.I.M. M.S.A.
The individual diagrams (Figure 32) illustrate the spatial partitioning on each of the eight HIM categories. It can readily be seen that the majority of these partitionings are irregular in nature; and hence do not appear to be contributing significantly to the overall structure obtained.

The clear exceptions are Speculative and Personal, both of which partition the space vertically at approximately the midpoint of the left-right dimension; and Conventional which is providing a diagonal partitioning. In addition, there is a tendency for the majority of category 2 scores on Confrontive, Topic and Relationship to be located in the left-hand side of the diagram.

The overall impression from the original space diagram and these structures is that individuals have been differentiated into two main groups: the left hand side being occupied by those who are providing the majority of group interactions; and the right-hand side by those who are contributing little to group activity.

The main changes observed are for individuals 10 and 11, who have clearly increased their group activity from early to late; and individual 6, who has conversely decreased from early to late.

As was predicted, the number of individuals showing change across the group mean from early to late for each variable was small. Thus, for the work categories, the following changes were found:

Speculative : increasers 10 and 11; decreaser 6
Confrontive : increasers 6 and 15; decreasers 2, 7
Personal : increaser 10; decreaser 6
Relationship : increasers 9, 10, 13 and 14
Figure 32: Space diagrams for the H.I.M. M.S.A.
Finally, the main group of individuals contributing to productive group interaction can be identified. The criterion used was that they show high scores on at least three of these work categories both early and late; or increase their activity on these categories across the group mean from early to late. They comprise the following individuals:

4, 10, 11, 12, 15, 20, 23

In contrast, those individuals showing high and/or increased scores on less than three of the work categories comprise the following:

2, 3, 6, 7, 9, 13, 14, 19, 22

Thus this analysis splits individuals up into two groups of approximately equal size on the basis of their contribution to group work interaction.

12.6.2. The Sociometric MSA

The following space diagram (Figure 33) shows the positioning and movement of individuals from early to late on the fifteen sociometric variables. The arrows refer to movement from early to late, while circled individuals indicate no change from early to late, relative to the rest of the group.

The individual diagrams (Figure 34) illustrate the spatial partitioning made by each of the variables in terms of the coded categories (1 and 2). The most clear structures are provided by OL (other-rated Like), OA (other-rated Admire) and OY (other-rated Understand You), all of which partition the space vertically in the same manner, i.e. the category scores are similarly located for each variable. There is thus a marked tendency for individuals to be similarly rated by others on these
Figure 33: The Sociometric M.S.A.
Figure 34: Space diagrams for the Sociometric M.S.A.
variables.

OH (other-rated Helpful) and OD (other-rated Dominant) essentially partition the space horizontally with similar category positionings; and hence tend to cut across the partitions made by OL, OA and OY. Ratings made by others of being helpful and dominant thus tend to go together.

Similarly, the diagonal partitionings made by SF (self-rated ability to discuss feelings) and OU (other-rated Understand) are clearly occupying similar positions and are hence linked for individuals ratings. Additionally both of these are related to OT (other-rated Trust). Thus individuals who rate themselves as being able to discuss feelings tend to be rated by others as understandable and trustworthy.

There is also a fair degree of overlap between OS (other-rated Sensitive) which shows an inverted L-shaped structure, and OF (other-rated Ability to discuss feelings), which has a diagonal partitioning. Thus, individuals who are seen by others as being sensitive are also seen as able to discuss feelings.

Moreover, there is also a good measure of commonality of category placing between OS and OF and both the personal choice variables (OL, OA and OY) and other group behaviour variables (OH and OD).

In essence, the original space diagram can be described in terms of two parameters. Firstly, the vertical partitioning made by the personal choice variables (OL, OA and OY) differentiate individuals into two groups according to their personal attractiveness to the rest of the group. Individuals with high ratings are to be found
on the left-hand side of the diagram; and those with low ratings on the right-hand side. Significantly, there are no arrows going from one side to the other in the original space diagram, suggesting that it is very hard for individuals to alter their general attractiveness to the group from early to late sufficiently to move across this divide.

Secondly, the horizontal partitioning made by the group behaviour variables, OH and OD (and to a lesser extent OS and OF) differentiate individuals in terms of other's perceptions of their group behaviour. In this instance, high ratings are to be found towards the top of the diagram and low ratings towards the bottom. As with the personal choice variables, the number of individuals crossing the group mean from early to late on each of these variables was very small.

In addition, it is noteworthy that the self-rated variables with the exception of SF showed very little in the way of structure, as also did ON (other-rated Needs Help). This suggests that individuals were too varied and idiosyncratic in their scores on these variables to permit coherent structures to emerge and contribute to the overall spatial positioning.

The number of individuals exhibiting change from early to late on any of the fifteen variables was in practice very small, in most instances amounting to only two or three. As an indication of this, the following totals are provided of the numbers of improved category scores across all variables for each section of the scale: Self-ratings = 9; Other-rated group behaviour = 7; and Other-rated personal choice = 7.

Attempts to group individuals sociometrically depend therefore on looking at their category scores overall
(i.e. early and late) and establishing criteria for assignment to groupings.

In the first instance, the scale itself was split into three parts: self-rated variables; other-rated group behaviour variables; and other-rated personal choice variables. Individuals were assigned to one of three groups (high, moderate and low) on each of these parts according to the following criteria.

a) High if they retained (from early to late) or increased category scores of 2 on at least four variables.

b) Moderate if they retained or increased category scores of 2 on two or three variables.

c) Low if they retained or increased category scores of 2 on less than two variables.

The exceptions to this were the self and other-rated Needs Help variables, where the converse applied, i.e. retained or changed category score of 1. This yields the following sets of groupings:

<table>
<thead>
<tr>
<th></th>
<th>Self</th>
<th>Other GB</th>
<th>Other PC</th>
</tr>
</thead>
<tbody>
<tr>
<td>High:</td>
<td>2,4,10,11,20</td>
<td>4,9,11,13,23</td>
<td>4,9,10,11,12,19,20,23</td>
</tr>
<tr>
<td>Moderate:</td>
<td>9,12,13,15,19,23</td>
<td>7,12,19,20</td>
<td>6,13</td>
</tr>
<tr>
<td>Low:</td>
<td>3,6,7,14,22</td>
<td>2,3,6,10,14,15,22</td>
<td>2,3,7,14,15,22</td>
</tr>
</tbody>
</table>

This table illustrates the variability in sociometric groupings according to the basis on which it is being undertaken e.g. the difference in the composition of the 'high' groups for self and other-rated group behaviour. In addition, it demonstrates the polarity so far as the personal choice variables are concerned, the majority being located either in the high or in the low group.
Additionally, insofar as it is meaningful to group individuals in terms of their overall sociometric status, this division of the scale into three parts can be unified into a composite score for each individual across the fifteen variables. Such a score utilising the same criteria as described above leads to the following overall groupings (figures in brackets refer to the number of variables exhibiting category scores of 2):

**Overall high (11+)**
4, 9, 11, 20, 23

**Overall medium (6 - 10)**
10, 12, 13, 19

**Overall low (<6)**
2, 3, 6, 7, 14, 15, 22

It is of interest to compare these groups with the group, which was found to account for the majority of work-oriented interaction on the HIM MSA. Although the size of the groupings differ, the majority of the overall high group (with the exception of individual 9) is to be found in that latter group. In addition, only one of that group (individual 15) is in the lowest of these sociometric groupings. There would thus appear to be a high level of equivalence for individuals in terms of their group activity and sociometric status overall.

12.6.3. The Process MSA

This MSA was based on the difference score between early and late on the eight HIM and fifteen sociometric variables. The following space diagram shows the position of individuals in relation to one another across these twenty-three variables. (Figure 35).
Figure 35: The Process M.S.A.
For ease of description, individuals changes on the variables, the structural partitioning of the variables and emergant groupings will be separately analysed for the HIM and sociometric variables, after which the relationship between changes on these two scales will be analysed.

For HIM, the individual diagrams (Figure 36) show the spatial partitionings made on each of the eight variables. The clearest structural differentiation is provided by Speculative, which partitions the space diagonally. Individuals increasing on this variable are to be found predominantly on the left-hand side of the space diagram, and those decreasing on the right hand side. It will be recalled that Speculative was one of the main structuring variables (together with Personal) in the above analysis of the HIM MSA.

The partitionings made by Personal and Relationship are also very similar both to one another, and also to that found for Speculative, although the space occupied by category 2 is smaller for Personal than for the other two, i.e. fewer individuals increase their scores on Personal than on Speculative and Relationship. However, there is a clear tendency for individuals increasing on one of these work categories to also increase on the other two. The same conclusion applies with respect to individuals showing decreased scores (category 1).
Figure 36: H.I.M. Space diagrams for the Process M.S.A.
In addition, the diagonal partitionings shown for Topic and Group are substantially the same indicating that individuals are changing their scores in similar ways on these two pre-work categories. This is in accord with the close relationship found between these two variables in the earlier SSA's. The space occupied by category 2 is larger for Topic than for Group indicating that more individuals are increasing their scores on the former than the latter.

The step-like structures found for Conventional and Assertive are mainly of interest in that they exhibit a clear reversal of the spaces occupied by the two categories. Thus there is a marked trend for individuals increasing their scores on Conventional to decrease on Assertive and vice versa. Moreover, the positioning of category 2 for Assertive, particularly in the top right-hand quadrant, also constitutes a reversal so far as the other variables are concerned. Thus, individuals increasing their scores on this variable have a tendency to decrease their scores on the other variables, and vice-versa.

Finally, the irregular structure obtained for Confrontive suggests that change on this variable does not contribute substantially to the structuring of the overall space diagram. This may well be due to the idiosyncratic nature of change on this variable, i.e. such change is relatively unrelated to change on other
variables.

The following diagram summarizes the specific space diagrams in terms of their predominant features in relation to the four quadrants of the overall space diagrams:

<table>
<thead>
<tr>
<th>High : Confrontive</th>
<th>High : Assertive, Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low : Conventional, Speculative, Confrontive, Group, Personal</td>
<td></td>
</tr>
</tbody>
</table>

| High : Conventional, Speculative, Confrontive, Topic, Group, Personal, Relationship, |
| Low : Assertive |

| Low : Assertive, Topic, Personal, Relationship |

In the first instance, it should be noted that this diagram represents trends rather than being a perfect description of the occupants of each quadrant. In addition, the majority of individuals in the group are to be found positioned in the top left hand quadrant; and hence proportionately few are to be found in the other three quadrants. As a result, this quadrant shows a mixed character, the only variable clearly associated with it being Confrontive.
The overall indication from this quadrant diagram is that individuals increasing their use of the HIM categories are to be found on the left-hand side; and concomitantly, those decreasing or staying the same to be found on the right-hand side.

In order to make further sense of these findings, it is instructive to compare the numbers of individuals within each category (i.e. showing increased scores or not) for each variable:

<table>
<thead>
<tr>
<th>Cv</th>
<th>Ass</th>
<th>Spec</th>
<th>Conf</th>
<th>Top</th>
<th>Gp</th>
<th>Pers</th>
<th>Rel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

In determining contributions to group interaction in relation to therapeutic activity, it is important to focus on the work categories, as was done with the HIM MSA. The line drawn on the original space diagram delimits a group of six individuals to the left of the line who have increased their scores on either three or four of the work categories from early to late. It is also possible to delineate two further groups on the basis of their change in use of the work categories, i.e. a group increasing on two categories; and another changing on less than two. It is of interest to note that this latter group, which shows least change on HIM, is to be found structurally positioned between the groups of high and moderate increasers. It may be inferred that this
structural anomaly is due to the modulating effect of changes on the sociometric variables. The only exception this structuring is the positioning of individual 4 who is to be found at the extreme of the horizontal dimension due to showing the highest overall increase on the sociometric variables.

The resultant groups comprise the following individuals (figures in brackets refer to the number of work categories on which individuals exhibit an increase in their scores from early to late):

- **High (3-4)**
  9, 10, 11, 14, 15, 20
- **Moderate (2)**
  3, 4, 7, 12, 22
- **Low (0-1)**
  2, 6, 13, 19, 23

In turning now to the sociometric variables, the individual space diagrams (Figure 37) show the structural partitioning made on each variable by individuals increasing (category code 2) and decreasing (category code 1) their mean scores from early to late. High scores refer to high ratings and vice-versa. The exceptions are SN (self-rated Need Help), OA (other-rated Admire) and OY (other-rated Understands You), which show no clear structural differentiation, and may be inferred to be contributing little to the structuring of the overall space diagram.

The clearest structures are to be found for OL (other-rated Like), which partitions the space vertically, and OF (other-rated Ability to Discuss Feelings), which exhibits a horizontal partitioning. High scorers on OL are to be found on the left hand side of the diagram and high scorers on OF in the bottom half. Thus these two variables cut across one another and are the ones among the
Figure 37: Sociometric space diagrams for the Process M.S.A.
sociometric variables, which are contributing most to the overall structure of change on the process variables.

In addition, OU (other rated Understand) and OT (other-rated Trust) show similar partitioning to OL. It will be recalled that the personal choice variables tended to be similarly structured on the Sociometric MSA. Thus the structures found for the personal choice variables tend to each have individuals with increased scores on the left hand side of the diagram. However, the size of the area occupied by category 2 (individuals with increased scores) varies across the three variables. This area is smallest for OT and largest for OU. Thus all individuals who show increased scores on being trusted from early to late also show increased scores on being liked and understood, but not necessarily vice-versa. Similarly, individuals increasing scores on being liked also increase on being understood, but not necessarily vice-versa.

The horizontal partitioning of OF has a counterpart in ON (other-rated Needing Help). However, these two variables show a clear reversal of the categories, i.e. increases on being able to discuss feelings are associated with decreases on needing help, and vice-versa.

The diagonal partitionings of OH (other rated Helpful) and OD (other rated Dominant) indicate that individuals increasing their scores on one of these group behaviour variables tend to do likewise on the other. The similarity of these structures echoes the similarity found between these two variables on the Sociometric MSA.

In contrast OS (other-rated Sensitive) shows a broadly inverted L-shaped structure, which suggests that it has structural features both in common with and discrepant from those variables which are partitioning the space vertically and horizontally.
Once again, the self-rated variables tend to be showing less in the way of firm structure than the other two parts of the scale, which suggests that change on each of these variables is relatively idiosyncratic and unrelated to change on other variables. This is particularly the case for SN for which no structure was identifiable; and SD (self-rated Dominant) and SS (self-rated Sensitive) both of whom exhibit irregular structures. These latter two variables also show evidence of some degree of reversal in the category codes, i.e. increases on dominant being associated with decreases on sensitive and vice versa in a proportion of the individuals (six out of sixteen cases).

The position with regard to the remaining two variables is also interesting. Thus both SH (self rated helpful) and SF (self rated ability to discuss feelings) show a diagonal partitioning. The area occupied by category 2 for SH overlaps with an area occupied by Category 1 on SF, suggesting some measure of inverse relationship between the two variables, i.e. the majority of individuals who increase their scores on self-rated helpful decrease scores on self-rated ability to discuss feelings. However, the area occupied by category 1 for SH (individuals who decrease their scores on helpful) is related to areas of both increased and decreased scores on SF. Indeed SF is unusual in its structure in that individuals who increase their scores on it are to be found in a band lying between two areas occupied by decreasers.

As with the Sociometric MSA, which analysed sociometric status generally, the main structural differentiation provided by the sociometric variables in the present analysis is given by two main parameters.
Firstly, the vertical partitioning of the personal choice variables (in particular OL and to a lesser extent OU and OT) locates individuals increasing on these variables on the left hand side of the diagram. Secondly, the horizontal partitioning of the group behaviour variables, particularly OF and ON locates improved individuals in the bottom half of the diagram.

The following division of the original space diagram into quadrants summaries the sociometric change characteristics of individuals occupying the quadrants:

<table>
<thead>
<tr>
<th>High: OH, OS, ON, OL, OU, OY</th>
<th>High: SS, SF, OH, OD, ON, OU, OA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low: SS, SF, OF</td>
<td>Low: SH, SD, SN, OS, OF, OL, OT, OY</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High: SH, SD, SN, SF, OH, OD, OS, OF, OL, OU, OT, OY</th>
<th>High: SS, SN, OF, OA,</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low: SS, ON, OA</td>
<td>Low: SH, SD, SN, SF, OH, OD, OS, ON, OL, OU, OT, OY</td>
</tr>
</tbody>
</table>

As with the analysis of the HIM variables, these quadrant characteristics should be regarded as approximations rather than a perfect description, particularly with regard to the top left-hand quadrant, which contained a majority of the individuals. However, quite clearly, individuals exhibiting increased sociometric scores are to be found on the left-hand side, particularly in the bottom quadrant; and those with disimproved scores occupy the right hand side, again especially the bottom quadrant.

Clearly, the number of individuals showing change varies across the variables. The following table provides the numbers within each category on each variable:
This indicates overall tendencies for individuals to show decreased scores on the self-rated variables (with the exception of SN), increased scores on other-rated group behaviour variables (with the exception of OF), and increased scores on the personal choice variables (with the exceptions of OL and OT).

In delineating groups of individuals in terms of their changes scores on the sociometric variables, the scale was firstly split into three parts (as on the Sociometric MSA): self-rated variables, other-rated GB variables, and other rated PC variables. High, moderate and low groups were established for each of these parts using the following criteria: high = category 2 scores on at least 4 variables; moderate = category 2 scores on two or three variables; and low = category 2 scores on less than two variables. The exceptions to this were the needing help variables (SN and ON) for which category 1 (i.e. decreased scores) were used.

This yielded the following sets of groupings:

<table>
<thead>
<tr>
<th></th>
<th>Self</th>
<th>Other GB</th>
<th>Other PC</th>
</tr>
</thead>
<tbody>
<tr>
<td>High (4-5)</td>
<td>7,14</td>
<td>4,14,20</td>
<td>4,6,10,11,22</td>
</tr>
<tr>
<td>Moderate (2-3)</td>
<td>4,10,11,12,13,15,22,23</td>
<td>2,6,7,9,10,11,13,15</td>
<td>2,3,7,9,12,13,14,20</td>
</tr>
<tr>
<td>Low (0-1)</td>
<td>2,3,6,19,20</td>
<td>3,12,19,22</td>
<td>15,19,23</td>
</tr>
</tbody>
</table>

This table illustrates the variability in individual's change across the three parts of the sociometric scale. No individual is to be found either in all three high groupings or, in all three low groupings. Individual 20 is in the low grouping for self-rated variables and high grouping for other-rated GB variables; individuals 6 and 10 are similarly in the low grouping of the self-rated variables and high
grouping of the other-rated PC variables; and individual 22 is in the low grouping of the other-rated GB variables and high grouping of the other rated PC variables. In addition the number of individuals comprising the moderate groupings for all three parts of the scale is disproportionately high in comparison with numbers for the high and low groupings.

However, in deriving overall groups for change on these sociometric variables, it is possible to map these onto the original space diagram as is shown by the lines drawn on that diagram. This yields the following groups based on change across the sociometric variables (figures in brackets indicate the number of variables showing improved scores from early to late).

**Overall high (9+)**
4, 10, 11, 14

**Overall moderate (6-8)**
6, 7, 9, 12, 13, 20, 22

**Overall low (0-5)**
2, 3, 15, 19, 23

Once again, it is instructive to compare these groups with those obtained for the HIM work variables, notwithstanding the numerical differences in the groups across the two scales. The overall high sociometric group has three out of four individuals who are to be found in the high HIM group, the exception being individual 4. Thus individuals 10, 11, and 14 may be considered to be the ones showing most productive change on the process variables. In addition, the overall low group has three individuals, who are also to be found in the HIM low group. These three, individuals 2, 19 and 23 may be seen as those showing least productive change on the process variables. One individual shows an interesting disjunctive pattern. Individual 15 shows a contrast between high group activity (High HIM group) and low sociometric status (Low sociometric
group). However, in general terms, there is a marked degree of equivalence between change on the HIM work variables and change on the sociometric variables. This echoes the equivalence found between the groups on the HIM MSA and Sociometric MSA.

Apart from comparing changes on the two scales in terms of these groupings of responders, it is also possible to identify structural relationships between variables across the two scales in relation to their spatial positioning. The individual variables space diagrams provide examples of both direct and inverse relationships between the HIM and sociometric variables.

Firstly, the Assertive HIM variable shows a measure of overlap with ON and an inverse relationship with OF. Thus individuals increasing their scores on Assertive tend to increase their ratings of being seen by others as needing help and to decrease ratings on being seen by others as able to discuss feelings.

Secondly, and in contrast, the Conventional HIM variable (which showed an inverse relationship with Assertive) exhibits an inverse relationship with ON and a direct relationship with OF. Although Conventional is a pre-work category, it has been identified previously as being related to group building and maintenance functions. Hence, its positive association with OF and negative association with ON is less surprising than might have appeared at first sight.

Thirdly, the Speculative and Personal HIM variables exhibit similar structural partitioning to OL and OT. Thus, individuals who increase their scores on these HIM work variables tend also to receive improved ratings from others on being liked and trusted.
Fourthly, both Topic and Group HIM categories show similar diagonal partitionings to OH and OD. Improved ratings from others on helpfulness and dominance are thus seen to overlap with increased scores as these two of the HIM pre-work categories.

Fifthly, the Relationship HIM variable overlaps with OS suggesting that increased use of this variable is associated with increased ratings from others on being seen as sensitive.

Sixthly, although the Confrontive HIM variable shows an irregular spatial partitioning there is a marked degree of overlap also for this variable with OS. Thus change scores on both of the highest HIM work categories are associated with changes in others ratings of individual's sensitivity.

12.6.4. Summary and conclusions

The results of the above described analyses of individuals scores on the process variables have generated a number of conclusions concerning individuals group activity, sociometric status, and the structural relationships between the variables.

As was predicted, the number of individuals showing sufficient change either on the HIM or the sociometric variables to move across the groups' means from early to late for each variable on the HIM MSA and Sociometric MSA was very small, for most variables amounting to no more than three individuals. Both of these analyses essentially split the group in two, partitioned vertically with few individuals crossing from one side to the other from early to late.

On the HIM MSA, the main variables contributing to this structure were Speculative and Personal, which partitioned the space vertically; and Conventional which
partitioned the space diagonally. In view of the fact that the remaining variables showed irregular structures, this structural relationship between two work categories and pre-work category would appear to be the major differentiating factor in determining individuals allocation between the two groupings.

For the Sociometric MSA this division into two groups was even more pronounced. The main variables contributing to the overall structure were OL, OA and OY (other rated Like, Admire and Understands You) which partitioned the space vertically; and OH and OD (other rated Helpful and Dominant) which partitioned the space horizontally. Differentiation of individuals in the overall space diagram is thus largely accounted for by the distinction between scores on other-rated personal choice and group behaviour variables, with the patterning of the self-rated variables being more irregular and hence contributing less structurally.

Both of these analyses enabled individuals to be grouped according to on the one hand level of group work and on the other sociometric status, the latter showing marked variability in the grouping across the three parts of the scale: self-rated variables, other rated GB variables and other rated PC variables. However, there was a marked similarity between the groupings for HIM work interaction and overall sociometric status.

The Process MSA looked at individuals and the structures of and between the variables in terms of change from early to late. For the HIM variables, once again, Speculative provided the clearest structure (in this instance diagonal) with both Personal and Relationship exhibiting similar structures to it. Thus changes on three of the four work categories were found to be related to one another the exception being Confrontive.
There was also a clear structural relationship between two of the pre-work variables: Topic and Group. In addition Assertive showed a tendency towards having inverse relationships with the majority of the other variables but particularly with Conventional.

