A portfolio of study, practice and research

Relationship of Expressed Emotion to Conduct Problems in Children and changes during Parent Training Intervention

Submitted for the degree of Doctor of Psychology (Psych D) in Clinical Psychology

Conversion Programme

By
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Registration Number - 3720519
I would like to thank my supervisor Dr Maria Callias, Consultant Clinical Psychologist for all her support, encouragement, advice and helpful comments in the preparation of my portfolio. I would also like to extend my gratitude to Dr Stephen Scott, Consultant Child and Adolescent Psychiatrist, for his inspiration and clinical training in the running of the parenting groups, as well as his constant encouragement and unending enthusiasm in his supervision of my main thesis for the portfolio.

In particular, my thanks goes to the mothers who participated in the parenting groups. May I always remember their dedication, commitment and will to improve the lives of their children.

I would also like to thank the numerous other important people who have supported me throughout the many stages of the preparation of this portfolio.

A special tribute to my parents, whose constant support, encouragement and motivation throughout the years have enabled me to fulfill my ambitions.

Finally, I would like to dedicate this to John, without whose love, patience and support this would not have been possible.
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Section Five: Additional material

(1) Thesis submitted in part fulfilment of the MSC in Clinical Psychology, Institute of Psychiatry, Sept 1996

Title: The Investigation of Predictors and Characteristics associated with Body Size Dissatisfaction in Female Adolescents

(2) Copy of the candidate's clinical psychology degree qualification
Summary

Summary of the content of the portfolio

This portfolio comprises five sections. Section One consists of the candidate’s personal study plan. In this section, the aims, objectives and rationale for each of the three dossiers, academic, professional and research are outlined.

Section Two comprises the professional dossier and has two sub-sections. The first sub-section is a review of a child clinical psychology service in which the author worked. The second subsection consists of an outline of the candidate's post-qualification curriculum vitae.

Section Three comprises the research dossier. This is a report of a study entitled 'Relationship of expressed emotion to conduct problems in children and changes during parent training intervention'.

Section Four comprises the academic dossier and contains two academic reviews. These reviews address 'The psychological effect of burn injury in childhood: A review of recent literature' and 'The treatment of social phobia in children'.

Section Five contains the additional materials required to be included in the portfolio, including a copy of the candidates's clinical psychology degree qualification and a copy of the thesis submitted for this degree.
Section I

PERSONAL STUDY PLAN

Name: Elizabeth Collins

Date of Registration: 21 April, 1998

Registration Number: 3720519

Supervisors: Dr Maria Callias, Consultant Clinical Psychologist

Dr Stephen Scott, Senior Lecturer in Child and Adolescent Psychiatry
A. The Professional Dossier

**Part 1**

**Title:** A Review of a Child Clinical Psychology Service

**Aim:** To demonstrate my ability to critically evaluate a clinical psychology service.

**Objectives**

- To describe the work of a child psychology service
- To collect and analyse data regarding the referrals and the delivery of the service over a discrete time period
- To examine the effectiveness and usefulness of the current data collection system
- To discuss possible recommendations for improvement of the service

**Rationale:** This study focuses on a secondary level clinical psychology service based in an inner city area. To date, no formal evaluation of the workings of this service have taken place and I felt that undertaking this study would be of value to the service as a whole to identify areas of improvement for service delivery and to evaluate the use of the current data collection system.

**Part 2**

**Aim:** To provide evidence of post qualification development

**Objective:** To document post qualification professional training
Title: Relationship of expressed emotion to conduct problems in children and changes during parent training intervention.

Research Supervisor: Dr Stephen Scott,
Senior Lecturer in Child and Adolescent Psychiatry
Institute of Psychiatry

Aim: To design, execute and report on a study investigating expressed emotion in mothers of children with conduct problems and measure its change following their participation in a parent training group.

Objectives:
1. To measure the expressed emotion of mothers with children with conduct problems who have been referred to mental health services for help in managing the difficult behaviour.

2. To examine the use of a modified semi-structured interview (Camberwell Family Interview - Children) for measurement of expressed emotion.

3. To examine the differences in expressed emotion before and after participation in a parent training group based on the Webster-Stratton model of parent training.

4. To examine other factors which correlate with high expressed emotion.

Rationale: Whilst participating as both a therapist and researcher on a large multi-center evaluation project examining the effectiveness of a parent training project based on the model devised by Carolyn Webster-Stratton in the US, I became interested in factors affecting change following participation in the group. Expressed emotion is a concept which refers to the emotional environment in which a person lives, and it has
relatively recently been used as a way of untangling the complex interaction that results in conduct problems in young children. It has been used as a focus for interventions within the adult literature, although not, to date within the child literature. Therefore, examining this construct in relation to mothers who attend parenting groups was targeted to examine its nature and contribution to conduct problems in children, as well as change following participation in the group.

C. The Academic Dossier

Part 1

Title: The psychological effect of burn injury in childhood: A review of recent literature

Aim

- To enhance my knowledge of the psychological sequelae of burn injury in childhood
- To demonstrate my ability to critically evaluate the relevant literature
- To demonstrate my ability to link theory with practice
- To disseminate this information to staff on the burn unit

Objectives: To complete a critical review of the literature of the psychological sequelae of burn injury in childhood

Rationale: The rationale for conducting this review is due to my clinical input in a regional burns unit as part of a paediatric liaison service. Following the referral of a number of patients, it became apparent that there was a lack of knowledge amongst the staff regarding the short and long term effects of burns in children, dealing with the immediate effects of a burn in a child and the repercussions for the family. Preparation for discharge, including advising the family and the school about potential difficulties were frequent questions raised by nursing staff. A brief survey of burns units throughout the country identified a varied approach to dealing with the psychological
sequelae in children. This, in addition to my lack of experience of dealing with the psychological effect of burn prompted me to conduct this literature review of the area to help inform me about clinical practice in this area as well as to equip me with information to discuss with the staff and families with whom I came into contact.

**Part 2**

**Title:** Treatment of Social Phobia in Children

**Aim:**
- To enhance my knowledge of treatment of social phobia in children
- To demonstrate my ability to critically evaluate the relevant literature
- To demonstrate my ability to link theory with practice

**Objectives:** To complete a critical review of the literature on treatment of social phobia in children.

**Rationale:** The rationale for conducting this review was to broaden my clinical knowledge on a treatment intervention for a specific problem or type of problem which I come across in my clinical practice. I decided to target the area of social phobia in children as I am struck by how often children present with features of this disorder and how the presentations vary. Although, a considerable amount of literature exists within the adult field, there is not a significant amount focusing on children and no recent review of the literature in this area was available.
A Review of a Child Clinical Psychology Service
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1. INTRODUCTION

1.1 Rationale and Aims of this study
The rationale for conducting this study is to describe the service provided by a Child Clinical Psychology Department which is part of a busy mental health NHS Trust in London. This study uses a retrospective analysis of data which has been collected by clinicians since the introduction of a computerized information system. This data has never before been analysed in a coherent manner to describe the clinical work of the service. The aim of this study is to access and use this data to review how the service has operated in relation to a number of variables. This includes the types of clinical problems referred, the rate of referral, reason for referrals and contact information. Following the exploration of this, recommendations are made for future delivery of the service.

1.2 Audit
Since 1989 there has been a requirement from the NHS Executive to undertake clinical audit (Department of Health, 1989). Prior to 1989, audit was not a widespread activity, rather it was a task which was completed by enthusiasts (Shaw, 1989). Initially, the target for audit was primarily for the medical profession and it was not until the early 1990s that the implications for clinical psychology became clear. In Working for Patients (1989), audit is defined as 'the systematic critical analysis of the quality of medical care, including the procedures used for diagnosis and treatment, resources and the resulting outcome and quality of life for the patient'. Over the years a number of definitions of 'audit' have been described and it has become increasingly clear that the term is used in a variety of ways. Dickens (1994) concludes that despite the many definitions, there is a common root, that of audit being 'an inspection activity'. Overall, the central emphasis in NHS clinical audit has been on
professionals examining and changing their own professional practice (Cape, 1995).

A useful framework for audit has been provided by Donabedian (1966) who classified topics under 3 headings; structure, process and outcome. Structure includes the availability and organization of resources and personnel such as number of staff and time devoted to the service, while process addresses the procedures of diagnosis and treatment such as identifying the problems and using interventions. Outcome refers to the effect of the intervention, such as whether the aims of the intervention have been met from clinicians/referrers/clients point of view (Barry and Jones, 1997). The audit cycle, as described by Crombie (1993) and Firth-Cozens (1993), involves, in the initial stages, the collecting of information. This is usually followed by setting of standards, measuring the existing practice against the standards, changing practice in the event of standards not being met and then repeating the cycle at a later date to check if standards are continuing to be met. In some circumstances, once the different stages of an audit are completed, they can be used to develop appropriate standards.

1.3 Description of the Child Clinical Psychology Service

The Clinical Psychology Service is a small unidisciplinary psychology service which provides a service to children and families in a geographical area with a total population of 156,000. It is an urban area with a significant proportion being inner city. The service operates at Tier 2. The clinical psychologists who work within this service are mainly members of child and adolescent multidisciplinary mental health teams. All clinical psychologists working within the trust devote a maximum of one session per week (1/10 of the time) to the direct unidisciplinary clinical psychology service. The number of staff contributing to this service has varied from 2 to 6 psychologists during the time frame of this study.
Referrals from outside agencies including health, education and social services, can be made directly to the clinical psychology service. Referrals can also come directly from the Child Psychiatry service if the input of a multidisciplinary team is not deemed to be necessary. Therefore, this system allows ease of cross-referrals across the service. A weekly referral meeting is held whereby all new referrals are screened by members of the department and allocated accordingly. A waiting list is kept and reviewed regularly by members of the team to make decisions on prioritizing.

1.4 Literature Review

1.4.1 Epidemiology of Psychological Problems in Children

The incidence and prevalence of difficulties for which children and young people may be referred for psychological assistance vary considerably depending on the population studied and the classificatory categories used (Schwartz & Lees, 1994). The Isle of Wight study (Rutter, Yule, Graham & Whitmore, 1979) provides a benchmark for prevalence of emotional and conduct disorder. The findings suggest an overall prevalence of 6.8% for psychological problems in children. In a later study in inner London, far higher rates were found: 24.5% for boys and 13.2% for girls (Rutter, Cox, Tupling, Berger & Yule, 1975). Cox (1994) cites epidemiological studies indicating that between 5-15% of children suffer from emotional or conduct disorders which affect everyday life with isolated problems such as fears, tantrums and nightmares being much more common.

In a given population of 250,000, 20-25% are aged 0-18 years (NHS Advisory Services, 1995). It can be expected that 500-12,000 children will have mental health or psychological problems at any one time. Of these, it is expected that approximately 10,000 children and young people would be exhibiting moderate to severe problems (NHS Health Advisory Services, 1995). The prevalence for psychological problems appears to be increasing and the level of problems are twice as great in inner city compared to rural populations (NHS Health Advisory Services, 1995).
1.4.2 Child and Adolescent Mental Health Services

There has been a plethora of published articles relating to service delivery and evaluation of child and adolescent mental health services over the last number of years. A number of different studies have appeared in Clinical Psychology Forum and other journals on a relatively regular basis, particularly over the last 6-8 years (e.g., Duff, 1995; Hoare, Norton, Chishilm & Parry Jones, 1996). Over this time a number of changes have taken place in the NHS with regard to the organization and delivery of psychology services across the board and so this proliferation of articles serves to document some of these. The variety and quality of the studies is indicative of the number of different models of service delivery at the different levels which are available in the NHS; these services may or may not include a clinical psychologist. These models of service delivery vary from having a single psychologist alone in a primary care practice to having a psychologist exclusively as part of the tertiary level multidisciplinary team.

The NHS Health Advisory Service (1995) has detailed a comprehensive service model of the nature and type of services to meet the needs of children. In brief, their key recommendations include the provision of services within the framework of a four-tier model. In this model, each tier essentially addresses different types of problem with the level of severity increasing from Tier 1 to Tier 4. Tier 1 includes work carried out at a primary care level, usually by non-specialist staff; Tier 2 is unidisciplinary services, meaning that service is provided by professionals working on their own who relate to others through a network rather than within a team; Tier 3 includes multidisciplinary and specialist services providing for the more severe, complex and persistent disorders; Tier 4 includes highly specialised services such as day units and inpatient units for children and adolescent who are severely mentally ill. This report has been commonly held to be a useful framework for the delivery of child and adolescent mental health services. However, the reality of the situation is far from this ideal
and Stallard and Sayers (1998) outline how many services are poorly resourced and under constant pressure to meet an increasing demand for their expertise. Referral rates continue to rise with the inevitable result of an increased delay between referral and first appointment. One of the issues raised most frequently with staff at the British Psychological Society (BPS) office is the size of psychologists’ caseloads and the length of waiting lists (Skinner & Baul, 1997). As such, Skinner and Baul (1997) carried out a survey on behalf of the Division of Clinical Psychology to examine these very issues and contacted 3000 psychologists who were working across the whole range of specialities. The response rate to their questionnaire was 12% and their findings indicated that the average waiting lists were 16 weeks (median 12 weeks). The average waiting list for child clinical psychologists was 21.5 weeks (range 2-104) and the mean contact length was 0.9 hours. Clearly, this is a small sample and the poor response rate may decrease the generalization of the results, but, clearly waiting times can be relatively long and as such, may have implications for service delivery.

The national survey of child and adolescent mental health services carried out by Kurtz, Thornes & Wolkind (1994) demonstrated that waiting times in 66% of services had increased significantly and that only 10% of services were able to offer routine referral appointments in less than four weeks, with 32% having a waiting time in excess of 13 weeks. In a large scale audit carried out in Scotland of Scottish child mental health services, Hoare et al (1996) supports the positive relationship found between increased waiting lists and failure to attend first appointment. With regard to numbers of appointments, 61% are seen fewer than 3 times with one third of all referrals seen only once.

The growth of child clinical psychology services in primary care has also been noted over the last decade, although it is said to be lagging behind primary care for other specialities (Clydesdale, 1998). Recent articles by Boyle, Lindsay and McPherson (1997) and Clydesdale (1998) document referral and contact
patterns of two such services. Boyle et al (1997) describes a primary care clinical child psychology service based in rural Scotland where one psychologist was appointed to two primary care practices to carry out the full range of psychological activities which might be required. A total of 5180 children and young people of 18 years and younger were on the GP lists. Eight sessions per week were devoted to the service, five of which accounted for direct clinical work. A total of 79 referrals were made (the authors estimated a full year total of 90 referrals). All were rated by the clinical psychologist as having severe or moderately severe clinical problems. In this service, the average waiting time for an initial appointment was 4 weeks, clearly a much shorter time period than documented in other studies (eg: Skinner & Baul, 1997). Patients who either did not attend, or cancelled too late for the appointment time to be reallocated accounted for 11% of all scheduled sessions.

Although the methodology of the above study did not allow comparisons with referrals made to the multidisciplinary team, Clydesdale (1998) conducted an interesting study whereby he compared rates of non-attendance and outcome ratings of children, young people and their families treated by clinical psychologist within a primary care setting against a similar patient group seen by a clinical psychologist on a hospital based multidisciplinary team. The non-attendance rates of primary care patients was 13%, which is similar to that found by Boyle et al (1997), compared to the group who were referred to the multidisciplinary team which was 37%. Within the primary care group the premature discharge rate was 22% as opposed to 36% in the multidisciplinary team. Outcome ratings by the professionals indicated that within the primary care cohort, 50% were discharged with no symptoms, as opposed to 29% in the controls and this figure rose to 95% when figures included patients showing marked improvement, whose problem was manageable. Only 5% of the primary care patients showed little or no change as compared to 14% of the control group. There was a consistency of problem type within the two groups.
From these studies, it is clear that the model of service delivery may have implications for frequency of contacts, non-attendance rates and outcome of cases. Length of waiting lists are important in terms of likelihood of attending initial appointments and length of contact with a service. The different ways of delivering a service, whether it be via a multidisciplinary team or a stand alone psychologist working in primary care may be important in considering each of these variables.
1.5 Objectives of the Study

This study focuses on a Tier 2 clinical psychology service based in an inner city area. At the time that this study was completed, there was an absence of an adequate description of the referrals and delivery of the service with regard to clinical activities and throughput. Therefore, the need for this information to assist with examining and improving the practice prompted the author to complete this study.

Specifically, the objectives are to:

- identify the amount of referrals received over a specified time period and the numbers who attended and did not attend
- identify the socio-demographic characteristics of the referrals made to the child psychology service, including age, sex, type of school attending and parental employment status
- examine the reason for referral and the interventions of those who completed an episode of care
- explore the length and amount of contact with families throughout their attendance at the child clinical psychology service
- measure the outcome of the intervention, according to the therapist's judgement
2. METHOD

2.1 Data Set: P-Card
The data set, known as P-Card, was part of a core set of data which was devised to collect information for child and adolescent mental health services in 1992 by Berger (Berger, Hill, Stein, Thompson & Verduyn, 1993). The data set was computerized and data collection was dependant on clinicians filling out a number of forms and the information technology department coordinating and inputting the information.

The data fields included socio-demographic information, such as age, sex, employment status of parent and type of school being attended. The clinical information which was collected was symptom led rather than diagnostically based as this was felt to be more appropriate to capture the essence of problems being presented in childhood. A pure diagnostic system was felt to be too narrow and limiting for this client group (Berger, personal communication). Therefore, a total of 118 different symptoms lying within 22 categories could be chosen to best describe each case. More than one symptom could be listed and this could be added to throughout the duration of contact by the therapist. These lists of ‘clinical features’ refer mainly to ‘overt characteristics of the child or young person that the clinician regards as being in need of some action by the service because of their intrusive or handicapping nature. These are characteristics of the case that are outside normal limits. The terms themselves are meant to be non-judgemental, descriptive, and as far as possible avoid any reference to cause or aetiology. They have been chosen for reflect the language used by clinic professionals’ (Berger et al, 1993).

Similarly, a total of 15 categories with 126 options could be chosen to describe
the interventions and activities which took place eg: individual therapy, liaison with other professionals. Information relating to contact with the client such as number of appointments, cancellations, rates of non-attendance (DNA) and length of appointments were also collected. Outcome information, such as ratings of whether the aims of the intervention had been met and if the problems had resolved were rated by the therapist when the case was being closed.

Each professional was issued with a handbook and given instructions on how to complete the paper work. Any queries could be put to the information technology department devoted to dealing with the information. Refer to Appendix A for detailed information on the data collected and the coding systems.

2.2 Procedure

For the purpose of this study, the data was collected by a combination of accessing data on the computerised information system and the manual examination of files to fill in as much of the missing data as possible. The collection of the data was divided into two stages. In the initial phase, all the data collected since the computerised information system, known as P-Card was installed, was examined for completeness and accuracy. The second phase involved a detailed examination of a subset of this information. The data fields described above were used and calculations were made to examine issues such as length of time on the waiting list.

Clinical data first began to be collected on P-Card in 1991 when it was initially installed in the Child and Adolescent Mental Health department. Upon examination of the data between 1991 and 1997, it was found that a significant amount was missing and/or incomplete, particularly in the early years, which therefore compromised the accuracy and completeness of the data. The data was most complete from 1994 onwards and therefore it was decided to focus on the data from this time point for the purpose of analysis.
As a change occurred in the collection of clinical information in January 1998 it was not possible to include this information, mainly because the data set became much reduced and the collection of data would have had to be via interviewing clinicians about the cases and by manually trawling through case notes which was deemed too time-consuming. Therefore, this study will provide a detailed analysis of the referrals received during the years 1994 - 1997 inclusive. The collection of the data for the study began in July 1998.

The data were analysed using the Statistical Packages for the Social Sciences (SPSS).
3. RESULTS

The results are presented in two sections. The first section describes the characteristics of the total number of referrals to the department between January 1994 and December 1997, a period of 4 years. The second section examines the referrals who had been through an episode of care within this time and hence were 'closed' cases at the time of the data collection and includes descriptive information about the sample, as well as information on clinical features, interventions and contact with the service.

Section 1

3.1 Characteristics of the referrals made to the department during a four year period: Descriptive information

Table 1: Status of referrals

<table>
<thead>
<tr>
<th>Number of referrals:</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of referrals received</td>
<td>371 (100)</td>
</tr>
<tr>
<td>Seen and closed</td>
<td>229 (62)</td>
</tr>
<tr>
<td>Still open (at Dec 1997)</td>
<td>13 (3)</td>
</tr>
<tr>
<td>Withdrawn prior to contact</td>
<td>32 (9)</td>
</tr>
<tr>
<td>Refused or rerouted</td>
<td>51 (14)</td>
</tr>
<tr>
<td>Not seen due to DNA</td>
<td>46 (12)</td>
</tr>
</tbody>
</table>

As represented in Table 1, a total of 371 referrals were received in the department over a period of four years. Therefore, the average number of referrals received per year was 93. However, this number varied according to the number of psychologists working in the service at any one time. Graphs 1 and 2 represent this information. At the time that the information was collected, 62% of referrals had been through an episode of care. This includes any
Graph 1: The number of psychologists working in the service in 6 monthly intervals

Graph 2: The number of referrals received in 6 monthly intervals
referral who had any face to face contact with a psychologist, whether it be for one assessment session or long term intervention. Three percent had not been seen as they were still waiting to be offered an appointment. Thirty five percent of referrals were not seen at all for a number of different reasons. Out of these, 12% were not seen as they did not attend the appointment offered and so the case was closed. Fourteen percent were viewed as not being appropriate referrals for the service, and so were rerouted elsewhere. This was primarily to the outpatient child and adolescent psychiatry service. Nine percent of those referred withdrew before the initial appointment, reporting that they no longer required the input of the service.

Therefore, just under two thirds of the referrals within a four year period were seen by a clinical psychologist, with the remaining third not being seen.

<table>
<thead>
<tr>
<th>Referrer Type</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP</td>
<td>217 (58%)</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>47 (13%)</td>
</tr>
<tr>
<td>Parents</td>
<td>17 (5%)</td>
</tr>
<tr>
<td>Health Visitor</td>
<td>13 (3%)</td>
</tr>
<tr>
<td>Education</td>
<td>9 (2%)</td>
</tr>
<tr>
<td>Other *</td>
<td>68 (19%)</td>
</tr>
</tbody>
</table>

*counsellor, psychologist, psychiatrist, speech & language therapist, social services

Table 2 illustrates where the referrals to the service came from. Overall, the majority of the referrals came from general practitioners, as perhaps would be expected. Paediatrics was the next most frequent referral with 13% of referrals coming from this service. It is likely that problems in which a physical cause must be eliminated prior to considering a psychological cause came from this source. Five percent of referrals came direct from parents. However, this
process of referral was changed in 1996 and a referral letter from the GP was requested. Small numbers of referrals came from social services, and other health related services.

3.1.1 Sex and age of the whole sample

Table 3: Sex and age distribution of the sample

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n (%)</td>
<td>223 (60%)</td>
<td>148 (40%)</td>
<td>371</td>
</tr>
<tr>
<td>mean age in years (sd)</td>
<td>8.1 (4.1)</td>
<td>7.7 (4.2)</td>
<td>7.9 (4.1)</td>
</tr>
</tbody>
</table>

As Table 3 shows, the number of males referred to the service outnumbered the number of females with a ratio of 3:2. The ages ranged from 0-19 years. The median age was 8 and the mode 5 years.

3.1.2 Clinical features of the sample

Overall, the majority of referrals were referred for routine out-patient assessment and treatment.

Upon receiving the referral letter, a member of the psychology team recorded, according to pre-set criteria (see Appendix A), the main presenting problems, or symptoms which, for the purpose of this study, are referred to as 'clinical features'. The clinical features could be recorded or changed by the psychologist seeing the case at any point throughout the contact with the client. The information regarding the reasons for referral and the clinical features present has been looked at as a whole rather than at the different stages (ie: pre or post assessment). The way the information was collected by the computerised information system did not allow the latter to be done. The information regarding the clinical features was set out in a symptom led format, rather than being diagnostically led. Due to the large number of possible clinical features, for the
purpose of this study, clinical features were grouped according to the category in which they belong, for example: specific reading problem, memory problems - grouped under category labelled 'cognition'; tantrums, aggressive behaviour - grouped under 'anti-social'. The data was recorded using the categories for clinical features (see Appendix A for full details) on a form which allowed up to 10 clinical features to be recorded. Table 4 illustrates the frequency of each clinical feature reported in the whole sample referred to the service.

Table 4: Frequency of each clinical feature in the whole sample

<table>
<thead>
<tr>
<th>Clinical Feature</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognition</td>
<td>86</td>
</tr>
<tr>
<td>Antisocial</td>
<td>78</td>
</tr>
<tr>
<td>Anxiety</td>
<td>65</td>
</tr>
<tr>
<td>Self Regulation</td>
<td>65</td>
</tr>
<tr>
<td>School</td>
<td>53</td>
</tr>
<tr>
<td>Mood</td>
<td>35</td>
</tr>
<tr>
<td>Social Relationships</td>
<td>25</td>
</tr>
<tr>
<td>Life Event</td>
<td>16</td>
</tr>
<tr>
<td>Speech and Language</td>
<td>15</td>
</tr>
<tr>
<td>Physical / Neurological</td>
<td>21</td>
</tr>
<tr>
<td>Self</td>
<td>11</td>
</tr>
<tr>
<td>Other*</td>
<td>18</td>
</tr>
</tbody>
</table>

*Includes personality, autistic, genetic, psychosomatic and physically related problems - each of these occurred less than 10 times

The most frequent reason for referral in this sample was concern about cognitive difficulties, including specific reading/spelling/writing difficulties and general academic underachievement. This finding was not hugely surprising given the specialist skills clinical psychologists have for assessing these difficulties. However the large number of referrals for these problems may also be a
reflection of the education psychology services within the geographical area. Very long waiting lists, often up to and above one year were frequently reported and this led schools/parents/GPs to search for other avenues for assistance. This was followed closely by antisocial behaviour and anxiety related problems, again common problems dealt with by clinical psychologists. No problems relating to abuse/neglect, self harm, sexual behaviour or psychosis were referred. It is likely that referrals for these problems went directly to the multidisciplinary child psychiatry service. Similar patterns of 'reason for referral' occurred in the group of referrals who completed an episode of care, the results of which are discussed in more detail in the next section.

Section 2

3.2 Referrals who have been through a complete episode of care

Sixty two percent (n=229) of the total number of cases referred were seen and completed an episode of contact during the four year period. With regard to completeness of data, 70-80% of the data for this sample is complete. Therefore, it is felt that this is a good representation of the referred cases.

Table 6: Sex and age distribution of the sample

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n (%)</td>
<td>131(57)</td>
<td>98(43)</td>
<td>229</td>
</tr>
<tr>
<td>mean age in years (sd)</td>
<td>8.1 (4.1)</td>
<td>7(4)</td>
<td>7.6 (4.1)</td>
</tr>
</tbody>
</table>

As Table 6 shows, more males than females went through an episode of care, which is a similar proportion to the referral rate. Again the age range was 0-19 years, with a median age of 7 and a modal age of 8. It should be noted here that the mode is slightly higher than in the total referred group. There is no significant differences between the sexes and their ages in the sample of children who had an episode of treatment and those who did not.
Table 7: Ethnicity of the sample

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>142 (64%)</td>
</tr>
<tr>
<td>Black</td>
<td>21 (10%)**</td>
</tr>
<tr>
<td>Indian</td>
<td>16 (7%)***</td>
</tr>
<tr>
<td>Mixed Race</td>
<td>8 (4%)</td>
</tr>
<tr>
<td>Other</td>
<td>8 (4%)***</td>
</tr>
</tbody>
</table>

* includes black Caribbean, African and other
** includes people from Pakistan and Bangladesh
*** includes Chinese, South American

The data relating to ethnicity is complete for 89% (n=195) of the sample who went through an episode of care, and therefore this is taken to be a reliable estimate of the breakdown of ethnicity in relation to cases seen. Unfortunately, the ethnicity data was recorded for only 58% of the total sample and so is not considered to be complete enough for further analysis. Therefore, this does not allow ethnic differences between those who are and are not seen to be investigated. This is regretful given the importance of ensuring equal access to services and opportunities for all racial groups, particularly in a geographical area consisting of a large number of ethnic minority groups, in particular African and Asian groups. Therefore, this study was unable to clarify this issue further, and it does raise questions about how ethnic information is collected. As Table 7 illustrates, the majority of the sample who are seen are white Caucasian with smaller numbers coming from ethnic minority backgrounds.
Table 8: Types of school attended

<table>
<thead>
<tr>
<th>School</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None - too young</td>
<td>9 (4%)</td>
</tr>
<tr>
<td>Pre-school / Nursery</td>
<td>23 (10%)</td>
</tr>
<tr>
<td>Mainstream</td>
<td>132 (58%)</td>
</tr>
<tr>
<td>Independent Day</td>
<td>5 (2%)</td>
</tr>
<tr>
<td>Special School</td>
<td>9 (4%)</td>
</tr>
<tr>
<td>Others</td>
<td>6 (3%)*</td>
</tr>
</tbody>
</table>

*includes unit in mainstream, further education, not attending school and home tuition

Table 8 shows the proportion of school types attended. Eighty one percent of the data is complete for this variable, with 19% missing data. The majority of the children referred to the service attended mainstream school with 10% of the sample attending preschool/nursery. Nine percent attended other types of schooling.

Table 9: Parental occupation

<table>
<thead>
<tr>
<th>Parental Occupation</th>
<th>Mother</th>
<th>Father</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time employment</td>
<td>45 (12%)</td>
<td>84 (23%)</td>
</tr>
<tr>
<td>Part-time employment</td>
<td>38 (10%)</td>
<td>8 (2%)</td>
</tr>
<tr>
<td>Not in paid employment</td>
<td>61 (14%)</td>
<td>15 (3%)</td>
</tr>
<tr>
<td>Total %</td>
<td>63%</td>
<td>47%</td>
</tr>
</tbody>
</table>

The data for this is relatively incomplete, with 37% and 53% missing for maternal and paternal employment status respectively. However, from the existing data, as shown in Table 9, nearly twice as many fathers as mothers worked full time, with more mothers than fathers working part-time or not being in paid employment. Given the higher amount of missing information regarding paternal employment, one hypothesis which may account for this may be due to
a relatively high number of single mothers. Therefore, the employment status of the fathers may be unknown.

Table 10: Frequency of each clinical feature in the sample seen

<table>
<thead>
<tr>
<th>Clinical Feature</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognition</td>
<td>67</td>
</tr>
<tr>
<td>Antisocial</td>
<td>59</td>
</tr>
<tr>
<td>Anxiety</td>
<td>56</td>
</tr>
<tr>
<td>Self Regulation</td>
<td>51</td>
</tr>
<tr>
<td>School</td>
<td>39</td>
</tr>
<tr>
<td>Mood</td>
<td>28</td>
</tr>
<tr>
<td>Social Relationships</td>
<td>20</td>
</tr>
<tr>
<td>Life Event</td>
<td>12</td>
</tr>
<tr>
<td>Speech and Language</td>
<td>15</td>
</tr>
<tr>
<td>Physical / Neurological</td>
<td>21</td>
</tr>
<tr>
<td>Self Esteem</td>
<td>9</td>
</tr>
<tr>
<td>Other*</td>
<td>16</td>
</tr>
</tbody>
</table>

*Includes personality, autistic, genetic, psychosomatic and physically related problems - occurred less than 10 times

Table 10 shows the frequency of each of the clinical features reported in the sample who were seen in the service. As more than one clinical feature could be recorded for each child the total numbers recorded add up to more than 229. The distribution of reasons for referral is similar in the group who were seen as in the sample as a whole (see table 4), with cognition, antisocial and anxiety problems being most frequently reported. Correlations were carried out on each of the clinical features to investigate which clinical features were most likely to be presented together. The main significant correlations were found between school problems and cognitive problems \((r=0.17, p<0.001)\), social relationships and self regulation \((r=0.18, p<0.001)\), and self and self regulation \((r=0.17, p<0.001)\).
As previously mentioned, the individual symptoms were grouped according to their categories, each category being a different 'clinical feature' eg: cognition, antisocial etc. The number of clinical features present in each case were then added and the results are illustrated in Table 11. Even if more than one symptom in each category was present, this was still coded as one 'clinical feature'. It is suggested that the more clinical features present represents a larger range of problems which may be indicative of severity of difficulties the child is experiencing. Given this hypothesis, the 12% of the sample with more than three clinical features present, may be the subgroup with more severe or pervasive difficulties. However, one must be cautious in drawing conclusions about this.

### 3.3 Interventions

**Table 12: Length of time on waiting list before offered an appointment**

<table>
<thead>
<tr>
<th>Length of time on WL</th>
<th>N(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seen within 1 month</td>
<td>74 (20)</td>
</tr>
<tr>
<td>Seen within 2-3 months</td>
<td>89 (24)</td>
</tr>
<tr>
<td>Seen within 4-6 months</td>
<td>60 (16)</td>
</tr>
<tr>
<td>Seen within 7 mths - 1 yr</td>
<td>34 (9)</td>
</tr>
<tr>
<td>Seen after 1 yr</td>
<td>17 (5)</td>
</tr>
</tbody>
</table>
Information on waiting list time was available for 74% of the sample. As Table 12 shows, twenty percent of the sample were seen within one month with over 60% of the sample being seen within 6 months. A small number (5%) were still on the waiting list after one year.

The average time on the waiting list for the whole sample is 16 weeks (sd = 21) with the median and mode both 12 weeks. The average time on the waiting list for those who were seen was 14 weeks (sd = 15) with the average time for those who were not seen due to not attending the appointment offered (DNA) being 18 weeks. This was not a statistically significant difference (t=-0.70, df=227, p=0.48) although the wait is, on average, one month longer for those who did not attend the appointment offered.

**Table 13: Frequency of interventions carried out**

<table>
<thead>
<tr>
<th>Interventions</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work with parents / carers</td>
<td>97</td>
</tr>
<tr>
<td>Assessment only</td>
<td>61</td>
</tr>
<tr>
<td>Individual Treatment</td>
<td>54</td>
</tr>
<tr>
<td>Psychometric tests</td>
<td>43</td>
</tr>
<tr>
<td>Limited Involvement</td>
<td>16</td>
</tr>
<tr>
<td>Consultation</td>
<td>14</td>
</tr>
<tr>
<td>Collaborative work</td>
<td>14</td>
</tr>
<tr>
<td>Family Therapy</td>
<td>11</td>
</tr>
<tr>
<td>Reports</td>
<td>7</td>
</tr>
<tr>
<td>Group</td>
<td>4</td>
</tr>
</tbody>
</table>

Information regarding the intervention was recorded once contact with the child/family was made. As Table 13 shows the most frequently reported intervention was work with parents / carers, which occurred in one quarter of the
cases, with individual treatment, mainly a cognitive-behavioural focus, following closely behind. There was a significant correlation between these two interventions ($r=0.24$, $p<0.001$). Overall, 26% ($n=61$) of the cases had an assessment only and so were seen for a very limited period (usually 1-2 sessions). Psychometric assessments were carried out on 43 children (19% of the sample). 'Reports' refers to reports which were completed primarily in a legal context. The number of children who attended groups was relatively small as a group based service only became up and running during the latter 6 months of this inspection period. Overall, most of the cases seen had an average of three interventions.

3.4 Contact Information

Table 15: Numbers of appointments attended

<table>
<thead>
<tr>
<th>No of Appointments</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 only</td>
<td>48 (22)</td>
</tr>
<tr>
<td>2-4</td>
<td>74 (33)</td>
</tr>
<tr>
<td>5-7</td>
<td>32 (14)</td>
</tr>
<tr>
<td>8-10</td>
<td>18 (8)</td>
</tr>
<tr>
<td>11-16</td>
<td>9 (4)</td>
</tr>
<tr>
<td>17-27</td>
<td>6 (2)</td>
</tr>
<tr>
<td>27 +</td>
<td>9 (4)</td>
</tr>
</tbody>
</table>

The data was complete for 87% of the sample. As Table 15 shows, the average number of appointments attended was 6 ($sd = 13$). Just over one fifth of the sample attended only one session with 69% of the sample attending 7 sessions or less. Just under one fifth of the sample (18%) were seen on a more long term basis, ranging from 8 sessions to over 27 sessions, the latter being for a very small number.

The average length of time a family was in contact with the service was 3.5
months (sd= 18) with over half the number of referrals being discharged from the service after 3 months. Only a very small proportion were still being seen after one year.

If the family engaged with the service, there was a significant correlation between length of time on the waiting list and number of appointments ($r=0.32$, $p<0.05$). This may indicate that the longer the time spent waiting for an initial appointment, the more appointments were required.

**Table 16: Total numbers of non-attendance (DNA) and cancellations within a period of contact with a family**

<table>
<thead>
<tr>
<th>No</th>
<th>No of DNA's after first contact</th>
<th>Cancellations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>31</td>
<td>35</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

As Table 16 illustrates, there were more DNA's than cancellations during an episode of care, which clearly results in a significant amount of clinician time being wasted. It must be noted that these figures are an underestimate of DNA's and cancellations due to the missing data.
3.5 Outcome Information

Table 17: Outcome as assessed by the therapist

<table>
<thead>
<tr>
<th>Outcome as assessed by the therapist</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problems resolved</td>
<td>48 (22)</td>
</tr>
<tr>
<td>Problems largely resolved</td>
<td>31 (14)</td>
</tr>
<tr>
<td>Problems partly resolved</td>
<td>30 (14)</td>
</tr>
<tr>
<td>Problems the same</td>
<td>42 (19)</td>
</tr>
<tr>
<td>Assessment / Consultation</td>
<td>8 (4)</td>
</tr>
</tbody>
</table>

The data on outcome information is complete for 73% of the sample, so it is not known what the therapists assessment of outcome is for just under one third of the families seen. To rate outcome, once the decision had been taken to close a case, the therapist used a scale (1-5) to indicate the outcome of the problem. According to this, as illustrated in Table 17, just over one fifth of the sample were discharged because the problems had resolved with half of the sample’s problems being resolved either partly or largely. One fifth of the sample’s problems remained the same.

Table 18: Outcome according to the referrers aims

<table>
<thead>
<tr>
<th>Referrers Aims</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referrers aims achieved</td>
<td>112 (50)</td>
</tr>
<tr>
<td>Referrers aims partly achieved</td>
<td>35 (15)</td>
</tr>
<tr>
<td>Referrers aims not achieved</td>
<td>13 (6)</td>
</tr>
</tbody>
</table>

Similarly to above, the therapist indicated, using a three point scale, whether the aims, as directed by the referrer in the initial referrer letter had been achieved. In the sample, for which the data was 71% completed, the referrals aims had been achieved for half of the sample with the aims not being achieved in 13% of the cases, as shown in Table 18.
Table 19: Reasons for closure

<table>
<thead>
<tr>
<th>Reasons for Closure</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lapse after 1 appointment</td>
<td>15 (7)</td>
</tr>
<tr>
<td>Lapse after later appointment</td>
<td>31 (14)</td>
</tr>
<tr>
<td>Mutual consent</td>
<td>113 (51)</td>
</tr>
<tr>
<td>Closed by family</td>
<td>9 (4)</td>
</tr>
<tr>
<td>Closed by professional</td>
<td>12 (5)</td>
</tr>
<tr>
<td>Child moves away</td>
<td>1 (0.5)</td>
</tr>
<tr>
<td>Closed by funding agency</td>
<td>5 (3)</td>
</tr>
</tbody>
</table>

The data is complete for 85% of the sample. As shown in Table 19, the majority of these cases were closed due to mutual consent between the family and the professional to do so. One fifth of the sample lapsed whilst attending the appointments prior to finishing treatment and a small minority were closed either by the family or the professional. Ideally, closing the case due to mutual consent would be the gold standard which would indicate satisfaction on both parties side that the aims of the referral and the family had been met.
4. DISCUSSION

4.1 Findings of the study
Overall, the profile of the referrals received by this department is similar to other mental health referral units. More males than females were referred to the service, which is not an uncommon occurrence. In this case the ratio was 3:2, however, larger differences have been found in other studies such as Stallard and Sayers (1998) study which comprised of 80% males. The average age range for the total sample was 7-8 years, which is slightly lower than that reported in a large Scottish audit (Hoare et al, 1998). This may be due to this service being a secondary service rather than a tertiary one but may also demonstrate that referrals for psychological problems are being recognized and referred earlier.

The ethnicity of the sample who attended appointments was primarily white Caucasian with relatively small numbers from ethnic minorities such as black and Asian populations. This may be a true representation of the service users but due to the amount of missing data, the data cannot necessarily support this hypothesis and hence conclusions cannot be drawn. It is unclear why the percentage of missing information is high in this area and may suggest a difficulty in collecting it. Very few referrers actually include the ethnicity in the referral letter. This does not allow comparisons to be made with those who do not access the service in order to explore possible cultural differences in those who do and do not attend. Even for those who do attend, the missing data on their ethnicity is quite high. Given the importance of equal service access and improving ways of ensuring this, this issue needs to be addressed within the service. It is particularly important as many of these families may be particularly vulnerable and in need of psychological input and this may be increasingly so
Professional Dossier

in light of the influx of refugee families over recent years.

Most of the referrals came from GP's, which is the case in most districts as clinical psychology services mainly operate a secondary service (Duff, 1995). Paediatricians were the next most common referrers with only very small numbers coming from other mental health professions and social services. It is likely that the very complex families commonly seen by social services would be referred directly to the tertiary multidisciplinary teams. However, it is quoted in the literature that the referral to clinical psychology services across all the specialities is dependant on knowledge of psychological problems and availability of services and this factor may also have an influence on referral patterns. This is likely to be apparent within the GP population as well as between different professionals.

It is not possible to comment on the sample according to a formal diagnosis or compare it with other studies, as a diagnostic system was not used to collect clinical information. Instead, a symptom led system was used, which was thought to adequately describe the range of psychological problems which may occur in this population (Berger et al, 1993) and indeed which was deemed more appropriate to define psychological problems. The rationale for this was due to the range of different professionals across the child mental health service using the system and recognizing the diversity between them so therefore needing to avoid a profession-specific terminology wherever possible. Therefore, the use of behavioural descriptions rather than aetiologically presumptious terms were seen to be of importance (Berger et al, 1993).

Using this system, the most common reason for referral was for cognitive problems and antisocial behaviour. In other studies, conduct disorder and mixed disorders of conduct and emotion are the most frequently reported diagnosis. As has been mentioned, it is not possible to comment on whether children reach the criteria for diagnosis, but clearly the range of antisocial behaviours which are
listed encapsulate the same problems experienced by a child with a clinical diagnosis, as similar symptoms are apparent in each. It can therefore, be tentatively concluded that similar types of difficulties are being referred to the clinical psychology department as to tertiary level departments. Cognitive problems are also a common reason for referral, which is not necessarily surprising, but it has been found that a number of the referrals being made are for assessments which would be more appropriate for educational psychologists to undertake. This appears to be due to a shortage of educational psychologists in the district who operate very long waiting lists (personal communication) and therefore not all children were being referred appropriately.

The most frequently cited interventions, include a child having an assessment only, work being done directly with parents, and individual therapy with the child, which was primarily of a cognitive behavioural orientation. The average length of contact with a family was three and a half months with an average of 6 sessions. Therefore, overall, the majority of the contact can be seen to be relatively time limited and focused which is a reflection of the way mental health services are approaching care (Hoare et al, 1996). Clearly, this may not be appropriate for all families but only a small proportion in this sample were seen for over one year. There was no correlation between number of clinical features present and length of time being seen, indicating that this is not necessarily an accurate measure of severity, or alternatively, severity is not necessarily a measure of intractability. The measurement of severity of problem is an area which could be improved on to evaluate more reliably the time taken to bring about improvement.