For the sociometric variables, there was a structural contrast between the other-rated GB and PC variables. OF (ability to discuss feelings) and ON (needs help) partition the space horizontally but exhibit an inverse relationship to one another; and OL (like) partitions it vertically. The structural differentiation provided by these two parts of the scale largely accounts for the positioning of individuals on the overall diagram so far as the contribution of the sociometric variables is concerned. The self-rated variables again tend to be more irregular.

In addition the groupings of individuals on the basis of change in the HIM work variables and the sociometric variables were found to be similar to one another and also able to be plotted onto the original space diagram.

Moreover, clear structural relationships were identified between variables both within and across the two scales. Thus, changes on certain HIM variables were associated with one another; changes on particular sociometric variables were related to one another; and changes on HIM and sociometric variables linked to one another. This latter suggests that individuals exhibiting change in specific forms of group interactions also show change in the ratings which they receive from others on specific sociometric variables.
12.7. Individual change in relation to process and outcome

The foregoing analyses have demonstrated that individuals can be grouped and ordered in terms of their levels of response on both indices of outcome and process. In addition, it has been possible to identify structural characteristics with regard to the response of the group on particular variables; and also to uncover logically consistent structural relationships between variables.

The present section addresses two further issues. Firstly it aims to investigate the links at the level of the individual between change on process measures and change on outcome measures; and secondly to identify the structural relationships between process and outcome variables.

12.7.1. Individual change on process and outcome measures

In order to define the 'careers' of individuals in terms of their changes on the process and outcome measures, attention was paid initially to the groupings obtained on the process and outcome M.S.A's. Thus, individual change over time was considered in relation to membership of these groupings.

The analysis of individual outcome provided indices of change, primarily in terms of three levels: high improvement, moderate improvement and low improvement. The third level consisted of individuals who had either stayed the same or deteriorated on the measures being analysed. The exception to this was the S.E.I.S. M.S.A. which only had two groupings: high and low.

Similarly, the analyses of group process provided membership of groupings in terms of the same three levels, (apart from the H.I.M. M.S.A. which had only high and low groupings), both in relation to overall aspects of activity and sociometric status (the HIM and Sociometric M.S.A.) and in relation to change in activity and sociometric status (the Process M.S.A.)
In order to investigate individual's response on the process and outcome analyses, these groupings from the various analyses were combined; and category scores assigned to individuals in relation to their membership of these groupings. Membership of high groupings was assigned a score of 3, of moderate groupings a score of 2, and of low groupings a score of 1.

In addition, in order to be able to assess the equivalence of individuals in relation to their process and outcome response, the same number of analyses were used for both process and outcome. The outcome analyses used in the investigation comprised the groupings taken from the following:-

A - The Composite Problem Set
B - The I.C.L. M.S.A.
C - The F.I.R.O. M.S.A.
D - The P.A.Q. M.S.A.
E - The S.E.I.S. M.S.A.
F - The Main Change M.S.A.
G - The Interpersonal M.S.A.
H - All outcome variables

The process analyses used comprised the following:-

I - The H.I.M. M.S.A.
J - Self-rated variables from the Sociometric M.S.A.
K - Group behaviour variables from the Sociometric M.S.A.
L - Personal choice variables from the Sociometric M.S.A.
M - HIM variables from the Process M.S.A.
N - Self-rated Sociometric variables from the Process M.S.A.
O - Group behaviour Sociometric variables from the Process M.S.A.
P - Personal choice Sociometric variables from the Process M.S.A.

Table 43 shows individual's membership of the groupings on the above analyses in terms of the category scores.
<table>
<thead>
<tr>
<th>ID</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>Sum</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
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<th>N</th>
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</table>
As a rough estimate of equivalence in terms of response to process and outcome, it also provides summary scores across the analyses for these two main aspects.

This table shows that there are both marked similarities and also dissimilarities in terms of individual's response patterns across the process and outcome analyses.

Thus, a set of individuals can be identified, which accounts for half of the total group, who show similar response patterns across process and outcome. They comprise individuals 2, 6 and 14, who tend to be low on both; 9, 10, 22 and 23, who evidence a moderate response on both; and 11 who is high on both.

In contrast, the remainder show a marked disjunction between process and outcome, which provides evidence of the variability in response to group therapy. In order to attempt to account for this, it is necessary to look in more detail at these individuals.

Firstly, a set of individuals can be identified, who evidence high process scores but low outcome. These comprise individuals 4, 12, 15 and 20. All four show evidence of high levels of H.I.M. group activity but low levels of beneficial outcome. In the case of all four (but particularly for individuals 4 and 15) the size of their presenting problem composite sets were the smallest for the whole group. This would suggest that at pre-treatment they were functioning at higher levels than the rest of the group, which is further evidenced by their membership of the high grouping on the H.I.M. M.S.A. The conclusion to be drawn from this is that their high levels of pre-treatment functioning provided little scope for additional improvement.
In addition, individuals 4 and 20 evidenced in their actual group behaviour a marked tendency to occupy a therapeutic role in relation to other group members, e.g. by offering interest, support and interpretation to others. It appears plausible to suggest that occupying this role meant that they did not work on their own problems.

A comparison of the group behaviour of these two individuals with that of individual 11 is instructive. This individual also occupied a therapeutic role in relation to others, particularly early in her group career. However, as a result of the self-disclosure by another group member of a problem with which she identified, she partially abandoned this role and switched to a patient role, which enabled her to be helped by the group. The consequence of this was that in contrast with individuals 4 and 20, she showed a high level of therapeutic outcome.

A further aspect, which can be noted with regard to individual 20 is the difference between self-ratings and other-ratings of his group behaviour on the Process M.S.A. Thus, whereas he perceived his behaviour in the group negatively (category score of 1), its evaluation by the rest of the group was positive (category score of 3). This mismatch between self and other perception is suggestive of a failure to integrate or receive positive feedback from others, which would appear to be a key feature in interpersonal learning. This failure of learning may also be related to the poor outcome response exhibited by him.

Thus, in general, it would appear that the occupation of the therapist role provides an important contribution to the group as a whole, i.e. the group may well need to include individuals operating at a relatively high level of functioning pre-treatment in order to have people
available to occupy this role. However, its benefit to the individuals involved in terms of outcome appear to be based upon the opportunity for them to abandon this role (rather than becoming fixed in it), and take on the patient role.

Furthermore, in the case of individual 15, there is a clear difference between the levels of group behaviour, which are high, and the levels of sociometric status, which tend to be low, particularly on the ratings received by others. This suggests that although his level of therapeutic work as coded by the HIM was high, the ways in which other group members responded to him tended to be generally negative. In descriptive terms, his group behaviour although frequently task-relevant evidenced characteristics of the monopoliser and help-rejecting complainer, which goes some way towards explaining this disjunction between his HIM coding and the sociometric response of others to him. Apart from his low number of presenting problems, it appears likely that this disjunction is implicated in his low outcome scores.

The case of individual 12 is somewhat different. As noted above, this individual had a low size of composite problem set, but also evidenced a high level of self-disclosure early in his group career. However, the evidence from the Process M.S.A. suggests that his group performance showed a deterioration over time. Thus, whereas he is in the high grouping for overall HIM activity, he is in the moderate grouping for change in HIM activity. In addition, he is in the low grouping for change on the other-rated group behaviour variables. Therefore, he appears to be showing the characteristics of a premature self-discloser, which is frequently associated with subsequent deterioration. This deterioration can be seen both on his changes on group process and also poor level of outcome.
The foregoing has indicated that disjunctions between high group process scores and low response at outcome can be partly explained in terms of the level of pre-treatment functioning, partly in relation to the use of feedback and interpersonal learning processes; and partly in terms of occupying particular types of group role. These latter have included the roles of therapist, monopoliser and premature self-discloser.

Secondly, a set of individuals can be identified, who exhibit the reverse pattern to the foregoing. Thus, although their group process scores are low, their response at outcome tends to be high. They comprise individuals 3, 7, 13 and 19. In comparison with the first set, there are clear differences in relation to pre-treatment level of functioning as assessed by the size of the sets of presenting problems. The four individuals discussed above, who showed high process but low outcome scores, had a mean size of 6 problems; whereas the present group had a mean size of 10.5 problems. This suggests that they had more scope for improvement; and their problems in functioning were perhaps evidenced by their low scores on the process variables.

This would appear to be the case particularly for individual 7, who had both the highest size of composite problem set and also evidenced the highest outcome response. In addition, however, this woman also showed some gains during group process. Thus, although her overall HIM score is low, her improvement score is in the moderate category. Additionally, whereas her overall self-ratings on the sociometric variables are low, her improvement score on these is high. Thus, in terms of both group behaviour and self-perception, she evidences positive changes which may relate to her high outcome response.

A similar trend, although much less clearcut is also in evidence for individual 3, who shows a moderate increase
on HIM and on the sociometric personal attractiveness variables. It must be admitted that these links between group process and outcome are tenuous. However, the main forms of improvement shown by her on the outcome measures are in terms of improved interpersonal functioning. Thus, at a speculative level, it may be suggested that the slight increase in her attractiveness to others in the group was translated into increased interpersonal confidence.

For individual 13, scores on the HIM are low; whereas those on the sociometric indices are moderate to high. In particular, his scores on overall ratings received by others for the group behaviour variables are high. One way of explaining this is that whereas his amount of groupwork activity remained at a low level, his contributions to it were valued by the other group members. In descriptive terms these contributions comprised a mixture of self-disclosure and confrontive interpersonal feedback oriented towards his relationships with other group members. Thus, although few, his interactions were at high levels of group work which may well be reflected in his high level of beneficial outcome. In addition, his pattern of response is opposite to that found for individual 15, who showed high HIM, low sociometric and low outcome scores.

The fourth individual in this set, 19, had low levels of both overall and increased HIM; and also a low level of improvement on the sociometric variables. In contrast, overall sociometric status was moderate on self and other-rated group behaviour, and high on the personal choice variables. Once again, the evidence for a link between group process and outcome was highly tenuous. This woman's high outcome response appeared to be more related to events occurring outside the group than within it, most notably success in obtaining a job, which gave her entry into a new and interesting career.
The foregoing has indicated that in the case of half of the individuals studied, their levels of change in relation to outcome was linked to their levels on the group process measures. For those individuals evidencing high process but low outcome, explanations of this disjunction have been provided in terms of both pre-treatment level of functioning and the nature of the group roles which they occupied. With regard to those individuals who showed low process and high outcome, it has in general been more difficult to account for this other than by reference to their low level of pre-treatment functioning offering more scope for improvement.

12.7.2. Structural relationships between the process and outcome variables

In order to contribute to the development of a coherent interpersonal learning model of group therapy, it was important to identify the nature of the structural relationships between process and outcome variables as these relate to individual patterns of change. The S.S.A.'s described above have been able to identify such relationships for the group as a whole in terms of the actual scores on the variables. The present aim is to investigate such relationships with regard to individuals change over time i.e. from pre to post-treatment and early to late process.

It would clearly have been impractical to investigate the interrelationships between all the process and outcome variables in relation to change on each of the individuals. Moreover, it appeared likely that certain variables would be more implicated in interpersonal learning processes than others. Accordingly, it was decided to investigate the relationship between a sample of the process and outcome variables.

In determining which variables to include, it seemed important to maintain certain criteria:
a) The same number of variables be included from both process and outcome measures in order to facilitate the identification of clear structures.

b) With regard to the process variables, the same number of variables be drawn from both the HIM and sociometric measures; and with regard to this latter, that the variables sample both group behaviour and personal attractiveness.

c) With regard to the outcome variables, that these sample a range of aspects of interpersonal functioning: and optimally be drawn from all four of the outcome scales.

d) That the variables show evidence on the basis of previous analyses of being able to structure the response of the group of individuals.

On the basis of these criteria, eight variables were selected, four from the outcome scales and four from the process scales. The outcome variables comprised IP3 (the I.C.L. measure of assertive involvement with others), EI (the FIRO-B measure of affiliative inclusion of others), PR (the P.A.Q. measure of ability to engage in close personal relationships) and Ta (the S.E.I.S. measure of ability to show a task-orientation to social situations).

The process variables comprised Speculative (an HIM work style category), Relationship (an H.I.M. work content category), OF (the sociometric group behaviour variable related to the ability to discuss feelings), and OL (the sociometric personal choice variable, which rated liking).
The relationships between these eight variables and individuals' levels of changes on them were then analysed by means of an M.S.A. which is described hereunder.

The Process - Outcome M.S.A.

The M.S.A. was based on the difference scores between individual's pre and post-treatment and early and late process scores on the eight variables described above. Category scores on the two sociometric variables were reversed in order to make them comparable to the other variables, i.e. increased sociometric ratings related to increased scores on the other variables. The following space diagram (Figure 38) shows the position of individuals in relation to one another across all eight variables.

The spatial partitioning for each of the variables are to be found in the individual variable's space diagrams (Figure 39). The clearest structural partitionings are to be found for EI (expressed inclusion) and OF (other-rated discuss feelings) both of which partition the space horizontally in the same direction. Thus for both of these variables, individuals increasing their scores (i.e. category score 2) are to be found towards the bottom of the space diagram, although the size of the space differs across the two variables, that occupied by OF being smaller than that by EI. This indicates that individual's increasing their scores on OF also do so on EI i.e. being seen by other group members as increasing in ability to discuss feelings in the group is linked to post-treatment increases on expressing inclusion towards others.

There is also a marked similarity in the diagonal structural partitionings of PR (ability to handle close personal relationships) and the Speculative HIM work category. Thus, there is a marked tendency for increased speculative groupwork to be associated with improved personal relationships at post-treatment. These two variables
Figure 38: The Process-Outcome M.S.A.
Figure 39: Space diagrams for the Process-Outcome M.S.A.
were also associated with one another in the Late Process and Post-treatment S.S.A. In addition, in relation to the present analysis, these two variables cut across the horizontal partitionings of EI and OF.

Furthermore, the inverted L-shaped structures provided by IP3 (assertiveness) and Ta (task-orientation) indicate that improvements at post-treatment on one of these variables is associated with improvements on the other.

The remaining two variables, the HIM Relationship category and OL (other-rated like) show much less clear structural relationships with the other variables. However, category 2 of OL occupies a similar spatial region to EI and OF, i.e. primarily towards the bottom of the space diagram. This suggests a link between increasing ones score on personal attractiveness to the rest of the group and increases on being seen as able to discuss feelings and expressing inclusion towards others. In addition, the majority of individuals evidencing an increase on the HIM Relationship variable are similarly to be found towards the bottom of the space diagram.

In order to make further sense of the above, it is useful to compare the numbers of individuals within each category (i.e. showing increased scores or not) on each variable.

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<tr>
<th></th>
<th>IP3</th>
<th>EI</th>
<th>PR</th>
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<th>Spec</th>
<th>Reln</th>
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This indicates that on most variables the group split fairly evenly between increasers and non-increasers. The exception to this is OF, where increasers are in a minority and account for only just under one-third of the total.
The foregoing has provided evidence for structure both within and across the variables in terms of the response of individuals via change on their process and outcome scores.

In considering the overall space diagram, there is additional evidence for structure. This would appear to be composed of two main dimensions.

Firstly, a vertical dimension defines level of response across both process and outcome, with increasing levels of response being associated with spatial regions towards the bottom of the diagram. Thus, towards the top of the diagram there is a region occupied by three individuals, 2, 6 and 12, who show the lowest levels of improvement on both process and outcome. In contrast, individuals occupying areas towards the bottom of the diagram evidence high levels of improvement.

Secondly, a dimension which contrast improvement on IP3, EI and Ta with improvement on PR and Speculative. This dimension thus contrasts an expressive assertive involvement with others with engagement in personal relationships and involvement in therapeutic work with others. However, on a more general level and notwithstanding the link between PR and Speculative, it can be interpreted also as contrasting improved outcome with improved process.

Evidence for this latter structural interpretation can be adduced on the one hand from a contrast of the structural partitions of the individual variables space diagrams, e.g. IP3 and Ta in contrast with Speculative and OL. In addition however, the two lines drawn on the original space diagram delimit two groups. The one in the left hand bottom region contains the individuals who constituted the high group in terms of overall response on the outcome indices. In contrast, the group in the bottom right hand region can be identified as
those individuals, who evidenced most improvement on the process variables. It will be noted that one individual, 11, is to be found in both groups.

One further aspect which can be seen from the diagram, is that the high outcome group occupy a more tight-knit space than the high process group. This latter occupies three distinct regions: at the extreme bottom right hand is a sub-group of three individuals, 4, 14 and 20; towards the centre of the diagram is a pair of individuals, 9 and 10; and in the bottom left hand quadrant is individual 11. This differentiation clearly pertains to level of outcome response. The initial trio are to be found in the group of low overall outcome responders, the pair are in the moderate group, and individual 11 in the high group. Thus, the structuring of individuals in relation to increased process is being modulated by their relative levels of improvement on the outcome indices.

The above analysis has demonstrated order and patterning in the responses of the group of individuals on the set of process and outcome indices. This has enabled the identification of structural relationships between the variables; and also led to the specification of a dimensional structure underlying such responses. In addition, the spatial positioning of individuals in relation to one another has been found to be related to their membership of the groupings established in earlier analyses on the basis of separate process and outcome analyses.

What is perhaps remarkable about the results of the present analysis is that with such a small set of variables, substantially the same results have been obtained as in earlier analyses. This provides a measure of confidence that the variables chosen were key ones; and hence provided central structural differentiation between individuals in relation to an interpersonal learning model of group therapy process and outcome.
On the basis of the foregoing it would appear that within such a model, lines of distinction are provided by individuals changing with regard to assertive and instrumental social skills, inclusive affiliative behaviour towards others, and an ability to handle close personal relationships. Each of these dimensions of interpersonal behaviour may be differentially related to various aspects of group process. This suggests in turn that interpersonal learning is not a unitary concept i.e. different forms of interpersonal learning occur in group therapy and produce different outcome effects.

Apart from the evidence above suggesting that pre-treatment level of functioning is related to both group process and outcome, it appeared important to investigate the relationship of patient's pre-treatment status to these two aspects.

The following section analyses the relationships between patient's background sociodemographic data on the one hand, and their group behaviour, response to treatment and premature termination on the other.

12.8 The relationship of background demographic Characteristics to individual patterns of change

The foregoing analyses have demonstrated that individuals can be differentiated and ordered with regard to both process and outcome aspects of group therapy; and that such differentiation and ordering possesses coherent and logically consistent structure. On the basis of these analyses, it has been possible to establish groupings of individuals in terms of their group behaviour and response to treatment.
The question arises as to whether such groupings are related to specific aspects of individual's background data. The number of subjects included on the study was clearly insufficient to permit investigation of these questions by traditional parametric statistical approaches, but a multidimensional scaling approach, Correspondance Analysis, is specifically relevant to the identification of relationships between the variables considered above. This form of analysis was used in the present study to investigate the relationships between the following sets of variables:

1) Sociodemographic characteristics of members of both groups and outcome response to group therapy. The former set of variables were constituted by the variables and categories of variables found in Table 37. The latter comprised the groupings for individual's level of response on the composite problem set.

2) Sociodemographic characteristics of members of both groups and group process behaviour; the former comprising the same data-set as 1) and the latter comprising the groupings derived from the HIM and Sociometric M.S.A.'s.

3) Sociodemographic characteristics of members of both groups in relation to premature termination; the former comprising the same variables and categories as in 1) but including all members of the groups in the analyses, i.e. N=23; and the latter comprising a distinction between those who did and did not leave the group prematurely.

Table 44 shows the variables used in the analyses and serves as the key for the following figures and discussion.
Table 44: Variables used in the analyses on the sociodemographic variables (Key to the Correspondance Analyses)

Sociodemographic variables:

**Age:**
- TW: 21 - 30
- TE: 31 - 35
- TL: 36 - 40
- FO: 40+

**Sex:**
- Ml: Male
- Fe: Female

**Marital:**
- Si: Single
- Ma: Married
- D: Divorced/Separated

Response to therapy:

**Composite problem groupings:**
- H: High
- M: Moderate
- L: Low

**Level of group activity:**
- H: High
- L: Low

**Level of sociometric ratings:**

**Sociometric M.S.A. groupings:**
- H: High
- M: Medium
- L: Low

Premature termination:
- PT: Premature terminator
- RE: Remained in therapy

Socioeconomic status: Categories 1 to 5 based on Registrar-Generals (1980) definitions.

**Previous psychiatric:**
- IP: Inpatient
- OP: Outpatient
- N: No contact

**Medication:**
- Y: On medication
- N: Not on medication

**Previous psychotherapy:**
- Y: Yes
- N: No
Correspondence analyses were conducted on the relationships between the groupings derived from individual's response on the composite problem set (high, moderate and low responders) and the categories of variables provided by the sociodemographic data on the following: age, sex, marital status, socioeconomic status, previous psychiatric history, whether on medication at the start of therapy, and previous experience of psychotherapy. Table 45 shows the categories and groupings which constitute the contingency matrices upon which the analyses were performed. The set of individuals included comprised those for whom post-treatment data was available (N=16).

Inspection of these analyses revealed one-dimensional structures, which are to be found in Figure 40. The variables above the line refer to the sociodemographic categories and those below the line to the groupings of responder on the composite problem set.

With regard to age, the medium categories (TE and TL) are associated with moderate and high response; while the more extreme categories (FO and TW) are linked to low response. For sex, there is a clear ordering function across the composite set groupings, which particularly associates females with high response and males with low. On marital status, there is a separation of the single and divorced/separated from the married. However, there is no clear ordering apparent other than a suggestion that the former two categories are linked to either high or low response and the married set are closest to the moderate grouping. The socioeconomic categories 1 and 2 are separated from one another, the former being associated with the low response and the latter with high response. Category 3 is intermediate between low and moderate; and category 5 is closest to
Table 45: Contingency matrices for sociodemographic data in relation to response to therapy

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<thead>
<tr>
<th>Response to therapy</th>
<th>Age</th>
<th>Sex</th>
<th>Marital</th>
<th>S-E Status</th>
<th>PPH</th>
<th>Medication</th>
<th>PPT</th>
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<td>TE</td>
<td>TL</td>
<td>FO</td>
<td>MI</td>
<td>FE</td>
<td>Si</td>
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<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>3</td>
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<tr>
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<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
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<td>0</td>
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</tr>
</tbody>
</table>
Figure 40: Dimensional structures for sociodemographic variables in relation to response to therapy

**Age**

- FO
- TW
- TL
- H
- M

**Sex**

- H
- Fe
- M
- L
- M1

**Marital status**

- H
- Si
- D
- L
- M
- Ma

**Socioeconomic status**

- 1
- L
- 3
- M
- 5
- 2
- H

**Previous psychiatric history**

- IP
- M
- L
- OP
- N
- H

**Medication**

- N
- H
- L
- M
- Y

**Previous history of psychotherapy**

- N
- HM
- Y
- L
the moderate grouping. Category 4 was excluded from the analysis as it contained no individuals included in the composite problem responder groupings.

For previous psychiatric history, there is an ordering across the dimension for the categories of this variable in relation to response to therapy. This ordering separates those with inpatient experience (associated with moderate response) from those with no previous contact (associated with high response). Intermediate between these two, those with outpatient experience are closest to the low grouping. With regard to medication, those on medication are associated with moderate response; and those not on medication evidence either high or low response. Previous history of psychotherapy provides a clear ordering of the composite groupings of responder; those with previous experience being associated with low response, and those without previous experience with high or moderate response to therapy.

In summary, the foregoing has particularly related level of response to age, high response being linked to medium age group; sex, with women consistently doing better than men; and previous history of psychotherapy, higher responders being associated with no previous history. This last association is discrepant from the findings of Malan et al (1976) for whom previous experience of psychotherapy was one of the best predictors of response to group therapy.