The attrition rate of 12% (ie; those who did not attend the first appointment) in this sample is smaller than that reported by Hoare et al (1996), but in line with Clydesdale's primary care group which had a non attendance rate of 13%. It is lower than the range reported by Stallard & Sayers (1998) which ranged from 16 - 27%.
The average time on the waiting list was quite long at 21 weeks. However, long waiting lists for clinical psychology services are a national problem. A survey carried out by the British Psychological Society (Division of Clinical Psychology, 1993) showed that 73% of the responding clinical psychology departments had a waiting list, with 44% of those referred to a clinical psychology department waiting over 6 months to be seen and 15% waiting over 12 months to be seen. Only 10% of services were able to offer routine appointments in less that 4 weeks. These figures indicated that clinical psychology services were far from meeting the 13 weeks waiting time standard stated in the Patients Charter (April 1995) and indeed it can be concluded that waiting time is an area which needs to be improved for this service. A recent survey of 3000 psychologists conducted by Skinner and Baul (1997) for the Division of Clinical Psychology, found an average waiting time for children's services to be twenty one weeks, the same as that found in this study. However, the response rate for this study was quite low at 12% and only approximately 14% of the sample worked in child services so it is not clear how representative this result is. Including all specialities, there is also a significant trend for longer length of time on waiting list to be associated with more appointments and higher DNA rates, which is the finding across a number of studies. It is difficult to see how problems can be addressed without additional resources and/or radical changes of practice.

Given the complex problems in child mental health, which can arise from a combination of interrelated causes, deciding what is a good 'outcome' and how this can be measured, requires careful thought, and this has been given enormous consideration in the literature over recent years. More recently the Health of the Nation Outcome Scales (HoNOSCA) which are specifically designed for child and adolescent mental health are being developed to facilitate professionals examining this area (Hardman & Joughin, 1998). The outcome variables which were used by P-Card in this service were developed by Berger and discussed at length in his paper for the DCP (1996). The main areas of outcome include, 1) clinical change, 2) client outcome, 3) problem
characteristics and 4) case manageability, each of which contain a number of levels. Each of these categories was rated by the clinical psychologist. Unfortunately, the outcome data for the later 2 categories was very incomplete for this data set due to poor filling in of forms by professionals and very poor information entry onto the computer system, therefore making it impossible to access this data for the purpose of this study, and therefore it is not quoted. From the outcome data which was available, 50% of the cases had made some improvement which is comparable with Hoare et al (1996) who reported 59% of the referrals had improved. The intervention appeared to be more successful when judged from the problem as outlined by the referrer, rather than from the clinical psychologist. This may illustrate the complexity of the problems encountered and how other issues emerge during contact, which may not necessarily be recognized by the referrer. It must be noted that the ratings are made by the clinical psychologist in the absence of independent evidence to confirm or deny them, and no ratings of satisfaction were given by the child, parent or family.

Half the cases were closed via mutual consent between the family and the professional, which may indicate a element of satisfaction with the contact with the service. One quarter of the sample were closed either due to non-attendance or as a direct request from the family, although the reasons for this request are not known. It may be that in the family’s view, the problem has decreased or alternatively they do not feel the sessions are of benefit or are meeting their need, which might indicate dissatisfaction with the service. Overall, with regard to outcome data, it seems important to limit the categories so as maximize the data gathered, rather than have many missing categories. Information about outcome is of vital importance to measure how the service is operating and without it, it can be difficult to make the needed improvements. Certainly this is an area being addressed by the Health of the Nation Outcome scales and one which the service needs to improve on to complete the audit cycle. More objective outcome information, eg: satisfaction ratings from the
family, follow-up information on maintainence of change are specific outcome measures which could improve the information gathered and inform the service about its practice.

4.2 Implications of the study and suggestions for improvement

A major drawback of the study is the large amount of missing data. Although, it is felt that the available data are representative of the cases referred to the service and hence valid and reliable, there were a number of areas where the paucity of information was particularly limiting, in particular is the outcome section. The main problems in this regard seemed to be at two levels, one, the clinical psychologist filling out the administrative forms and two, the input of the data by clerical staff. The problem at the clinician level appeared to be the amount of paper work and the time required to fill it out, as well as the understanding of the coding system (personnal communication). In addition to this, at the technical level, not all the data on the forms was actually inputted and decisions about what to input seemed to be made by the computer technicians according to time constraints and perceived priority, rather than discussion with clinicians (personal communication). When this study was reaching completion, a move was being made by the service to implement a new information system. The results of this study provided feedback to inform the decision making process on this. In particular, it was recommended that the coding system be simplified although making sure to include crucial information. For example, as mentioned above, it is important to maintain outcome information as rated by the clinical psychologist, but not necessarily have five different categories for this. Training on the use of the coding system and its operation is important for new staff joining the service so as to maintain the reliability and validity of the information collected. Regarding clinical information, diagnostic categories according to the International Classification of Diseases (ICD 10) should be used for ease of comparison against other populations and services. And finally, no system is going to be successful without the adequate resourcing and backup of data management.
This study is a retrospective analysis of data about the referrals made to the service within a specified time period. The aims, which were to explore the number and type of referrals including socio-economic data, clinical problems and interventions were met. This study is of use to inform both the clinical psychology service and the wider multidisciplinary mental health service and can also be used as a baseline study against which comparisons can be made in the future. During the course of the data collection, comments by other clinicians were made regarding the lack of feedback provided about clinical aspects of the service and how that may be a factor in the provision of information. Therefore, it is felt that it is very important for clinicians to get regular feedback which could serve as a useful reinforcer for the time and effort spent in collecting data which may, due to the pressure of work, sometime seem an added administrative chore which is felt not have much use in the real world. The use of audit for specific clinical and service issues eg: number of non-attendances per month, number of children referred and seen with behavioural problems in a given time period etc. could be introduced as a regular task, so as information is fed back on a regular basis and the relevance of collecting it is appreciated by busy professionals.

A number of initiatives are taking place in the department at the time of this study, such as reviews of models of waiting list management with a view to implementing changes. For example, Stallard and Sayers (1998) decreased first appointment failure rates of 27% to 5% using an 'opt-in' model of referral. One area that could be highlighted from this study is the length of time on the waiting list and the numbers of DNA's which clearly have implications for the effective use of resources and clinical management of cases. Another initiative taking place is a Primary Care Project which has begun in one area of the district to introduce clinical psychology at a primary level and this includes training of other professionals such as health visitors and holding clinics in GP surgeries. The result of this may have interesting repercussions for this service and it may be useful to investigate this after the project has been established.
4.3 Conclusion
This study describes the work carried out by a child clinical psychology department in a large urban area and includes information on the range of referrals received and the use of the resources. It identifies areas for improvement which include decreasing waiting list time, increasing attendance at first appointment and highlights the importance of using meaningful outcome data which is seen as valid and useful by those collecting the data. It identifies weaknesses in data collection and provides a baseline for future audit projects. This data can be used to provide standards against which to measure clinical practice which will inform changes and is part of the continuing audit process. Hill, Evers, Thomas & Stevenson (1999) pose the question of whether clinical audit is a ‘black hole or a wormhole’ and reassuringly reach the conclusion, following a pilot study, that indeed the amount of work involved in an audit may actually have an impact on clinical practice. It is this message which is important to highlight, that ultimately, the aim of such projects is to improve clinical care of the families who reach psychology services and often to do this, it is of vital importance to have a clear view of how the service operates to meet needs before improvements can be made.
REFERENCES


P- Card
PARENT/S OR GUARDIAN OR CAREGIVER/S DETAILS:
(This information and details under PATIENT FURTHER SET will become available mainly after the first face-to-face or equivalent contact).

SURNAME/S

FIRST NAMES

ADDRESSES

TELEPHONE
Day and evening

*PARENT/S - RESPONSIBLE ADULT/S
EMPLOYMENT STATUS
Code for both as appropriate

1. Full-time Employment
2. Part-time Employment
3. Not In paid Employment
4. Retired

and/or

*SOCIAL CLASS CODE
Code for each.
Registrar General’s Classification in brackets - items given are examples.

1. Professional/Higher Management (I)
2. Middle Management (II)
3. Clerical, Nursing (IIIa)
4. Trades/Skilled Craft (IIIb)
5. Semi-skilled Manual (IV)
6. Unskilled Manual (V)
7. Unclassified/Student (VI)
8. Armed Forces (VII)

*ETHNICITY
Same Codes & issues as for Patient

Comments: Allow for two sets of codes, one for each parent. Put Mother’s details first.
*PATIENT'S OCCUPATION/
TYPE OF SCHOOL

1. None - too young
2. Preschool/Nursery
3. Mainstream School
4. Special School
5. Unit in Mainstream
6. Home Tuition
7. Boarding Mainstream
8. Boarding Special
9. Independent Day
10. Independent Boarding
11. Not on School Roll (but school-age)
12. Not Attending but on Roll
13. Educated at Home
14. Further/Higher Education
15. YTS
16. Part-time Employment
17. Full-time Employment
18. ATC/SEC
19. Unemployed

*SCHOOL NAME

*SCHOOL CODE

Comments: Local Codes. May be increasingly important with the advent of Local Management of Schools.

*SPECIAL EDUCATIONAL NEEDS
(Identified refers to recognition by education system)

1. None
2. Identified, Not Statemented
3. Identified, Statemented
4. Non-statemented Provision
REFERRER DETAILS:

REFERRER TYPE
Code from list of REFERRING AGENCY codes listed below.

REFERRER DETAILS
Name, address, telephone etc. if NOT GP

*ORGANISATION CODE*
Department of Health Codes

GP DETAILS
To be included if Referrer not GP - Name, Address, Telephone Number

*GP CODE  (GP GMC Number)

*PRACTICE CODE
PATIENT’S LIVING ARRANGEMENTS

1. Both Parents
2. Shared Care - lives predominantly with one parent
3. Mother Only
4. Father Only
5. Mother and Partner
6. Father and Partner
7. Relatives
8. Parent/s and Relatives
9. Fostered
10. Adoptive Parents
11. Local Authority Accommodation
12. Other Residential (Voluntary, Health)

Comments: Codes for this category are still tentative and several new codes may be needed.

PARENTAL RESPONSIBILITY HELD BY

1. Parents married to each other
2. Two parents/separated/divorced
3. One parent
4. Two adoptive parents
5. One natural, 1 adoptive parent
6. Foster parents
7. Two parents cohabiting
8. Other relative/s
9. Local Authority
10. Combination of two or more of above

Comments: Codes for this category are tentative. No consensus on incorporating this category.
REASON FOR REFERRAL CODES (FY)

This group together with the CLINICAL FEATURES LIST comprises list for coding the reasons for referral.

REASON/S FOR REFERRAL. See Glossary for definitions. More than one element may need to be selected to reflect detail in the referral.

1. Presentation as Emergency
2. For Assessment/Opinion Only
3. For Routine Out-Patient Assessment & Treatment
4. For Particular Treatment (Specified by Referrer)
5. For Day-Patient Assessment or Treatment
6. For In-Patient Assessment or Treatment
7. For Consultation
8. For Special Educational Needs Assessment
9. Children Act/Equivalent Referral
10. Parent/ing Assessment
11. For Court/Legal Report
12. Formal Request for Domiciliary Visit
13. For Research Study
14. Multiple Problems
CLINICAL FEATURES:
Code as many as required. If in doubt, code positive. Suggested maximum 15.

ANTI-SOCIAL (FA)

1. Tantrums/Outbursts
2. Non-Compliance at Home
3. Stealing from Home
4. Stealing Other
5. Aggressive Behaviour
6. Cruelty/Violent Brutality
7. Firesetting/Destruction of Property
8. Bullying/Fighting
9. Substance Abuse
10. Running Away/Wandering
11. Lying

SCHOOL (FB)

1. School Refusal/Phobia
2. School Non-Attendance - Other
3. School Discipline Problem

COGNITION/ABILITIES (FC)

1. Gifted
2. General Learning Disability
3. General Academic Underachievement
4. Specific Reading Difficulty
5. Specific Number Difficulty
6. Specific Spelling Difficulty
7. Writing Difficulty
8. Unusual Cognitive Pattern
9. Memory Problems
10. Attention Abnormality
11. Poor Self-Care Skills

SELF (FD)

1. Self-Deprecation
2. Self-Aggrandisement
3. Disability/Disfigurement Awareness
MOOD (FE)

1. Irritability/Moodiness
2. Fatigue/Lassitude
3. Depression/Misery
4. Euphoria/Expansive Disinhibition
5. Mood Swings

ANXIETY-RELATED (FF)

1. General Anxiety
2. Phobias
3. Separation Anxiety

SELF REGULATION (FG)

1. Tics/Habits/Stereotypies
2. Obsessions/Rituals
3. Overactivity
4. Enuresis/Wetting
5. Soiling/Constipation
6. Sleep/Wake Pattern Problems
7. Problems During Sleep
8. Subjective Insomnia
9. Feeding Problems/Fads
10. Anorexia
11. Bulimia
12. Obesity/Overeating

SOCIAL/RELATIONSHIPS (FH)

1. Relationship Difficulty Parent/s/Carers
2. Relationship Difficulty Other Adults
3. Relationship Difficulty Sibling/s
4. General Family Relationship Problems
5. Relationship Difficulty Peers
6. Harassment/Persecution Victim
7. "Attention Seeking" Behaviour
8. Social Disinhibition
9. Social Withdrawal
10. Social Sensitivity
CONTEXT (FI)

1. Marital Difficulties
2. Family Mental Health Problems
3. Family Physical Health Problems
4. Adverse Social Circumstances

LIFE EVENT (FJ)

1. Bereavement/Loss
2. Stress Reaction/Adjustment Reaction
3. PTSD/At Risk For
4. Emergency/Crisis During Episode

ABUSE / NEGLECT (FK)

1. Failure to Thrive
2. Neglect
3. Physical Abuse
4. Emotional Abuse
5. Sexual Abuse

SELF HARM/INJURY (FL)

1. Self Harm/Overdose
2. Self-Injurious Behaviour
3. Risk-Taking

SEXUAL AND SEX RELATED (FM)

1. Inappropriately Sexualised Behaviour
2. Sexual Misdemeanour/Offence
3. Promiscuity/Prostitution
4. Unusual/Excessive Solitary Sexual Activity
5. Concern About Sexuality
6. Gender Identity Problem
7. Pregnancy
PERSONALITY/TEMPERAMENT (FN)

1. Shyness/Social Isolation
2. Personality/Temperament Extreme
3. Inappropriate Immature Behaviour

SPEECH & LANGUAGE (FO)

1. Mutism *
2. Speech Delay/Disorder
3. Language Delay/Disorder

AUTISTIC TYPE CHARACTERISTICS (FP)

1. Autism/Autistic Features

PSYCHOSIS TYPE CHARACTERISTICS (FQ)

1. Confusion/Disorientation
2. Psychotic Symptoms
3. Unusual/Bizarre Behaviour

"PSYCHOSOMATIC" (FR)

1. Hypochondriasis
2. Factitious Illness
3. Hysteria/Conversion
4. Pain/Discomfort Non-organic Origin
5. Headache

PHYSICAL ILLNESS / GENERAL PAEDIATRIC (FS)

1. Non-neurological Physical Illness
2. Pain Organic Origin
3. Physical Disability/Deformity
4. HIV/AIDS
5. Other Deteriorating Organic Condition
6. Terminal Illness
7. Anxiety About Physical Medical Procedures
8. Poor Compliance With Medical Management
PHYSICAL/NEUROLOGICAL (FT)

1. Physical Slowness
2. Clumsiness/Coordination Difficulty
3. Epilepsy/Turns/Faints
4. Head Injury

SENSORY (FU)

1. Visual Impairment
2. Blind
3. Hearing Difficulties
4. Deaf

GENETIC CONDITION (FV)

1. Chromosome Anomaly
2. Dysmorphic Features
3. Behavioural Phenotype

NORMAL LIMITS (FW)

1. Parental Concern but No Clinical Abnormality
2. Referrer Concern but No Clinical Abnormality

LOCAL OTHER (FX)

1.- n. (Clinical Problems Locally Specified)

CLINICAL FEATURES RESIDUAL (FZ)

1. Other
2. Not Known
3. Not Coded

Comments: Coding of CHRONICITY and SEVERITY for each item should be considered.
ACTIONS DURING CONTACT
See Glossary for Definitions

ASSESSMENT ONLY (AA)

1. Assessment Only (Intended)
2. Assessment Only (By Default)

LIMITED INVOLVEMENT (AB)

1. Minimal Involvement
2. Reassurance/Information Provision Only

INDIVIDUAL TREATMENTS - CHILD/YOUNG PERSON (AC)

1. Counselling/Supportive Psychotherapy
2. Individual Psychodynamic Psychotherapy
3. Behaviour Therapy Directly With Child/Young Person
4. Behaviour Therapy Mediated Through Parents/Carers/Teachers
5. Cognitive Therapy
6. Social Skills Training - Individual
7. Assist Coping With Life Events
8. Assist Coping Chronic Adversity
9. Promote Self-Care/Daily Living Skills
10. Assist Academic Study/Exams
11. Educationally-Based Therapies
12. Creative Therapies
13. Medication
14. Relaxation Training
15. Biofeedback
16. Enuresis Alarm
17. Other Direct Work

RELATED TO PHYSICAL PROBLEMS (AD)

1. Pain Management
2. Medical Management Education
3. Facilitate Physical Medical Procedure
4. Terminal Care Management
5. Other Action Related To Physical Problems
GROUP PROCEDURES - CHILD/YOUNG PERSON (AE)

1. Group Psychotherapy
2. Social Skills Group
3. Group For Abuse Victims
4. Other Group (Clinical Topic-Focused)
5. Other Group (Activity-Focused)

WORK WITH PARENTS/CARERS (AF)

1. Management Advice
2. Casework With Parents/Carers
3. Treat Parent Individually
4. Polymodal Practice
5. Parent Group
6. Other Direct Work With Parents

FAMILY/MARITAL THERAPY (AG)

1. Family Therapy
2. Marital Therapy

COMMUNITY VISITS (AH)

1. Visit Family Home
2. Visit School
3. School Observation/Intervention
4. Visit Nursery
5. Visit Residential Facility
6. Other Visits
COLLABORATIVE (JOINT) WORK WITH SERVICE EXTERNAL TO OWN PROVIDER UNIT (AJ)

1. With GP/Primary Care Team  
2. With Paediatric Service  
3. With Child/Adolescent Psychiatry Service  
4. With Adult Psychiatry Service  
5. With Learning Disability Service  
6. With Clinical Psychology Service  
7. With Child Psychotherapy Service  
8. With Speech & Language Therapy Service  
9. With Occupational Therapy Service  
10. With Physiotherapy Service  
11. With Dietician Service  
12. With Other Specialist Non-Medical  
13. With Other Specialist Medical  
14. With Education Service  
15. With Social Services  
16. With Voluntary Agency  
17. With Probation Service  
18. Joint Work Other

REFERRAL MADE OUT OF OWN PROVIDER UNIT FOR OPINION/NON-COLLABORATIVE MANAGEMENT DURING EPISODE (AK)

1. To Paediatric Service  
2. To Child/Adolescent Psychiatric Service  
3. To Adult Psychiatric Service  
4. To Learning Disability Service  
5. To Clinical Psychology Service  
6. To Child Psychotherapy Service  
7. To Speech & Language Therapy Service  
8. To Occupational Therapy Service  
9. To Physiotherapy Service  
10. To Dietician Service  
11. To Other Specific Non-medical  
12. To Ophthalmologist  
13. To Audiologist  
14. To Neurologist  
15. To Geneticist  
16. To Other Specialist Medical  
17. To Education  
18. To Social Services  
19. To Voluntary Services  
20. To Other External Service
TESTS (AL)

1. Psychometric - Ability
2. Psychometric - Educational Attainments
3. Neuropsychological
4. Speech and Language
5. Motor Coordination
6. Other Psychometric/Developmental
7. Pathological Investigations
8. EEG
9. Radiography/Scan
10. Other Test

REPORTS ETC (AM)

1. Court or Similar
2. Special Education Procedure
3. School Transfer
4. Action on Behalf Parents
5. Action on Behalf Child
6. Other Report/Action

ATTENDING MEETINGS AND FORMAL PROCEEDINGS (AN)

1. Court/Children’s Panel
2. Child Protection Conference
3. Network Meeting/Case Conference (not child protection)
4. Mental Health Act Tribunal
5. Other Meeting

CONSULTATION (AO)

1. Consultation to Primary Care Staff/GP
2. Consultation to Hospital/Other Secondary Health Care Staff
3. Consultation to Social Services
4. Consultation to Education Service
5. Consultation to Parents/Foster Parents
6. Consultation Voluntary Sector
7. Other Consultation
INITIATE STATUS CHANGE/EXTENSION
DURING EPISODE (AP)
(internal is within same provider unit)

1. Transfer to Internal Day Unit/Service
2. Transfer to External Day Unit/Service
3. Admit Internal In-Patient Unit
4. Admit External In-Patient Unit
5. Transfer to Internal Out-Patient Service
6. Transfer to External Out-patient Service
7. Transfer to Other Internal Team
8. Mental Health Act Order Made/Removed
9. Children Act Order Made/Removed

CLINICAL TRIAL/EXPERIMENTAL INTERVENTIONS (AQ)

1. Clinical Trial
2. Other Research Involvement

LOCAL OTHER (AX)

1. - n. (Locally Specified Action/s)

RESIDUAL ACTIONS (AZ)

1. Other
2. Not Known
3. Not Coded
OUTCOME DETAILS:

*OUTCOME ASSESSED BY THERAPIST

1. Problem(s) Resolved
2. Problem(s) Largely Resolved
3. Problem(s) Partly Resolved
4. Problems the Same
5. Worse
6. Assessment/Opinion Only
7. Other
8. Not Known
9. Not Coded

*OUTCOME IN RELATION TO REFERRER’S AIMS
As judged by service professional

1. Referral Aims Achieved
2. Referral Aims Partly Achieved
3. Referral Aims Not Achieved
4. Not Relevant

*INDEPENDENT OUTCOME INDICATORS:
Not coded by Clinician

REFERRER’S VIEW

PATIENT’S VIEW

FAMILY/CAREGIVER/S VIEW

Comments: Standard outcome assessment procedures and codes need to be developed. Local systems could be coded here if available - see section "A Suggested Framework for Outcomes in Child and Adolescent Mental Health Services".
*FURTHER ACTION ON CLOSURE

1. Back to Referrer
2. Referral to Another Agency

*DISCHARGE DESTINATION
For use by In-patient Services.