12.8.2. Sociodemographic data in relation to group process.

Correspondance analyses were conducted on the same sociodemographic variables and categories as in section 12.8.1. in relation to individual's group process scores. These latter comprised the groupings derived from the H.I.M. M.S.A. (two groupings: High (H) and Low (L)); and the Sociometric M.S.A. (three groupings: High (H),
Moderate (M) and Low (L)). Thus, the following analyses aim to investigate the relationships of sociodemographic aspects to levels of group activity (based on the H.I.M. M.S.A.) and levels of sociometric ratings (based on the Sociometric M.S.A.) The analyses were conducted on the same set of individuals as in the previous section (N=16). The contingency matrices upon which the analyses were conducted are to be found in Table 46.

As in the previous set of analyses, the constituents of the one dimensional structures in figures 41 and 42 are defined by the sociodemographic categories lying above the axes and the M.S.A. groupings below them.

Sociodemographic variables in relation to group activity

Inspection of the analyses revealed one-dimensional structures which are to be found in Figure 41.

With regard to age, there is a link between the higher age categories (FO and TL) and the high groupings on H.I.M. activity level. For sex there is a marked differentiation between males and females, the former being associated with high activity and latter with low activity. In relation to marital status, the divorced/separated category is linked to high activity; and lies at the polar extreme of the axis from married, which is associated with low activity. The single category lies intermediate between these two. For socioeconomic status, categories 1 and 5 are at the extremes of the axis, and are associated with high and low levels of activity respectively.

The previous psychiatric history categories show a clear ordering across the dimension, inpatient experience being related to high activity and no previous contact to low activity. Those with outpatient contact
Table 46: Contingency matrices for sociodemographic data in relation to group process indices

<table>
<thead>
<tr>
<th>HIM groupings</th>
<th>Age</th>
<th>Sex</th>
<th>Marital</th>
<th>S-E Status</th>
<th>P.P.H.</th>
<th>M</th>
<th>P.P.T.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TW</td>
<td>TE</td>
<td>TL</td>
<td>FO</td>
<td>ML</td>
<td>Fe</td>
<td>Si</td>
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<td>5</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sociometric Groupings</th>
<th>Age</th>
<th>Sex</th>
<th>Marital</th>
<th>S-E Status</th>
<th>P.P.H.</th>
<th>M</th>
<th>P.P.T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Moderate</td>
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<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Low</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>
Figure 41: Dimensional structures for sociodemographic variables in relation to group activity

Age

Sex

Marital status

Socioeconomic status

Previous psychiatric history

Medication

Previous history of psychotherapy
lie intermediate between these two. Both medication and previous history of psychotherapy show a clear separation in relation to level of group activity, those on medication and with previous experience of psychotherapy both being associated with high levels of group activity.

In summary, the following variables are particularly associated with high levels of group activity; the higher age ranges, male, divorced/separated, high socioeconomic status, inpatient experience, on medication, and with a previous history of psychotherapy.

Sociodemographic variables in relation to sociometric status.

The one-dimensional structures yielded by these analyses are to be found in Figure 42.

For age, there are clear ordering functions apparent across both the age categories and the sociometric groupings. In particular, these associate lower age categories with high sociometric ratings, and conversely, high age ranges with low sociometric ratings. With regard to sex, males and females are clearly separated on the dimension, the former being most closely associated with moderate sociometric ratings and the latter with low ratings. Marital status once again separates the married category from the divorced/separated. The former is closest to the low grouping; the latter to the moderate groupings; and the single category to the high grouping. For socioeconomic status there is also again a separation of the extreme categories 1 and 5 on the axis, 1 being linked to moderate sociometric ratings and 5 to high ratings. The remaining categories 2 and 3 tend to be more mixed.

In regard to previous psychiatric history, no contact is closest to the high grouping; outpatient contact to moderate grouping; and inpatient experience to the low
Figure 42: Dimensional structures for sociodemographic variables in relation to sociometric status

Age

Sex

Marital status

Socioeconomic status

Previous psychiatric history

Medication

Previous history of psychotherapy
grouping. For medication, there are no clear relationships with sociometric rating. However, on previous history of psychotherapy, there is an ordering across the dimension of the sociometric groupings, which in particular associates those with previous experience of psychotherapy to high levels of sociometric rating.

From the foregoing, the following variables are particularly associated with high sociometric ratings: the lower age categories, single, low socioeconomic status, no previous psychiatric contact, and a previous history of psychotherapy.

In comparing the results of these analyses across levels of group activity and sociometric ratings, it is of interest to note that age and previous psychiatric history show inverse relationships to these two aspects. Thus, while the high age range is linked to high activity, the low age range is associated with high sociometric ratings. Similarly, whereas inpatient experience is linked to high activity, no previous psychiatric contact is linked to high sociometric ratings. The only variable which shows a positive relationship to both of these aspects of group process is having previous experience of psychotherapy; although as noted in the previous section this was associated with low levels of response to therapy.

12.8.3. Sociodemographic data in relation to premature termination

Correspondance analyses were conducted on the sociodemographic variables and categories in relation to premature termination in order to investigate the relationships between these two sets of variables. The data set comprised all the members of the groups studied (N=23); and the contingency matrices, which form the basis for these analyses are to found in Table 47.
| Age | TW | TE | TL | FO | Ml | Fe | Si | M | Ma | D | 1 | 2 | 3 | 4 | 5 | N OP | IP | Y | N | Y | N |
|-----|----|----|----|----|----|----|----|---|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PT  | 4  | 3  | 1  | 1  | 6  | 3  | 3  | 2 | 0  | 1 | 13| 3 | 0  | 3 | 1 | 1 | 4 | 5 | 2 | 5 | 2 | 4 | 4 | 5 |
| PT  | 4  | 5  | 2  | 1  | 6  | 8  | 7  | 1 | 6  | 1  | 7  | 5  | 0  | 1  | 3 | 6  | 5  | 4  | 10 | 6  | 8 |
The variables and categories used for the sociodemographic data were the same as those used in the above analyses. The premature termination variables were constituted by a division of the set of individuals into those who did leave the group prematurely (PT) and those who remained in the group (RE).

Inspection of the analyses revealed a set of one-dimensional structures, which are to be found in Figure 43. As with the previous analyses, the constituents of these structures are defined by the sociodemographic categories lying above the axes and the premature termination variable below them.

With regard to age, there is a link between premature termination and the highest age category (FO). The remaining categories are somewhat mixed. However, there is a suggestion that the intermediate categories (TL and TE) are more likely to remain in therapy than the extreme categories. For sex, there is a clear separation with males being associated with termination and females with remaining. On marital status, the divorced/separated and married categories are again at the extremes of the axis, the former being linked to remaining in therapy and the latter to premature termination. Socioeconomic status evidences a mixed picture, apart from category 4 clearly being related to premature termination. Here again, there is some evidence that the intermediate categories (2 and 3) are more associated with staying in therapy than the more extreme categories.

On previous psychiatric history there is again an ordering of the categories, inpatient experience being associated with staying in therapy and no previous contact with leaving prematurely. On the final two variables, those not on medication and with no previous experience of psychotherapy are associated with remaining in therapy.
Figure 43: Dimensional structures for sociodemographic variables in relation to premature termination

Age

TL --- TE --- TW --- PT --- FO

Sex

Fe --- RE --- Ml --- PT

Marital status

D --- RE --- Si --- Ma --- PT

Socioeconomic status

2 --- 3 --- 15 --- 4 --- PT

Previous psychiatric history

IP --- RE --- OP --- PT --- N

Medication

N --- RE --- Y --- PT

Previous history of psychotherapy

N --- RE --- Y --- PT
12.8.4. Summary

Firstly, it must be pointed out that the evidence from these analyses have been based upon data matrices in which the numbers are very small. This means that e.g. a value of 0 in one cell and 5 in another would tend to pull apart the variables and categories represented by the cells.

However, while taking this into account, the results of these analyses have pointed up the varying contributions of the different sociodemographic variables in relation to level of response to therapy, group process data and premature termination.

Thus, with regard to age, there was a division across the categories with moderate age groups being associated with higher response to therapy, higher levels of group activity, but lower sociometric ratings.

For sex, females were associated with higher response to therapy, and males with higher levels of group activity and premature termination.

On marital status, the main distinction was between the divorced/separated and married categories, the latter being associated with low groupings on group activity and sociometric ratings and also with high levels of premature termination.

For socioeconomic status, there were no clear relationships.

With regard to previous psychiatric history, an ordering function was also apparent from inpatient experience through outpatient contact to no previous contact. This order related inpatient experience to high group activity, low sociometric ratings and staying in therapy; and no previous contact to the converse
Individuals on medication at the start of therapy were associated with high levels of group activity but also high premature termination.

Finally, previous history of psychotherapy was related to low level of response to therapy, high levels of group behaviour and sociometric ratings, but also high levels of premature termination.

The foregoing has analysed individual patterns of response to group therapy in relation to presenting problems, the structure of change on the outcome measures, patterns of group activity and sociometric ratings, the relationship between change on process and outcome dimensions, and sociodemographic background data.

This has enabled ordering of the individuals and the delineation of structural relationships between the variables. The following chapter aims to expand on these analyses by integrating the findings of the two studies in relation to the interpersonal learning model of group therapy, after which implications for clinical practice and further research will be discussed.
Chapter 13: Elements in an interpersonal learning model of group therapy: An integration of the two studies

Firstly, it must be acknowledged that the social-psychological processes involved in the study of long-term therapy groups are both complex and multi-faceted. The methodology used and the hypotheses tested in the present study have attempted to take account of this complexity and multidimensionality. This has involved the development of a rationale for focusing on relatively small numbers of groups and individuals in an attempt to begin to draw out factors of generality and variability in their response to this particular form of psychological intervention.

The results obtained and conclusions drawn from the two studies described above will now be integrated in an attempt to delineate some of the main features of an interpersonal learning model of group therapy. A key aspect of this model is the notion that individuals presenting with psychological difficulties can be distinguished from 'normals' in terms of a tendency to behave and relate to others in relatively rigid or stereotyped ways; and that one of the major effects of therapy is to enable group members to develop interpersonal flexibility in their interactions and relationships with others.

The concept of therapy as learning yields two alternative basic mechanisms, whereby such learning may occur. These may be defined as learning via activity and practice; or learning via vicarious observation and modelling of others activity. The results obtained in hypothesis 8 of the first study.
indicated that learning via vicarious observation (based on taking level of attendance as a measure of the opportunity to engage in such observation) was generally unrelated to outcome and hence ineffective as a learning mechanism in this form of therapy. In contrast, members increasing their level of overall activity on use of the HIM categories were related to positive response on a variety of outcome indices. Thus, change and by implication: efficient learning was clearly related to active engagement in group interaction rather than vicarious observation.

13.1 The influence of pre-treatment characteristics

The opportunity to solve problems and change maladaptive aspects of behaviour and experience would appear to be predicated upon members bringing to the group their typical ways of behaving and relating. This is theoretically expressed in terms of the 'social microcosm' hypothesis (Yalom 1970). In turn this is linked to Lewin's (1947) conception of groups operating as agents of change via their 'unfreezing' and disconfirming effects on member's habitual patterns of attitudes and behaviour. This latter conception has found experimental interest and support in the studies by Jacobs and her coworkers (1973a, 1973b) of the effects of different forms of feedback.

The notion of a 'social microcosm' brings together two sets of variables: client's pre-treatment characteristics including those aspects of their interpersonal behaviour, which are maladaptive; and their exhibition of these in the group via their forms of interaction.

In regard to pre-treatment characteristics, evidence from the pre-treatment S.S.A., the I.C.L. pre-treatment S.S.A. and the FIRO pre-treatment S.S.A. suggested that a major dimension of differentiation was provided by the contrast between those showing an assertive,
disaffiliative and controlling attitude towards others and those showing an affiliative, submissive attitude. The pre-treatment P.A.Q. S.S.A. provided also a differentiation between both general and specific aspects of adjustment and level of symptomatology.

These dimensions serve to define on the one hand two contrasting dysfunctional forms of interpersonal rigidity in individual’s pre-treatment functioning; and on the other to differentiate individuals with general problems of adjustment from those whose problems are mainly related to symptomatology.

In linking these dimensions to behaviour in the group, the results of hypothesis 1 of the first study indicated that the affiliative mode was particularly related to use of the relationship category; indices of adjustment and task-orientation were related to the conventional and speculative categories of interaction; the assertive mode was linked to the topic category; and low levels of symptomatology linked to use of both the confrontive and relationship categories. Additional evidence for these associations was provided in the pre-treatment and early process S.S.A.

There were thus clear and logically consistent links between specific interpersonal behavioural styles and forms of group interaction. These can also be related to level of groupwork. Thus, there was a tendency for individuals high on affiliation and with low levels of symptomatology to engage in high levels of groupwork; and in contrast, those high on assertion tended to utilise pre-work categories. This latter association may reflect a 'counter-dependant' attitude towards involvement in the group.
Additionally, there was evidence that the operation of the social microcosm mechanism took the form of a developmental process, whereby member's pre-treatment characteristics became increasingly related to group activity over time.

This suggests that time may be required before group members fully come to show in the group their typical interpersonal styles, including those which are maladaptive; and hence sufficiently demonstrate such problems in the group for them to be amenable to therapeutic work and change.

With regard to the influence of pre-treatment characteristics upon members perceptions of one another, the evidence from hypothesis 2 of the first study suggested that these had a greater and more persisting effect upon member's attractiveness towards one another than on their evaluations of one another's group behaviour. The differentiation between control and affiliation was maintained for the relationships between these sets of variables. In particular member's high on pre-treatment indices of expressing affection and inclusion were attractive to other group members. Conversely, the control indices were related to members self-perceptions of their group behaviour, with submissive individuals particularly rating themselves lowly on 'positive' group behaviour variables.

The third set of links between pre-treatment and group process refers to the influence of compositional measures on group behaviour and experience. The results of hypothesis 3 suggested that members chose to interact with one another, where there was a maximal degree of complementarity between them with regard to control and a minimal degree of similarity between them in terms of affection. This emphasis on the importance of complementarity with regard to a dominance-submission dimension fits with Leary's (1957)
speculations regarding the structure underlying inter­
actions.

With regard to sociometric ratings, individuals
 tended to rate one another highly on the indices of
personal attractiveness where they were complementary
 to one another on the affection dimension. Conversely
they rated one another highly on the group behaviour
variables, when there was similarity between them on
the control dimension.

These results indicate clear influences of group
compositional indices regarding interpersonal style
on subsequent interaction and perception; and
show contrasting effects of both the control and
affection orientations, and of complementarity and
similarity in interpersonal orientation.

13.2 The structure of group process

With regard to group process, changes occured
over time in both type of interactions and structure
of sociometric perceptions. For interaction, the
most general change consisted of an increase in
interactions oriented towards therapeutic work
(see Hypothesis 4 of the first study). More
specifically, this change was largely characterised
by an increasing orientation towards interactions
which focussed upon member's relationships with one
another, i.e. use of the Relationship category. This
category was considered by Hill (1965) to be the
highest of the work content categories. Moreover,
this focus would appear to provide the most direct
context within which interpersonal learning might
occur. As such, use of this form of interaction may
be considered a key aspect of an interpersonal
learning model of group therapy.
In addition, the S.S.A.'s conducted on the H.I.M. provided evidence of a change in its dimensional structure over time. The early S.S.A. contrasted the Assertive and Relationship categories on one dimension; and Topic and Confrontive categories on a second dimension. Both of these dimensions had a pre-work category at one pole and a high work category at the other. However, the late S.S.A. had only one dimension with Assertive and Relationship as its poles. This dimension clearly refers to increasing levels of therapeutic work as being the major line of differentiation between individuals in terms of their late group interaction. The Assertive category is particularly related to a hostile resistant mode of behaviour; while as noted above, Relationship is related to engagement in interpersonal learning.

With regard to the pre-work categories, it is of interest to note that on this late dimension, Assertive and Group were at one end; and Topic and Conventional lay between these two and the work categories, Personal and Speculative. This may imply that late use of Topic and Conventional, which are considered to perform group maintenance functions, continued to be relatively useful; whereas use of the Group category was less so. From this perspective, it is suggested that discussing the group and its functioning early in its history may be seen as task-relevant; but continuing to do this latter is evidence of a failure to move on to use of more work-oriented interactions.

In relation to individual contributions to group interactions, the HIM M.S.A. indicated that the group split fairly evenly both early and late between two sets of individuals, one set providing high proportions and the other low proportions of group interaction. The main variables contributing to this structural differentiation were Speculative and Personal; while the main category upon which increase from early to late was observable was once again Relationship.
However, in focussing more specifically upon individual change in interaction the Process M.S.A. suggested that the Speculative category provided the main structural differentiation between individuals in terms of their increase in contributions to group interaction. This category in particular codes interaction oriented towards the development of explanations and understanding of behaviour and experience.

These structural analyses emphasise firstly the establishment of a basic role structure within the group, which contrasts a high activity subgroup with a low activity subgroup. Moreover, this structure clearly persisted over time, i.e. few individuals moved from one subgroup to the other. Secondly, the importance of engaging in speculative interactions, i.e. attempts to understand problems, is pointed up by the fact that the category served to differentiate between individuals in terms of both overall activity and also changes in activity from early to late.

The nature of change in sociometric perceptions over time may be defined in terms of two main processes on the basis of the results of hypothesis 5 in the first study. Firstly, the group as a whole tended to increase their levels of consensus in their ratings of individuals over time. On the one hand, this can be construed in terms of the development of a role structure in the group with perceptions and expectations of members becoming increasingly agreed and codified. On the other hand, it can be explained in terms of an increase in the knowledge, which members held in common about one another.
Secondly, there was movement together of self-ratings and ratings given by others concerning member's group behaviour. This change was also observable on the late Process S.S.A. and the late Sociometric S.S.A. This movement would appear to be less a consequence of one set of ratings moving towards the other and more a consequence of changes on both sets. In addition, the late Sociometric S.S.A. indicated that the self and other-rated Needs help variables tended to separate out from the rest of the group behaviour variables over time. Thus, the group's perceptions of those individuals in need of help was differentiated from their perceptions of individuals exhibiting more positive group behaviour.

This movement together of self and other ratings provides some evidence for an increase in perceptual accuracy over time; and appears to provide an experimental demonstration of the operation of a 'consensual validation' mechanism in the group. This mechanism (see Sullivan, 1953; Bednar and Kaul, 1978) refers to a means of correcting perceptual distortions via mutual reality-testing.

Furthermore, both early and late, there was a clear demarcation on the S.S.A.'s between perceptions of group behaviour and perceptions of personal attractiveness. This suggests that individuals were utilising very different perceptual/emotional constructs in their ratings of one another on these two sets of variables.

This differentiation was also to be found in the Sociometric M.S.A., whose basic structure consisted of two dimensions: a vertical dimension provided by the personal choice variables; and a horizontal dimension provided by the other-rated group behaviour variables.
Similarly to the H.I.M. M.S.A., this analysis also split the group of individuals into two sets, which persisted across early and late group process. These two sets comprised individuals rated high and low across the sociometric variables.

Thus in regard to both level of group activity and sociometric status, there was a clearly established role structure, which differentiated individuals into two major groupings with few individuals moving from one grouping to the other from early to late.

With regard to individual changes on the sociometric variables, the Process M.S.A. again suggested that the major structural differentiation between individuals was in terms of a contrast between those increasing on group behavioural variables, particularly other-rated ability to discuss feelings and those increasing on the personal choice variables, particularly other-rated like.

In analysing the relationship between interaction and perception, the main finding of Hypothesis 6 of the first study was of a shift over time in the relationship of particular forms of interaction to the sociometric personal choice variables. For early group process, personal choice was associated with use of the pre-work Topic category. In contrast, for late group process, it was associated with use of the Speculative and Relationship categories, and also with the index of interactional flexibility, 'Spread'.

This suggests that whereas early in the group, people are attracted to individuals exhibiting socialising behaviour, which would be appropriate to any form of group; later on they are attracted to forms of interactional behaviour, which are oriented towards therapeutic work. These may be defined in terms of attempts at comprehension and understanding of problems; an orientation towards exploring member's
relationships with one another; and exhibiting variety and flexibility in interactional style.

It is noteworthy that individuals increasing their scores on this last factor also received increased ratings from early to late on the group behaviour variables. Thus, increasing levels of interactional flexibility were associated with individuals being attractive to other group members and also being evaluated highly with regard to their contributions to the group.

In contrast, there was a marked negative relationship between the level of consensus achieved for an individual and other group process indices. Thus, group members tended to agree more readily (both early and late) in relation to those individuals whose group behaviour and personal attractiveness they rated lowly. Moreover, there was a negative relationship between both late and increased consensus and use of the Speculative and Relationship variables. Thus, consensus was particularly evidenced for those individuals who were not engaged in therapeutic work.

In terms of structural links between group behaviour and experience, the Early process S.S.A. suggested that the main differentiating dimension was provided by self-ratings of dominance in the group and use of the Speculative category, i.e. these were in some sense opposite to one another in terms of early group process. This finding recalls the aforementioned link between pre-treatment assertion and dominance and failure to engage in therapeutic work activity, i.e. the 'counterdependant' attitude towards involvement in the group.

In contrast, the Late process S.S.A. contained a dimensional structure, which distinguished between both self and other perceptions of needing help, and engaging in high levels of therapeutic work.
Thus, one of the major changes in group process over time consisted of a movement from an early negative association between therapeutic work activity and seeing oneself as dominant to a late negative association between therapeutic work activity and being seen by both the self and others as needing help.

With regard to individual change on the process variables, the Process M.S.A. provided evidence of a variety of structural relationships between changes on the HIM and the sociometric variables: the Assertive category being related to being seen as needing help; the Conventional category to other-rated ability to discuss feelings; the Personal and Speculative categories with like and trust; and the Confrontive and Relationship categories with being seen by others as sensitive. In addition, there was a clear tendency for level of increase on the HIM categories to be associated with level of increase in sociometric status, i.e. the two sets of groupings derived exhibited a high degree of overlap for high, moderate and low increasers on the HIM and sociometric variables.

The foregoing has suggested that the developmental structure of group process can be defined in terms of a set of key components. With regard to forms of interaction, the components include both overall and increasing use of the Speculative and Relationship categories and the index of interactional flexibility, 'Spread'. These positive components contrast with use of the assertive category, which is generally negative in connotation.

For the indices of sociometric perception, the main structures are constituted by increases in group consensus of individuals; increased similarity between
self and other ratings of group behaviour; a differentiation in perceptions between evaluations of group behaviour (particularly the ability to discuss feelings) and ratings of personal attractiveness (particularly liking); and a differentiation on both self and other ratings of those in need of help from those seen as exhibiting more positive group behaviours.

13.3. The Relationship of group process to outcome

In looking firstly at the main effects of group therapy in the first study, the majority of the group evidenced change on a variety of indices. These included both indices of interpersonal behaviour and also of other aspects of functioning. Amongst the former were increases in including others in ones activities, increased interpersonal responsivity and sensitivity, increased ability to handle close personal relationships, increased ability to initiate interaction and decreased submissiveness. The latter included increases on self-understanding, ability to productively structure time, improved general adjustment and decreased levels of symptomatology.

These indices were variously related to group process variables. With regard to form of interaction, the main relationships were positive with the work categories and 'Spread'; and negative with Assertive. For the sociometric variables, the positive relationships were mainly with self and other-ratings on the group behaviour variables. In addition, increased ratings on admire and understands you were associated with positive outcome, as also were scores on the measure of cognitive/perceptual differentiation.

This latter measure would appear to be particularly related to flexibility in interpersonal perceptions as it emphasises the ability to utilise a variety of
constructs in evaluating others rather than relying on a few. As such, it may be considered as the sociometric equivalent of 'Spread'.

In contrast, self-ratings on needing help and scores on the consensus measure were negatively related to beneficial outcome.