1. Home *
2. Home and Boarding School
3. Other Hospital In-patient Unit
4. Local Authority Care
5. Residential Establishment (not Local Authority)

ACTIONS DURING CONTACT
Coded from ACTIONS DURING CONTACT LIST - up to 10 actions to be coded.
DISCHARGE DETAILS:

DATE OF LAST CONTACT
Date of last face-to-face or equivalent contact.

*DATE OF LAST APPOINTMENT OFFERED
Irrespective of whether or not attended.

DATE OF TRANSFER TO REFERRER/CLOSURE
Date of letter or other formal communication transferring case back to referrer informing of termination of involvement.

TOTAL NUMBER OF ATTENDANCES/CONTACTS
Could include school visits, telephone contacts - no criteria put forward at this stage as to what to include, other than face-to-face contacts.

TOTAL DNAs

TOTAL CANCELLATIONS
By family/patient - professional cancellations not included.

NUMBER OF APPOINTMENTS
Appointments offered - could be derived from three previous codes.

LENGTH OF INVOLVEMENT
Episode in weeks-from first to last contact

REASON FOR CLOSURE

1. Failed to Attend Any Appointment
2. Lapsed Following First Appointment
3. Lapsed After Second or Later Contact
4. Closed by Mutual Consent (Professional & Carers Agree)
5. Closed on Family Initiative (Family Inform of Decision to Discontinue)
6. Professional Close (Overrides Carers Wishes)
7. Child/Carers Moved Away
8. Closed by Funding Agency
9. Died
C. OUTCOMES

1. Clinical Change

This is an overall judgement of outcome, the question being whether or not it was felt that the child, adolescent or carers were helped by the service and the extent of improvement.

Ratings:
1. Problem(s) Resolved
2. Problem(s) Largely Resolved
3. Problem(s) Partly Resolved
4. Problem(s) the Same
5. Problem(s) Worse
6. Assessment/Opinion Only
7. Other

2. Outcome in Relation to Referrer’s Aims

The Clinician’s view of whether or not he or she had met the needs and requirements (explicit or implicit) of the referrer. These may or may not be identical with the rating of clinical change.

Ratings:
1. Referral Aims Achieved
2. Referral Aims Partly Achieved
3. Referral Aims Not Achieved
4. Not Applicable (e.g. in cases of self- or parent referral)

3. Outcome as Perceived by the Patient

This is a judgement by the patient of the extent, if any, of benefit of the contact with the service. At the present time there is no specific procedure for this rating but it is likely that it will take a form similar to that listed below. In some instances, data may not be available because the child is too young or too handicapped to respond.

Ratings:
1. Very Helpful
2. Helpful
3. Some Help
4. Made No Difference
5. Worse
6. Not Applicable (e.g. young child)
4. Outcome as Perceived by Carer/s

Similar to that for the patient - in the sense that they are asked to judge the impact or otherwise of the service, not just on the patient, but on their role and relationship with the patient, that is, the overall situation.

Ratings:
1. Very Helpful
2. Helpful
3. Some Help
4. Made No Difference
5. Worse

5. Referrer’s View

This is a judgement by the referrer about the consequences of the referral, whether or not it was, overall, of value or otherwise. As not all referrers will still be in contact with those referred, this rating may not always be available.

Ratings:
1. Very Helpful
2. Helpful
3. Some Help
4. Made No Difference
Post Qualification Curriculum Vitae

1. Employment

November 1996 - April 1999 Pathfinder NHS Mental Health Trust

Roles included:
• contribution to a multidisciplinary team
• contribution to a unidisciplinary clinical psychology service
• Site coordinator for a multi centre evaluation project evaluating Parent Training Groups for conduct disorder in children

July 1999 - current Salisbury NHS Trust

Roles included:
• contribution to multidisciplinary team
• setting up a paediatric liaison service
• contribution to the ADHD clinic
• running groups for the preschool children

2. Courses and teaching events attended for purposes of continuing professional development

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<td>17.6.98 - 19.6.98</td>
<td>Parent-Training</td>
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<td>14.7.98</td>
<td>Parenting Study Day</td>
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<td>12.10.98 - 23.10.98</td>
<td>Measurement of Expressed</td>
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<td>18.11.98</td>
<td>Parenting - Assessment in Legal context</td>
<td>Special Interest Group in Child Clinical Psychology</td>
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<tr>
<td>26.2.99</td>
<td>SPSS workshop</td>
<td>Surrey University</td>
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8.9.99  Cystic Fibrosis meeting  Great Ormond Street Hospital

12.4.00  Paediatric Psychology  Lifetime NHS Trust - Bath
            Study Day

3.  Teaching

23.2.99  Co-ordinator and leader of service-wide study day on Parent Training - the use of the Webster-Stratton group

4.  Supervision

Supervision of undergraduate research project
Supervision of clinical psychology trainee
Supervision of therapists running parenting group
Relationship of Expressed Emotion to Conduct Problems in Children and changes during Parent Training Intervention
Abstract

This study measures expressed emotion (EE) in 20 mothers of children aged 3-8 years with conduct problems who participated in parenting groups based on the Webster-Stratton model of parent training. Expressed emotion was rated from audiotapes of the Camberwell Family Interview for Children (CFI-C) a semi-structured interview comprised of the Parental Assessment of Child's Problems (PACS) diagnostic interview with further questions added from the original Camberwell Family Interview. All five criteria of expressed emotion were rated including critical comments, positive remarks, hostility, emotional over-involvement and warmth and acceptable inter-rater reliability was achieved. A repeated measures design was used with ratings being completed for interviews immediately prior to the parenting group and immediately following the parenting group, giving a total of 40 tapes rated. The main findings show that expressed emotion decreases significantly following the parenting group and there is a relationship between group attendance and lower expressed emotion. Expressed emotion at the start of the group is not related to level of child conduct problems and no socio-economic factors were found to be associated with expressed emotion. The number of critical comments and warmth were the two criteria to change significantly following the group. Depression in mothers decreased significantly following the group and was found to be related to number of critical comments both before and after the group. Mothers who were less critical were also more likely to agree with their partner on how to manage the child. The main drawbacks of the study is the lack of a control group and the small sample number.
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Chapter 1

INTRODUCTION

Expressed emotion, a concept which refers to the emotional environment in which a person lives, was first conceived by Brown and Rutter in the early 1960's and has relatively recently been used as a way of untangling the complex interaction that results in conduct problems in young children. Parent training is one of the most widely evaluated and effective intervention for child conduct problems. This study aims to explore the relationship of expressed emotion to child conduct problems in a clinical sample and evaluate the changes in the expressed emotion of mothers following their participation in parent training groups.

This literature review begins by defining what conduct problems in childhood are and examining the epidemiological and aetiological evidence. This is followed by a discussion on interventions for child conduct problems, with specific reference to parent training, the intervention used in this study. Subsequently the concept of expressed emotion is examined including its measurement and its relationship to child conduct problems. The final section outlines the aims and hypotheses of the study.

1.1 Child Conduct Problems

Most children can have temper tantrums when things do not go their way, and may be disobedient, lie, cheat, take things that belong to others or become aggressive at times. These behaviours are by no means uncommon with most children exhibiting some of them at one time or other. The distinction between difficult behaviours and 'behavioural disorders' is one of severity and extent, it is the degree of and persistence of these behaviours over time, beginning at an early age, that cause concern for families and clinicians alike (Webster-Stratton & Herbert, 1994).
The term 'externalizing' is often used to describe negative behaviours which occur during childhood. The term 'conduct disorder' (CD) is used to refer to antisocial behaviour which is clinically significant and clearly beyond the realm of 'normal' functioning (Kazdin, 1997). Externalizing behaviour and conduct disorder are overlapping concepts and the terms apply to similar behaviors such as high rates of aggression, defiance, noncompliance and hyperactivity.

### 1.1.1 Diagnosis and classification

**Table 1: The diagnostic criteria for Oppositional Defiant Disorder and Conduct Disorder**

<table>
<thead>
<tr>
<th>ICD - 10 and DSM - IV</th>
<th>Oppositional-defiant disorder (ODD)</th>
<th>Conduct Disorder (CD)</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>tantrums</td>
<td>1 lying</td>
</tr>
<tr>
<td>2</td>
<td>argues with adults</td>
<td>2 initiates fights</td>
</tr>
<tr>
<td>3</td>
<td>defiant</td>
<td>3 uses weapons</td>
</tr>
<tr>
<td>4</td>
<td>annoying</td>
<td>4 stays out late</td>
</tr>
<tr>
<td>5</td>
<td>blaming others</td>
<td>5 cruel to animals</td>
</tr>
<tr>
<td>6</td>
<td>touchy</td>
<td>6 cruel to people</td>
</tr>
<tr>
<td>7</td>
<td>angry / resentful</td>
<td>7 destructive</td>
</tr>
<tr>
<td>8</td>
<td>spiteful / vindictive</td>
<td>8 fire-setting</td>
</tr>
<tr>
<td>9</td>
<td>stealing</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>truant</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>runaway</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>robbery / mugging</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>forces sex</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>bullying</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>burglary</td>
<td></td>
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Two major systems of classifying psychiatric disorders exist: the International Classification of Disorders (ICD) of the World Health Organization (1992) and the Diagnostic and Statistical Manual of Mental Disorders (DSM) of the American Psychiatric Association (1994). Both systems include definitions of oppositional-defiant and conduct disorders and the criteria in each system are identical, although this has only been the case in the most recently published DSM and ICD manuals. Oppositional disorder is viewed as a milder and developmentally related form of conduct disorder (Earls, 1994) and is the developmental antecedent to conduct disorders in a significant number of cases (DSM-IV manual).

The first column of Table 1 represents the category of oppositional-defiant disorder with the diagnostic criterion requiring the presence of at least four of these eight features. In the second column, the presence of at least three of 15 symptoms must be established for a diagnosis of conduct disorder to be made and must have existed for a period of 6 months. In addition, severity is graded as mild, moderate or severe, these categories being based on the number and seriousness of symptoms present. The age of onset is also specified as part of the diagnosis (Earls, 1994). Childhood onset type is distinguished from adolescent onset type by the appearance of at least one conduct problem prior to the age of 10. Of course, some children may present with features from both categories and quite often the symptom pattern and developmental course of the disorder do not fit comfortably into a diagnostic class.

In young children, issues of diagnosis are quite complex, given the high overlap between symptoms that define particular disorders and age-appropriate manifestations of transient stress (Campbell, 1995). Often the problems are better reflected as a dimensional index of social and behavioral problems than as a disease category (Earls, 1994). As such, the myriad of 'difficult' behaviours which
are presented by young children are often referred to under the umbrella name of 'behavioural problems' or 'conduct problems' amongst others. However, to further confuse the picture, some authors use diagnostic terms to describe the behaviours of preschool age children which are meant to reflect high rates of symptomatic behaviours that may or may not actually qualify for a diagnosis (eg: Campbell, 1995).

A growing body of prospective evidence indicates that behaviour problems identified in the preschool years often persist (Campbell & Ewing, 1990) and that children identified as showing relatively serious disruptive behaviour problems in early adolescence often have a history of problems that began in the preschool years (Moffit, 1990). Therefore the clinical significance of behaviour problems in young children has been increasingly viewed as being worthy of study and intervention.

1.1.2 Epidemiology

The incidence and prevalence of behaviour problems in young children is on the increase and childhood conduct problems are the most frequently occurring disorder in both clinic referred and general populations (Quay, 1986). A number of research studies exist in the literature and the results indicate that 7% to 25%, depending on the population surveyed, of young children meet the criteria for conduct problems, including oppositional defiant disorder and conduct disorder.

One of the first investigations to estimate the prevalence of conduct disorder in the general population was the Isle of Wight study (Rutter, Tizard & Whitmore, 1970). In 10-11 year olds, there was an overall rate of 4.2%, with boys being four times more likely to be rated as conduct disordered than girls. This ratio of 4:1 has
consistently been found in other studies (Earls, 1985; Offord, 1987; Costello, 1989). When similar methods were used in an inner city sample, the rate of conduct disorder doubled (Rutter, 1975).

In the Ontario Child Health Survey (Offord, 1987) which has provided a comprehensive picture of conduct disorder in the general population, children aged 4-16 years were sampled using parent, teacher and self-report scales. In this study, the prevalence of individual symptoms varied in a number of ways. The frequency of symptoms of lesser seriousness declined with age while those of a more serious nature increased with age. The overall rate of conduct disorder found in this study of 5.5% was similar to the rate reported in the Isle of Wight study 25 years earlier. The male female ratio was also similar with lower socioeconomic status increasing the likelihood of conduct problems (Offord, 1987). Overall, studies are in agreement with regard to specific aspects of conduct problems, namely the sex ratio of 4:1 male: female and also with the significant risk factors of family dysfunction, parental mental illness and low income (Earls, 1994).

A number of prevalence studies use checklists to define problem behaviors in preschool children, without necessarily also considering cross-situationality of problem behaviour, duration of symptoms or degree of impairment in functioning (Campbell, 1995). However, despite this, there is a consensus that approximately 10-15% of preschool children have mild to moderate problems (Campbell, 1995). For example, Richman, Stevenson and Graham (1982) carried out a research study of 705 families in central London, investigating behaviour problems of pre-school children. Using a range of checklist measures, they found that in 3 year olds, 15% of the sample met cut-off criteria for mild problems, 6.2% had moderate problems and 1.1% had severe problems. These figures are supported by other studies, both in Britain and America (Jenkins, Bax & Hart, 1980; Earls, 1980, 1982). Webster-
Stratton (1995), in a clinical sample, reported that more than 25% of children scored above the 90th percentile for aggressive behaviour as reported by their mothers. Crowther, Bond and Rolf (1981) in a screening study of day-care attendees, found that at least 20% of the children exhibited high frequencies of aggressive and disruptive behaviours with the greatest severity observed among preschool boys.

The continuity between behavior problems in the early preschool years and conduct disorders in adolescence is high (Egeland, Kalkoske, Gottesman & Erickson, 1990: Richman et al, 1982). Campbell (1991) reviewed a series of longitudinal studies of hard-to-manage preschool children and found that at least 50% with moderate or severe externalizing problems continued to show some degree of disturbance at school age, with boys doing more poorly than girls. Sixty seven percent of those children who continued to exhibit behavior problems, also met diagnostic criteria for attention deficit hyperactivity disorder or conduct disorder at age 9. Eyberg (1992) points out that this figure may be an underestimate, since many of the most dysfunctional families were lost by the time of follow-up.

Several studies have considered gender differences in reports of young children's problem behaviours in community samples. Overall, there is evidence in school-age children that indicates higher rates of externalizing problems, such as tantrums, overactivity, fighting and disobedience in boys, and a shift toward more internalizing problems in girls (Achenbach, 1991). Campbell (1995) in a review article of behaviour problems in preschoolers, concluded that the studies have been inconsistent in clarifying when these gender differences emerge and she concludes that the bulk of the evidence suggests that gender differences are not marked in preschool children.
1.1.3 Comorbidity

With regard to the diagnostic categories for classification of problems, children who meet criteria for conduct disorder are likely to meet criteria for other disorders as well. In general, diagnosis involving disruptive or externalizing behaviours (conduct disorder, oppositional defiant disorder and attention deficit hyperactivity disorder) often go together. In studies of community and clinic samples, a large percentage of youth with either conduct disorder or attention deficit hyperactivity disorder also meet criteria for the other disorder (Offord, Boyle & Racine, 1991; Fergusson, Horwood & Lloyd, 1991). Among young children who meet criteria for conduct disorder, 84-96% also meet concurrent diagnostic criteria for oppositional defiant disorder (Hinshaw, Laney & Hart, 1993). Conduct problems frequently co-occur with other disorders such as learning disabilities and language delay, as well as anxiety disorders and depression (Hinshaw et al 1993; Walker, Lahey, Russo, Christ, McBrunett, Loeber, Stouthamer-Loerber & Green, 1991).

Kazdin (1997) in his comprehensive review of conduct disorders in children, outlines the pertinent characteristics associated with these children. In addition to the comorbid diagnoses, other features of conduct problems include difficulties in relation to school both with regard to academic deficiencies and peer relationships. Academic problems may be reflected by poor attainment and performance in class, specific difficulties in skills such as literacy and early exit from formal education. Young people with conduct problems are also more likely to have experienced rejection from peers than those without problems, and have poor interpersonal relationships with both peers and adults. A variety of cognitive and attributional processes may also be apparent, such as deficits and distortions in cognitive problem-solving skills (Kazdin, 1997).
1.1.4 Risk Factors implicated in the development of child conduct problems

Campbell (1995) and Webster-Stratton and Hooven (1998) in their comprehensive reviews of behavior problems in preschoolers and parent training for child conduct problems respectively, outline the various aetiological theories and risks associated with the onset and maintenance of conduct problems. It is beyond the scope of this literature review to explore these in detail but the main contributions will be considered.

Biological, attachment, family and parent-child interaction, sociocognitive and environmental theories (Webster-Stratton & Hooven, 1998) are amongst the main theories which attempt to account for conduct problems. Of the family and parent-child interactional factors, clear connections have been established between parental psychopathology, including antisocial behavior and depression (Downey & Coyne, 1990), marital conflict (O'Leary & Emery, 1982) and parenting interactions (Patterson, 1982) with the onset of child conduct problems.

Environmental factors or contextual conditions, as Kazdin (1997) refers to the external factors which are associated with children with conduct problems, are wide and varied. Economic disadvantage and an aggregate of related risk factors including unemployment, lack of education, number of stressful life events, perceived distress and lack of social support have all been shown to have a negative effect on parenting and child behavior including early-onset conduct problems (Hawkins, Catalano & Miller, 1992; Rutter & Giller, 1983). Low income parents are more at risk than are middle-income parents for high levels of psychological stress (Gecas, 1979).

Wahler and Dumas (1984) use the term 'insular' to characterize a subgroup of
mothers with children with conduct problems whose relationships outside the home are characterized by a high level of negatively perceived social interchanges with relatives/others and a low level of positively perceived supportive interchanges. These interactions can have a bearing on the extent of the child's conduct problems. Problematic child behavior not only can present difficulties in management but, in addition, has been found to produce marital conflict in parents (O'Leary & Emery, 1984) and mood disturbances, especially depression (Griest, Forehand, Wells & McMahon, 1980; Patterson, 1980) in mothers. Therefore it is the complex interaction of a number of factors which can result in problematic behavior in young children.

1.2 The role of Parenting and Parent-Child Interaction

Parenting and the interaction between parents and their children has received much discussion in the literature, more recently in relation to its aetiological role in early onset conduct problems. A considerable amount of literature has been devoted to discussing all aspects of parenting and a number of parenting models have been put forward (eg: Maccoby & Martin, 1983; Belsky 1984) which focus on particular aspects of parenting.

Parenting is both a biological and a social process (Tobach & Schneirla, 1968). It is a complex process, involving much more than a mother or father providing food, safety and succor to an infant or child. Parenting involves bidirectional relationships between members of two (or more) generations, can extend through all or major parts of the respective life spans of these groups, may engage all institutions within a culture and is embedded in the history of a people (Ford and Lerner, 1992).
There is the old adage that 'child is father to the man', meaning that individuals' characteristics when they are children relate to their characteristics during adulthood. (Lerner, 1986) However, Lerner et al (1995) interpret this in an alternative way, saying that the way parents behave and think as adults is influenced by experiences with their children ie: children rear their parents as much as their parents rear them. There is a bidirectional relationship between parent and child, in that neither operate in isolation to the other. A child's temperament can influence the way the parent responds to the child and the way parents behave towards their children can depend a lot on how the parent has influenced the child to behave.

A number of studies have examined various aspects of child rearing and socialization in young children (Campbell, 1995). Research concerning families with conduct-problem children has primarily taken a 'microscopic focus' in attempting to understand the dyadic relationships between specific parenting attitudes (eg: warmth and self-confidence), parenting behaviours (commands, criticisms, spanking, time out and praise) and specific child behaviours (aggression and noncompliance). Research has attempted to determine how specific parental attitudes or excesses and deficits of specific parent behaviours influence the development of children's conduct problems (Webster-Stratton, 1990).

There is much evidence to suggest that a temperamentally difficult child causes a great deal of stress for parents and has the potential to undermine parental function (Webster-Stratton, 1990). Activity level is one component of temperament (Chess & Thomas, 1984) that can be especially difficult for parents when it exists at excessive levels. Mash and Johnson (1983) and Mash (1984) noted that mothers of hyperactive children show high levels of stress and feel socially isolated, depressed and self-blaming. Other problematic behaviours, such as those seen in
children with conduct problems can also produce these responses in parents. These negative emotions evoked in parents by their child's difficulty can be directed towards the child. Graham, Rutter and George (1973) found that mothers of difficult infants were more likely than were mothers of easy infants to have critical feelings towards their child. Similarly, Feiring (1976) found that as infants' temperamental difficulty increased, mothers' emotional involvement decreased. On the other hand, children with a generally positive mood, high regularity and high adaptability were less likely to be the target of parental hostility, criticism and irritability (Rutter, 1983).