Thus, positive outcome was particularly associated with those individuals who showed high levels of groupwork and interactional flexibility; both gave themselves and obtained from others high ratings on the 'positive' group behaviour variables; were admired and considered empathic by other group members; and showed the ability to differentiate their perceptions of others.

There was also evidence that the pre-treatment compositional measures were differentially related to outcome, complementarity being linked to post-treatment dominance and instrumental behaviour, and similarity to negative response to treatment. This suggests that those members, who were most similar to the group in terms of pre-treatment interpersonal orientation, showed least benefit.

This finding accords with that of Reddy (1972); and implies that for members who are most similar to the rest of the group, there is insufficient challenge and impetus to change i.e. the group situation may be too comfortable. This explanation is in agreement with the support plus confrontation model presented by Harrison (1965).

In looking at the evidence, which links process to outcome structurally, the Late Process and post-treatment S.S.A. indicated that the most general change over time was an increasing differentiation
of the variables into the form of a circumplex. The ordering of the variables into this type of structure is of particular interest as it relates the structure of group process and outcome found in this study to the structures obtained in studies of a variety of different forms of interpersonal domain (see Anchin, 1982).

This circumplacial structure in the S.S.A. was also associated with the breakdown of certain central organising constructs, which had characterised the pre-treatment and early process S.S.A. In particular, these had contrasted a controlling assertive orientation with a submissive one.

For the later S.S.A. these were replaced by constructs, which contrasted active engagement with others (and linked indices of dominance, assertiveness, inclusion, low level of symptomatology and high levels of therapeutic work) with an area of functioning which has been characterised by neediness and a failure to respond to therapy. The variables included in this latter comprised self and other-rated needing help, the HIM pre-work variables, disaffiliation, and a preponderance of expressed over wanted control. In addition, the area of active engagement was adjacent to areas occupied on the one hand by indices of affiliation and on the other by a variety of adjustment variables. Although these three areas possessed structural integration in themselves i.e. they were clearly separated from one another, the fact that they were adjacent to one another demonstrates the central role of active engagement in high levels of therapeutic work in relation to outcome indices of both affiliation and adjustment.

This analysis thus confirmed the findings of the first study regarding the links between beneficial outcome and the HIM work categories and sociometric
group behaviour variables; and the general absence of such links with the pre-work categories and personal attractiveness variables.

With regard to individual change, the Process-outcome M.S.A. demonstrated that such structural relationships were in evidence for a more limited set of process and outcome variables; and was also able to identify an ordering of individuals in terms of their response across process and outcome.

Furthermore, this ordering replicated that found for specific analyses of process and outcome, i.e. the M.S.A.'s conducted on the individual scales. These analyses had in particular demonstrated that on a variety of different sets of variables, individuals exhibited consistency in their levels of response to group therapy.

Apart from this consistency, the individual scales also exhibited structural differentiation between individuals in terms of the nature of their change. Thus, the I.C.L. M.S.A. provided two dimensions of change: one constituted by increases in both assertiveness and affiliation; the other by increases on affection and support. The F.I.R.O.M.S.A. contrasted individuals changing on all three scales with those changing on either only inclusion or only control. The main differentiation on the P.A.Q. M.S.A. referred to a demarcation between those showing improvement with regard to their ability to handle close personal relationships and those showing increased levels of self-understanding. Finally, the S.E.I.S. M.S.A. evidenced some degree of contrast between improvements on instrumental interpersonal behaviour and increased interpersonal sensitivity.
The structure of member's post-treatment functioning can be adduced from the Post-treatment S.S.A. and the S.S.A.'s conducted on the post-treatment scales. This evidence in particular refers to the development of interpersonal flexibility, which as noted in the rationale for the first study may be seen as constituting a key element in an interpersonal learning model of group therapy.

The main structural features in the Post-treatment I.C.L. S.S.A. consisted of firstly the emergence of a more normative two-dimensional structure, which provided two axes of interpersonal behaviour: dominance-acquiescence and affiliation-disaffiliation; in contrast with the pre-treatment one-dimensional structure which contrasted dominance and disaffiliation with submission and affiliation. Secondly, there was a movement together of the four quadrants, which suggested that member's scores across a variety of interpersonal styles became more similar. Both of these structural features may be seen as evidence of increased flexibility of response.

The main change on the post-treatment F.I.R.O. S.S.A. consisted of a movement together of the expressed and wanted scores on all three scales. This contrasted with the pre-treatment polarity between the control scale and the other two i.e. inclusion and affection. This change involved two aspects related to flexibility. Firstly, member's levels of expressing and wanting interpersonal behaviour became more similar at post-treatment, i.e. there was evidence of an increased balance in interpersonal orientation. Secondly, their preferences for engaging in one of the three styles became less rigid, i.e. they were able to swap between inclusion, control and affection rather than being fixed in one mode.
The post-treatment P.A.Q. S.S.A. was particularly characterised by an increased dimensional structure, which indicated an increased measure of differentiation between individuals in their response to group therapy in relation to indices of adjustment. This differentiation contrasted improved personal relationships with increased self-understanding with decreased levels of symptomatology; and indicated that individuals varied across these three dimensions in terms of their response to therapy and post-treatment functioning in relation to adjustment.

13.4 A model of group therapy

On the basis of the foregoing, the ingredients of an interpersonal learning model of group therapy can be delineated. The pre-treatment evidence suggests that individuals entering group therapy are characterised by maladaptive rigidity in their interpersonal behaviour. This in particular takes the form of either an assertive disaffiliative or submissive affiliative attitude towards others.

In order to correct these maladaptive interpersonal behavioural patterns, the group therapy situation provides a context within which the individual has the opportunity to engage in interpersonal learning processes. The key aspects of these processes would appear to be provided by the following:

1). Engagement in interactions oriented towards the exploration of relationships occurring within the group. This focus was particularly emphasised by Lee and Bednar (1977), who related it to interpersonal feedback.

2). Attempts at developing a structure for the understanding of behaviour and experience. The importance of 'meaning attribution' has been underlined by Lieberman et al (1973), among
others. They concluded that what distinguished non-improvers from improvers in their study of encounter groups was not the expression or experiencing of strong feelings, but rather the ability to use cognitive mechanisms to structure such affective experience.

3) Demonstrating increasing levels of interaction flexibility and variety over time in the group.

4) Individuals exhibiting these forms of group behaviour become increasingly attractive to other members of the group: and on this basis may well receive positive feedback in the form of liking, admiration, etc., for such behaviour.

5) While personal attractiveness does not appear to be directly related to outcome, individuals whose group behaviour is positively evaluated by other group members evidence positive outcome.

6) Similarly individuals exhibiting differentiation in their perceptions of others are associated with positive outcome. Such perceptual differentiation appears to constitute an important aspect of flexibility, particularly in relation to the development of complexity in the evaluation and perception of others.

In addition certain other characteristics can be identified. Thus, for such learning processes to operate, some degree of interpersonal dissonance appears preferable; and the nature of member's interactions and relationships with one another appear to be more important than their levels of interaction and relationship with the group therapist.
Furthermore, individuals showing productive change may also be characterised by a lack of agreement amongst other members in their sociometric ratings of them. This finding of negative relationships between level of consensus and positive outcome in the first study may be related to a suggestive finding in the second study that individuals as a result of group therapy become differentiated, i.e. they are more similar to one another at pre-treatment than at post-treatment. This suggests not only that therapy is having differential effects across individuals, but also that they are becoming in some sense more unique. In turn, this implicates interpersonal learning processes in the development of self-actualising tendencies in the individual.

An additional aspect refers to the timespan for such changes. The evidence from the first study regarding the developments of the social microcosm mechanism, increases in consensual validation and increased use of the Relationship category all suggest that group therapy requires sufficient time for its processes to develop. Similarly, the structural changes found over time in the second study with regard to group process and outcome confirm the findings of the first study that engagement in interpersonal learning processes and the development of interpersonal flexibility necessitate relatively time-extended group formats. A more accurate determination of the timespan required awaits further investigation.

The nature of outcome response although highly complex, multidetermined and multidimensional can essentially be defined in terms of the following:

1) Increased flexibility in interpersonal style and orientation e.g. the ability to be both assertive and affiliative.
2) Increased levels of expressive and decreased levels of wanted interpersonal behaviour i.e. increased similarity between interpersonal output and input.

3) Improved social skills, which can be differentiated into increased instrumental role-taking and increased interpersonal sensitivity.

4) Improved adjustment, which is differentiated into improved personal relationships and increased self understanding. This differentiation may refer to a contrast between individuals in terms of their basic orientation i.e. towards interaction and relationships with others or towards their own internal states of being.

The foregoing has drawn out the main results and conclusions of the two studies and demonstrated major areas of overlap between them in relation to the influence of pre-treatment characteristics upon group process, the nature of change in group process, the relationship of group process to outcome, and the structure of post-treatment functioning.

These aspects have been investigated at both the group and individual levels.

These analyses may in retrospect be seen as complementary to one another, both describing different aspects of the same thing and deriving essentially similar conclusions. Investigation at the level of the group has permitted the testing of a set of hypotheses and the delineation of key structural relationships between the variables. Investigation at the level of the individual has delineated similar structural relationships and also permitted the identification of factors of generality and variability in individuals response to group therapy. In
addition, it has demonstrated a clear ordering in such response across a variety of different sets of indices.

This has enabled the specification of a set of variables and the relationships between them, which offer a structure for an interpersonal learning model of group therapy. Among other elements, this structure particularly includes various aspects of the concept of interpersonal flexibility which bridge both process and outcome. The fact that the two studies have yielded substantially similar results and conclusions offers support for the validity of the model and the importance of an interpersonal learning conception of group therapy. The remaining chapter will aim to draw out the implications of this study for research into group therapy and clinical practice.
Chapter 14:

Final discussion and conclusions

In broad terms the aims of this study have consisted of the development of a coherent model of group therapy based on interpersonal learning processes; the development of a methodology, which would operationalise this model; and the empirical testing of a set of hypotheses derived from the model.

The foregoing has described the ways in which each of these aims were approached and the results stemming from them. This has enabled the delineation of some of the key components of the model; and demonstrated the inter-relationships of process and outcome aspects of group therapy.

The present chapter will aim to evaluate the methodological aspects of the study; indicate the implications of its findings for clinical practice; and suggest future applications of the model in relation to empirical research.

14.1 Methodological aspects

One of the conclusions of the review of research (Chapter 3) into group therapy related to the difficulty in generalisation of findings. This problem in part referred to the fact that a large proportion of studies had been conducted on unrepresentative samples and procedures, i.e. college students undergoing experiential or quasitherapeutic experiences conducted over a short time-span.

The present study was directly addressed to the behaviour and experiences of patients in group therapy. The pre-treatment presenting problems and client characteristics, including sociodemographic aspects of the patients included in the present study, were
considered to be sufficiently representative to permit
generalisation of its findings to a wide variety of
individuals presenting for this type of treatment.

Evidence of this is based upon firstly the descrip-
tion of client characteristics provided by Klein and
Carroll (1986) in relation to referrees for group therapy.
This is highly similar to those found in the present
sample. Secondly, representativeness may be adduced from
the high degree of comparability between the two groups in
the present study, notwithstanding the fact that the first
group was based in a major London teaching hospital and
the second in a suburban mental health centre. Thirdly,
the results of the survey (Appendix 3) provide further
evidence for the similarity of the present sample to
those found in the other areas.

This survey also offers confidence that the type of
group therapy provided in the present study i.e. dynamically-
oriented outpatient group therapy, constitutes a significant
proportion of the types of group therapy being provided more
generally. This factor also increased the generalisability
of the findings obtained in the study.

Problems in generalisability have also related to the
failure to specify important client and therapist variables
in the description of studies. These failures have been
described by Kiesler (1966) in terms of the operation of
'uniformity myths'. The present study especially
attempted to provide descriptions of patient characteristics
across a wide variety of dimensions including interpersonal
behaviour, social skills, level of symptomatology, adequacy
of self-concept, overall adjustment and pre-treatment level
of functioning, together with a variety of sociodemographic
indices.

Similarly, descriptions of therapist variables were
not restricted to labelling a school of therapy, but
included an evaluation of the therapists' perceptions of
their therapeutic style and a description of the therapists' behaviour in situ.

In addition, the molecular study of group process has enabled the specification and definition of a set of variables covering both individual's behaviour towards one another and their experience of one another. This indepth approach to the study of group process has permitted the delineation of relationships between these two sets of variables, and the consequent analysis of developmental aspects of such processes.

Such specification together with the application of the single case study design to group therapy has contributed to the identification of factors relating to variability and generality in individuals pre-treatment characteristics, ingroup behaviour, and response to therapy.

These issues pertain also to decisions concerning the most appropriate scales to use in order to evaluate the effects of group therapy. Certain considerations guided these decisions.

Firstly, the nature of the model being used required the inclusion of measures which would tap interpersonal aspects of functioning. Secondly, the fact that change as a consequence of therapy is multidimensional required the inclusion of multiple measures of change. Thirdly, Truax and Carkhuff (1967) have pointed up the importance of evaluating change on both behavioural and 'internal' indices. Fourthly, in line with the application of single case design and also with a developing trend in therapeutic outcome research, (Bergin and Lambert, 1978), it was considered important to individualise measures of outcome.
The first two of these issues are pertinent to an oft-noted finding in outcome research (Lewis and McCants, 1973; Lieberman, 1976; Bergin and Lambert, 1978) of a lack of correlations between outcome measures within studies. This has been interpreted by Bergin (1963) as a reflection of different value orientations between individuals providing outcome data. The results of the present study are markedly divergent from these findings. In particular, the multidimensional scaling procedures yielded clear logically consistent structural relationships between variables from different scales. The explanation proposed for this discrepancy refers to the effect of using a coherent model (i.e. the interpersonal learning model) in the present study. This permitted the identification of conceptual variables, which cut across the measures used. Such a model has typically not been used as a unifying paradigm in previous studies, where the use of a battery of measures has fulfilled the criterion of multidimensionality, but not addressed the issue of conceptual clarity and unity.

The third consideration i.e. the importance of including measures relating to both behaviour and internal aspects of functioning, was also pointed up by results in the present study. In particular, one of the main lines of differentiation between individual's response was the distinction found on the P.A.Q. between those who increased their ability to engage in personal relationships; and those who either increased their level of self-understanding or obtained symptomatic relief.

The fourth consideration, the need to individualise indices of change, was particularly related to the examination of individual patterns of response. The use of both individual's expressed problems and also test data indices permitted the achievement of this aim. Moreover, the extent to which the expressed problems
were identified by responses to the pre-treatment test data i.e. the high level of overlap between these two sources, provided additional evidence for the appropriateness of the measures used.

The conclusions of this study in relation to this issue are thus congruent with those of Lieberman and Bond (1978) regarding the possibility and utility of combining ideographic and nomothetic approaches to outcome. Moreover, within the present study, this combination also permitted the development of an index of pre-treatment level of functioning, i.e. the size of the pre-treatment composite problem set, which subsequently proved to be capable of being related to outcome.

Apart from the foregoing, the particular measures used in the present study have been able to determine major dimensions of pre-treatment functioning; identify consistent patterns of individual change; define the types of benefit derived by the majority of patients; and establish some of the main dimensions of response to therapy. Moreover, each of the measures has been found to have conceptual links to the others; but also demonstrate that they provide an assessment of different areas of functioning. In addition, the study of the P.A.Q. (see Appendix 7.) indicates that this scale is both able to distinguish between different patient samples (and hence may well have utility in defining selection for group therapy), and also provide sensitive indicators of differential response to group therapy.

The pre-post measures used have also been found to be related to the group process measures. The identification of these relationships constituted one of the main areas of investigation in the present study,
which aimed to overcome the dichotomy between process and outcome studies in order to relate members group behaviour and experience to outcome. The integration of process and outcome in the present study is particularly relevant to another major methodological issue in therapy research i.e. the difficulty in relating observed changes from pre to post-treatment to members experience and behaviour in the group.

Thus, various links between process and outcome have been found including the following; members increasing their overall activity evidence positive outcome; level of group functioning across both behaviour and perceptions has been related to level of outcome; and engaging in specific forms of behaviour and ratings obtained on specific sociometric variables have been associated with particular forms of outcome.

The results of the present study have been able to link process and outcome both correlationally and structurally. The use of these two approaches across the two parts of the study offers confidence in the stability of the relationships found. Additionally, these findings argue for the importance of investigating group process indepth via an observation of members interactions with one another i.e. a molecular approach to group process, rather than a molar approach to inferred constructs such as group cohesivesness or group structure.

In addition, it has been found to be important to pay attention not only to member's behaviour, but also their perceptions of one another. With a few exceptions, which in the main yielded negative findings (e.g. Wyrick, 1979; and Piper et al, 1977, both of whom found a lack of association between self and other-ratings), studies of such perceptions in the group therapy literature are markedly absent.
Within the present study, the use of sociometry was able to contribute to an understanding of the antecedants, changing structures, and relationships with both group behaviour and outcome of member's developing perceptions of themselves and others in the group. In particular, the divisions in the sociometric scale between self-ratings, group behaviour and personal attractiveness were found to relate differentially to these other sets of indices. This indicates the importance of paying attention to each of these aspects of person perception in group therapy research.

A further important aspect of the methodology of the present study was the application of multidimensional scaling techniques to the data. As with sociometry, this is an approach which has had very few previous applications in either psychotherapy or group therapy research. However, the results and conclusions of the present study indicate that it provides a powerful research tool, particularly with disparate data sets based on small samples, both in analysing relationships within the data and also in generating further hypotheses.

In particular, its applications in the present study have permitted the identification of structural relationships both within and across process and outcome; enabled the study of individual patterns of change; and contributed to the development of the interpersonal learning model via a delineation of some of its key features. In addition, it has also offered an approach towards assessing the stability of some of the findings of the first study.

In summary, the present study addressed itself to certain key issues in therapy research. This prompted attempts to fully specify important aspects of client characteristics, therapist variables and group process variables; and contributed towards the choice of scales and variables used. In addition, it was considered important to integrate process and outcome by taking
an indepth approach to the study of a small sample in order to investigate individual patterns of response. This latter was particularly facilitated by the application of multidimensional scaling techniques. Finally, once again the importance of a unifying conceptual model directly of relevance to group therapy, i.e. the interpersonal learning model, was emphasised by the findings of the study.

14.2 Implications for clinical practice

One of the criticisms of therapy research has been its failure to meet the criterion of prescriptive utility (Orlinsky and Howard, 1978; Coche and Dies, 1981). This failure has consisted inter alia of a problem in translating findings into language which can be understood by practitioners, a contrast between methodological sophistication and conceptual weakness, and an overemphasis on outcome studies and concommitant lack of attention paid to therapeutic process.

The results of the present study offer a number of conclusions to practitioners in relation of pre-treatment, group process and outcome factors.

With regard to the first of these, the evidence suggests that member's presenting problems are frequently multidimensional in nature. However, they have in common difficulties in interpersonal relationships. Furthermore, the results of the present study implicate the concept of interpersonal rigidity in these difficulties; and define this in terms of a dimension. This dimension contrasts an assertive disaffilative attitude towards others with one characterised by a submissive desire to be affiliated.

In addition, the marked similarity between the two groups studied in relation to both presenting problems and sociodemographic indices (together with the results of the survey) emphasises the degree of commonality between individuals presenting for group therapy. Moreover, the results of the normative study conducted on the
P.A.Q. (see Appendix 7) indicate that interpersonal difficulties provide a means of differentiating group therapy patients from those receiving other forms of treatment for neurotic difficulties i.e. in this case, anxiety-management training.

This suggests that in selecting patients for group therapy, one of the distinguishing characteristics between people referred will be a contrast between those whose interpersonal problems are constituted by their impersonal controlling counter-dependant attitude towards others; and those who are needy, desiring affiliation but lacking in assertion.

Furthermore, the results of this study indicate that these two sets of interpersonal behaviours relate to aspects of group process both in terms of the forms of interaction which individuals engage in, and also the ways in which they are perceived by themselves and others. Thus, in line with Mann's (1967) work on experiential groups, this study indicates that individuals pre-treatment interpersonal style influences the roles which individuals take within the group; and by implication, the development of a role structure in the group.

In addition, there is some evidence to suggest that pre-treatment sociodemographic variables are related differentially to group behaviour and experience. Thus, for example, while higher age groups are associated with high levels of group activity; lower age groups are related to high sociometric ratings.

The sociodemographic variables are also implicated in the vexed issue of premature termination. In the present study, findings particularly identify males, married, no previous contact with psychiatric services, and (unexpectedly) those with previous experience of psychotherapy as being more likely to drop out of group therapy. It should be noted that this last is
discrepant from the findings of Connelly et al (1986), whose results indicated that individuals with no previous experience of psycho-therapy were more likely to terminate prematurely. The reasons for this discrepancy are unclear, but may suggest that other factors are more predictive of premature termination than this one.

The other main source of information concerning the relationship between pre-treatment characteristics and group process comes from the group composition indices. The F.I.R.O.-B measures of both dyadic and group compatibility provide evidence for differential effects of complementary and similarity in interpersonal style across the three scales, inclusion, control and affection.

In particular, the results indicate that dyads are likely to engage in significantly more interaction, where the individuals are complimentary to one another on the control scale; and show correspondingly lower levels of interaction where they are similar on the affection scale. In addition, complementary on affection is related to individuals rating one another highly on personal attractiveness; while similarity on control is associated with rating one another highly on the sociometric group behaviour variables.

Similarly, the evidence concerning individual compatibility with the group indicates that individuals complementary to the group on control evidence significantly more interaction across a variety of H.I.M. categories; while those complementary on affection evidence less. The findings regarding the relationship of group compatibility to members perceptions of one another are less clearcut, but suggest that complementarity on affection and overall similarity to the group are associated with being evaluated positively on the group behaviour variables. In addition, pre-treatment similarity to the group is associated with negative outcome.
These findings would appear to have implications for group composition. In particular, maximal levels of group interaction might be expected where there is a 'fit' between members expressed and wanted scores on control; and where there is a relatively low level of similarity between them on their scores on the affection scale. Furthermore, in order to compose groups, where member's perceptions of one another will be positive, it would be important to include members, whose scores on affection 'fit', i.e. are complimentary, with one another.

In relation to outcome it would appear to be necessary to attend to those individuals who are most similar to the rest of the group generally. The evidence suggests that the group situation in itself may be too comfortable and hence insufficiently challenging of such individuals to motivate them towards positive change. This conclusion is in agreement with the findings of Lieberman (1958) and Silver and Mood (1971) on sensitivity groups.

So far as the practice of group therapy is concerned, the first implication of the results of the present study refers to the importance of the time span for treatment. Thus, the processes evidenced with regard to the developments of the social microcosm, consensual validation (i.e. increased agreement between self and other ratings) and interpersonal feedback (i.e. increased use of the Relationship category) among others are all suggestive of the need to permit sufficient time for such processes to emerge. This is in agreement with Swarr and Ewing (1977), who found that group therapy had early effects on self-concept and level of symptomatology, but required longer periods to effect change in interpersonal functioning.

The second implication refers to the role of the therapist within a therapy group. Previous studies (Bond 1975; and Gurman and Gustavson, 1976) have noted the difficulties in determining the influence of the therapist on norm development and the provision of therapeutic conditions,
respectively. Notwithstanding this, most group therapists would feel that their presence in the group offers an important resource, although the nature of this resource and the therapists contributions to group process and outcome may be difficult to characterise and define.

The findings in the present study are in agreement with Gurman and Gustavson in emphasising the importance of peer relationships rather than the relationship with the therapist. However, certain lines of evidence in the study in relation to group process may be of use to the therapist.

These findings in particular refer to the relationship between group process and outcome; and indicate the influence of interpersonal learning processes in the former generating improved interpersonal functioning (particularly in terms of increased flexibility) in the latter.