Maccoby and Martin (1983) have suggested that maternal responses to child requests and a history of positive warm interactions set the stage for the development of compliance and other internalized controls. Attachment theorists have put forth a similar view (Ainsworth, Blehar, Waters & Wall S, 1978). There is relatively good agreement from observational studies that child compliance and the internalization of control are associated with more authoritative parenting (Baumrind, 1971; Maccoby & Martin, 1983), that is parental behaviour characterized by a combination of high warmth, firm but fair control and the use of explanations and reasoning (eg: Crockenberg & Litman, 1990; Kuczynski, Radke-Yarrow, Kochanska & Girnius-Brown, 1987). On the other hand, maternal behaviour that is arbitrary, inconsistent, negative or uninvolved is associated with noncompliance, outright defiance and low internalization of control (Kuczynski et al, 1987; Patterson, 1980; Webster-Stratton, 1990). Gardner (1987, 1989) conducted a study examining mother-child interaction in a small sample of children whose parents and preschool teachers agreed that they were defiant, aggressive, and difficult to manage. She suggested that problem children have a history not only of higher rates of negative interaction, but lower rates of the kinds of positive, harmonious interactions that Maccoby and Martin (1983) argue facilitate children's
cooperation with requests (Campbell, 1995). The mothers and their children were much less likely to engage in joint play activities or joint conversations, defined by positive engagement, mutual enjoyment and turn taking. These mutually positive experiences appear to be important for the development of mother-child reciprocity and for prosocial behaviour in the peer group (Greenberg & Speltz, 1988; Tronick, 1989). A more recent study conducted by Winsler, Diaz, McCarthy, Atencio & Chabay (1999) evaluated two groups of children, a behaviorally at-risk group and a matched comparison group and examined mother-child interaction during a collaborative magnet board puzzle task. They found that the mother-child interaction involving behaviorally at-risk children was characterized by more other-regulation, negative control, less praise and physical withdrawal over time, compared to the interactions involving comparison children.

Although not all mothers of hard to manage children engage in high rates of negative behaviour and share little enjoyment with their children, this aspect of the relationship may have some bearing on the persistence of problems (Campbell, 1990).

1.3 Treatment of Conduct Disorders

Longitudinal research has consistently shown that children with conduct problems are at high risk for delinquency, drug and alcohol abuse, adjustment problems, mental health problems such as depression, and spouse and child abuse. In addition, parents of children with conduct problems are at high risk for abusing these difficult children. As such, it is in the interest of the child, family and wider community that effective treatments are found to deal with the problems of conduct difficulties in childhood (Kazdin, 1995). Given the total cost of dealing with the repercussions of conduct problems for the family and wider community and the
increase in cost with increased length of problems, early and effective treatments for conduct problems will be a more cost effective measure in the long run.

Kazdin (1995) conducted the most comprehensive review available in the literature on psychosocial treatments for conduct problems, and using several criteria to identify and select promising treatments amongst the array of available interventions, concluded that cognitive problem-solving skills training, functional family therapy, multi systemic therapy and parent management training were amongst the most effective and promising treatments in dealing with conduct problems, although these are not without their drawbacks and deficiencies. The studies included in this review were randomized controlled trials and included replications of treatment effects. However, Kazdin (1995) points out that, due to the pervasive features of conduct problems, virtually any domain could be targeted for treatment and the whole spectrum of psychosocial interventions have been documented in the literature, including psychotherapy, pharmacotherapy, psychosurgery, home, school and community-based programs, residential and hospital treatment and social services (Brandt & Slotnick, 1988; Dumas, 1989; Kazdin, 1985).

Parent training is one of the major approaches used to treat conduct disorders and it is the intervention used in the present study. As such, this intervention will be outlined in more detail.

1.3.1 Parent Training Programs

One of the major treatment strategies for reducing child conduct disorders, as well as child conduct problems in general, involves parent training interventions (Webster-Stratton & Herbert, 1994). Parent training is a generic term used, in this
context, to refer to procedures in which parents are trained to alter their child's behaviour in the home (Kazdin, 1997). Other terms also crop up in the literature, such as parent management and parenting programmes and these can refer to work done individually with parents or within a group situation. For the purpose of this study, the term parent training (PT) will be used.

Originally, the genesis of parent training lay in the theoretical underpinnings of behavioural and social learning theories, but the evolution of this intervention has drawn on a variety of other theories to integrate a number of theoretical perspectives. These include cognitive theory, family systems perspective, relation theories such as attachment and psychodynamic theories and theories of child social and emotional development (Webster-Stratton & Hooven, 1998).

Many versions of parent training programmes have been developed and, as Webster-Stratton and Hooven (1998) outline, they share four main characteristics. First, it is the parents who are trained; there is no direct intervention with the children. Second, parents are taught to identify, observe and define behaviours they want to increase or decrease. Third, parents learn social learning principles including positive reinforcement and discipline strategies. Fourth, they are taught these approaches by means of interactive discussion, modeling, role playing, videotape demonstrations, home assignments and direct feedback.

A number of highly influential parent training programmes have been developed over the last few decades. One of these parent training programmes was developed by Hanf (1970) at the University of Oregon Medical School and was later modified and evaluated extensively by Forehand and McMahon (1981). This is a 10 session program and was designed to treat noncompliance in young children, aged 3-8
years and is conducted in a clinic setting where the therapist works with both parent and child together.

Another program devised by Patterson and his colleagues at the Oregon Social Learning Centre (Patterson, Chamberlain & Reid, 1982; Patterson, Reid, Jones & Conger, 1975) has provided the foundation for numerous other PT programs and hence is the most influential program in the development of this type of intervention for conduct-disordered, aggressive and delinquent children. Overall, this treatment is based on Patterson’s ‘coercive cycle’ theory, whereby, parents ineffective in their parenting inadvertently teach their children noncompliance and aggression by modeling and reinforcing those behaviours in their daily interactions with their children. Therefore, instead of ignoring prosocial efforts and attending to negative behaviours, parents are taught to reward appropriate behaviour which previously they may have overlooked.

This programme, which is directed towards the parents of preadolescent and adolescent children, starts with parents reading a set text and answering specific questions on it afterwards. Following this, a step-by-step approach is adopted either individually or in groups to systematically learn behavioural management skills. These include (1) identifying problem behaviours (2) to use reinforcement and effective disciplinary methods (3) to monitor child effectively and (4) to problem-solve and use negotiating strategies. The treatment content has been described in a manual by Patterson et al (1975) and elaborated upon by Reid (1987).

The emphasis of this parent training on the relational aspects is also found in the intervention developed by Eyberg (1988) called ‘parent-child interaction therapy’ (Hembree-Kigin & McNeil, 1995). In this programme, the skills for child-directed
play are elaborated in great detail, composed of ‘DRIP’ skills: describe, reflect, imitate, praise. The American Fast Track programme, a preventative programme has been based on this and has been extended to use in schools, community centres and other easily accessible places.

More recently, another parent training programme has gained widespread recognition, that developed by Webster-Stratton and colleagues in Seattle, USA. This model is based on the early theoretical work of Patterson (1975) and Hanf (1970) regarding key parenting and relationship skills and behavioural principles to be learned in order to reduce conduct problems, with the added component of the use of video-tape modeling methods (Webster-Stratton, 1990). The Parents and Children Series BASIC programme is a group based, 12 week programme aimed at parents of children aged 3-7 years and will be outlined in detail here as it is this programme which is the focus of this study. However, following the development of this in the US, Webster-Stratton and colleagues went on to expand on this programme, the product which became known as the ADVANCE parent training programme, which is a total of 20 sessions. The programme has also been adapted as a self-administered intervention for parents.

The content of the BASIC program incorporates Patterson’s (1982) nonviolent discipline components concerning time-out, logical and natural consequences, and monitoring, components of Hanf’s (1970) ‘child-directed play’ approaches and the strategic use of differential-attention, encouragement and praise and the effective use of commands. This content has been embedded in a relational framework including parent group support, mutual problem-solving, self management and a collaborative relationship with the therapist (Webster-Stratton, 1990). This approach is designed to promote parents self-efficacy and engagement with the program and to reduce parental resistance and drop-out (Webster-Stratton &
Hancock, 1998). Based on Bandura's (1982) modeling theory, the program utilizes videotape-modeling methods. The series of 10 videotapes are divided into four programmes: Play; Praise and Rewards; Effective Limit Setting; and Handling Misbehavior. There is a total of 250 vignettes, each of which lasts approximately 1-2 minutes and are shown by a therapist to groups of parents over 12-13 sessions (approximately 26 hours). The vignettes show parent models in natural situations with their children 'doing it right' and 'doing it wrong' in order to demystify the notion that there is 'perfect parenting' and to illustrate that one can learn from one's mistakes. After each vignette, the therapist leads a group discussion of the relevant interactions and encourages parents' ideas (Webster-Stratton, 1990). The group leaders help the parents to discuss important 'principles' and practice new skills through role-playing exercises. Home activities are given out each week which include daily practice exercises as well as a weekly chapter to read or listen to on audiotape from a book 'The Incredible Years' written by Webster-Stratton (1992) for parents to accompany the programme.

There are a number of facets which are highlighted in this programme which are worth mentioning. First of all, the collaborative nature of the relationship between therapist and parent is seen as an inherent part of the formula for this group. Collaboration implies a reciprocal relationship based on utilizing equally the therapist's knowledge and the parents' unique strengths and perspectives (Webster-Stratton & Herbert, 1996). Collaboration implies respect for each person's contribution, a nonblaming relationship built on trust and open communication and it implies that parents actively participate in the setting of goals and the therapy agenda (Webster-Stratton & Herbert, 1996). The literature on self-efficacy, attribution, helplessness and locus of control supports the value of the collaborative approach and research (eg; Janis & Mann, 1977; Meichenbaum & Turk, 1987) suggests that this collaborative process has the multiple advantages
of reducing attrition rates, increasing motivation and commitment, reducing resistance, increasing temporal and situational generalization and giving both parents and the therapist a stake in the outcome of the intervention efforts (Webster-Stratton & Herbert, 1996).

The program is also designed to help parents understand and learn to accept normal variation in children's developmental abilities, emotional reactions and temperamental styles (Webster-Stratton, 1990). Therapists model the strategies being highlighted in group discussions, such as using praise, positive self-talk and encouragement. The group processes are utilized to help address parents sense of isolation and stigmatization which often accompanies child behavioural problems and are risk factors for future difficulties. Parent support networks and mutual collaboration are promoted and enhanced (Webster-Stratton & Herbert, 1993).

1.3.2 Research findings

Parent training is one of the most well researched therapy techniques for children with conduct disorder (Kazdin, 1997; Webster-Stratton & Hooven, 1998) and the outcome evidence makes it one of the most promising treatments (Kazdin, 1997).

Over the last two decades, a series of studies have been completed outlining the efficacy of the parent training programme using video vignettes which have been developed by Webster-Stratton. Over 600 families have been studied in five treatment outcome studies and the data from all these studies suggest that parent-training discussion groups which include the use of video vignettes are a highly effective and cost effective method for improving parent-child relationships and reducing young children's conduct problems (Webster-Stratton, Basic Program Treatment manual).
In the first study, 35 families were randomly assigned to the group discussion videotape modeling (BASIC) programme or to a waiting list control group. Highly significant attitudinal and behavioural changes in treated middle-class, nonclinic mothers and children were found and nearly all the changes were maintained at 1 year follow up (Webster-Stratton, 1981a, 1981b, 1982a, 1982b). A second study randomly assigned 35 'high risk' families to one of three condition 1) one-to-one personalized parent therapy 2) videotape-based group therapy (BASIC) and 3) a waiting-list control group. The results from this study, indicated that the BASIC treatment was equally effective as the high cost, one-to-one therapy and both treatments were superior to the controls in regard to attitudinal and behavioural changes. A 1 year follow up there continued to be no differences between the two treatment groups and most of the children continued to improve (Webster-Stratton, 1984, 1985).

The third study allocated 114 children with conduct problems to one of four conditions in order to ascertain the most effective components of the overall BASIC programme. The families were randomly assigned to one of three treatment groups, a self-administered videotape therapy, video-tape based group therapy (BASIC) and group therapy alone, as well as a waiting list control group. Mothers in all three treatment groups reported significantly fewer child behaviour problems, more prosocial behaviours and less spanking following treatment. Data from fathers and teachers also reported significant reductions in behavioural problems and home visit data agreed with these reported findings. At one year follow-up, the behavioural changes were maintained using the same pre and post treatment measures. The main advantage of the self-administered videotape treatment was in its cost effectiveness. Overall 70% of the sample showed clinically significant improvements to within normal ranges (Webster-Stratton, Kolpacoff & Hollinsworth, 1988).
A recent study investigated the effectiveness of the BASIC programme as a selective prevention intervention for 362 high risk mothers and their 4 year old children. Families were randomly assigned, according to which day care centre they attended to one of two conditions 1) an experimental condition in which parents, teacher and family service workers participated in the intervention or 2) a control condition in which parents, teachers and family service workers participated in the regular centre-based programme. The results from observations at post-intervention assessment indicated that mothers in the intervention group made significantly fewer critical remarks and commands, used less harsh discipline and were more positive nurturing, reinforcing and competent in their parenting when compared with mothers in the control group. These mothers reported their discipline was more consistent and that they used less physically and verbally negative discipline techniques and more appropriate limit setting techniques. Children of these mothers were also observed to exhibit significantly fewer negative behaviours and conduct problems, less noncompliance, less negative affect and more positive affect and prosocial behaviours than children in the control group. The changes were maintained at one year follow up (Webster-Stratton, manual, unpublished).

Overall the procedures and practices that are used in parent training have been widely and effectively applied outside the context of conduct disorder (Kazdin, 1995; Callias, 1994) and there is some evidence that parent training is also effective with fathers and with parents from ethnic minorities. The availability of treatment manuals and training materials for parents and professionals makes the use and training in the methods more accessible and there is high parental ratings of acceptability and consumer satisfaction. The generalization of behaviour improvements are demonstrated for the clinic setting to the home and over reasonable follow-up periods.
1.4 Expressed Emotion

Expressed emotion (EE) is the term used to describe emotional attitudes with respect to a specific individual. It is a way of measuring aspects of family life and describing social relationships (Kuipers, 1994) which are central to the life of all individuals and impact on development and experience in a constant and ever changing way. It was Brown, Rutter and colleagues in the 1960s who first recognized that ordinary aspects of family life might influence the condition of schizophrenia. This then led to the development of the term 'expressed emotion' and ways of defining it in order to measure the quality and the quantity of carers' attitudes in a reliable way. Since then, EE has provided evidence for the importance of social factors in serious mental illness (Kuipers, 1994). It has been the major impetus for the development and evaluation of social treatments in schizophrenia (Kuipers & Bebbington, 1988; Lam, 1991) and has led to an expanding literature (Leff & Vaughn, 1985) which confirms that EE in carers is predictive of outcome in mental health (Kavanagh, 1992), a range of physical disorders and in a variety of cultural settings (Kuipers, 1992, 1994).

Although, the main bulk of the literature on EE was to be found in research on schizophrenia (Brown, Birley & Wing, 1972; Vaughn & Leff, 1976, Vaughn, Snyder, Freeman, Jones, Falloon & Lieberman, 1984; Kanno, Jenkins, De Le Selva, Santana, Telles, Lopez & Mintz, 1987) and other adult conditions (for example depression - Hooley, 1986; bipolar affective disorder - Miklowitz, Goldstein, Nuechterlein, Snyder & Mintz, 1988; obesity - Fischmann-Havsted & Marston, 1984), in recent years the concept and role of EE has been investigated in relation to child populations.
1.4.1 Measurement of Expressed Emotion

The Camberwell Family Interview (CFI) is a semi-structured interview, used to rate EE, which was originally developed by Brown and Rutter (1966) and later abbreviated by Vaughn and Leff (1976). It is concerned with information about events and activities as well as with attitudes and feeling of the relative about the identified person. The interview is audio taped for later rating of EE. It has been used widely in research with adults and has more recently been adapted for children (e.g., Vostanis & Nicholls, 1992; Sensky, Stevenson, Magrill & Petty, 1991).

As a method of data collection, the whole process of using the CFI interview and subsequent rating of EE, as well as the training required to do this has been felt to be arduous and so Magana and colleagues (1986) developed a brief, alternative measure of rating EE. They adapted the brief verbal sample procedure of Gottschalk and Gleser (1969) for the rating of EE and called it the Five Minute Speech Sample (FMSS). Using this method, a relative is requested to report thoughts and feelings about a person for a five minute period and their responses tape-recorded for five minutes. Coding is along dimensions with similar names to the original CFI.

There are, however, a number of problems with this shorter method of rating EE. The measurement of EE depends on a small sample of human communication and limited material can be elicited in the short time frame. Often the designation of EE depends on the presence of a single comment, and though the FMSS purports to measure EE, the definition of terms is substantially different in the FMSS. Indeed, when the two methods were directly compared, the FMSS misclassified 43% of high EE cases in one study (Magana, Goldstein, Karno, Miklowitz, Jenkins & Falloon, 1986) and 52% in another (Leeb, Hahlweg, Goldstein, Feinstein, Muller, Dose & Magana-Amato, 1991). Magana et al (1986) recommended that those designated
low-EE by the FMSS method should be re-interviewed with the CFI as approximately 20% of FMSS-defined low-EE subjects were defined as high-EE on the CFI (Leeb, 1991). Goldstein, Miklowitz, Strachan, Doane, Nuechterlein & Feingold (1989) speculated that the CFI was reflecting the long-standing history of the relationship whereas the FMSS was tapping the ‘feeling of the moment’. Although much of the existing literature uses the FMSS to rate EE, it must be noted, that the FMSS tends to be a less sensitive measure of expressed emotion than the CFI is (Magana et al, 1986).

1.4.2 The Expressed Emotion Scales

The EE scales concern emotion expressed while talking about a particular person with criteria such as tone of voice, content of speech and gesture being used to assess the degree to which emotion is shown (Leff & Vaughn, 1985). There is a total of five scales in all and as they are unipolar, it is possible to rate a respondent positive on scales which appear to be contradictory or incompatible to each other. Two scales, ‘Criticism’ and ‘Positive Remarks’ involve a recognition of comments and involve a frequency count of all such comments occurring at any point in the interview. The three scales of ‘Emotional Over-involvement (EOI), Hostility and Warmth involve more that just a summation of remarks as the rater must make an overall judgement about the degree to which the emotion was shown taking into account the interview as a whole. Of these five scales, Criticism and Emotional Over-involvement together with Hostility comprise the key components of the index of expressed emotion. However the scales of Warmth and Positive Remarks have also been found to be useful as the relationship of the five scales to each other and to the course of an illness may well vary across different cultures and for different diagnostic groups. Therefore, research has deemed it useful to rate all five (Leff & Vaughn, 1985).
i) Criticism

The EE training manual defines a criticism as 'a statement which, by the manner in which it is expressed, constitutes an unfavorable comment upon the behaviour or personality of the person to whom it refers'. Criticisms may be evident both in the content of the comment and/or the vocal aspects of the speech, i.e.: the pitch, speed and inflection imparting to the statement by the person making it (Leff & Vaughn, 1985).

ii) Positive Remarks

A positive remark is a statement which expresses praise, approval or appreciation of the behaviour or personality of the person to whom it concerns and a frequency count is used to measure the occurrence of relevant remarks during the course of an interview. It is defined primarily by its content although tone of voice is taken into consideration. The meaning of the remark should express praise, appreciation or approval without ambiguity (Leff & Vaughn, 1985).

iii) Hostility

Hostility is considered present when the person is attacked for what she/he is rather than for what she/he does. Negative feeling is generalized in such a way that it is expressed against the person rather than against particular behaviours or attributes. Hostility can be rated according to two strict criteria, whether it is a generalized criticism, which gives a rating of 1 or a rejection of the person, which gives a rating of 2, or both these are present, which gives a rating of 3. Context, content and tone of voice are all important but content determines whether a criticism is also hostile (Leff & Vaughn, 1985).
iv) **Emotional Over-involvement**

Emotional Over-involvement (EOI) is measured on a six point global scale. It is a measure of extreme overconcern and can be detected from two sources a) the reported behaviour of the respondent and b) the behaviour of the respondent at the interview. Several kinds of reported behaviour may indicate overconcern including 1) exaggerated emotional response in the past, 2) unusually self-sacrificing and devoted behaviour and 3) extremely overprotective behaviour. Behaviour in the interview including 1) statements of attitude 2) emotional display and 3) dramatization may also indicate overconcern (Leff & Vaughn, 1985).

v) **Warmth**

Warmth is rated on a 6 point scale and refers to the warmth expressed in the interview about the person. Tone of voice, spontaneity, sympathy, concern and empathy are the criteria used to rate warmth.

1.4.3 **Research Findings of Expressed Emotion in Child Populations**

As with adults, the affective quality of the home environment has an important bearing on children’s emotional health (Asarnow, Lewis, Doane, Goldstein & Rodnick, 1982). Patterson, Chamberlain & Reid (1982) have put forward convincing evidence that parental negativity is a major cause of child conduct disorder. Given the well developed theoretical foundation of EE in the adult literature, interest in EE and its role as a risk variable in children’s disorders has grown. EE can be examined as a unitary construct (Szmukler, Berkowitz, Eisler, Leff & Dare, 1987; Miklowitz, Goldstein, Nuechterlein, Snyder & Mintz, 1988; Hahlweg, Goldstein, Nuechterlein, Magana-Amato, Mintz, Doane, Miklowitz & Snyder, 1989;) or by separating the components of EE. Early indications of the possible role of expressed emotion in children arose from studies which used
components of EE scales rather than all the EE scales. For example, Rutter et al (1975) and Quinton and Rutter (1985) found an association between lack of parental warmth and hostility and child behavioural disturbance. In the early application of EE to the investigation of childhood problems, Richman et al (1982), using global ratings rather than the CFI, found a significant association of maternal criticism and lack of warmth with child behavioural problems in a community sample of 3 year olds but it was not predictive of persistence of disorder at age 8.

Schwartz, Dorer, Beardslee, Lavori & Keller (1990) used a version of the CFI and found that high maternal criticism was associated with both the presence of maternal depressive illness and with at least one child psychiatric disorder ie: depression, conduct disorder or substance abuse and these findings were supported by Hibbs et al in their 1991 study. Again, using the CFI, parental criticism has been found to predict dropping out of treatment (Szmukler, Eiser, Russell & Dare, 1985) and continuation of symptoms in adolescents with eating disorders (LeGrange, Eiser, Dare & Hodes, 1992).