More specifically, it has been possible to delineate some of the main dimensions of group process; define major dimensions of post-treatment functioning; establish inter-relationships between these two; and identify indices which were most sensitive to change.

Thus, beneficial outcome and intermember attractiveness are related to group members engaging in interpersonal feedback (use of the Relationship category); and meaning attribution (use of the Speculative category). This suggests that these forms of interaction are the ones to focus on and encourage. The same relationships are to be found for individuals exhibiting interactional flexibility (i.e. use of 'Spread'). The implication of this latter is that such relationships are found for those individuals who utilise both pre-work (i.e. demonstrate a good level of ordinary social skills) and work (i.e. engage in therapeutically-oriented interactions) categories. It is plausible to suggest that such flexibility may be modelled by the therapist.
In contrast, certain forms of interaction are associated with negative outcome. This particularly refers to use of interactions involving hostility towards others, (i.e. use of the 'Assertive' category) particularly late in the group's history. Individuals engaging in such interactions are both negatively perceived by other group members and also associated with negative outcome.

In addition, there is a suggestion that late use of interactions, which are oriented towards a discussion of the group itself, may be counterproductive; although early use of this form of interaction may be task-relevant and perform a group-building function.

The use of these two forms of interaction is also related to the developing role structure within the group later in its history. In essence, this structure contrasts individuals actively engaged in productive therapeutic work with those who are evidencing difficulties and perceived as needing help. This latter group is associated with use of these two forms of interaction. It may well be that this group constitutes a priority for the therapist's attention and intervention.

What is being proposed here is that therapy groups over time develop into two subgroups. One of these develop the ability to engage in therapeutic work, which is oriented around their interactions with one another; and on the basis of such mutual exploration of problems and interpersonal feedback, derive beneficial outcome. As such, their relationships with the therapist become less important over time. However, the second group fail to develop task-relevant forms of interaction and are associated with negative outcome. This latter 'needy' group may well require the therapist's intervention in order to counteract (or at least mitigate) their inadequate group performance and poor outcome.
Clues regarding the identification of this second set are provided by their use of particular forms of interaction. However, they are also associated with being perceived by both themselves and other members as being in need of help. The periodic use of a sociometric questionnaire during the course of therapy would provide the therapist with clinically useful information regarding an individual's status in the group, the degree of agreement between self-perceptions and perceptions made by others, and their standing in the group in relation to appropriate dimensions of group involvement e.g. being in need of help. Thus, while the use of sociometry has proven to be particularly useful in relation to this study's research into group therapy process, it may well have important and useful applications in clinical practice also.

A further aspect of sociometric perception, which is particularly related to outcome is the measure of cognitive/perceptual differentiation. This refers to the extent to which individuals evidence complexity in their perceptions of other group members. Such differentiation in perception appears to relate to positive post-treatment interpersonal functioning; and following Altman and Taylor's (1973) description of social penetration processes, can be linked to close engagement with others.

This provides further evidence for the importance of interpersonal learning process in group therapy. It may well be possible for the group therapist to facilitate the development of such cognitive/perceptual differentiation in group members; while the observation of individuals exhibiting stereotyped responses to and perceptions of others would provide important diagnostic information regarding such individuals dysfunctional interpersonal behaviour.

In general terms, these considerations point up the importance of the therapist attending to issues regarding
members developing perceptions and evaluations of one another; draw attention to the relevance of these to an emerging role structure in the group; and emphasise the utility of sociometric information both diagnostically and in relation to the formulation of therapeutic priorities.

In looking at individual patterns of change, the most general finding was that the level of therapeutic benefit was proportional to individuals change on the process measures. However, there were additionally two subgroups who did not show this pattern. The first of these evidenced high levels of group process scores but low levels of outcome. Observation of their group behaviour suggested that they were characterised by occupying particular roles in the group, i.e. two occupying primarily the therapist's role in relation to other group members; one a premature self-discloser; and one a monopoliser and help-rejecting complainer. Moreover, all four evidenced the lowest numbers of pre-treatment problems, which might imply that their levels of functioning were higher than the rest of the group.

This implies that individuals with high levels of pre-treatment functioning may well perform important tasks within the group and contribute positively to the group process. However, the roles which they occupy in the group may well be counterproductive for them personally in relation to outcome.

A second subgroup were also found, whose process scores were low; but who evidenced high levels of outcome. What these individuals had in common was a relatively low level of pre-treatment functioning, i.e. they evidenced more room for improvement than the first group. The findings on this group on the one hand point up the difficulties of accounting for change purely in terms of the effect of group therapy; but on the other, emphasise the importance of differences between individuals in their pre-treatment levels of functioning and consequent
differences in the level that individuals may be aiming for (see also Orlinsky and Howard 1978).

In summary, the results of the present study have been found to have clinical implications for the definition of individuals presenting problems, patient selection and group composition. In addition, evidence has been presented which links the findings on group process and outcome to the ongoing diagnosis of problems in individual's group performance, the setting of priorities for therapeutic intervention, and general therapeutic strategy. Finally, the relevance of attending to pre-treatment level of functioning has been shown in relation to both group process indices and outcome.

14.3 Future applications of the interpersonal learning model

Clinical therapeutic research in common with other forms of scientific endeavour develops on the basis of an interrelationship between conceptualisation and empirical testing. The former generates hypotheses requiring operationalisation and investigation; the latter enables reformulation and increasing specificity of questioning.

The two parts of this study have aimed to provide a definition of group therapy functioning in terms of interpersonal learning processes and link such processes to the relationships between pre-treatment client characteristics, group process and outcome response. This has enabled the identification of what appear to be important dimensions and aspects of the model.

However, further research is required to establish the stability of these findings across other therapy groups; and to relate the interpersonal learning model to other areas of client functioning and group process. For example, a priori it appears likely that the model may require modification in order to take account of alternative
approaches to the practice of group therapy in relation to particular client characteristics. Thus, for example, Abramowitz et al (1974) found directive and non-directive approaches differentially effective according to clients internal or external focus of control.

A corollary to this is that certain forms of group therapy may be more effective in dealing with certain types of problems; and/or that the relative importance of particular problems to the individual may influence the forms of therapeutic work in which they engage and hence their post-treatment response. Some evidence for this latter differential effect of group therapy is provided by the distinction found in the present study between these evidencing improvements in the area of personal relationships and those improving on self-understanding. However, the specification of these forms of improvement requires to be related to both the pre-treatment relative severity of the problems for the individual and the specific learning processes undergone in the group.

In addition, there were certain important aspects of group therapy which this study did not investigate; and which require to be taken account of in an integrated model. Among these is the issue of client's pre-treatment expectations of therapy. The importance of expectations in relation to both process and outcome has been emphasised by Wilkins (1979) among others; while the influence of such expectations in relation to norm development in therapy groups has been demonstrated by Bond (1975).

Brody and Detre (1972) found selection for group therapy associated with individuals presenting their problems in terms of interpersonal difficulties. Moreover, a large proportion of patient's expressed problems in the present study referred to the interpersonal domain. However, it would be relevant to identify in more detail patient's anticipations of what group therapy involves in terms of both their activity and experience in the
group and expected nature and levels of beneficial change.

An important subset of expectations refers to members' anticipations of the role of the therapist in group therapy. The findings in the present study have emphasised the importance of member-member relationships over member-therapist relationships. However, the role and influence of the therapist was not a major focus in this study and requires further investigation.

An additional line of research might aim to relate therapist behaviours to the model via an investigation of the therapist's role in promoting certain forms of interaction and interpersonal learning processes. Liberman (1971) has demonstrated the influence of the therapist in increasing the rate of 'cohesive' statements; and Hill (1965) found different forms of interaction associated with different therapist theoretical orientations. Within the present study, it appears plausible to suggest that the early levels of group-orientated interactions, increased use of interactions oriented towards member's relationships with one another, and overall low levels of confrontative interactions were at least in part influenced by therapist style. However, apart from Liberman's use of direct behavioural manipulation i.e. systematic therapist reinforcement of specified behaviours, the mechanisms whereby therapist style interacts with these other forms of interpersonal learning process remain unclear and require elucidation in a coherent model of group therapy.

An additional issue refers to the measurement of outcome. In particular, the present study has not assessed the stability of the outcome findings via a longer-term follow-up of patients. In part, this has been a consequence of its focus on the interrelationships between process and outcome. Moreover, it has relied on responses to questionnaires involving self-reports. As noted in the methodology chapter, the social validation of change in relation to this type of client poses problems
due to the relative social isolation in which a number of them live. However, future research would enhance the specificity of the model by distinguishing between short term changes and those which persist; and in addition, by addressing the issue of the extent to which observed changes show evidence of generalisation of learning. With regard to this latter, it appears important to develop behavioural indices of change, e.g. via the use of structured role-play exercises in the post-treatment assessment of interpersonal functioning.

In relation to group process, the model used and results obtained in the present study are of relevance to that area of groupwork theory and research relating to the 'curative factors' or 'therapeutic mechanisms'. Bednar and Kaul (1978) have specifically criticised the failure to test the validity of these factors, while the review of research in the present study has concluded that they remain unrelated to outcome.

However, it appears important in the development of a coherent interpersonal learning model of group therapy to investigate the relevance and status of these 'curative factors' and their relationship to such a model. A number of the results and conclusions of the present study can be related to these 'curative factors'.

Thus, the evidence presented with regard to the links between pre-treatment characteristics and group behaviour indicates the presence of a 'social microcosm' and additionally suggests that this is developmental in nature. Moreover, the multidimensional scaling analyses provide evidence for a dimensional quality to this link between pre-treatment and group process in terms of a contrast between disaffiliative controlling behaviours and submissive affiliative behaviours.

With regard to the concept of 'insight', the use of speculative forms of interaction (which appear to be those
most closely oriented towards this concept) was found to be related both to individuals being perceived as attractive; and also obtaining beneficial outcome. This provides some preliminary evidence of the usefulness of this factor in relation to both process and outcome.

The same findings were obtained for use of the Relationship category, which was used by Lee and Bednar (1976) as a measure of interpersonal feedback. This evidence thus links Yalom's (1970) concept of interpersonal output to positive group process and outcome indices.

In addition, the increased correlations found over time between self and other ratings of members' group behaviour, together with the positive associations between both of these sets of sociometric measure and beneficial outcome appears to provide support for the usefulness of 'consensual validation' (Sullivan, 1953; Bednar and Kaul, 1978). This concept refers to one of the processes, whereby individuals overcome distortions in their perceptions via reality testing in association with others.

In contrast, the evidence for the effectiveness of 'spectator therapy' as a modality of learning in groups is not impressive. Taking pure level of attendance as an index of the opportunity for members to engage in the type of learning, it was found to be unrelated to outcome. It must be admitted that this index provides only a rough measure of the use of this form of learning; and clearly requires refinement. However, the main impression gained from the results of the links between process and outcome consistently emphasised the importance of engagement in group activity, particularly task-relevant use of the work categories, as a major determinant of outcome.
Similarly, the clinical observations noted regarding those individuals, who consistently occupied a therapist role in relations to other members, fails to provide evidence for a positive therapeutic effect from the 'altruism' factor. This lack of beneficial outcome was particularly found for those individuals, who primarily functioned in this mode in the group, i.e. those who did not to any significant extent switch to the role of patient. Although it appeared possible that some degree of altruism may be beneficial to the individual in enhancing the self-concept, more thorough-going changes in interpersonal functioning would appear to require the assumption of the role of patient in the group. Future research might usefully investigate the relative contributions for individuals of occupying these two sorts of role in the group in relation to the development of more flexibility in interpersonal functioning.

In relation to the 'cohesiveness' mechanism, the general group-based increase in the consensus of sociometric ratings may provide clues regarding one of the constituents of such cohesiveness, although the relationship between developments of consensus and cohesiveness remains to be investigated.

Furthermore, the evidence regarding the influence of both dyadic and group indices of compatibility (particularly interpersonal complementarity) on subsequent interaction and sociometric perception suggests that pre-treatment compositional measures are important antecedants of group cohesion. These findings are in broad agreement with those obtained by Yalom and Rand (1966), although they used interpersonal similarity as their index of compatibility. Results of the present study indicated that similarity and complementarity were differentially related to the process indices, and also related to different forms of outcome. Once again, the relationship of cohesiveness to interpersonal learning processes in the group and beneficial outcome
awaits further investigation.

The foregoing provides suggestive links between the interpersonal learning model and the results of the present study on the one hand, and some of the curative factors on the other. It is suggested that the conceptual bases of the model and the methodology used in the present study offer approaches to future research, which might be aimed at determining the importance of these curative factors in relation to both process and outcome.

Two further aspects of the present study in relation to group interaction require further elucidation. Thus, although use of the Speculative and Relationship categories has been related positively to both group process and outcome indices, the status of the remaining two work categories remains unclear. Thus use of the Personal category which is associated with self-disclosure, was generally unrelated to outcome, largely because it was the content category accounting for most of the group's interaction. The role of self-disclosure in relation to both process and outcome remains to be determined.

Conversely, use of the Confrontive category, which is associated with interpersonal challenge, was highly related to positive outcome. In addition, it was clearly structurally related to the Relationship category, suggesting that use of these two highest work categories were associated with one another. However, unlike Relationship it consistently constituted a small proportion of total group interactions and failed to evidence an increase over time. Thus, the importance of confrontive interactions in relation to interpersonal learning remains to be investigated. However, a number of studies (e.g. Lieberman et al 1973) have pointed out the potential pitfalls in terms of therapeutic casualties of an excess of interpersonal challenge, particularly where this is associated with a lack of
caring and/or an absence of 'meaning attribution' being provided by the therapist.

Furthermore, this study has developed two process measures of flexibility, which appear promising in that they have been found to be related to positive outcome. These comprise a behavioural measure of interactional flexibility ('Spread') based upon the range of categories used, and a measure of cognitive-perceptual complexity based on individual's level of differentiation in their use of the sociometric variables.

However, it appears likely that these measures require refinement. For example, it remains unclear whether 'Spread' involves the use of a combination of both pre-work and work categories; or a preponderance of one of these sets. Similarly, an analysis of the components of cognitive-perceptual differentiation remains to be undertaken. In addition, the influences determining the development of both of these indices of flexibility require investigation.

A further aspect of group process, which requires further research, relates to the issue of premature termination. Certain pre-treatment indices have been found to have suggestive links to premature termination. However, the role of group process itself in contributing to premature termination remains unclear.

Moreover, the present study provides some evidence for the deleterious effects of premature termination on those who remain in the group, particularly in terms of an interference with the development of interpersonal learning process. Thus, at times of changes in membership, a reversion to lower levels of groupwork was observable. This reversion was particularly characterised by a decrease in use of the Relationship category and increase in use of the Personal category.
However, premature termination was also associated with new members joining the group. Results of the survey (see Appendix 3) suggests that this replacement of members is a feature of long term groups. Thus, it remains unclear and in need of further research to determine whether these observed reversions in level of group activity are a consequence of individuals dropping out of the group, joining it, or a combination of the two.

Finally, the second part of the study has provided evidence for structural changes in the relationships between the variables from pre-treatment and early process to late process and post-treatment. One of the characteristics of these changes has been an increased differentiation between the variables, which is suggestive of an increasing differentiation between individuals. This latter differentiation may well be related to the findings that individuals could be consistently ordered across a number of forms of analysis in terms of their differing levels of response to group therapy. This suggests that as a result of going through the experience of group therapy, individuals become less alike. This possibility also requires further investigation.

These lines of evidence generate a wealth of potential research areas referring to among others, the relationships between process and outcome indices of flexibility; the absence of links between sociometric personal attractiveness and beneficial outcome; the mechanisms underlying the association between increases on both assertiveness and affiliation; the relationship of interpersonal flexibility to self-actualisation; the relationship of changes on the adjustment indices to both work activity in the group and improved interpersonal functioning; and what aspects of group therapy experience and behaviour are more specifically implicated in the differing levels of therapeutic outcome observed.
In summary, the use of an indepth study of group process together with an attempt at full specification of pertinent client characteristics within the context of an evolving conceptual model of group therapy based upon an analysis of interpersonal learning processes offer both a methodology and a theory which are of relevance to future research. In particular, these appear to be capable of addressing hypotheses regarding the status of the therapeutic factors; contributing to a fuller delineation of aspects of generality and variability in individual's response to group therapy; and providing a means of unifying the study of group process and outcome.

14.4 Conclusions

This study aimed to investigate indepth the processes and outcome of long-term psychodynamically-oriented therapy groups within the context of an interpersonal learning model. Methodologically, it utilised a tripartite structure, which linked pre-treatment functioning, group process and response to therapy; and a single-case design to permit the identification of factors of variability and generality in relation to each of these three aspects.

The first part of the study was addressed to the testing of a set of hypotheses of relevance to the interpersonal learning model. The results of these hypotheses provided evidence concerning the developmental nature of the social microcosm mechanism, the varying influences on both interaction and member perception of pre-treatment indices of dyadic and group compatibility, the nature of change in group process indices of interaction and member perception, the relationships between these two aspects of group process, and the relationship of group process to outcome. These findings implicated the importance of interpersonal feedback, consensual validation, and meaning attribution within the process of group
therapy in generating positive outcome.

The second part of the study utilised multi-dimensional scaling techniques in order to analyse the structural relationships between the pre-treatment, group process and outcome variables; and to describe and define individual patterns of change. The structural relationships between the variables evidenced change over time, which was indicative of increased interpersonal flexibility; and the articulation of an increased differentiation between "positive" and "negative" process and outcome indices.

The analyses of individual patterns of response yielded findings complimentary to these, which indicated an ordering of individuals in terms of their level of benefit; differentiation between individuals with regard to varying types of improvement; and an association between changes on process and changes on outcome measures.

Taken together the results of the two studies have offered support for the importance of interpersonal learning processes in group therapy; demonstrated the methodological utility of an interpersonal learning model in conducting research into therapy group; and permitted the delineation of some of the key structural components of such a model. These structural components have brought together factors derived from both group process and outcome; and in particular emphasise the relevance of the development of interpersonal flexibility as an integrating concept within the interpersonal learning model of group therapy.
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Appendix 1: Copy of the survey letter
Dear Colleague

I am at present in the process of carrying out a research project into group therapy. Part of this project consists of a survey of group methods of treatment in this country. This survey aims to discover the degree to which group approaches are used; the sorts of client problems tackled by them; the types and aims of the group; and various characteristics of the group.

I am accordingly approaching a sample of clinical psychologists, including yourself, and writing to ask for your cooperation in this survey. I enclose a questionnaire designed to gather information relevant to the above issues, and would be most grateful for your help and cooperation in completing it.

If you are leading or have recently led more than one group could you please make further copies of the questionnaire and use each copy in relation to one group only.

Additionally, if you know of any other people who are using group treatments, could you kindly inform me so that I can include them in my sample.

Furthermore, if you have any comments or observations to make on your use of group methods of treatment, which are not covered by the responses to the questionnaire, these would be most valuable and useful to me.

With many thanks in anticipation of your reply.

Yours sincerely

David E. Brock
Senior Clinical Psychologist

Erratum: Section 3(d), for Experimental read Experiential

Please tear off and return this slip with the completed questionnaire:

Work address: ............................................................
Number of years in group work.........................
Details of specialised training in group work.............
Appendix 2 : Copy of the Survey Questionnaire
For the following questions, please tick the relevant boxes:

1. **Sources of referral for group treatment**
   - (a) Psychiatrists
   - (b) Psychologists
   - (c) G.P.s
   - (d) Social Workers
   - (e) Nursing Staff
   - (f) Other (Please specify)

2. **Presenting problems**
   - (a) Anxiety
   - (b) Appetitive disorders
   - (c) Addictive disorders
   - (d) Depression
   - (e) Obsessional disorders
   - (f) Phobias
   - (g) Personality problems
   - (h) Psychosomatic disorders
   - (i) Psychotic reactions
   - (j) Relationship problems
   - (k) Social difficulties

3. **Type of group**
   - (a) Behavioural
   - (b) Counselling
   - (c) Group analytic
   - (d) Experimental
   - (e) Rehabilitation
   - (f) Transactional analysis
   - (g) Other (Please specify)

4. **Aims of group**
   - (a) Catharsis
   - (b) Support
   - (c) Skill development
   - (d) Symptom control
   - (e) Provision of insight
   - (f) Personality change

5. **Number of sessions**
   - (a) Duration of group
   - (b) Average length of stay per patient
   - (c) 6 or less
   - (d) 7-12
   - (e) 13-20
   - (f) 21-40
   - (g) Over 40

6. **Size of group**
   - (a) At start of group
   - (b) At end (if ongoing, at present)
   - (c) 5 or less
   - (d) 6-9
   - (e) 10-14
   - (f) Over 14

7. **Composition**
   - (a) Inpatients
   - (b) Outpatients
   - (c) Daypatients
   - (d) Mixed

8. **Frequency of sessions**
   - Daily
   - 2-3 times weekly
   - Weekly
   - Fortnightly

9. **Therapeutic interventions** are primarily directed towards
   - The group
   - Individuals
   - Relationships in the group
   - Mixed

10. **(a) Members receive**
    - (i) Only group therapy
    - (ii) Group therapy combined with other treatments

11. **(b) Number of therapists**
    - (i) 1
    - (ii) 2
    - (iii) 3

12. **(c) The group is:**
    - (i) Open
    - (ii) Closed

13. **Are any of the following types of measure and procedure used to assess individual group members?**
    - (a) Leader's judgement
    - (b) Member's judgement
    - (c) Group's judgement
    - (d) Ad hoc scale lacking validation
    - (e) Formal validated scale
    - (f) Pre-treatment assessment
    - (g) Post-treatment assessment
    - (h) Pre to post treatment assessment
    - (i) Follow-up assessment
Appendix 3 : A survey of groupwork practice among clinical psychologists
Appendix 3 : A Survey of Groupwork Practice among Clinical Psychologists

Introduction

Although groupwork is now well-established as a major modality of treatment for mental health problems (and indeed has its proponents for help with most other sorts of problems), information on actual practice remains scanty and largely anecdotal.

In order to provide a focus for and manageable context to the survey, it was decided at the outset to sample the use of group methods within one profession. The rationale for choosing clinical psychologists rested on the heterogeneity of training and theoretic perspectives employed by them with regard to group treatments. The heterogeneity encompasses behavioural, psychodynamic and humanistic approaches. One might anticipate also that psychologists, having a background in experimental methodology, would also have an orientation towards the use of assessment and evaluation procedures in relation to the treatment methods which they employ.

The rationale for groupwork is in part composed of economic considerations - it is easier, cheaper, more effective to treat eight people together in a group than separately - and in part based on theoretical assertions concerning the opportunity which group therapy provides for a beneficial form of learning process (largely interpersonal in nature) to occur.

However, information on patterns of groupwork, both in this country and abroad, remains to be gathered. In particular, it seems important to attempt to answer questions concerning the following issues, among others: source of referral; age and patient status of members; nature of presenting problems; type, aims and size of groups; duration and location; dropout rates; number
of therapists and experience and training in groupwork of therapists.

A search of the groupwork literature was unable to uncover data pertinent to these issues. Accordingly a survey was conducted using a questionnaire devised specifically for the purpose.

This questionnaire comprised the following categories:

Source of Referral: Psychiatrists, Psychologist, G.P.s, Social Workers, Nursing Staff, and Other.

Presenting Problems: Anxiety, Appetitive Disorders, Addictive Disorders, Depression, Obsessions, Phobias, Personality Problems, Psychosomatic Disorders, Psychoses, Relationship Problems, Physical/Organic Disorders and Social Difficulties.

Type of Group: Behavioural, Counselling, Group Analytic, Experiential, Rehabilitation, Transactional Analysis, and Other.

Aims of Group: Catharsis, Personality Change, Provision of Insight, Skill Development, Support and Symptom Control.

Additionally, categories were provided for the following: frequency and number of sessions; size of group (at beginning and end); patient status; direction of therapeutic intervention; provision of additional forms of treatment; number, years of experience and training level of therapists; and nature of assessment and evaluation procedures.

The survey sample comprised a random sample of 500 Clinical Psychologists drawn from the membership list of the British Psychological Society and identified therein as being members of the Clinical Division. These 500 represent slightly less than half of the
total membership of the D.C.P.

The questionnaire was sent out, together with a letter outlining the purpose of the survey. Of these 500 questionnaires, 182 were returned completed and a further 66 replied stating that they did not or were not at that time using group methods of treatment.

The overall response was therefore almost 50%, of which nearly three-quarters were using group methods of treatment.

Results

In general terms, results of the survey confirmed the expected heterogeneity of group practices. The major lines of evidence will be presented in terms of four main parameters: patient, group and therapist characteristics, and assessment and evaluation procedures.

a) Patient characteristics

Table 48 presents the basic data in terms of percentages in relation to source of referral, presenting problems, age and patient status.

As would be expected, the highest proportion of referrals to groups run by clinical psychologists comes from psychiatrists (73%). However, significant numbers of groups (around one half in each case) also receive referrals from GPs, nursing staff and other psychologists.

Another finding which might have been predicted was a split in referral patterns: GPs tending to refer to outpatient, and nurses to inpatient groups, with other referring agencies straddling the two.
Table 48: Survey results on patient characteristics (percentages)

**Referral source**

<table>
<thead>
<tr>
<th>Psychiatrist</th>
<th>Psychologist</th>
<th>G.P.</th>
<th>Social Worker</th>
<th>Nurse</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>73</td>
<td>46</td>
<td>52</td>
<td>26</td>
<td>57</td>
<td>30</td>
</tr>
</tbody>
</table>

**Presenting problem**

<table>
<thead>
<tr>
<th>Anxiety</th>
<th>Appetitive</th>
<th>Addiction</th>
<th>Depression</th>
<th>Obsessional</th>
<th>Phobia</th>
</tr>
</thead>
<tbody>
<tr>
<td>58</td>
<td>11</td>
<td>18</td>
<td>38</td>
<td>18</td>
<td>32</td>
</tr>
<tr>
<td>Personality</td>
<td>Psychosomatic</td>
<td>Psychosis</td>
<td>Relationship</td>
<td>Social</td>
<td>Physical/Organic</td>
</tr>
<tr>
<td>29</td>
<td>15</td>
<td>14</td>
<td>47</td>
<td>58</td>
<td>11</td>
</tr>
</tbody>
</table>

**Age**

<table>
<thead>
<tr>
<th>0-16</th>
<th>16-65</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>93</td>
<td>3</td>
</tr>
</tbody>
</table>

**Composition**

<table>
<thead>
<tr>
<th>Inpatient</th>
<th>Daypatient</th>
<th>Outpatient</th>
<th>Mixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>12</td>
<td>51</td>
<td>20</td>
</tr>
</tbody>
</table>
The majority of groups (75%) received referrals from more than one source, with particular areas of overlap between, e.g. GPs and psychiatrists, and psychologists and social workers.

So far as presenting problems are concerned, the majority of groups are composed of patients with a variety of problems. In fact, one in ten groups have in excess of seven of the twelve identified types of problem.

At the other extreme, one third of groups may be described as single-problem. These groups are particularly associated with addictive disorders, physical/organic disorders, and social difficulties.

Amongst the multiple problem groups, clear clusters of problems emerge, thus:

a) anxiety is associated with obsessional disorders, psychosomatic problems, depression, phobias, personality problems and relationship problems;

b) social difficulties are associated with depression, personality problems, relationship problems and psychoses;

c) relationship problems appear in groups also containing appetite disorders, personality problems and depression.

It is noteworthy that depression and relationship problems appear in all three of these clusters, and at least possible that either or both of them may constitute more general problem areas for individuals manifesting the other presenting problems.
However, in terms of the actual frequencies of groups being run for particular problems, marked differences occur between on the one hand, anxiety and social difficulties (both 58%), which are well-represented in the survey and tend to be run on an outpatient basis, and on the other, groups for people suffering physical/organic disorders and psychoses. These latter two are clearly likely to involve more chronic populations requiring long-term work, much of which in the first instance would be required to be conducted on an impatient basis.

Indeed, the number of groups being run for these problems are only 14% for psychoses and 11% for physical/organic disorders, while only 17% of groups are run for inpatients (and a further 12% for day patients). This serves to emphasise the under-provision of groups for these types of problems and for patients attached to institutions generally. These findings, of course, only refer to groups run by clinical psychologists and do not make assumptions about the extent of provision of inpatient groups by other professions, a point which will be taken up again later.

Two further areas of low frequency (and by implication, under-provision) are to be found at the extremes of the age ranges, i.e. very few groups are reported as being run for children and the elderly in the survey (3-4% for each); the vast majority of groups are open to the adult age range of 18-65.

One finding which is of interest, and deserving of further consideration, refers to the 'social difficulties' category. Although this type of problem does not relate to any of the classical diagnostic categories, the high number of groups which were able to identify it as a constituent problem for their membership suggests a marked trend for both referral agencies and therapists to engage problems, which in the past have not come within the purview of mental
health professions. A possible corollary of this is that group therapists are tending increasingly to involve themselves with difficulties such as social isolation, unemployment and housing problems, which directly relate to living in the community.

In relating client characteristics to group characteristics, there do appear to be clear correlations between some of the presenting problems and some types and aims of groups. Thus, group-analytic groups, emphasising the importance of the aim of insight, are particularly associated with depression, personality problems and relationship problems; and rehabilitation groups with psychoses.

Additionally, rehabilitation groups are primarily run for inpatients, with little evidence of rehabilitation needs being met in the community, either for those who have been discharged from hospital or for those existing in the community already. This suggests a further area of underprovision of group-work services for a client population which might well benefit from it.

Trends also associate presenting problems with group duration. In particular, obsessional disorders, personality problems, depression and psychoses are all related to long term groups (over 40 sessions). Non-significant trends also associate inpatient and long-term groups, and outpatient and short-term groups (less than 12 sessions), with regard to both group duration and average length of stay.

b) **Group Characteristics**

Table 49 presents the basic data regarding group characteristics for type and aim of group, number of sessions, size, frequency, open/closed, and whether receiving other forms of concurrent treatment in terms of percentages.
Table 49: Survey results on group characteristics (percentages)

**Type**

<table>
<thead>
<tr>
<th>Behavioural Counselling</th>
<th>Group Analytic</th>
<th>Transactional Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>65</td>
<td>29</td>
<td>10</td>
</tr>
<tr>
<td>Experiential Rehabilitation</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>19</td>
</tr>
</tbody>
</table>

**Aim**

<table>
<thead>
<tr>
<th>Skill Development</th>
<th>Symptom Control</th>
<th>Support</th>
<th>Insight Provision</th>
<th>Personality Change</th>
<th>Catharsis</th>
</tr>
</thead>
<tbody>
<tr>
<td>74</td>
<td>47</td>
<td>47</td>
<td>42</td>
<td>15</td>
<td>12</td>
</tr>
</tbody>
</table>

**Number of sessions**

<table>
<thead>
<tr>
<th>Duration</th>
<th>&lt;7</th>
<th>7-12</th>
<th>13-20</th>
<th>21-40</th>
<th>40+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>14</td>
<td>36</td>
<td>11</td>
<td>11</td>
<td>28</td>
</tr>
<tr>
<td>Average stay</td>
<td>20</td>
<td>40</td>
<td>13</td>
<td>13</td>
<td>14</td>
</tr>
</tbody>
</table>

**Size**

<table>
<thead>
<tr>
<th>Beginning</th>
<th>&lt;6</th>
<th>6-9</th>
<th>10-14</th>
<th>14+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning</td>
<td>20</td>
<td>60</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>End</td>
<td>39</td>
<td>48</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

**Frequency**

<table>
<thead>
<tr>
<th>Daily</th>
<th>2-3 times per week</th>
<th>Weekly</th>
<th>Fortnightly</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>10</td>
<td>73</td>
<td>9</td>
</tr>
</tbody>
</table>

**Open-closed**

<table>
<thead>
<tr>
<th>Open</th>
<th>Closed</th>
</tr>
</thead>
<tbody>
<tr>
<td>66</td>
<td>34</td>
</tr>
</tbody>
</table>

**Receiving other concurrent forms of treatment**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>66</td>
<td>34</td>
</tr>
</tbody>
</table>
As with source of referral and presenting problem, groups show a high degree of heterogeneity in relation to type and aim. Thus while the majority of groups are described as behavioural (65%) with the aim of skill development (74%), this 'fact' disguises a great degree of overlap with regard to both typology and therapeutic aims.

So far as group type is concerned, this overlap is particularly evident with regard to behavioural, counselling (29%) and rehabilitation (17%) groups. In a sense, the group analytic (10%) and 'Other' categories provide a 'purer' form of group format having little overlap with the other categories. The 'Other' category, which accounts for one in five of groups, would therefore appear to provide information concerning groups which are more idiosyncratic in nature.

The same picture of category overlap is also evident with regard to group aims, sometimes in unexpected ways. Thus, while associations might be expected within groups between aims emphasising skill development, symptom control (47%) and support (47%), more surprising are the associations between skill development, and insight (42%) and catharsis (12%). Other observable clusters include those between personality change (15%) insight and support; and catharsis, insight and support. Indeed, on average, groups were each able to identify 2-3 aims.

A clear set of relationships emerges from the data between group type and group aim. Thus behavioural groups are highly positively associated with aims of skill development and symptom control, and negatively with insight and personality change; while group-analytic groups are highly positively associated with insight and personality change and negatively with catharsis. A further dimension to this contrast is provided by the finding that members of groups aiming
at skill development tend also to receive other forms of treatment, while members of groups aiming at personality change tend only to receive group therapy.

Type of group appears to be also related to duration. In particular, both behavioural and rehabilitation groups tend to be either short-term (7-12 sessions) or long-term (over 40 sessions). Indeed, this pattern holds for groups in general with relatively few (22%) being of intermediate length (13-40 sessions). Group-analytic and the 'Other' type of group tend to be primarily long-term.

From the point of view of size, the majority of groups (60%) start off with 6-9 members; and an additional 20% with 5 or less. By the end of the group, these figures have altered to 48% and 39% respectively.

So far as frequency is concerned, while the majority of groups are run weekly, counselling groups tend to be more varied, being both more and less frequent than this. Additionally, for the small proportion of groups not run weekly, there was a marked tendency for the more frequent groups to be run for inpatients and the less frequent for outpatients. Frequency also tended to be associated with duration, with groups meeting more frequently than weekly being more long-term. Duration additionally related to the open/closed dimension with most non long-term groups being closed and most long-term groups being open.

One of the major findings of this survey is the generally small number of sessions of groupwork which patients actually receive. Some 60% receive less than 12 sessions, and approximately three-quarters receive less than 20 sessions. Given that the majority of groups (73%) run on a weekly basis, these patients thus receive group treatment lasting approximately between three and five months.
Although group duration and average length of stay were found to be highly positively correlated, a significant downward drift was noticeable, particularly in the long-term category (i.e. over 40 sessions). A similar pattern was observable with regard to group size in comparing size at the beginning and end of group treatment. These patterns emphasise the problem of group attrition.

Drop-out rates do not appear (from this data) to be related to any particular patient or therapist characteristic. However, long-term groups (over 40 sessions) and larger groups (10-14 members) predictably suffer more from the problem of group attrition. The drop-out problem in long-term groups perhaps explains why most of these are run as 'open' groups, while shorter term ones are 'closed'. Conversely, the small number of groups being run on a more frequent than weekly basis tended to have fewer drop-outs. Results indicate that nearly two-thirds of groups are losing patients before completion of their treatment, notwithstanding the generally small number of sessions being provided in the first place.

These findings of the prevalence of group approaches to treatment by therapists of a behavioural orientation are consistent with those of a survey conducted amongst members of the American Association for the Advance of Behaviour Therapy. (Rose 1981). This survey indicated that nearly half of the members of the association conducted therapy in groups as well as on an individual basis. Equally importantly however, the results also indicated that few had had formal training in group approaches to treatment or were able to identify group process variables which might affect response to treatment.

c) Therapist Characteristics

The basic data (i.e. percentages) for the therapist and assessment factors is to be found in Table 50.

So far as training and experience are concerned, it would appear that the longer therapists have been in group work,
Table 50: Survey results on therapists characteristics and assessment and evaluation procedures (percentages)

<table>
<thead>
<tr>
<th>Years of experience</th>
<th>&lt; 4</th>
<th>4-9</th>
<th>10-14</th>
<th>15+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>28</td>
<td>49</td>
<td>19</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Formal training in group therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Focus of group interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of therapists</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Locus of assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>68</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Use of questionnaires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ad hoc</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time of assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-treatment</td>
</tr>
<tr>
<td>52</td>
</tr>
</tbody>
</table>
the more likely they are to have received training in it. Notwithstanding this, 70% of therapists lack training in groupwork. This finding emphasises the generally low provision of training in what is a major treatment modality within the services provided for mental health.

Such underprovision would appear to relate to both training courses for entry into the profession of clinical psychology, and more generally to the lack of suitable courses for health service professionals after their basic training. Evidence for this latter lack is adduced from the mean number of years experience of groupwork of the untrained therapists, viz 5.6 years.

Additionally, few of the large number of behavioural groups use therapists trained in groupwork, although it is arguable that an awareness of group dynamics is just as necessary in the running of a social skills group as in conducting dynamically oriented therapy groups.

So far as therapist activity is concerned, very few therapists directed their interventions mainly towards the group itself (5%) or relationships (3%) within it. A majority of behavioural and counselling groups had the individual as the focus of therapeutic attention, and might therefore be expected to largely eschew interest in the influence of group-level processes. Confirmation here therefore that individual therapy within a group context is very much alive and well.

However, a majority of therapists across all groups (55%) made use of mixed interventions, and in the case of trained therapists, this proportion rises to nearly three-quarters.

This set of findings provides further evidence for the variety of techniques used in groupwork. It is also suggestive of the less important role ascribed to group level interventions even within the group
analytic format, where it might have been expected to be more evident. Thus, for this type of group, no group-analytic therapists reported the group as the main focus, and only 13% reported relationships within the group as the main focus for intervention.

With regard to number of therapists, the majority of all types of group tend to have two therapists. While this might have been anticipated, the fact that only one-quarter of all groups have only one therapist is perhaps more unexpected. However, while still in a minority, this figure rises to 38% for trained therapists.

d) Assessment

The high number of groups (68%) using leader judgement as part of the assessment procedure provides evidence of the expanded nature of the therapist role. Thus, the therapist might be expected to operate not only in the actual provision of treatment, but also in patient selection and treatment evaluation procedures.

However, nearly one half of groups (47%), particularly those run for outpatients, involved group members themselves making judgements concerning their progress. These groups predominantly additionally use leader judgement as part of their evaluation procedure. This is suggestive of a widespread attempt to involve patients themselves in a therapeutic alliance whereby responsibility is shared between therapist and patient, rather than group therapy being seen as something which is given by the one and received by the other.

So far as questionnaire use is concerned, a marked degree of overlap occurred between the use of ad hoc and formal scales. A quarter of all groups used questionnaires, and one third of groups using questionnaires used both types, suggestive of a multi-modal approach to assessment and evaluation in these groups.
Ad hoc scales were mainly associated with behavioural groups, particularly those run for outpatients, and for groups aiming at symptom control. This association between questionnaire use and behavioural groups aiming at symptom control is to be expected on the basis of the methodology of behavioural approaches to treatment. This emphasises quantification of problems, charting of progress and evaluation of techniques as central ingredients in the therapeutic process.

In addition, a significant proportion of all groups make use of pre-post (55%) and follow-up assessments (43%).

The final point to make concerning assessment and evaluation procedures refers to the existence of a significant proportion of these, which are conducted in the absence of leader judgement (34%). This provides evidence that in these cases these procedures are conducted by agencies external to the group, and hence suggests the existence of a body of objective data concerning group effectiveness.

**Discussion**

Of the nearly 50% response rate to the questionnaire, the survey indicates that nearly three quarters of respondents are engaged in running therapy groups of one sort or another.

On the basis of the data collected, it is possible to begin to answer some of the questions posed in the introduction, although this in itself raises a further set of questions.

Thus, indications are provided concerning who refers patients to groups, what problems they exhibit, and their age ranges. However, it would be useful to know more about such patients, including data relating to social class, marital status, degree of chronicity of presenting
problems and previous history of psychiatric and psychotherapeutic involvement. It would also be important to know the extent to which referred patients are accepted or rejected for group treatment, and the types of criteria used to make such decisions.

Results of previous research have emphasised the importance of the social class factor (Lubin et al 1973) in selection for therapy, while Brody and Detre (1972) found a number of factors relevant to referral for group therapy including experience level and discipline of the referral source, and patients' presentation of their problems in interpersonal terms.

Information is also available to answer the questions concerning group size, and also whether they are 'open' or 'closed', but raises vexed issues regarding the phenomenon of group attrition. Thus, it is not clear why or when drop-outs occur, and what differentiates groups suffering from this problem from those that don't.

For studies of group therapy, Yalom (1966) implicated two group-based factors: fear of emotional contagion and problems with intimacy, while admitting that it was frequently difficult to isolate any single or major cause for drop-outs. Rozenzweig and Folman (1974) found continuation in group therapy related to patients' attraction towards the therapist; and Lieberman et al (1973) in their study of encounter groups associated the effect of various groups climates and therapist types with drop-out rate.

The size of drop-outs may also be related back to the initial patient selection phase, raising questions concerning the nature and extent of patient preparation for group therapy and, for example, the use made of pre-therapy training formats (see Heitler (1973) and Strupp and Bloxam (1973).
Additionally, some indications are provided about where groups meet, in terms of institutional versus community context. Missing however, is information on actual physical location, e.g. the running of groups on wards, in health centres, in occupational activity areas; size of room, degree of privacy; seating arrangements; use of materials such as wall-charts, videos, etc.

Another set of questions relates to the organisational ethos within which groups are run and relates to issues concerning institutional constraints and preferences. Thus, are some institutions and departments more involved in groupwork than others: are some institutions more fostering of a multi-disciplinary approach to treatment, which might encourage inter-disciplinary co-therapy arrangements in running groups; what are the operative underlying assumptions and belief systems concerning group work? To put this latter question in more concrete terms: why are most groups run by psychologists conducted in outpatient settings along behavioural lines for individuals suffering anxiety-type problems, contrasted with the relatively small number run in inpatient settings for individuals suffering from psychotic and physical/organic problems. Are these latter two types of problem seen as being more suitably treated by medication and/or therapeutic services provided by nursing and occupational therapy staff.

This set of questions leads on to two further issues. Firstly, in what ways, if any, do groups run by other professions differ from those run by psychologists; and do they aim to provide services which meet a different set of patients' needs. Secondly, to what extent and in what ways are both inter- and intra-professional co-therapy arrangements organised?
While a majority of groups have members receiving other types of treatment in addition to group therapy, it remains to be discovered what the nature of such treatment is for particular patient populations, and what sort of interaction effects occur between for example, individual psychotherapy or medication, and group therapy, in relation to patient outcome.

The issue of outcome itself was one to which clearly the survey could not address itself directly. However, the information derived from the investigation of assessment and evaluation procedures clearly relates to outcome. In particular, the relatively high proportions of group using pre-post and follow-up measures suggests an active involvement in assessing outcome. However, the actual nature of these procedures remains to be elucidated, and their validity as measures of outcome to be evaluated, particularly bearing in mind the relatively lower proportion of groups using questionnaires.

Finally, so far as therapists' experience and training is concerned evidence indicates a wide range of experience levels in running groups, and a relative paucity of therapists with training in groupwork. This latter finding, bearing in mind the large number of behavioural groups being run, raises serious questions about the lack of availability of training in groupwork, and gives pause for thought concerning what optimally should be the nature of such training.
Appendix 4: Proforma of patient preparation for group therapy
1. The essence of group psychotherapy is free and honest communication of personal experience and difficulties so members must feel that it is safe to talk in group. To achieve the necessary trust and confidence, members need to be sure that anything they say in group will not be communicated to people outside. Every member of a therapeutic group must, therefore, be prepared to accept that all talk within the group is confidential to the group. To avoid inadvertent breaking of confidence, it is advisable for members of the group to know and address each other only by their first name. Surnames should not be used in or out of the group setting.

2. A serious commitment to the work of the group is necessary if worthwhile results are to be obtained. Attendance at group sessions should, with few exceptions, be given priority over all other activities that clash. Absences are disruptive and if members find it impossible to attend a certain session for reasons such as physical illness or family crises they should inform the therapist of this as soon as possible and should be prepared to discuss the reasons for their absence at the next group meeting. If less than four members of a group attend a session, that session may be cancelled. If adverse weather conditions make travel very difficult, it is advisable to contact the Clinic to see if the group is to meet that day. It is understood that members will need to absent themselves during annual holidays but these should always be planned well in advance and discussed in the group. Punctuality is important and all members should make a great effort to attend their group sessions on time. Groups should start promptly with all members present as members who arrive late disrupt the group.

3. Group members are free to discharge themselves from the group but they should not terminate their treatment without having previously notified the therapist and discussed their intention to leave in the group. Patients who absent themselves on more than four consecutive occasions without prior notification and agreement with the group will be assumed to have taken their own discharge and may not be readmitted to the group.

4. The group consists of eight members (range 6 - 10) of both sexes, in addition to the therapists. A group usually runs for one or two years and new members must expect to remain in the group
to give a firm undertaking that they will remain in the group for not less than three months, even if after one or two sessions they feel the urge to quit. Some members may well find their early experience of a group to be uncomfortable or unrewarding and make a decision to leave before it is in their interest to do so. The group will last for 1½ hours and members are expected to stay in the group and not leave, even if they feel emotionally upset, until the session is terminated by the therapist.

Patients for a group are not selected in random fashion. The therapist attempts to bring together, in the group, patients who face common problems and who, he thinks, are able to work together to the resolution of those problems. Members who leave a group prematurely would be replaced by new members so that the group can continue to function at full strength.

5. An individual interview with the therapists outside the group setting is only granted under very exceptional circumstances and usually only after discussion of the need for this within the group. If members give information to the therapists but not to the other group members, the function of the group is impaired. Given time most group members will find that it is possible to share intimate matters with the group which they had previously withheld for reasons of embarrassment or fear.

6. A discharge letter will be sent to the doctor when the group is terminated or the patient leaves the group. The therapist will only communicate with relatives of a member and other interested parties at the request and with the specific agreement of the member after discussion in the group.

7. Members are advised not to make important decisions about their work or life circumstance without first discussing this in the group.

8. The therapists do not provide any physical treatment, such as the prescription of drugs, for patients who are attending a group. Indeed, one of the objectives of therapy may well be to enable patients to cope without drug therapy. Patients who require drugs while undergoing group therapy should obtain these from their own doctor. They should keep the group informed of any changes in their medication. Sickness, absence and other certificates are not issued by the therapist. If any patient develops a physical illness whilst attending group their own
doctor should be consulted and the group informed.

9. It is usually inadvisable for members of a group to meet other members outside the group setting. Such contacts should be reported to the group so that the group is fully aware of all relationships developing between group members.
Appendix 5 : Copy of patient's agreement
I, ........................................, hereby give my permission and consent for the use of my replies to questionnaires to be used by Mr. D.E. Brock as part of a research investigation. In addition, I give my permission and consent to the tape-recording of sessions of my therapy group, understanding that the content of the recordings and all information will be kept strictly confidential by Mr. D.E. Brock and used by him for research purposes only, in such ways as he thinks necessary.

Signed ........................................