Vostanis, Nicholls & Harrington (1994) investigated differences in parental EE components between groups of children with emotional and conduct disorders. The Camberwell Family Interview (CFI) was administered to parents of children aged between 6-11 years and the authors concluded that different maternal styles were associated with conduct disorder and emotional disorders in children. They found that maternal warmth distinguished significantly between children with conduct disorder, emotional disorder and controls, with children with conduct disorder having mothers who expressed less warmth than in the other groups. Criticism was found to distinguish children with conduct disorder from the other two groups whilst emotional over-involvement was not found to differ between the groups at all. The findings indicate that conduct and emotional disorders of childhood are associated
with different maternal styles. The authors suggest that the development of child psychopathology may be related, not only the presence of negative emotional attitudes such as criticism and emotional over-involvement, but also to the absence of warmth. Vostanis and Nicholls (1995) conducted a follow-up study, one of the first studies using a child population to investigate the role of EE as a predictor of change following a routine psychiatric intervention. The CFI, Child Behaviour Checklist (CBCL) and Family Environment Scale (FES) were re-administered after 9 months. Maternal EE and CBCL scores changed significantly over this time, but only the CBCL ratings predicted change over the 9 months, suggesting no causal role for EE. The criticism scores went down and the warmth scale increased for both the conduct and emotional disorder groups.

As Vostanis et al (1995) point out, emotional over-involvement as measured in parents of young children, may not necessarily be comparable with that in relatives of adult patients against which the standardized measure of emotional-over involvement is made. Indeed, high expressed emotion, of which emotional-over involvement is one of the criterion, may be a protective factor, for example in children with a chronic illness eg: asthma.

In studies which have used the dichotomy of high/low parental EE in referred children and adolescents, the findings suggest that the development of child psychopathology may be related to the presence of negative emotional attitudes such as criticism and emotional over-involvement, as well as absence of warmth (Schwartz et al, 1990; Hibbs, Hamburger, Lenane, Papoport, Druesi, Keeso & Goldstein, 1991). Stubbe, Zahner, Goldstein & Lecknam (1993) completed a community survey of 108 children using the five minute speech sample (FMSS), and found that significantly higher rates of disruptive behaviour were observed in children of parents who expressed high levels of criticism, while children of parents
who expressed high levels of emotional over-involvement were significantly more likely to have an anxiety disorder when compared to the remaining sample. Asarnow (1994) using the FMSS, found that criticism, but not emotional-over involvement, differentiated parents of depressed children from norms.

Other factors correlating with high EE include maternal psychopathology, absent father, low parental education, occupational achievement, large family, parenting deficits, disturbed parent-child relationship, disadvantaged minority background and multiple life events (Seifer, Sameroff, Baldwin & Baldwin, 1992). Satisfactory marital and family adjustment are associated with low EE. Socio-economic status of the family was not related to EE status (Parker and Johnson, 1987; Hibbs et al, 1991; Stubbe et al, 1993).

EE was initially believed to be a stable characteristic of families, although this theory has not been supported by empirical evidence (Hatfield, Spaniol & Zipple, 1987; McCreadie, Robertson, Hall & Berry, 1993) which suggests that it can be both a state and a trait. In a small study by Schreiber, Breiar & Picker (1995) which used the CFI to interview parents (n=17) about their one child with chronic schizophrenia and one well sibling, they conclude that the EE variables of emotional over-involvement and warmth are related to the state of the child and that criticism is a parental trait. In a pilot study by Scott to develop an experimental intervention to reduce expressed emotion in children with hyperactivity, he found, using the CFI, that there was a significant decrease in the number of critical comments, and an increase in the number of positive remarks in both the experimental group and the control group and that the experimental group also showed a decrease in the symptoms associated with hyperactivity (Scott, unpublished). He concluded that a change in the levels of hyperactivity could bring about changes in expressed emotion. Although, only a small study with a total of 16 children, it illustrated how
levels of expressed emotion could be changed following an intervention. This may support the suggestion that levels of expressed emotion do change according to the situation and so may be an important focus of intervention.

Eliciting cognitions directly during interviews forms a cornerstone of cognitive therapy (Sensky, Stevenson, Magrill & Petty, 1991). Brewin, MacCarthy, Duda & Vaughn (1991) demonstrated a difference between the attributions of critical or hostile relatives and of other relatives and Kuipers (1994) suggested that differences may exist between spontaneous and elicited attributions in their associations with EE. A recent study by White and Barrowclough (1998) investigated attributions for child behaviours in depressed and non-depressed mothers. They modified the Camberwell Family Interview (CFI) and used an adaptation of the Leeds Attributional Coding System for the extraction and analysis of attributional statements. Attributions can be viewed as part of the emotional responses and styles differ according to a number of variables. For example, in relatives who are critical, behaviours are rated as more internal to and controllable by the patient and in the case of hostility, the attributions are also more personal, involving particular attributes of the sufferer himself in the cause (White & Barroclough, 1998). It seems as if attributional style is an important facet of the expressed emotion profile and, although not documented in the literature, it may be a potential pathway of change following cognitive restructuring and behavioural change as a result of a successful intervention. As White & Barroclough discuss, examining the causal attributions mothers make about their children’s problem behaviour may be an important factor for enhancing parenting skills.

There is no documented evidence that there is an aetiological role for EE in behavioural disorders but it may have treatment implications, hence the predictive power of EE in longitudinal studies may elucidate interesting findings. EE has
become the focus for interventions in a number of treatment studies in adult populations (Falloon, Boyd, McGill, Williamson, Razani, Moss, Gilderma & Simpson, 1985; Leff, Berkowitz, Shavit, Strachan, Glass & Vaughn, 1990) but this has not yet been developed in interventions with mother/relatives of children who present with clinical difficulties. Key components in features of the intervention studies in adults, to help address EE, include positive attitudes to families, education, problem solving and emotional processing (Kuipers, 1994). These are similar features to the ones forming the basis of the Webster-Stratton parenting group model and indeed other models of parent training. As such, it may be hypothesized that this intervention may have an impact on the EE of the parents attending and as such the prognosis for the child.

The direction of the effect of an intervention on mothers EE and child behavior has not yet been clearly demonstrated. Clear relationships have been found in both community and clinical samples between high EE, specifically criticism and difficult child behavior. If an intervention is aimed at decreasing the difficult behavior this may mediate a change in the EE which may then decrease as the mother feels more able to deal with the behavior and also as actual behavioral changes are seen to occur. If the EE in the mother decreases, this in itself may be enough to improve the child’s behavior. However, initial levels of EE may affect the ability of the mother to change and thus the success of the intervention. To conclude, a number of complex factors are at play in these interactions and this study will attempt to elucidate some of these.
1.5 Aim of Study

This study has a number of aims:

(1) To measure the expressed emotion of mothers with children with conduct problems who have been referred to tertiary level services for help in managing the difficult behaviour.

(2) To examine the use of the modified semi-structured interview for measurement of expressed emotion.

(3) To examine the differences in expressed emotion before and after participation in a parent training group based on the Webster-Stratton model of parent training.

(4) To examine other factors which correlate with high EE, including socio-economic status, locus of control, coping with child behaviours, level of depression in mothers and level of child difficulties.

Hypotheses

- High expressed emotion will be associated with more child conduct problems

- Following participation in a parenting group,
  - there will be a decrease in overall expressed emotion
  - there will be a decrease in Criticism and Hostility scores
  - there will be an increase in Warmth.
  - there will be no change in Emotional over-involvement

- These changes will be related to a decrease in child problem behaviour

- Mothers with high depression scores will be more critical and less warm towards their children
Chapter 2

METHOD

2.1 Participants

A total of 20 mothers who attended parenting groups based on the Webster-Stratton programme of parent training, participated in this study. These mothers had children, aged between 3-8 years, with conduct difficulties who had been referred to a secondary or tertiary level service for help with management of these difficulties and had agreed to take part in a large randomized control trial to evaluate the parent training group using the Webster-Stratton programme.

The main criteria for entry into the large randomized controlled trial was the presence of conduct problems in children between the ages of 3 to 8 years and whom had been referred to a secondary or tertiary level service for this problem. Exclusion criteria for entry into the trial were: (1) children with diagnosed ADHD and currently taking medication at the time of referral (2) children with developmental delay (3) children with moderate to severe language delay and/or impairment (4) parent with long term mental health problems (5) parents who were unable to attend a group held during the day due to other commitments eg: work.

The participants in this study were randomly selected from the total sample who participated in the larger research study.

Table 1 illustrates the sociodemographic characteristics of the mothers and children in this sample.
Table 1: Sociodemographic characteristics of the mothers and children in the whole sample

<table>
<thead>
<tr>
<th>Characteristics of Sample</th>
<th>n=20</th>
<th>5.2 (1.4)</th>
<th>32 (6.7)</th>
<th>white</th>
<th>70% (14)</th>
<th>biological parents</th>
<th>45% (9)</th>
<th>left school - before 16 yrs</th>
<th>60% (12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number and gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>15</td>
<td>4.9 (1.5)</td>
<td>range 24-45</td>
<td>afro-caribbean</td>
<td>20% (4)</td>
<td>single mother</td>
<td>40% (8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>female</td>
<td>5</td>
<td>6.0 (1)</td>
<td>mixed race</td>
<td>mixed</td>
<td>10% (2)</td>
<td>mother with partner</td>
<td>15% (3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As is illustrated in Table 1, three quarters of the children (n=15) were male and one quarter female (n=5). This sex ratio is representative of children with conduct problems. The mean age of the children was 5.2 years (sd=1.4) with females tending to be slightly older than the males. The average age of the mothers is 32 years (sd = 6.7). Their ages range from 24 to 45. With regard to ethnicity of the mothers, the majority of the sample were white/north European with one fifth being black Afro-Caribbean and a small minority being of mixed parentage. The ethnicity of the children was not collected. Just under half of the families were composed of both biological parents living together and a similar proportion of mothers described themselves as being single parents although within this number, some had partners who either did or did not live in the house. Only 3 of the mothers reported that they had no partner at all. Sixty percent of mothers left school before their sixteenth birthday with 40% leaving after. Fifty five percent of fathers left before they were 16 years old with 15% leaving after this time. One third of the data for fathers is
missing

A quarter of the sample were only children and two thirds were either the eldest child in the family or the youngest child. No child had ever been in foster care and only 2 children had been away from their mother for more than one month since their birth.

The average length of time the groups ran was 14 weeks. Participants attended an average of 9 (sd=4) sessions.

2.2 Design

A repeated measures design was used. Measures were taken just prior to the start of the group and within one month of finishing it.

2.3 Measures

1. Demographic questionnaire

This is a semi-structured interview which was developed for the purpose of the overall research project. It collects information regarding a whole range of socio-demographic features, including family composition, parental ethnicity, housing, information on benefits and child's social and personal history.

2. Camberwell Family Interview - Childhood (CFI-C)

This is the main instrument used for this study and is used both for the expressed emotion ratings as well as the clinical information relating to the child and some parenting measures. This particular interview has been relatively recently developed and an initial study, using a total of 50 children and their mothers,
investigating its use demonstrated good inter-rater reliability, test-retest stability (over five months) and discriminant validity between clinical and control samples (Scott & Campbell, in press).

The CFI-C is a standardised, semi-structured interview of which the Parent Assessment of Child's Symptoms (PACS) (Taylor, Schachar, Thorley, Wieselberg, 1986; Taylor, Sandberg, Thorley & Giles, 1991) is used as the main framework and then further questions added. The PACS consists of three symptom domains, i) conduct problems, ii) hyperactivity and attention problems and iii) emotional problems. The parents are asked for detailed descriptions of what their child has done in specified situations over the previous month and the interviewer then rates the behaviour based on the parents information. Each item is rated according to its severity and frequency, and these judgements are made independently and according to written criteria. They are then averaged to yield the score for each of the three symptom domains (Taylor et al, 1986). The Conduct scale has items relating to lying, stealing, defiance, disobedience, truanting and destructiveness. The Hyperactivity scale is made up of questions about attention span, restlessness, fidgetiness and activity level and the Emotional scale has items relating to misery, worrying, fears and hypochondriasis. The PACS has been shown to have adequate inter-rater reliability, internal consistency and factorial validity (Taylor et al 1986).

In addition to the clinical information collected via the PACS, for the main problem in each symptom domain, parents are asked about the effects on family life and their ability to deal and cope with particular behaviour as well as general parenting skills. Locus of control and agreement between parents on which disciplinary strategies to use for each of the three subscales is also rated by the interviewer. At the end of the interview, the interviewer also rates warmth and criticism of the interviewee based on written criteria in the manual. The final section consists of
probes to elicit the parent's feelings about the child as a person and their relationship in general, rather than specific behaviours, and ends on a positive note, asking what are the best things about him/her and what he/she is really good at (Scott & Campbell, in press).

All the CFI-C interviews were audio taped and these tapes were used by the author to assess the expressed emotion of the mother discussing her child at Time 1, just before starting the parenting group (pre-group), and at Time 2, within one month of finishing the group (post group). The data derived from the interview, including the overall scores for each section were used for levels of conduct, hyperactivity and emotional problems in the children. Other ratings such as coping, locus of control and the overall ratings of warmth and criticism of the parent were also used.

To validate the ratings of warmth and criticism made by the research interviewers at the end of the interview and the ratings of warmth and criticism made using the formal method of rating EE, correlation coefficients are computed between these measures. It is important to note that the research interviewers were not fully trained in the measurement of EE and used criteria specified in a specially written handbook to make the ratings. If there is a good correlation between the two ratings, this will allow a larger number of subjects to be used in the analysis, with respect to these two criterion of EE.

3. Beck Depression Inventory

This is a 21 item questionnaire (Beck, Ward, Mendelson, Mock & Erbaugh, 1961) which was designed to assess the severity of depression in an adult population. It is not a diagnostic instrument. Each item has four verbally anchored response options ranging from 0-3 for each option. It has been shown to have good validity
and reliability and is used widely in research studies.

2.4 Procedure

Measurement of Expressed Emotion:

The author attended a two week course to be trained in the rating of expressed emotion being run by Dr Christine Vaughn, the originator and official trainer of the modern shorter form of the Camberwell Family Interview, at the Institute of Psychiatry. This is the only official training programme for expressed emotion currently available in the UK. The author achieved acceptable inter-rater reliability scores for each scale by the end of the course.

For the purpose of this study, expressed emotion was rated by listening to the audiotapes of the interview schedule, which was conducted with the mothers. All the criteria of expressed emotion were rated namely, critical comments, positive remarks, hostility, emotional over-involvement and warmth. To assess inter-rater reliability, 8 interviews were rated by another trained EE rater. An absolute minimum of 6 interviews was recommended as a suitable number to ensure reliability for the total sample of 40 interviews (Vaughn, 1999, personal communication).

Parent Training Group Therapists:

All therapists who had conducted the parent training groups, of which the author was one, were fully trained in the running of the parent training groups. This training took place via observation of a group, followed by running one with an experienced group facilitator before being the lead facilitator. Weekly peer supervision, using video tapes of the group sessions was provided for the duration of each group.
Research Interviewers:

A large battery of assessment tools was used to collect information from the mothers, before and after their participation in the group. All research interviewers, of which the author was one, who collected the data from the mothers were fully trained to administer the CFI-C interview schedule. This took place via training workshops and regular meetings to listen to tapes of the interviews and to ensure reliability.

The data was analysed using the Statistical Package for Social Sciences (SPSS) for Windows, version 9.0.
Chapter 3

RESULTS

The results are divided into four sections. The first section (section 3.1) describes the clinical features of the children as measured by the Parent Assessment of Child Symptoms (PACS) section of the Camberwell Family Interview-Children (CFI-C) interview, as well as some parental factors measured by the CFI-C. The second section (section 3.2) examines the expressed emotion of the mothers with regard to their child as rated from the audiotapes of the interview. The third section (section 3.3) provides qualitative information on five case studies and the final section (section 3.4) investigates the variables and predictors associated with expressed emotion.

3.1 Description of the sample from the PACS

3.1.1 Clinical features of the Children

The Parent Account of Child's Symptoms (PACS) section of the CFI-C interview was used to rate children's problems across three categories: conduct, hyperactivity and emotional problems. The hyperactivity section is divided into attention and activity problems but for the purpose of this study, they are considered together.

<table>
<thead>
<tr>
<th>Table 1: Mean PACS scores for each problem pre and post group</th>
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</thead>
<tbody>
<tr>
<td><strong>PACS Scores</strong></td>
</tr>
<tr>
<td><strong>Pre-group</strong></td>
</tr>
<tr>
<td>Conduct</td>
</tr>
<tr>
<td>Hyperactivity</td>
</tr>
<tr>
<td>(attention &amp; activity)</td>
</tr>
<tr>
<td>Emotion</td>
</tr>
<tr>
<td>n.s.</td>
</tr>
</tbody>
</table>
**Conduct subscale**

The population norms for the conduct subscale have a mean of 0.8 (sd 0.4) indicating no disorder (Taylor et al, 1991). This sample was therefore close to +2 sd above the norm before participation in the group which approaches the most severe 2% of the population for conduct problems. Following the group, the scores fall to within the high end of the normal range.

**Hyperactivity subscale**

For the hyperactivity subscale, a mean of 0.5 (sd 0.5) indicates no disorder, thus this population falls within the upper end of the normal range. Given that children with hyperactivity were not eligible for entry into the study, using the Home Hyperactivity screening questionnaire, it is unsurprising that this does not reach clinical levels as judged by the PACS.

**Emotional subscale**

For emotional problems, a mean of 0.5 (sd 0.3) indicates no clinical problem so the scores for this sample fall with the normal range indicating no emotional disorder.

An inspection of the frequency distribution indicated that the data was normally distributed, hence paired sample t-tests (two-tailed) were computed for the pre and post group scores for each of the three symptom domains. The biggest change following participation in the group was in the conduct problem category (t =4.5, df=18, p<0.001). There were no significant changes in the hyperactivity and emotion category. This indicates that the intervention is more effective for conduct problems, which is expected given the focus of the intervention is targeting the specific conduct difficulties. This change in conduct problems following the group is also found for the larger research group (Scott, personal communication).
3.1.2 Coping, locus of control and agreement between parents

At the end of each of the three symptom sections in the PACS clinical interview, further questions were added to probe about the effect of the child's behaviour on the family and the mothers' ways of dealing with it. Mothers were asked (i) about coping with the worst problem in each section and their coping was rated by the interviewer (coping variable), (ii) how much the child/mother was to blame (locus of control variable) and (iii) how much the parents agreed with each other on disciplinary strategies to use (agreement between parents variable).

The 'coping' rating was rated on an 8 (0-7) point scale, the lower the rating the better the coping. Overall, this sample is towards the lower end of the scale on each of the three symptom domains and no significant differences were found using Wilcoxon signed ranks tests between the pre and post group on each of these three domains. This indicates that mothers do not indicate better coping skills following the intervention.

The 'locus of control' rating is a rating of parents' perception of locus of control and is rated by the interviewer on a 5 point scale (1-5). The higher the score, the more the mother feels the problems are the child's fault, indicating an external locus of control. Again, using Wilcoxon signed ranks tests no significant differences were found on any of the subscales, although the largest difference was in the emotional subscale with a slight shift from feeling the child was partly to blame towards feeling the child cannot help the problem.

The 'agreement between parents' rating was rated on a 4 point scale (0-3) and focused on the consistency between the parents on agreement of how to manage the discipline of the child. A score of 0 indicates the parents have no disagreements with a score of 3 indicating that arguments are openly expressed in front of the child. For conduct problems, the agreement between the parents changed significantly following the intervention, indicating better agreement on which disciplinary strategies to use. No differences for agreement between
parents was found for hyperactivity or emotion.

Table 2: Mean scores for coping, locus of control and agreement between parents across the three sections of the PACS

<table>
<thead>
<tr>
<th>PACS Scores</th>
<th>mean (sd)</th>
<th>Pre-group</th>
<th>Post group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conduct</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mother coping</td>
<td>2.44 (0.7)</td>
<td>2.39 (1.1)</td>
<td></td>
</tr>
<tr>
<td>locus of control</td>
<td>3.16 (1.2)</td>
<td>3.37 (1.38)</td>
<td></td>
</tr>
<tr>
<td>agreement between parent</td>
<td>2.8 (0.6)</td>
<td>0.88 (1.1) *</td>
<td></td>
</tr>
<tr>
<td><strong>Hyperactivity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mother coping</td>
<td>2.44 (0.63)</td>
<td>2.73 (0.96)</td>
<td></td>
</tr>
<tr>
<td>locus of control</td>
<td>2.35 (1.22)</td>
<td>2.53 (1.51)</td>
<td></td>
</tr>
<tr>
<td>agreement between parents</td>
<td>2.33 (0.71)</td>
<td>1.57 (1.27)</td>
<td></td>
</tr>
<tr>
<td><strong>Emotion</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mother coping</td>
<td>2.00 (0.6)</td>
<td>2.07 (0.8)</td>
<td></td>
</tr>
<tr>
<td>locus of control</td>
<td>2.45 (1.3)</td>
<td>1.73 (1.4)</td>
<td></td>
</tr>
<tr>
<td>agreement between parents</td>
<td>1.8 (0.98)</td>
<td>0.75 (0.9)</td>
<td></td>
</tr>
</tbody>
</table>

* z=-2.04, p < 0.05

3.1.3 Maternal Depression

Beck Depression Inventories were completed both before and after the group. The mean score was 14 (sd=9) before the group and 10 (sd=10) after the group. Although the mean score did decrease following participation in the group, it was not to a significant degree (t=1.29, df=18, p=0.21).

When mothers were asked directly about depression during the interview, 30% (n=6) reported having postnatal depression, with 35% (n=7) saying they did not and 7 did not know. Since the child was 1 year old, 35% (n=7) had depression, half of whom received treatment. There was no correlation between a high score on the Beck Depression Inventory and a history of depression since the
child was born.

3.2 Measurement of Expressed Emotion (EE)
Expressed emotion was rated using the audiotape of the full CFI-C interview pre and post group to rate each of the five scales. Thus, a total of 40 tapes were rated. The lengths of the interviews varied from 50 to 100 minutes with the average length being 84 minutes (sd=14mins) before the group and 81 minutes (sd=16) after the group.