Date ........................................
Appendix 6: Copies of the pre-post scales:
I.C.L.; F.I.R.O.-B; P.A.Q.; and S.E.I.S.
<table>
<thead>
<tr>
<th>Number</th>
<th>Trait</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Able to give orders</td>
</tr>
<tr>
<td>2</td>
<td>Appreciative</td>
</tr>
<tr>
<td>3</td>
<td>Apologetic</td>
</tr>
<tr>
<td>4</td>
<td>Able to take care of self</td>
</tr>
<tr>
<td>5</td>
<td>Accepts advice readily</td>
</tr>
<tr>
<td>6</td>
<td>Able to doubt others</td>
</tr>
<tr>
<td>7</td>
<td>Affectionate and understanding</td>
</tr>
<tr>
<td>8</td>
<td>Acts important</td>
</tr>
<tr>
<td>9</td>
<td>Able to criticize self</td>
</tr>
<tr>
<td>10</td>
<td>Admires and imitates others</td>
</tr>
<tr>
<td>11</td>
<td>Agrees with everyone</td>
</tr>
<tr>
<td>12</td>
<td>Always ashamed of self</td>
</tr>
<tr>
<td>13</td>
<td>Very anxious to be approved of</td>
</tr>
<tr>
<td>14</td>
<td>Always giving advice</td>
</tr>
<tr>
<td>15</td>
<td>Bitter</td>
</tr>
<tr>
<td>16</td>
<td>Bighearted and unselfish</td>
</tr>
<tr>
<td>17</td>
<td>Boastful</td>
</tr>
<tr>
<td>18</td>
<td>Businesslike</td>
</tr>
<tr>
<td>19</td>
<td>Bossy</td>
</tr>
<tr>
<td>20</td>
<td>Can be frank and honest</td>
</tr>
<tr>
<td>21</td>
<td>Clinging vine</td>
</tr>
<tr>
<td>22</td>
<td>Can be strict if necessary</td>
</tr>
<tr>
<td>23</td>
<td>Considerate</td>
</tr>
<tr>
<td>24</td>
<td>Cold and unfeeling</td>
</tr>
<tr>
<td>25</td>
<td>Can complain if necessary</td>
</tr>
<tr>
<td>26</td>
<td>Cooperative</td>
</tr>
<tr>
<td>27</td>
<td>Complaining</td>
</tr>
<tr>
<td>28</td>
<td>Can be indifferent to others</td>
</tr>
<tr>
<td>29</td>
<td>Critical of others</td>
</tr>
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<td>30</td>
<td>Can be obedient</td>
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<td>31</td>
<td>Cruel and unkind</td>
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<td>32</td>
<td>Dependent</td>
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<td>33</td>
<td>Dictatorial</td>
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<td>34</td>
<td>Distrusts everybody</td>
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<td>35</td>
<td>Dominating</td>
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<td>36</td>
<td>Easily embarrassed</td>
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<td>37</td>
<td>Eager to get along with others</td>
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<td>38</td>
<td>Easily fooled</td>
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<td>39</td>
<td>Egotistical and conceited</td>
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<td>40</td>
<td>Easily led</td>
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<td>41</td>
<td>Encouraging others</td>
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<td>42</td>
<td>Enjoys taking care of others</td>
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<td>43</td>
<td>Expects everyone to admire him</td>
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<td>44</td>
<td>Faithful follower</td>
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<td>45</td>
<td>Frequently disappointed</td>
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<td>46</td>
<td>Firm but just</td>
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<td>47</td>
<td>Fond of everyone</td>
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<td>48</td>
<td>Forceful</td>
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<td>49</td>
<td>Friendly</td>
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<td>50</td>
<td>Forgives anything</td>
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<td>51</td>
<td>Frequently angry</td>
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<td>52</td>
<td>Friendly all the time</td>
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<tr>
<td>53</td>
<td>Generous to a fault</td>
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<td>54</td>
<td>Gives freely of self</td>
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<td>55</td>
<td>Good leader</td>
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<td>56</td>
<td>Grateful</td>
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<td>57</td>
<td>Hard-boiled when necessary</td>
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<td>58</td>
<td>Helpful</td>
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<td>59</td>
<td>Hard-hearted</td>
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<td>60</td>
<td>Hard to convince</td>
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<td>Hot-tempered</td>
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<td>62</td>
<td>Hard to impress</td>
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<tr>
<td>63</td>
<td>Impatient with others' mistakes</td>
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<td>64</td>
<td>Independent</td>
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<tr>
<td>65</td>
<td>Irritable</td>
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<td>66</td>
<td>Jealous</td>
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<td>67</td>
<td>Kind and reassuring</td>
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<td>68</td>
<td>Likes responsibility</td>
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<td>69</td>
<td>Lacks self-confidence</td>
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<td>70</td>
<td>Likes to compete with others</td>
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<td>71</td>
<td>Lets others make decisions</td>
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<td>72</td>
<td>Likes everybody</td>
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<td>73</td>
<td>Likes to be taken care of</td>
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<td>74</td>
<td>Loves everyone</td>
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<tr>
<td>75</td>
<td>Makes a good impression</td>
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<tr>
<td>76</td>
<td>Manages others</td>
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<tr>
<td>77</td>
<td>Meek</td>
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<tr>
<td>78</td>
<td>Modest</td>
</tr>
<tr>
<td>79</td>
<td>Hardly ever talks back</td>
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<tr>
<td>80</td>
<td>Often admired</td>
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<td>81</td>
<td>Obeys too willingly</td>
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<tr>
<td>82</td>
<td>Often gloomy</td>
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<tr>
<td>83</td>
<td>Outspoken</td>
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<tr>
<td>84</td>
<td>Overprotective of others</td>
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<tr>
<td>85</td>
<td>Often unfriendly</td>
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<tr>
<td>86</td>
<td>Oversensitive</td>
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<td>87</td>
<td>Often helped by others</td>
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<tr>
<td>88</td>
<td>Passive and unagressive</td>
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<tr>
<td>89</td>
<td>Proud and self-satisfied</td>
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<tr>
<td>90</td>
<td>Always pleasant and agreeable</td>
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<tr>
<td>91</td>
<td>Resentful</td>
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<td>92</td>
<td>Respected by others</td>
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<td>93</td>
<td>Rebels against everything</td>
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<td>94</td>
<td>Resents being bossed</td>
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<td>95</td>
<td>Self-reliant and assertive</td>
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<td>96</td>
<td>Sarcastic</td>
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<td>97</td>
<td>Self-punishing</td>
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<td>98</td>
<td>Self-confident</td>
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<td>99</td>
<td>Self-seeking</td>
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<td>100</td>
<td>Shrewd and calculating</td>
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<td>101</td>
<td>Self-respecting</td>
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<td>102</td>
<td>Shy</td>
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<td>103</td>
<td>Sincere and devoted to friends</td>
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<td>104</td>
<td>Selfish</td>
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<tr>
<td>105</td>
<td>Skeptical</td>
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<td>106</td>
<td>Sociable and neighborly</td>
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<td>107</td>
<td>Slow to forgive a wrong</td>
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<td>108</td>
<td>Somewhat snobbish</td>
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<td>109</td>
<td>Spinless</td>
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<td>110</td>
<td>Stern but fair</td>
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<td>111</td>
<td>Spoils people with kindness</td>
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<td>112</td>
<td>Straightforward and direct</td>
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<td>113</td>
<td>Stubborn</td>
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<td>114</td>
<td>Suspicious</td>
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<td>115</td>
<td>Too easily influenced by friends</td>
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<td>116</td>
<td>Thinks only of self</td>
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<td>117</td>
<td>Tender and soft hearted</td>
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<td>118</td>
<td>Timid</td>
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<td>119</td>
<td>Too lenient with others</td>
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<td>120</td>
<td>Touchy and easily hurt</td>
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<td>121</td>
<td>Too willing to give to others</td>
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<td>122</td>
<td>Tries to be too successful</td>
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<td>123</td>
<td>Trusting and eager to please</td>
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<td>124</td>
<td>Tries to comfort everyone</td>
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<td>125</td>
<td>Usually gives in</td>
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<td>126</td>
<td>Very respectful to authority</td>
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<tr>
<td>127</td>
<td>Wants everyone's love</td>
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<td>128</td>
<td>Well thought of</td>
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<td>129</td>
<td>Wants to be led</td>
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<td>130</td>
<td>Will confide in anyone</td>
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<td>131</td>
<td>Warm</td>
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<td>132</td>
<td>Wants everyone to like him</td>
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<tr>
<td>133</td>
<td>Will believe anyone</td>
</tr>
<tr>
<td>134</td>
<td>Well-behaved</td>
</tr>
</tbody>
</table>
For each statement below, decide which of the following answers best applies to you. Place the number of the answer in the box at the left of the statement. Please be as honest as you can.

1. never 2. rarely 3. occasionally 4. sometimes 5. often 6. usually

1. I try to be with people.
2. I let other people decide what to do.
3. I join social groups.
4. I try to have close relationships with people.
5. I tend to join social organizations when I have an opportunity.
6. I let other people strongly influence my actions.
7. I try to be included in informal social activities.
8. I try to have close, personal relationships with people.

For each of the next group of statements, choose one of the following answers:
1. nobody 2. one or two 3. a few 4. some 5. many 6. most

17. I try to be friendly to people.
18. I let other people decide what to do.
19. My personal relations with people are cool and distant.
20. I let other people take charge of things.
21. I try to have close relationships with people.
22. I let other people strongly influence my actions.
23. I try to get close and personal with people.
24. I let other people control my actions.
25. I act cool and distant with people.
26. I am easily led by people.
27. I try to have close, personal relationships with people.
28. I like people to invite me to things.
29. I like people to act close and personal with me.
30. I try to influence strongly other people's actions.
31. I like people to invite me to join in their activities.
32. I like people to act close toward me.
33. I try to take charge of things when I am with people.
34. I like people to include me in their activities.
35. I like people to act cool and distant toward me.
36. I try to have other people do things the way I want them done.
37. I like people to ask me to participate in their discussions.
38. I like people to act friendly toward me.
39. I like people to invite me to participate in their activities.
40. I like people to act distant toward me.

For each of the next group of statements, choose one of the following answers:
1. never 2. rarely 3. occasionally 4. sometimes 5. often 6. usually

41. I try to be the dominant person when I am with people.
42. I like people to invite me to things.
43. I like people to act close toward me.
44. I try to have other people do things I want done.
45. I like people to invite me to join their activities.
46. I like people to act cool and distant toward me.
47. I try to influence strongly other people's actions.
48. I like people to include me in their activities.
49. I like people to act close and personal with me.
50. I try to take charge of things when I'm with people.
51. I like people to invite me to participate in their activities.
52. I like people to act distant toward me.
53. I try to have other people do things the way I want them done.
54. I take charge of things when I'm with people.
Please tick each of these questions in the column which is most appropriate to you.

<table>
<thead>
<tr>
<th></th>
<th>Usually</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>My work doesn't utilize my full potential.</td>
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<tr>
<td>2.</td>
<td>I tend to plan my leisure time.</td>
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<td>3.</td>
<td>I can see my parents realistically as people with their own problems and own lives to lead.</td>
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<td>4.</td>
<td>I have difficulty with sleeping.</td>
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<td>5.</td>
<td>I feel that life is too much for me to cope with.</td>
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<td>6.</td>
<td>I feel confident of being able to do things I set out to do.</td>
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<td>7.</td>
<td>There are times when I feel serene, at peace with myself and with the world.</td>
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<td>8.</td>
<td>I feel that I would like to start a hobby, but put it off.</td>
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<td>9.</td>
<td>I feel embarrassed when I'm the centre of attention in a social gathering.</td>
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<td>10.</td>
<td>I do things without understanding my reasons for it.</td>
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<td>11.</td>
<td>I feel comfortable in a sexual situation.</td>
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<td>12.</td>
<td>I feel I'm somebody worth knowing.</td>
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<td>13.</td>
<td>I find that I can't cope with work.</td>
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<td>14.</td>
<td>I get very tensed up in some situations.</td>
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<td>15.</td>
<td>I have difficulty in concentrating on what I'm doing.</td>
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<td>16.</td>
<td>I tend to suffer from headaches or odd bodily pains.</td>
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<td>17.</td>
<td>I am unable to assert myself in company.</td>
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<td>18.</td>
<td>I have no zest for life.</td>
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<td>19.</td>
<td>My feelings get tangled to the point where I can't sort them out.</td>
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<td>20.</td>
<td>I don't understand what makes me tick.</td>
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<td>21.</td>
<td>I communicate my sexual wishes to my partner.</td>
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<td>22.</td>
<td>I feel uncomfortable with people who are older than me or in a superior position.</td>
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<td>23.</td>
<td>I feel low and miserable.</td>
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<td>24.</td>
<td>I feel guilty about things I've done.</td>
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<td>25.</td>
<td>I am dominated by my parents.</td>
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<td>26.</td>
<td>I feel satisfied with the sort of work I'm doing.</td>
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</table>

/Continued .....................
27. I find difficulty in meeting people of the opposite sex.

28. People see me differently to the way I really am.

29. I get anxious when I first meet new people.

30. I feel compelled to do things without really knowing why.

31. I allow my spare time to just drift by.

32. Things turn out the opposite of what I intend.

33. I have problems in establishing a continuing relationship with someone of the opposite sex.

34. I tend to go along with what others want to do rather than doing what I really want to.

35. I find difficulty in standing up for myself when someone takes advantage of me.

36. I feel able to voice my ideas at work and they are taken notice of.

37. I am able to satisfy my partner sexually.

38. I feel constricted in expressing my feeling to others.

39. I don't obtain enjoyment from sex.

40. I act impulsively without considering the consequences.

41. There are times when I can let myself go and feel joyously ecstatic about life.

42. There are things that I'd like to do but somehow don't get around to.

43. I find that my work isn't appreciated.

44. I feel dissatisfied with the way I am.

Please write down in order of importance the three major problems, with which you hope group therapy will help you:

1. ........................................................................................................

2. ........................................................................................................

3. ........................................................................................................

.................................................................
SELF EVALUATION IN INTERPERSONAL SITUATIONS

Please rate yourself on a scale of 1 - 5 (low to high)

With reference to operating with other people.

1. Your ability to cooperate with others ........

2. Your ability to listen to others ...............

3. Your ability to express disagreement and difference ...........................................

4. Your ability to contribute freely to influence discussions .............................

5. Your ability to encourage others to express their point of view ........................

6. Your ability to pick up non-verbal cues in a conversation; tone; gestures, facial expressions ...........................

7. Your ability to use appropriate language ......

8. Your ability to appreciate emotional processes in a group ...............................

9. Your ability to lead discussion ...............

10. Your ability to openly express personal feelings of anger, warmth, frustration, boredom, enthusiasm and the like ....................... 

11. Your ability to seek information ................

12. Your ability to summarise and clarify what is said or done .............................

13. Your ability to cope with over-talkative people .............................................

14. Your ability to initiate activity ............

15. Your ability to be friendly, warm and responsive to others ............................

List other skill(s) you wish to identify and rate

..................................................................................................................

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Appendix 7: The Personal Adjustment Questionnaire
Appendix 7

PERSONAL ADJUSTMENT QUESTIONNAIRE

Introduction

The Personal Adjustment Questionnaire (hereafter known as the P.A.Q.) is intended to provide a scale for the measurement of an individual's overall current level of adjustment. The concept of adjustment is one which is admittedly operationally imprecise, but is here understood as referring to its everyday meaning, i.e. the individual's level of satisfaction with the degree to which they are performing adequately and coping with various facets of their life.

In a very real sense, the concepts of 'adjustment' and 'coping' are inadequate and insufficiently all-embracing for the present purpose, the former because of its association with compromise and adaptation to the existing state of affairs; the latter because of its connotations with handling adversity and encumbrance. Missing from both are implications related to growth and self-actualising tendencies within the individual. These aspects are also intended to be incorporated within the understanding and meaning of the overriding concept of 'adjustment', and also are included within that which the scale aims to measure.

Furthermore, 'adjustment' is not a unitary concept, but should be regarded as both multidimensional and multiply-determined. Minimally, it can be seen as being affected by on the one hand, personality factors e.g. levels of Extraversion - Intraversion, innate and learned capacities, and the experiential history of the individual. On the other hand, the individuals current situation and environmental events impinging upon him will affect the ability to cope.
With regard to this latter, the burgeoning literature (e.g. Paykel, 1971) on life-events attests to the influence of these on susceptibility to both physical and mental illness in terms of the deleterious effects of stress on the individual's ability to cope.

Indeed one of the hallmarks of such psychiatric conditions as anxiety and depression is the sense of failing to cope and an absence of adjustment, which is clearly related to the subjective experience of discomfort reported in and expressed by symptomatology.

Conversely, the aims of both treatment and rehabilitation include the building or rebuilding of coping mechanisms within the individual and by extension, the capacity to adjust. This is most overtly seen within the cognitive-behavioural paradigm of treatment, where the use of 'coping statements' are taught and developed (e.g. Meichenbaum, 1974).

The role of cognition in adjustment is particularly related to the self-concept in terms of the perceptions which individuals have of themselves and their behaviour; and the attributions which they make about themselves.

Furthermore, the achievement of a satisfactory and satisfying life-style may be viewed as in part a consequence of an adequate structuring and organisation of time. This in turn is based upon the ability to make decisions entailing balancing potentially conflicting opposing factors, e.g. the apportionment of time and energy between work and play; the ability to match personal resources to the demands of the environment; and the estimation of costs and benefits of a particular course of action.
The requirement to attain such a balance is particularly evident with regard to the development of both intimate personal relationships (based on 'give and take'), and satisfactory social interactions. Both of these can be considered as being enhanced by flexibility of response (Horney, 1950) and reciprocity of exchange (Homans 1961).

From the above, some of the major elements of adjustment can be delineated - viz: self-concept, relationships, use of time, and level of discomfort.

Furthermore, the multidimensional nature of adjustment means that an individual's level of adjustment may well vary across these elements, being higher in some and lower in others. For clinical populations this clearly has implications for the type of treatment sought and required.

The foregoing discussion entails that a scale aiming to measure adjustment should be neither a personality assessment device nor more simply a symptom checklist, but rather should aim to sample current behaviour and experience across a range of areas.

The P.A.Q. specifically aims to estimate the level of adjustment with regard to four major domains; relationships; use of time; self-concept; and level of discomfort (symptomatology).

The population to which the questionnaire addresses itself is essentially a clinical one. The aim of the scale is to provide a measurement devise of sufficient sensitivity to:

a) isolate problematic areas of current functioning.
b) provide a measure of change from pre- to post-treatment.
c) provide an overall score in relation to current level of functioning.
The afore-mentioned four domains are sub-divided further in the P.A.Q. into the following areas of interest. So far as relationships are concerned, this area is divided into two aspects; personal relationships and social relationships; The self-concept is analysed in terms of two components: self-acceptance and self-understanding. The domains of symptomatology and use of time are retained as discrete factors.

The scale thus provides a total score for the estimation of overall level of adjustment and six subscale scores for particular areas of functioning:

1) Personal Relationships (PR)
2) Social Contacts (SC)
3) Self-Acceptance (SA)
4) Self-Understanding (SU)
5) Use of time (L)
6) Level of discomfort or Symptomatology (SY)

Item content

As noted above, the questionnaire orientates itself primarily towards clinical samples. It is accordingly not surprising that its content relates to areas which are problematic in peoples' lives. In this respect it has items which bear similarity to such traditional clinical measuring devices as the Middlesex Hospital Questionnaire and the Beck Depression Inventory.

However, while these questionnaires focus primarily on deficits, the PAQ has built into it also an attempt to measure in a quantifiable way individual's assets. Thus, for example, while some items clearly refer to difficulties e.g. 'I have difficulty with sleeping'; there are additionally items which refer directly to self-actualising tendencies within the individual e.g. 'there are times when I can let myself go and feel joyously ecstatic about life'. 
In terms of the scales themselves, items were included on the following bases. For the Personal Relationship (PR) scale, items aimed to sample such aspects as family and sexual relationships, the expression of feelings, and dominance-submission. Social contact (SC) items were oriented around social situations involving assertion, self-display, work contacts, and initial encounters with others. Self-acceptance (SA) items explored such facets as confidence, self-actualisation, and feelings about the self. The Self-Understanding (SU) scale included items concerned with the understanding of one's behaviour, feelings, and general personality. The Use of time (T) scale included items concerned with the organisation and control of time. Finally the Level of Discomfort (Sy) scale, aimed to sample physical and emotional factors in relation to mood and the effects of stress.

It was considered important in the construction of the scale that it should be of sufficient length to provide reliable and realistic assessments of these areas, but at the same time short enough and sufficiently easy of comprehension to be rapidly and readily administered. The resulting scale in consequence was 44 items long.

It will readily be seen from the foregoing discussion that the scope and complexity of the subscales vary considerably. In consequence, it has been necessary to vary the number of items utilized in the different subscales as follows = PR - 10; SC - 9; SA - 6; SU - 5; T - 5 and Sy - 7.

The numbers of the items used for each of the scales are as follows:
In practice, a further 2 items were excluded from the assessment of individual sub-scale scores due to their low reliabilities with the scales in question, and with the overall scale.

It was decided at the outset to mingle items of various subscales in the construction of the P.A.Q. rather than present them in their appropriate groupings. The rationale for this related to the need to ensure that subjects remained naive concerning the aims of the scale, and hence to avoid one potential source of response bias. The actual ordering of items in the scale was randomised. This was achieved by recourse to tables of random numbers.

Similar considerations concerning response bias also affected the actual wording of items. Thus, it was specifically decided to reverse the meanings of a number of items (in practice, 11 of the 44) in order to yield a mix of positive and negative statements.

Scaling

All 44 items use a 4-point (1-4) scale, the response being based upon the extent to which the statement applied to the individual in terms of one of four levels: Usually, Sometimes, Rarely and Never.

As the majority of items are couched in negative terms, responses are scaled as follows: Usually - 1, Sometimes - 2; Rarely - 3; and Never - 4. However, as noted above, the scales construction also made allowance
for the inclusion of items, which are positively worded. These amount to one quarter of the total, and are scaled in reverse order. Reference to the scoring key indicates the relevant numbers for these reversals.

For the purposes of assessment, all statements are treated as being equivalent in their contribution to adjustment. Thus no attempt is made to weight them or to arrange them hierarchically, although empirically, some are clearly more central than others.

As noted above, the number of items chosen for each subscale varies due to the relative complexity of the areas being sampled. In terms of practical administration of the P.A.Q. and evaluation of an individual's scores on the six sub-scales, this implies that the individual's subscale scores need to be related to the appropriate norms for each subscale in order to be able to plot a profile of the individual's adjustment strengths and deficits.

In order to plot such a profile, each subscale score can be transformed into a standard score by computing the number of standard deviations at which the score lies above or below the mean.

Administration and Scoring

The P.A.Q. is designed for self-administration with minimal instruction. Individuals are instructed to answer every statement-question in terms of their own understanding of it, by checking the column, which they consider to be most appropriate to them at the present time. They are additionally requested to answer in terms of their initial responses rather than spend too long thinking about particular items.
Thus, subjects are specifically not encouraged to question the assessor about the meanings of the P.A.Q. content, but rather to provide spontaneous reactions to the presented stimuli. The aim here is to obtain subjects intuitive evaluations of their present situation.

Scoring is conducted by reference to the scoring key. Each item is scored on a four-point (1-4) scale. Scores are initially computed for the six sub-scales. The total possible score for each of these is as follows:

1) Personal Relationships (PR) - 40
2) Social Contacts (SC) - 36
3) Self-Acceptance (SA) - 24
4) Self-Understanding (SU) - 20
5) Time (L) - 20
6) Discomfort (Sy) - 28

The total score for overall adjustment is then computed by adding up the six scores for the individual subscales.