3.2.1 Reliability Study
A random subset of the sample was used to conduct a reliability study. Following a discussion with Vaughn (personal communication, 1999), it was agreed that 8 was a sufficient number to conduct the reliability test. Therefore, a total of 8 tapes were rated by another trained rater in EE who had attended the two week EE course. Four of the tapes had accompanying transcripts and 4 were rated directly from the tape. Intraclass correlation coefficients were calculated by single estimations using a one way random effects model for the critical comments and positive remarks scales. Weighted kappas were computed for the warmth, emotional over-involvement and hostility scales. Scores were weighted as follows: same score=1, difference of 1 between scores = 0.67, difference of 2 between scores = 0.33 and difference of three or more = 0.

The intraclass correlations for critical comments was 0.84 and positive remarks were 0.36. The agreement for positive remarks was quite low but as it is not part of the criteria for the cut-off for high EE, the lower correlation between the raters is acceptable. Using the weighted kappa, the agreement for hostility was the highest, being classified as ‘very good’ (Altman, 1991) and the agreement for warmth and EOI fell into the ‘good’ range. These figures are illustrated in Table 3.
Table 3: Inter-rater reliability of Expressed Emotion Scales

<table>
<thead>
<tr>
<th>EE Scale</th>
<th>Intra-class correlation</th>
<th>Kappa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical comments</td>
<td>0.84</td>
<td>-</td>
</tr>
<tr>
<td>Positive remarks</td>
<td>0.36</td>
<td>-</td>
</tr>
<tr>
<td>Warmth</td>
<td>-</td>
<td>0.74</td>
</tr>
<tr>
<td>Emotional over-involvement</td>
<td>-</td>
<td>0.65</td>
</tr>
<tr>
<td>Hostility</td>
<td>-</td>
<td>0.80</td>
</tr>
</tbody>
</table>

3.2.2 Expressed Emotion as rated from the CFI-C audiotape

The distributions for the critical comments and positive remarks were not normally distributed so non-parametric statistics were used to compare the differences pre and post group. As warmth and emotional over-involvement were rated on a five point scale they could not be normally distributed. Therefore the pre and post group scores for these four scales were compared using Wilcoxon's ranked pairs test (2-tailed) and the results illustrated in Table 4. Hostility was rated as being either present or absent and the McNemar statistic used to test for differences. The results of this are illustrated in Table 4a.

Table 4: Expressed Emotion scores pre and post group

<table>
<thead>
<tr>
<th></th>
<th>Pre group</th>
<th>Post group</th>
<th>Significance of difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean (sd)</td>
<td>range</td>
<td>mean (sd)</td>
</tr>
<tr>
<td>Critical comments</td>
<td>4.6 (4.5)</td>
<td>0-15</td>
<td>2.3 (3)</td>
</tr>
<tr>
<td>Positive remarks</td>
<td>3.3 (2.3)</td>
<td>1-9</td>
<td>4.1 (2.2)</td>
</tr>
<tr>
<td>Emotional over-involvement (EOI)</td>
<td>0.4 (0.8)</td>
<td>0-3</td>
<td>0.4 (0.9)</td>
</tr>
<tr>
<td>Warmth</td>
<td>2.6 (1.5)</td>
<td>0-5</td>
<td>3.5 (1)</td>
</tr>
</tbody>
</table>
Both the criticism and the warmth scale changed significantly following the intervention. The criticism scale which measures the number of critical comments during the interview decreased from an average of 4.6 to 2.3, following the group intervention which is a significant decrease. The warmth scale changed significantly with more mothers being rated as being warm (in tone and content) when discussing their child. The number of positive remarks increased from an average of 3.3 to 4.1, although, this was not to a significant degree. The emotional over-involvement scale did not change following the intervention.

Table 4a: Frequency of Hostility scores present and absent pre and post group

<table>
<thead>
<tr>
<th>Pre group</th>
<th>Post group</th>
<th>Significance of difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hostility absent</td>
<td>Hostility present</td>
</tr>
<tr>
<td>Hostility absent</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Hostility present</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

As only few cases were rated as hostile before the group, the hostility scale was recoded to indicate hostility present or absent, rather than investigating the generalized and rejecting hostility separately. Eleven of the mothers were not rated as hostile either before or after the group. Five mothers were rated as hostile before the group but not rated as hostile after the group and four were rated as hostile both before and after the group. None of the mothers were rated as hostile after the group but not before the group. Using the McNemar exact probability test no significant difference was found for hostility pre and post group.
3.2.3 High Expressed Emotion cut-off

A variable was computed to classify ratings of high and low EE. The criteria used for rating high EE are a rating of hostility, and/or emotional over-involvement, and/or critical comments more than 4 (Vostanis et al, 1994; Vaughn & Leff, 1976). The new variables were called overall expressed emotion b (pre group) and a (post group). Table 5 shows the frequency of high and low expressed emotion before and after the group.

Table 5: Frequency of overall EE scores pre and post group

<table>
<thead>
<tr>
<th>Pre group</th>
<th>Post group</th>
<th>Significance of difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low EE</td>
<td>High EE</td>
</tr>
<tr>
<td>Low EE</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High EE</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

A total of 7 mothers were rated as having low expressed emotion both before and after the group. Nine mothers were rated as having high expressed emotion before the group, but not after the group. Four mothers had high expressed emotion both before and after the group and none of the mothers were rated as having low expressed emotion before the group and high expressed emotion after it. Using the McNemar exact probability test, a significant decrease in expressed emotion was found following participation in the parenting group. The difference between the proportion of mothers being rated as high expressed emotion pre and post group was 0.45, with a 95% confidence interval from 0.18-0.63.
3.2.4 Correlation of EE scores with CFI-C global criticism and warmth scores

Following completion of the CFI-C interview, the interviewers had to rate the level of warmth and criticism on four and five point scales respectively according to criteria documented in the manual. These criticism and warmth scales are referred to as global criticism and global warmth to distinguish them from the criticism and warmth EE ratings already discussed.

Table 6: Global warmth and global criticism as measured by the CFI-C

<table>
<thead>
<tr>
<th></th>
<th>Mean scores (sd) as measured from the PACS</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-group</td>
<td>Post group</td>
</tr>
<tr>
<td>Global warmth</td>
<td>1.35 (0.88)</td>
<td>1.80 (0.83)</td>
</tr>
<tr>
<td>Global Criticism</td>
<td>1.22 (0.81)</td>
<td>1.67 (1.08)</td>
</tr>
</tbody>
</table>

The global warmth scale which rates warmth on a four point scale with the higher the scale, the less warmth (0 - great deal - 3 - little, note: this is the opposite direction to the EE scoring). The global criticism scale is also rated on a scale, rather than as a frequency count like the EE rating. The higher the scale, the more critical the parent (0-no criticism - 4-a lot of criticism). These global scales were investigated for this sample and it was found that although the changes before and after the group do not change significantly, they are in the desired direction, ie: the warmth increases and the criticism decreases.

Spearman's rho correlations were computed between these global warmth and global criticism scales and the EE warmth and criticism scales. There was no significant correlation between these, either before or after the intervention (before group, \( r_s = 0.112, p=0.62; r_s = -0.27, p=0.24 \) for criticism and warmth respectively; after group, \( r_s = 0.55, p=0.06; r_s = -0.29, p=0.22 \) for criticism and
warmth respectively). Given the low correlation between these variables, these could not be used as a measure of warmth and criticism according to the strict rating criteria for expressed emotion and hence no further analyses took place using these 'global' scores. This does indicate that these different ways of measuring the 'warmth' and 'criticism' constructs are actually measuring different things and highlights the importance of the EE training, using the strict criteria and reaching an adequate inter rater reliability.

3.3 Qualitative Information

Examples of five case studies are provided to demonstrate the quality of the mothers attitudes about their children and to illustrate some of the changes in the mothers comments in their discussion of their children following participation in the parenting group. The case studies chosen for the purpose of this are those mothers who change from being rated as having high expressed emotion before the group to low expressed emotion after the group. A brief outline of the family will be provided, followed by the details of the expressed emotion ratings for each criteria before and after the group. This will be followed by a discussion on the criteria, highlighting relevant information.

**Note 1:** Ratings of critical comments and positive remarks are frequency counts with emotional over-involvement and warmth being rated on global scales. Hostility is rated as present (1) or absent (0).

**Note 2:** Criteria for rating high expressed emotion - a rating of hostility, and/or emotional over-involvement, and/or critical comments more than 4
Case study 1

Mother of ‘A’, a four year old boy, living at home with his parents and two siblings.

<table>
<thead>
<tr>
<th>Expressed Emotion criteria</th>
<th>Before group</th>
<th>After group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical comments</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Positive remarks</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Hostility</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Emotional over-involvement</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Warmth</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

During the interview prior to the group, mother of A discussed the problems with A in a relatively flat tone giving the impression of some frustration along with resignation to the difficulties she was experiencing with A. She made a number of critical comments regarding A such as 'he expects me to run around him', 'he goes up and torments both of them', 'I think he's a little sod', 'he winds me up'.

Before the group, she was rated as hostile due to her comments which appeared to attack A for what he is rather than what he does and to be quite rejecting of him, for example saying 'I think he's a little sod', 'sometimes I feel like killing him', 'I stay in the kitchen to keep away from him', 'I hate him at times'.

There was evidence of warmth in her tone of voice during the interview although an number of opportunities to elaborate on positive points were not taken up, eg: in response to questions asking what he is good at.

Following the group, no evidence of hostility was found during the interview and the number of critical comments decreased to below the threshold for rating of high expressed emotion. Some critical comments were made such as 'he makes a mess of the place', 'his behaviour in general sometimes can be annoying', 'he can be nasty when he want to be'. However, even when describing some of the difficult behaviour, mother of A remained quite warm in tone and seemed more accepting of his behaviour. Positive remarks included saying 'he is better than
normal', 'he can be so good sometimes' and he is quite honest really' and she was able to use the opportunities to elaborate on when A was being good. She also remarked that the group had helped her to use disciplinary strategies more effectively which seemed to help her feel more empowered when dealing with A.

**Case study 2**

Mother of 'B', a 6 year old boy who lives at home with his mother, his step-father and one sibling.

<table>
<thead>
<tr>
<th>Expressed Emotion criteria</th>
<th>Before group</th>
<th>After group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical comments</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Positive remarks</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Hostility</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Emotional over-involvement</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Warmth</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Mother of B made a number of hostile remarks regarding him during the interview prior to the group such as 'I suppose I am ashamed of him', 'I didn't want him in the room anywhere near me', 'I feel the victim in all this and feel very angry at him'. Her overall approach to the interview was to describe the problems in a relatively cold matter of fact, quite detached way. There was little evidence of warmth, although her tone increased in warmth when describing how they cuddle each other and have fun together. She was critical in tone when describing his behaviour, such as 'he is always cheeky, every day', 'he argues constantly', 'he is irritating' and she reached the threshold level for criticism.

Following the group, no evidence of hostility was detected and mother of B went below the threshold level for criticism, making less critical comments about B than she had initially, only making reference to 'he is so loud and overpowering'
and 'he is not a polite child'. Her tone when discussing B became more warm and empathic and she described the difficult behaviour with less critical tone in a more factual and objective way. At one point in the interview, mother of B became quite tearful and self-blaming when discussing his temper tantrums and rudeness, wondering if 'it is all my fault' and 'what have I done to cause these difficulties' so providing some evidence of emotional over-involvement, although it did not reach threshold level. A similar number of positive remarks were made both pre and post group.

Case study 3
Mother of 'C', a 3 year old boy who lives at home with his mother and two siblings.

<table>
<thead>
<tr>
<th>Expressed Emotion criteria</th>
<th>Before group</th>
<th>After group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical comments</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Positive remarks</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Hostility</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Emotional over-involvement</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Warmth</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Mother of C was rated high expressed emotion on the basis of the rating of hostility rather than the number of critical comments which did not reach threshold level. Evidence of hostility was found in remarks such as 'he just can't do anything the right way', 'it's got to the stage where I just can't pity him', 'he is just so annoying, 'it makes me not want to do things with him'. No evidence for emotional over-involvement was found either pre or post group, indeed evidence against it was found before the group when mother of C talked about 'not feeling at all sympathetic even if he falls down' and saying 'I think to myself don't be such a baby'. Mother of C also showed evidence of warmth in discussing her son, laughing a lot in an empathic way and attributing some of the difficulties to
herself rather than constantly blaming C. She made similar number of positive remarks before and after the group, such as 'when it come to reading he's very good and outstanding when it comes to writing' although she did not necessarily expand on the positive traits when given the opportunity in the interview.

Following the group, no evidence of hostility was found and some references were made to changes in C's behaviour which she had noted over previous weeks such as 'it's funny to say its getting better, but it has improved' in answer to questions about his attention and concentration. Comments referring to changes in disciplinary procedures and their consequences were also made and spoken of in a positive manner such as 'I now remind him what he is doing wrong and then send him to his room and he goes which is good'.

**Case Study 4**

Mother of 'D', a 4 year old girl living at home with her mother.

<table>
<thead>
<tr>
<th>Expressed Emotion criteria</th>
<th>Before group</th>
<th>After group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical comments</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Positive remarks</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Hostility</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Emotional over-involvement</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Warmth</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Mother of D changed from high to low expressed emotion on the basis of the change in hostility score after the group. Again, like the previous case study, the number of critical comments did not reach threshold level either before or after the group to contribute to the criteria for high expressed emotion, nor was emotional over-involvement rated either. Comments such as 'I hate her', 'I don't love my own child' and 'I don't think she is normal' were strong evidence for the presence of hostility towards D. Answers to questions were rather monosyllabic
with little elaboration even when prompted, nor did mother of D use opportunities in the interview to focus on the positive aspects of her daughter. Following the group a number of positive comments were made such as 'she is trying now', 'she is getting better', '....better at paying attention to what I say' and spoke about how the group helped her to see the problems with her daughter in a more positive and less frustrating light. Descriptions of her daughters behaviour, although still at times difficult, were discussed in a warmer tone and in a more chatty manner than during the first interview.

Case study 5
Mother of 'E', a 6 year old girl, living at home with her mother.

<table>
<thead>
<tr>
<th>Expressed Emotion criteria</th>
<th>Before group</th>
<th>After group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical comments</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Positive remarks</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Hostility</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Emotional over-involvement</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Warmth</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Mother of E was a particularly interesting mother to rate for expressed emotion. Prior to the group, she was highly critical and hostile towards her daughter, both of which decreased following the group. Her hostility, which was both of a generalized and rejecting type was probably the most marked out of all the mothers rated for the purpose of this study. Many hostile and critical comments were made such as:

'....it makes me itch, its like having a live electric cable there in front of you and it makes me... and I just want to hit her and I want her to punch her to make her stop',
'I can't bear for her to touch me anymore',
'...and I can't bear it and her constant talking makes me dislike her more than anything in the world',

...
I keep out of her way and I won't go anywhere near her',
'I'd like to get up and leave cos I can't see any end to it'
There was a total lack of warmth in her tone when discussing her daughter, even when highlighting what she does well on being asked directly.

Following the group, although some critical comments were made, often mother of E negated their effect by following the comments by saying things such as 'oh, I don't really mean that' or comments such as 'I quite fancied not having her for a week, but I couldn't go through with it'. She continued to find difficulties in her daughter's behaviour but spoke about the specific behaviours which were difficult such as having temper tantrums and being cheeky rather than attributing the behaviours to being innate parts of her daughter's personality and temperament. Therefore, she could look at the specific behaviours and use disciplinary strategies to attempt to deal with them rather than feeling her daughter was 'out to get at her' by behaving in a certain manner. References were made in the follow-up interview to how the group had allowed her to reappraise her daughter's behaviour which she felt had contributed to the improved relationship between the two of them.

3.4 Factors associated with Expressed Emotion
The number of cases classified with high EE decreased following the group. The dichotomy of high/low expressed emotion will be investigated first to examine the variables associated with high and low expressed emotion. Variables which have been hypothesized to be associated with expressed emotion will be examined including child behaviour and socio-demographic characteristics. As the criticism and warmth scales were found to change most significantly following the intervention, these will also be used for further analyses to investigate the factors associated with them.

When the EE variable was correlated with the child behaviour variables namely the PACS conduct and hyperactivity scores, no association was found between
high EE before the group and either conduct or hyperactivity scores. EE after the
group was found to be significantly correlated with conduct scores after the
group ($r_s=0.56$, $p<0.05$). Therefore, the EE environment at the start does not
appear to be related to level of conduct problems in the child. It may be that
those children whose behaviour did not change, their mothers continued to feel
quite negative towards their children.

From the literature, factors hypothesized to be related to conduct problems were
further investigated in relation to EE. Using Spearman's rho, socio-economic
status (as measured by mothers education, benefits (including the amount
collected weekly and amount of time on benefit)), and being a single mother
were found not to be associated with EE either before the group or following the
group. Mother's depression, age of child and mother as well as gender of child
were also found not to be associated with EE.

Attendance at less than six group sessions is related to high EE after the group
($r_s=-0.49$, $p<0.005$) indicating than attendance at the group does have some
relationship with lower EE scores. Agreement between parents on the
disciplinary strategy to use for their child improved significantly following the
group, and this was also found to be related to EE after the group ($r=0.89$, $p<
0.001$), although not before the group. Therefore, a low EE environment is
related to better disciplinary consistency at home.

3.4.1 Factors associated with critical comments

The average number of critical comments decreased significantly following the
intervention, and indeed it was the component contributing most to the high EE
ratings. Further analysis took place to investigate the factors which were
associated with high criticism before and after the intervention.

Again, the variables which were investigated in relation to EE were investigated
in relation to number of critical comments and using Spearman's rho, socio-
economic status (as measured by mother's education, benefits (including the amount collected weekly and amount of time on benefit)), and being a single mother were found not to be associated with level of criticism either before the group or after the group. Age of child and mother as well as gender of child were also found not to be associated.

Using Spearman's rho, the main factor which was associated with criticism was the level of depression in the mother, as rated by the Beck Depression Inventory. The number of critical comments before the group was related to the Beck Depression score before the group ($r_s=0.68$, $p<0.001$). This indicates that level of depression is associated with level of criticism before the intervention. Both scores decreased following participation in the group and continued to correlate significantly ($r_s=0.64$, $p<0.001$) with high criticism being related to Beck depression scores.

Agreement between parents following the group was correlated significantly with level of criticism ($r_s=0.81$, $p<0.05$) following the group, indicating that those who were less critical were more likely to agree at home on how to manage the child. Attendance at more than 6 group sessions was not found to be significantly correlated with criticism after the group.

To investigate how criticism is related to child problems, Pearson correlation coefficients were computed for the three problems subscales of the PACS. It was found not to be significantly related to the conduct, hyperactivity or emotion scores either before or after the group. However, with regard to the conduct scores, there was a higher correlation between criticism and the conduct scores at pre group than post group ($r=0.3$, $p=0.19$; $r=0.04$, $p=0.37$ respectively) indicating that more conduct problems are associated with a higher level of criticism, which has been found by previous studies. A larger sample may help elucidate these findings more clearly.
Number of critical comments before and after the group was significantly correlated \((r=0.59, p<0.001)\) indicating that those who are highly critical before the group, remained more critical following the group.

3.4.2 Factors associated with Warmth

Warmth also changed significantly following participation in the parenting group, hence the factors associated with it were investigated more thoroughly. Spearman's rho were computed in the same way as above using the warmth variable. No association was found between warmth before and after the group and age of child and age of mother, gender of child, mother's education, benefits (including the amount collected weekly and amount of time on benefit), and single mother status.

When warmth was correlated with the child behaviour scores, there was a negative correlation with both the conduct and hyperactivity scores although it did not reach significance. This indicates that the higher the scores for disruptive and hyperactive behaviour, the less warm the mother was towards the child.

There was no correlation between attendance at group for more than 6 sessions or agreement between parents on disciplinary strategies to use.

3.4.3 Atmosphere change

In order to decipher the effect that changes in criticism and warmth may have, a 'total atmosphere change' variable was computed using the criticism and warmth variables. No significant associations were found with the variables mentioned above nor were significant correlations found between atmosphere change and the child behaviour symptom scores.
Chapter 4

DISCUSSION

This study set out with a number of aims regarding the measurement of expressed emotion (EE) in young children with conduct problems and how levels of EE change following the participation of their mothers in a parenting group. The results of this investigation confirm some of the findings of previous research and highlight further issues.

EE is an empirically derived ‘construct’ which has been heavily researched in the adult literature and only more recently has it been examined in the domain of child psychological and psychiatric literature. Initially developed for the measurement and classification of emotional environment, its association with relapse in schizophrenia and other long term mental health problems, led to EE being targeted in family work to bring about changes to help prevent relapse. Similarly, parallel work is taking place with the younger population; not only is the question about what EE is and how to measure it in children being addressed, but also its relationship to child psychiatric and psychological problems and its use in understanding the complex interactions which cause and maintain these problems.

This study used a clinical sample, randomly selected from a large intervention study, which is evaluating parenting training groups as a treatment for children with conduct problems, one of the first of its kind in Europe. This sample represents just under one third of the whole sample from the larger study. One of the main questions of the primary study is whether parent training is effective in treating conduct problems in young children who have been identified at an early age as presenting with difficult behaviour. The preliminary findings suggest very positive changes in child behaviour with a decrease in conduct problems following mothers participation in the group. This study took a
subsampling and attempted to elucidate how the emotional atmosphere and environment changed, and the factors which were associated with these changes.

4.1 The general findings of the study

Overall, the characteristics of the sample were very similar to the profile of children who present to services with conduct problems. Only one in four of the children in this study was female. This proportion is the same as in the larger study and is in agreement with sex ratios found in other research studies and referral patterns of conduct problems to secondary and tertiary level services. Only half the families had both biological parents living at home so high levels of family breakup and single parents made up the sample. This, in addition to the low academic levels of the parents may be seen as relatively typical of the social environment of children with conduct problems. Although there was no measure of socio-economic status per se, single parenthood and leaving school early are often associated with lower socio-economic status.

With regard to the clinical features of the sample, it was of no surprise to find that the highest scores fell into the category measuring conduct problems and that these reached a clinically significant level. Following the intervention, this score decreased significantly, indicating that the parent groups were effectively targeting the difficult behaviour and bringing about improvements. Although, the main aim of this study was not to evaluate the parent group, it is of interest to show that within this subsample, the parent training groups were successful in the main aim. This has also been shown for the whole study (Scott, personal communication).