The scoring is designed for high scores to be indicative of good level of adjustment, and low scores to provide evidence of problematic areas of functioning.

From this process can be derived a profile of the individuals adjustment across the sub-scales, and total adjustment level. An estimation of good and poor areas of adjustment can be found by relating scores obtained to the norms, which are relevant to the individual.

It will thus be possible to gain an estimation of the individual's adjustment strengths and deficits, and the extent to which particular areas are maintaining or undermining the overall adjustment level.
However, the P.A.Q. subscales and overall scale are not only intended to provide quantitative data. They also aim to be useful within a wider assessment function. Thus on the one hand, they encourage interpretation about possible relationships between the subscales, and on the other, by attending to the responses to particular items, provide for a more specific focus and form of information. Moreover, by relating the individual's responses to the P.A.Q. to other data collation formats (e.g. interview and other questionnaires), the P.A.Q. aims to provide a powerful tool for hypothesis-generation and testing.

SAMPLES AND NORMS

The 44-item questionnaire was administered to three groups in order to evaluate the scales' ability to discriminate between various samples. The groups in question were as follows:–

1) Two psychotherapy groups (N=23), hereafter known as Group 1.
2) Two anxiety management groups (N=17), hereafter known as Group 2.
3) A normal sample drawn from staff and students at an adult evening college (N=42), hereafter known as Group 3.

This provided a total sample of 82, approximately evenly split between clinical (N=40) and normal (N=42). The questionnaire was administered to the clinical samples prior to the commencement of treatment. The rationale for using two types of clinical sample, psychotherapy and anxiety management groups, was to determine whether the P.A.Q. was able to isolate specific differences between the groups in terms of their patterns of coping and non-coping. Such information would indicate adjustment strengths and weaknesses of the individuals concerned and suggest
their specific treatment needs. By implication, this might provide pointers concerning the ways in which particular areas of problematic functioning are evaluated, and treatment strategies determined.

The responses of the total sample were evaluated in order to ascertain the reliabilities of the individual items with regard to the subscales and overall scale. As a result of this, two items were discarded on the grounds of their low correlations both with their respective subscales and with the overall scale.

Using the remaining 42 items, reliabilities were then computed for the subscales and overall scale; and intercorrelations between the scales assessed (see following sections).

Normative means and standard deviations for the scales were then computed for the clinical and normal samples, and also for the two types of clinical sample.

The following table shows the means and standard deviations of the clinical and normal samples and also of the total sample on the subscales and overall scale:

<table>
<thead>
<tr>
<th></th>
<th>CLINICAL</th>
<th></th>
<th>NORMAL</th>
<th></th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean</td>
<td>S.D</td>
<td>mean</td>
<td>S.D</td>
<td>mean</td>
</tr>
<tr>
<td>1)</td>
<td>PR</td>
<td>27.13</td>
<td>4.92</td>
<td>31.69</td>
<td>3.54</td>
</tr>
<tr>
<td>2)</td>
<td>SC</td>
<td>21.15</td>
<td>3.63</td>
<td>25.26</td>
<td>3.29</td>
</tr>
<tr>
<td>3)</td>
<td>SA</td>
<td>14.45</td>
<td>2.64</td>
<td>18.21</td>
<td>2.30</td>
</tr>
<tr>
<td>4)</td>
<td>SU</td>
<td>10.48</td>
<td>3.34</td>
<td>14.00</td>
<td>2.58</td>
</tr>
<tr>
<td>5)</td>
<td>L</td>
<td>10.85</td>
<td>2.54</td>
<td>12.67</td>
<td>2.17</td>
</tr>
<tr>
<td>6)</td>
<td>Sy</td>
<td>14.28</td>
<td>2.78</td>
<td>19.79</td>
<td>2.75</td>
</tr>
<tr>
<td>7)</td>
<td>Adj</td>
<td>97.87</td>
<td>13.68</td>
<td>121.62</td>
<td>10.80</td>
</tr>
</tbody>
</table>

Table 51: P.A.Q. scales norms on Clinical and Normal samples.
These results were evaluated by means of analyses of variance in order to determine the significance levels of the differences between the two samples. In fact, for all scales, the differences between the means were highly significant (p = .001).

We can conclude from this that each of the subscales and the overall scale (Adj) of P.A.Q. discriminate between normal and clinical samples.

Norms and standard deviations were similarly computed separately for the two clinical samples (groups 1 and 2), and analyses conducted to ascertain the significance of differences both between these two groups and between each of these two groups and the normal sample (group 3).

The following table shows the means and standard deviations for each of the three groups on the subscales and overall scale:-

<table>
<thead>
<tr>
<th></th>
<th>CLINICAL GROUP 1</th>
<th>CLINICAL GROUP 2</th>
<th>NORMAL GROUP 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean S.D.</td>
<td>mean S.D.</td>
<td>mean S.D.</td>
</tr>
<tr>
<td>1)</td>
<td>PR 25.09 4.26</td>
<td>30.06 4.36</td>
<td>31.69 3.54</td>
</tr>
<tr>
<td>2)</td>
<td>SC 19.74 3.19</td>
<td>23.06 3.38</td>
<td>25.26 3.29</td>
</tr>
<tr>
<td>3)</td>
<td>SA 13.74 2.82</td>
<td>15.41 2.09</td>
<td>18.21 2.30</td>
</tr>
<tr>
<td>4)</td>
<td>SU 9.49 3.73</td>
<td>11.82 2.19</td>
<td>14.00 2.58</td>
</tr>
<tr>
<td>5)</td>
<td>L 10.78 2.83</td>
<td>10.94 2.16</td>
<td>12.67 2.17</td>
</tr>
<tr>
<td>6)</td>
<td>Sy 14.13 3.21</td>
<td>14.47 2.15</td>
<td>19.79 2.75</td>
</tr>
<tr>
<td>7)</td>
<td>Adj 92.96 14.07</td>
<td>104.94 9.67</td>
<td>121.62 10.80</td>
</tr>
</tbody>
</table>

Table 52: P.A.Q. scales norms on the two clinical samples and the normal sample.
The results of T-tests used to analyse the significance of differences at .05 level between the three groups are as follows:

1) Group 1 differs significantly from Group 3 on all scales.
2) Group 2 differs significantly from Group 3 on SA, SU, L, Sy and Adj.
3) Group 1 differs significantly from Group 2 on PR, SC, SU and Adj.

These findings indicate firstly that all the scales of P.A.Q. discriminate between the psychotherapy groups and the normal sample.

They also indicate differences between the psychotherapy and anxiety management groups on the two scales relating to interaction with others (PR and SC), on the self-understanding dimension (SU), and on the overall scale (Adj). In each case, these differences favour the anxiety management group as functioning at a higher level, i.e. their means are higher than those found for the psychotherapy group, and in the case of PR and SC are more similar to the normal sample. Thus, the interpersonal dimension would appear to be one on which the anxiety management group sample function at a normal level.

Conversely, areas of similarity between the two clinical samples emerge on the SA, L and Sy scales, suggesting that these are areas of common problematic functioning. This suggestion is reinforced by the fact that both clinical samples differ from the normal sample on these scales. The self-acceptance, use of time and level of symptomatology dimensions of adjustment may thus be considered as the three aspects within which common problems in functioning arise within otherwise varied clinical populations.
In addition, both SU and Adj discriminated significantly between all three groups. This would suggest that levels of both self-understanding and overall adjustment are important predictors of differences between varied types of clinical problems and between clinical and normal levels of functioning.

In looking at the size of the standard deviations, there is also an indication that the psychotherapy group is more varied in its scores than the other two groups. This greater variability is particularly associated with the SU and Sy scales.

**Psychometric Qualities**

**Intercorrelation of scales**

The following table provides correlations of each sub-scale with the other sub-scales and with the whole scale (Adj):

<table>
<thead>
<tr>
<th></th>
<th>PR</th>
<th>SC</th>
<th>SA</th>
<th>SU</th>
<th>T</th>
<th>Sy</th>
<th>Adj</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR</td>
<td>.</td>
<td>.55</td>
<td>.64</td>
<td>.50</td>
<td>.34</td>
<td>.47</td>
<td>.79</td>
</tr>
<tr>
<td>SC</td>
<td>.</td>
<td>.58</td>
<td>.51</td>
<td>.35</td>
<td>.59</td>
<td>.79</td>
<td></td>
</tr>
<tr>
<td>SA</td>
<td>.60</td>
<td>.47</td>
<td>.38</td>
<td>.69</td>
<td>.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SU</td>
<td>.</td>
<td>.47</td>
<td>.63</td>
<td>.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>.</td>
<td>.30</td>
<td>.56</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sy</td>
<td>.</td>
<td>.</td>
<td>.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This table demonstrates very satisfactorily that on the one hand the sub-scales are relatively independant of one another (correlations range from .30 to .69) and on the other that they are all highly correlated with the overall scale. Even the lowest of these correlations i.e. for the L scale with Adj (.56) is markedly higher than its correlation with any of the other sub-scales. Indeed L (Use of Time) appears to be the sub-scale with least relationship to the others.
On the other hand, the SA (Self-Acceptance) scale has the highest correlation with Adj (.84) and also has the highest correlations with the other sub-scales. In particular, it is highly correlated with Sy (.69), PR (.64), and with the other scale relating to self-concept, SU (.60). From this perspective, SA may thus be considered to be the more central of the sub-scales in relation to the overall concept of adjustment.

The level of discomfort scale (Sy) is highly correlated with both of the self-scales (with SA at .69, and with SU at .63), and is additionally related to the SC (Social Contact) scale.

In turn, this SC scale is also related back to the SA scale and to the PR scale. However, the somewhat lower correlation between SC and PR (.55), though both of these are to do with interactions with other people, suggests that these are relatively discrete areas, and both of these scales additionally have lower correlations with SU (PR and SU = .50; SC and SU = .51).

The foregoing suggests that the sub-scales are in fact measuring different areas of behaviour; that each of these areas are highly correlated to an overall measure of adjustment; that some of these areas are more central than others; and that although they are different, there are clear relationships between them.

Reliability

The estimate of reliability used for the P.A.Q. is the coefficient of internal consistency. This coefficient is based on an internal analysis of the data generated on a single occasion of testing. It aims to measure the degree to which items are measuring the same thing, in this instance, adjustment and its elements.
The coefficient of internal consistency provides an average correlation (correlation Alpha) among items within a test. Bearing in mind that the main source of measurement error is due to sampling of items, this form of estimate of reliability is clearly of relevance to the P.A.Q., both in terms of the overall scale and the individual sub-scales. The values obtained on this measure are sufficiently high to conclude that each of the scales possesses satisfactory reliability.

The following table provides the basic data for the six sub-scales and the overall scale (Adj) in terms of the following: coefficient Alpha, scale mean, standard deviation, and mean inter-item correlations:

<table>
<thead>
<tr>
<th></th>
<th>Alpha</th>
<th>Scale Mean</th>
<th>Standard Deviation</th>
<th>Inter-item correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR</td>
<td>.76</td>
<td>29.49</td>
<td>4.81</td>
<td>.24</td>
</tr>
<tr>
<td>SC</td>
<td>.72</td>
<td>23.20</td>
<td>4.00</td>
<td>.21</td>
</tr>
<tr>
<td>SA</td>
<td>.76</td>
<td>16.37</td>
<td>3.12</td>
<td>.35</td>
</tr>
<tr>
<td>SU</td>
<td>.84</td>
<td>12.26</td>
<td>3.46</td>
<td>.51</td>
</tr>
<tr>
<td>L</td>
<td>.70</td>
<td>11.77</td>
<td>2.53</td>
<td>.33</td>
</tr>
<tr>
<td>Sy</td>
<td>.83</td>
<td>17.10</td>
<td>3.93</td>
<td>.41</td>
</tr>
<tr>
<td>Adj</td>
<td>.92</td>
<td>110.19</td>
<td>17.06</td>
<td>.23</td>
</tr>
</tbody>
</table>

Table 54: Reliability scores for the P.A.Q. scales.
VALIDITY

CONTENT VALIDITY

Content validity estimates the extent to which the items in a scale adequately sample the area of behaviour to be measured. So far as the P.A.Q. scales are concerned, the areas of adjustment considered vary in their complexity and scope.

This is catered for by varying the numbers of items within each subscale. Thus, for example, the PR scale in attempting to measure family and sexual relationships, the expression of feelings within relationships, and the estimation of dominance-submission, clearly requires more items than a simpler more unitary scale such as SU which aims to measure self-understanding of behaviour, feelings and personality.

Furthermore, some scales, particularly Sy and SC, contain items which are similar to those found in other scales, e.g. scales assessing on the one hand clinical state and on the other, social skills deficits. However, other of the P.A.Q. subscales, particularly SA and L aim to assess aspects of adjustment which are oriented towards personal strengths. For these, it has been necessary to construct items in sufficient numbers and scope to sample a variety of facets of such areas of adjustment.

In terms of the P.A.Q.'s original aims, other aspects of validity are in fact more crucial. These are to some extent based upon its correlations with the other scales used in the study. However, some of the main lines of evidence will be presented here.
CONCURRENT VALIDITY

Concurrent validity provides an assessment of the extent to which a scale correlates with other scales or indices aiming to measure similar aspects of functioning.

Details of the P.A.Q.'s correlations with other scales are to be found in the section describing the relationships between the various scales used in the study. The main evidence will now be summarised.

Both the overall scale (Adj) and the subscales, (with the exception of Sy), are correlated with I.C.L. as follows: negative correlations with the H-L segment (i.e. that relating to submissive modes of relating to others) and positive correlations with B (referring to a dominant assertive mode of relating). Additionally, SC is correlated with P (referring to a self-confident mode of relating).

With regard to FIRO-B, Adj, SC and SA are positively related to DC. DC is characterised by an ability to be in control, rather than in need of control in interpersonal encounters. Conversely, Adj (together with PR, SC, SA and SU) are correlated negatively with WC (Wanted Control); and Adj (together with PR, SA, SU, L and Sy) are correlated negatively with Sum C.

Additionally L is positively related to EI, suggesting an association between the ability to manage time and the ability to include others in ones activities; and PR is negatively related to DA, suggesting that the PR scale is associated with a balance between the giving and receiving of affection, rather than a preponderance of one over the other.

Finally, with regard to S.E.I.S., Adj is positively correlated with In and Ta; while L is positively related to Re, no relationship being found between the P.A.Q. scales and S-E.
The foregoing suggests that with regard to the interpersonal and social domains covered by the other scales, the P.A.Q. scales are associated with independent, assertive modes of relating; and are negatively related to areas of functioning, which may be characterised as submissive and problematic. With the exception of PR, however, they have little in common with emotionally close and affectionate forms of relating to others.

CONSTRUCT VALIDITY

The issue of construct validity with regard to P.A.Q. refers to the scales ability to measure an individual's current level of adjustment. As noted above, this is an aspect of functioning which is both conceptually imprecise and elusive, and also multidimensional. Evidence for the construct validity of the overall scale (Adj) and its constituent subscales must therefore be sought and accumulated from a number of different directions.

Firstly, the data on concurrent and predictive validity provides evidence that scores on Adj and the subscales are associated with the type of positive aspects of functioning, which can be subsumed under the general rubric of coping and adjustment. Moreover, from this point of view the individual subscales clearly discriminate between various types of adjustment, e.g. the associations between L and Inclusion, and PR and Affection on FIRO-B.

Secondly, intercorrelations between the P.A.Q. scales indicate that each of the subscales is significantly related to the others, but more highly correlated with the overall scale. This suggests that each of the subscales are distinct from one another, and are measuring various aspects of an overall construct, i.e. adjustment.
Thirdly, the normative means found for the three sample groups indicate that P.A.Q. satisfactorily discriminates between clinical and normal samples, both in terms of the overall scale and the subscales.

It is additionally able to discriminate between two types of clinical sample, psychotherapy and anxiety-management patients. In particular, it is noteworthy that the anxiety-management group do better than the psychotherapy group on the scales involving interpersonal interaction, i.e. PR and SC, and the overall scale (Adj); while the two groups are much more similar on the level of symptomatology (Sy), self-acceptance (SA) and management of time (L) scales.

Taken together, these lines of evidence suggest the P.A.Q. is measuring a positive aspect of functioning, which can be equated with adjustment; that its structure enables the measurement of both an overall level of adjustment and more specific aspects via the use of internally consistent subscales; and that it is able to discriminate areas of strength and deficit.
Appendix 8: Copy of the H.I.M. record form.
**ANALYSIS OF TAPE TRANSCRIPTS**

<table>
<thead>
<tr>
<th>TAPE</th>
<th>SPEAKER</th>
<th>SPOKEN TO</th>
<th>CONTENT</th>
<th>H.I.H.</th>
<th>TIME</th>
</tr>
</thead>
</table>

Sessions Number:  
Number Present:
Appendix 9: Copy of the Sociometric Questionnaire
The questions below are designed to explore how you feel about your group. Although some of the questions may appear similar, please answer each one in its own right without reference to the others. Give your answers spontaneously as they come to you, rather than spending a long time pondering over any question. Firstly, please rank the members of your group including yourself and your therapist in order according to who is most:

<table>
<thead>
<tr>
<th></th>
<th>HELPFUL</th>
<th></th>
<th>DOMINANT</th>
<th></th>
<th>IN NEED OF HELP</th>
<th></th>
<th>ABLE TO DISCUSS FEELINGS</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1</td>
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<td>10</td>
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</tr>
</tbody>
</table>
Now, rank members of your group, including your therapist but excluding yourself to whom you:

<table>
<thead>
<tr>
<th>a) LIKE MOST</th>
<th>b) UNDERSTAND MOST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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</tr>
<tr>
<td>2</td>
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<tr>
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<td>8</td>
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<tr>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>c) ADMIRE MOST</th>
<th>d) TRUST MOST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
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<td>3</td>
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<td>9</td>
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<tr>
<td>10</td>
<td>10</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>e) FEEL UNDERSTANDS YOU BEST</th>
</tr>
</thead>
<tbody>
<tr>
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Appendix 10: Structural characteristics of the Sociometric Questionnaire
Appendix 10: Structural characteristics of the Sociometric Questionnaire

The sociometric questionnaire required group members to rank order themselves and others on ten variables on twenty-four occasions. These twenty-four sessions were divided up into six blocks of four consecutive sessions. The ten variables were helpful, dominant, sensitive to others, needs help and able to discuss feelings (self included in rankings); and like, understand, admire, trust and feel understands you (self excluded).

In terms of the history of the group's membership, changes occurred in group composition after blocks 2 and 4, on both occasions of which members joined and left. There were, thus, three distinct phases of group membership: blocks 1 and 2; blocks 3 and 4; and blocks 5 and 6.

In order to discover changes occurring in members responses to the questionnaire, it was decided to divide these phases into two, characterised as 'early' and 'late'. For purposes of analysis, blocks 1, 3 and 5 were taken as 'early' and blocks 2, 4 and 6 as 'late' responses.

So far as the relationships between the variables are concerned, correlations between pairs of variables were calculated for each individual rater and for the group as a whole for both 'early' and 'late' on ratings made of others i.e. excluding self-ratings.

The following table shows the matrix of correlations between the variables for the group as a whole on 'early' ratings.
Table 55: Early intercorrelations between the sociometric variables

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</table>

The key to the numbering of the variables is as follows:

1 Helpful
2 Dominant
3 Sensitive
4 Needs Help
5 Able to discuss feelings
6 Like
7 Understand
8 Admire
9 Trust
10 Feel understand you

The major features of this table are as follows:

1 Feeling understood (10) is the most highly correlated variable, having particularly strong relationships with like, trust, helpful, sensitive and admire.

2 Sensitive (3) and like (6) are the second most highly correlated variables, the former having close relationships with helpful, admire and feeling understood; and the latter with admire, trust and feeling understood.
3 With the exception of understand (7), the variables from which self ratings are excluded form a cluster of close relationships with each other. In particular, there is a strong correlation (.53) between like and trust.

4 Dominance (2) is generally characterised by a lack of correlation with the other variables. The highest correlations are positive with discuss feelings and admire, and negative with needs help. However, even these are only of the order of .20.

5 Needs help (4) tends to exhibit slight negative correlations with the other variables, in particular with dominant, trust and admire.

This suggests that the feeling of being understood is an important influence on other forms of interpersonal perception early in the group and serves to organise member's choices of each other on other sociometric variables.

The clustering of the personal choice variables also suggests that members are viewing each other in very similar terms across these variables, with the interesting exception of understand. The sense of understanding others would appear to bear little or no relationship to liking, admiring, etc.

Along similar lines, both dominance and need help are variables which bear little relation to any of the others. Ratings on these variables are thus tapping different dimensions of interpersonal experience, cognition and choice.

Finally, sensitive stands in an inverse relationship to understand with regard to the group behaviour/personal choice division in the scale, being well
correlated with the scale as a whole (particularly with helpful) and also with the personal choice variables.

The following table shows the matrix of correlations between the variables for the group as a whole on 'late' ratings.

Table 56: Late intercorrelations between the socio-metric variables

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</table>

The main characteristics of the table are as follows:

1 Helpful (1) now appears as the most highly correlated variable, in particular having strong relationships with feeling understood, sensitive, admire and trust.

2 Like (6), admire (8) and trust (9) exhibit high correlations amongst themselves and also with helpful and sensitive. In general, these correlations are either the same or higher than the 'early' correlations and there is a particularly strong relationship (.71) between like and trust.

3 Both dominant (2) and need help (4) continue to exhibit low correlations with each other and the other variables.
In general terms, the correlations between the variables show a marked degree of similarity and consistency from early to late. The personal choice variables like, admire and trust, continue to be correlated with each other, although feeling understood is now less salient.

In contrast, helpful has, in the main, slightly increased its correlations with the other variables and would now appear to be the one around which other forms of interpersonal perception are organised. This change may well reflect an alteration in members cognition of the group away from a self orientation and towards an other or group orientation.

Dominant, needs help and understand continue to be variables which are used by members as dimensions of interpersonal experience which are different from the others.

An indication of both the consistency of the scale and also the relative centrality of the variables is provided by the following table. This gives the mean correlations and ranking of each variable with all the others for 'early' and 'late' responses. (Table 57).

In summary, the relationships between the sociometric variables evidence consistency from early to late. Those variables which measure members attractiveness towards one another tend to highly intercorrelated. In contrast, those which are oriented towards member's perceptions of each others group behaviour are more idiosyncratic. Finally, there is evidence to suggest a movement over time from sociometric perceptions being based upon an inner sense of feeling understood to an outer perception of member's helpfulness in the group.
Table 5.7: Mean correlation and rank order for each sociometric variable with the rest of the scale

<table>
<thead>
<tr>
<th>Variable</th>
<th>'Early' Mean</th>
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<th>'Late' Mean</th>
<th>Rank</th>
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<td>.05</td>
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<td>3 Sensitive</td>
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<td>.30</td>
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<td>4 Needs help</td>
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<td>.04</td>
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<tr>
<td>5 Discuss Feelings</td>
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<td>.27</td>
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<td>6 Like</td>
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<td>7 Understand</td>
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<td>8 Admire</td>
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<td>9 Trust</td>
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<td>10 Understands you</td>
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Appendix 11: Copies of the scoring sheets for the Group Therapy Questionnaire
### FIGURE 2
Sample Calculation Sheet For Hand Scoring

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2. $D_3 \times 2$
3. $G_3$

#### ALL SELECTIONS

1. $N_1 \times 2$
2. $D_3 \times 2$
3. $G_3$

#### ALL SELECTIONS plus OTHER ALTERN.

1. $N_1 \times 2$
2. $D_3 \times 2$
3. $G_3$

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</table>
FIGURE 3
Tentative Format For The Presentation of Scale Scores -- A Profile Of Leadership Scale Scores

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<td>Question</td>
<td>Interpretation</td>
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