4.1.1 The measurement of Expressed Emotion

The measurement of EE and changes following the participation in parent groups was the main focus of this study and certainly the aim to do this has been
achieved. The instrument used, the Camberwell Family Interview for Childhood (CFI-C) which encompasses a clinical interview to identify child problems across three symptom domains with further questions added which were derived from the CFI adult version, was effective in measuring mother's EE and had acceptable inter-rater reliability. As Scott and Campbell (in press) conclude in their psychometric study of the instrument, it is a reliable and valid way to measure EE that is sensitive to change and only adds 15-20 minutes to an appropriate semi-structured interview of child symptomatology. It does however, take between 1-2 hours to rate, as the audiotape of the whole interview must be listened to and the five EE scales rated. It is therefore a relatively time consuming method although more reliable than the shortened instruments often used in the literature, such as the FMSS.

Inter-rater reliability was conducted with another rater also trained in rating EE. The rating of positive remarks had the lowest correlation but the other scales all reached acceptable levels and are similar to the inter-rater reliability reached in other studies (eg: Vostanis et al, 1995)

Other studies have also used modified versions of the CFI eg: Vostanis et al (1994, 1995), Dare et al (1999) who measured EE in adolescents with eating disorders and Sensky et al (1991) who investigated EE in children with diabetes. In Sensky's study, the main framework of the CFI was used with additional questions specifically regarding diabetes being added. This appears to be the approach of many studies investigating EE, to take the CFI and modify it according to the needs of the particular study. The advantage of the CFI-C is that it incorporates a semi-structured psychiatric interview which is one of the most effective ways of measuring child psychopathology for research purposes, rather than just using questionnaires or other scales. Therefore, it can be argued that the additional measures of EE are easier and less time consuming to carry out as a specific interview just for this purpose would not be required.
4.1.1.1 Global EE ratings versus the full EE ratings

At the end of this CFI-C interview, a global rating of warmth and criticism is made by the interviewer based on impressions from the interview, according to detailed criteria in the manual accompanying the CFI-C interview, but without the detailed count method of the full CFI. When comparisons were made with these global warmth and criticism ratings and the warmth and criticism ratings using the strict EE criteria, no correlations were found between the two. This does suggest, that the warmth and criticism scale do require an in-depth understanding as to their rating and that for research to be valid and comparable, a standardized training is required. As no correlations were found, these global interview scores could not be used further to increase the sample in the exploration of warmth and criticism in relation to child conduct problems.

4.1.2 The initial levels of Expressed Emotion

Out of the total sample, just under half of the mothers scored as being high EE and this was due to either a high criticism rating and/or a rating of hostility rather than to emotional over-involvement. The measurement of emotional over-involvement in children requires a specific mention and this will be addressed later in the discussion. This rate of high EE is larger than that found in the study conducted by Vostanis et al (1994) who reported just under one third of mothers in a clinical sample of mixed conduct and emotional problems falling in the high EE category and none in the control sample. They did not analyse the dichotomy of high/low EE by diagnosis so it is not clear how many from the conduct disorder group were rated as high EE. Hibbs et al (1991) and Kershner et al (1996) both using the FMSS, found very high levels of high EE. In Hibbs et al (1991), using a clinical group including children with obsessive compulsive disorder and disruptive behaviour disorder, high EE levels of 80-90% were found. Kershner et al (1996) rated 19 out of 20 mothers of children in a mixed clinical sample as being high EE. It is important to note that the FMSS does not correlate well with the CFI and only one critical remark would warrant a rating of criticism using this method, which may well account for the high rates found.
in these studies. This study seems to fall mid way between other studies in the number of high EE mothers. One hypothesis regarding the relatively high rate of mothers rated as being high EE in this study, may be due to the high criticism rate of the mothers towards their children and that a strong correlation between maternal critical comments and child conduct disorder has been shown in the literature (Vostanis et al, 1994). This association also exists for non clinical samples.

With regard to the individual components of EE found in this study, at the pre group stage an average of 4.5 critical comments were made by the mothers compared to 2.3 found in the study by Vostanis et al (1994) in their conduct problem group. The average warmth rating was very similar in both studies, as was the EOI rating. Vostanis et al (1994) found less positive remarks and fewer mothers were rated as hostile than in this study.

4.1.3 Change in Expressed Emotion following participation in the parenting group

When EE was rated following mothers participation in the parenting group, the main findings of this study support those found in other studies of children with conduct problems (eg: Vostanis et al, 1995; Sensky et al, 1991; Hibbs et al, 1991). Overall, there was a significant decrease in maternal EE following the group so confirming one of the study's hypotheses. Although, this finding must be considered tentative due to the small sample number, using 95% confidence intervals the difference found before and after the group could be as low as 18% or as high as 63%.

With respect to the components of EE, there was a decrease in the average number of critical comments following the intervention and an increase in the rating of warmth, thus confirming two of the study's hypotheses. No change occurred in the emotional over-involvement scale confirming a third hypothesis,
although it must be kept in mind that it received an overall low rating with no mother being rated highly as being emotionally over-involved. With regard to the hostility score, no significant difference was found following participation in the group, hence not confirming one of the studies hypotheses.

Given the overall change in EE, one hypothesis is that the intervention mediated a decrease in EE and so changed the emotional climate in which the child lives. A qualitative study of case studies lends some anecdotal evidence to support the view that the group may have played some role in decreasing EE, although to clarify this empirically, a larger sample size would be required, in addition to a control group to examine for spontaneous change over time without intervention. This hypothesis may also be tentatively supported by the relationship between high EE and attendance at less than 6 group sessions which suggests that the mothers who attended more than half the number of sessions had lower EE levels at the end of the group.

The quality of the tone and content of the mothers comments following the group in answer to questions about their childs' behaviour changed, specifically in respect to criticism and warmth. The rating of expressed emotion relies highly on assessing tone, pitch, speed and inflection of the voice, hence it is difficult to quantify verbally, but it is these aspects which can render a comment, for example, either critical or non-critical. The comments 'he winds me up', 'she is devious' and 'she is going on like a 3 year old' could be a description of behaviour but if said in a critical tone would count as a critical comment. However, some comments may be strong enough in content alone to be critical if some dissatisfaction or regret concerning the behaviour, or a desire for things to be different were expressed, such as 'I wish she would behave properly in public, but she just shouts and roars if she doesn't get her own way....'. If a mother expressed dissatisfaction about some aspect of their child but did not attribute blame to the child, but rather some other factor over which the child has little or no control, they would be less likely to be rated as being critical.
Hostility is a key criteria for the rating of EE and the core difference between ratings of hostility and criticism is when a child is 'attacked for what s/he is rather than what s/he does ..... and negative feeling is generalized in such a way that it is expressed against the person themself rather than against particular behaviours or attributes' (CFI manual). Critical comments are not necessarily hostile, but some hostile comments could also be rated as critical e.g. 'I don't like him', 'her constant talking makes me dislike her even more' In this study the distinction between generalized and rejecting criticism was not made due to the small numbers being rated as hostile in the sample. Larger numbers would allow this differentiation to be made and explored further which may potentially help the understanding of this EE criteria and its relevance to child behaviour.

The theoretical rationale for the parenting group, as well as to provide information on disciplinary strategies, is also to reframe the behaviour of the child, focus on the positive behaviour and use strategies to improve the relationship. Mothers are helped to focus on specific behaviour of the child and by setting goals framed positively rather than in the negative e.g. rather than saying 'I want x to stop interrupting me every time I speak to someone else' saying 'I want x to wait until I have finished talking before trying to get my attention' or saying 'I want x to sit at the table for his meals' rather than 'I wish x would stop jumping up and down from the table every meal time'. Discussions about appropriate developmental expectations are also important so unrealistic expectations are not made of young children e.g. expecting a three year old to be able to tidy the bedroom and put away all the toys. Breaking the tasks into smaller parts and helping mothers focus on ways of asking and helping their children to learn how to do them often increases compliance of the child. Giving commands effectively so it is clear to the child what is expected e.g. 'put your cars in the toy box' will be clearer than 'tidy all your toys away'. Therefore, it may be these aspects of the parenting group which assist mothers to reappraise the difficult behaviour of their children and attribute it less to the child but to take into account other factors also. As such, their view of the child may shift to some
extent which may have an effect on their relationship with the child and the emotional atmosphere between them. Hence, the measurement of expressed emotion may change, as measured by their tone of voice, attitudes and comments about the child. The content of the parenting group is discussed in more detail in a later section.

It is, however, clear that the level of expressed emotion in some mothers does not change and they remain critical and hostile towards their children following participation in the group. Whether this is related to lack of change in child behaviour, relapse following group participation or other external factors is unclear and an area for future study.

The significant changes in critical comments and warmth and the lack of change in positive remarks and emotional over-involvement, is similar to that found by Vostanis et al (1995) who followed up their sample after a nine-month period during which time the children and mothers attended an average of two outpatient clinic appointments. This follow-up period is longer than in the present study, in which on average four months elapsed between first and second assessment, during which time the mothers participated in an intensive intervention. Due to the lack of a control group, it is not possible to say whether a change in criticism, warmth and overall EE would have occurred spontaneously. However, this study has more mothers rated as high EE as well as higher ratings of criticism and hostility and the shorter follow-up time may suggest that the intervention did have some part to play in the reduction of these ratings, but this conclusion cannot be supported by empirical evidence and clearly the lack of a control group is a limiting factor in this study.

In this sample, hostility and criticism were highly correlated so that the mothers who were critical were also hostile and vice versa. This is not necessarily a foregone conclusion as some studies investigating cultural differences in subscale intercorrelations have demonstrated. Leff et al (1987) in an Indian
based study found that high criticism was as likely to be associated with warmth as low criticism was. However, this association between hostility and criticism and the low correlation between criticism and warmth has been found in other British studies. Cultural differences have not been explored widely in child populations and this may be an area to develop further in future research.

4.1.4 The relationship of expressed emotion to child behaviour

No significant correlation was found between the three symptom domains and high EE before the group thus not confirming one of the study's hypotheses that high EE is associated with child behaviour problems.

However, when investigating the components of EE, although it did not reach statistically significant levels, criticism was found to correlate most highly with conduct scores before the group, compared to the other symptom domains. This agrees with the conclusions of other studies, both in clinical samples and community samples (Stubbe, 1993; Vostanis, 1992). The small number of participants may be a factor in detecting significant associations and this issue should be kept in mind for future research. However, high EE did correlate with conduct scores after the group intervention. Therefore, there was an association between child behaviour problems and a high EE environment at home but only at the post group stage. The question is, did the conduct problems continue, or rather fail to decrease to the extent which might be expected because of the high EE, or did the EE remain high because of the extent of the child behaviour problems. Alas, this question cannot be answered adequately within this study.

Warmth correlated negatively with both conduct and hyperactivity scores, suggesting that difficult child behaviour is associated with less warmth, but the results suggested that as the behaviour improved, the mother became warmer towards her child.
One thought was that the additive effect of the decrease in criticism and the increase in warmth is the important factor. Therefore, it is the changing of these two scales simultaneously which may be the key. An 'atmosphere variable' was computed to account for this change but no significant associations were found with either the child behaviour or socio-demographic characteristics. This may support the idea which Vostanis et al (1995) put forward that it is the absence of criticism rather than the presence of warmth which is important. This would be supported by parenting research, indicating the importance of a non-critical environment as contributing to good parenting (Rutter et al, 1970; Richman et al, 1982).

4.1.5 The relationship of expressed emotion to other variables

It was hypothesized that variables which are associated with conduct problems in children, may also be associated with high EE in mothers. A number of 'social' factors such as lone parent, time on benefits, age leaving school, age of mother and gender of child were investigated but no correlation was found between these variables and high expressed emotion, criticism and warmth. This finding is in agreement with Hibbs et al (1991) and Parker and Johnson (1987) findings who concluded that high EE is spread evenly throughout social class, gender and age. Similar results were also found by Stubbes et al (1993) in an epidemiological sample.

It may be concluded from this that it is not these factors in themselves which produce high EE, but rather it is a complex interaction between a variety of factors including child behaviour which must be taken into account. Regression analysis would have been required to explore the relationship to each of these variables but the sample was not large enough to carry this out.

Parental psychopathology is widely identified as being a risk factor for poor parenting and child outcome. Parents with affective disorder have higher rates of high EE (Schwartz, 1990) and parental psychopathology is one of the most
consistent variables associated with high EE in the literature (Hibbs et al, 1991). In this study, depression in mothers, as measured by a widely used research tool, the Beck Depression Inventory, was found to be associated with expressed emotion. Maternal depression was found was to be significantly associated with the number of critical comments before the group, thus confirming another of the studies hypotheses. Both the depression score and the criticism score decreased following participation in the group and continued to be correlated at the post group stage. Therefore, depression was seen to improve following the group and was not an obstacle to bringing about change. Perhaps depression is one of the mediating variables in the process of change and an improvement in this will in itself improve both child behaviour and EE. There is no correlation between maternal depression and maternal warmth in this sample which does not support one of the study's hypotheses.

Parents' causal attributions reflect the parents' evaluation of the child's behaviour and are related to their reported and observed reactions to the child (Bugental, Mantyla & Lewis, 1989). High EE has been shown to be associated with poor coping strategies (Kuipers & Bebbington, 1988). Also, those rated as high EE have an internal locus of control, meaning that internal factors are perceived as controlling events and behaviour. In studies investigating parental attributions for child behaviour, parents in non-problem families hold a positive attributional bias for their children's behaviour, attributing success to internal, stable factors and failures to external unstable factors (Dix & Grusec, 1985). This positive attributional bias does not seem to occur in abusive parents who instead blame their children when they fail and similar results have been found in children with hyperactivity (Mash & Johnston, 1990). No correlations were found in this study with parental perception of locus of control for the child's problem and either coping or child behaviour. However, it may be that the numbers were too small to detect changes. No changes in maternal cognitions were found using the locus of control measure before and after the group, which is surprising. Maternal cognitions and attributions are seen to be of vital
importance in bringing about change and indeed, these were a focus within the
group. Further consideration needs to be given to this area in future research.

Agreement between parents on which disciplinary strategies to use for their child
improved significantly following the group indicating that the group may have
had a role to play in improving parents communication with each other and being
able to discuss how to manage difficult behaviour in their child. Agreement
about the strategies to use was also related to EE after the group. This is
interesting, as only the mothers attended the group. Perhaps being equipped
with good strategies to use enabled the mothers to discuss ways of managing
the child’s behaviour in a more constructive way at home. Those with high EE
and specifically those who were more critical, were less able to reach an
agreement with their partners on how to manage behaviour. Therefore, high EE
may play a role, not just with the child but in other relationships within the family
as well. With regard to parenting, consistency and clear expectations are seen
as important factors in setting boundaries for children, and perhaps this
becomes more difficult in high EE environments.

4.2 The rating of emotional over-involvement
The measurement of emotional over-involvement (EOI) and indeed its definition
requires a specific mention in this context. Emotional over-involvement is seen
as one of the key EE scales and a rating of three of more immediately classifies
the relative as being high EE. It is seen as a relatively difficult scale to rate for
children (Sensky, 1991; Vostanis et al, 1994). In most studies of EE in child
populations, using the CFI, the authors have stated that the criteria for EE have
been, in the main, strictly adhered to (eg: Vostanis, 1996; Schwartz, 1990). A
number of these studies do mention that the developmental level of the child
must be considered in rating EOI. It seems to be generally accepted that what
may rate as EOI in adults, for example in the overprotectiveness category, may
very well be an appropriate concern for a four year old child. One example of
this may be regarding supervision and rules about where the child can go.
Therefore, it can be surmised that the criteria for rating EOI, as originally developed for adults, are not necessarily appropriate for this age group. The need to develop more appropriate criteria has been mentioned a number of times in the literature, but to the knowledge of this author, no well-established criteria which have been used in a variety of studies are available (personal discussion with others conducting research on EE and children).

Overall, relatively low ratings of EOI have been found to be associated with conduct problems (Hibbs et al, 1991; Stubbes et al 1993; Vostanis et al, 1994) although the rates are higher for anxiety and emotional problems. However, it would not necessarily be accurate to compare the levels directly in studies which have used the CFI and FMSS. In the Five Minute Speech Sample, EOI is rated primarily on the basis of statement of attitude eg: 'I worry about him all the time' (Kershner, 1996) which in itself may not necessarily be enough to give a rating of EOI if using the CFI. Overall, in studies using the CFI, the main criteria as developed for adults were adhered to, but these criteria may not necessarily be applicable.

In addition to the discussion about rating emotional over-involvement, Vostanis et al (1996) raised the question of whether the cut-off scores should also be altered to take into account the child population. Weintraub (1996) raises the question about whether young children are more vulnerable than adults to the damaging effects of high parental EE, as they are more helpless, immature, vulnerable and dependant than adults. This is an interesting and thought provoking question and can only be answered by longitudinal studies.

4.3 Expressed Emotion and the content of the parenting group
The aim of the parent training intervention is to decrease problem behaviours and to help parents learn useful strategies to deal with the difficult behaviours exhibited by their child. The intervention is not designed to decrease EE levels, rather the hypothesis of this study is that this is a by-product of the group and
one which may contribute in the explanation of the process by which positive changes come about.

There are a number of components of the Webster-Stratton parenting group model which may account for changes. The overall process of being involved in a parenting group, including the initial engagement and the subsequent commitment to continue attending to bring about change, are certainly positive indicators that the mother wants change. Maintaining good attendance at group meetings, even though they may bring up sensitive and difficult issues is not necessarily easy. The ethos and theoretical background is to change the coercive cycle which has developed between mother and child and help to introduce the mother to experience positive times with her child. Challenge and reframing negative thoughts and identifying and changing cognitions so the mother can begin to reappraise her attributions regarding her child are central to the process of the group.

The group begins with focussing on the positive aspects of the child and approached this by introducing 'Play' as the first topic. This is often somewhat surprising for parents who immediately want to discuss what they can do to deal with their difficult children. The rationale is to refocus the parents attention on having positive times with their child, something which often has not happened between the mother-child dyad for a long time. ‘Homework’ involves spending ten minutes per day ‘playing’ with the child and specific strategies for doing this are discussed within the group and the parents are given the opportunity to role-play these together. These strategies include ‘following the child’s lead’, so allowing the child to be in control using relatively unstructured tasks. ‘Descriptive commenting’ is another strategy whereby mothers comment on what the child is doing as a way of communication, rather than ask questions or place any demands on the child to do what the mother wants. The topic ‘play’ is also useful to open up the discussion regarding expectations of child's behaviour and developmental abilities so mothers can set their goals within a reasonable
developmental framework for their child. This first stage is of vital importance to begin the reframing process and help the mothers to identify positive behaviour in their child.

Only when mothers are comfortable doing this, does the group move on to the next stage of the programme. Therefore, from the very start the focus is on the positive and the improvement of the relationship between mother and child in order to help break the coercive cycle which has been established. In relation to EE, it may be at this early stage that shifts in criticism are being made, as mothers learn to view their child in a different way. Following on from this, strategies to (i) increase prosocial behaviour ie: behaviours mothers want to see more of, and (ii) decrease antisocial behaviours ie: behaviours mothers want to see less of, are covered. This part of the programme helps to change parenting behaviours by equipping the parents with strategies to use, but all the time focusing on what the child can do well and how to replace an antisocial behaviour with a prosocial one. Rewarding good behaviour, ignoring bad behaviour, giving very clear commands and carrying out consistent consequences, are the type of strategies focussed on. Again, homework, role play, watching video vignettes and giving out handouts are inherent parts of the programme to maximize the learning process and increase the mothers effectiveness in dealing with the difficult behaviour. Specific strategies such as time-out are also discussed with the emphasis on using such strategies once other strategies have already been tried. As mothers become more confident in using the strategies discussed, they begin to feel more empowered and in control in dealing with the child. This will help to decrease the problem behaviours and also, the parent will feel more positive towards the child which may result in a change in their interactions. As a by-product of the mothers empowerment and improved ability to deal with her child, the emotional environment as described by the EE construct may be changed. The focus on the positive aspects may help decrease critical feelings or even help them to be reviewed in a more positive light. It may also help change how hostile a mother
feels towards her child whom she may have felt behaved in a certain way to 'get at' her. Such reframing may also affect the way in which a mother views the child and improve the warmth of the mother towards the child. The direction of these effects are not clear. Is it the improvement in behaviour which causes a decrease in EE, specifically criticism and warmth or do these change and result in a subsequent behaviour change? This can only be answered by a larger, randomized control prospective design studies to elucidate the interaction of the changes.

As mentioned above, although not designed specifically to decrease EE levels, the parent group does contain elements of the components used in the family interventions which were developed specifically for this purpose with adult patients eg: education, support and advice. Comments made by parents as demonstrated in the case studies provide some support that the group process and its content does help to change attitudes and attributions regarding behaviour as well as educate parents about developmental expectations for their child. As Falloon (1985) states, it may be that you don't necessarily have to modify attitudes of criticism and over-involvement but instead encourage expression of feelings in a highly direct and specific manner and this in turn may effect the emotional climate in which a child live.

4.4 Expressed Emotion: A State or Trait
There has been much discussion in the literature regarding EE and whether it is a state or trait. The overriding evidence appears to be that it is more likely to be a state induced by high levels of stress or a reaction to a difficult event and this view is supported given that EE levels can be changed and have also been found to decrease naturally. Research with adults shows that a large component of expressed emotion may result from the stress of caring for an ill relative (Hooley, Rosen & Richters, 1995). However, duration of exposure to psychopathology is an important variable and levels of EE increase in proportion to the length of time the relative is ill. Indeed, EE only becomes a significant
predictor of relapse when the patient has been ill for 4-5 years (Hooley et al, 1995).

How these findings apply to children is not clear. Vostanis et al (1995) conclude that EE is a reaction to child psychopathology and that decreases in criticism and warmth were secondary to an improvement in child's symptoms. Schreiber (1995) in a study measuring EE in a child with schizophrenia and a well sibling concludes that warmth and emotional over-involvement are states and that criticism is a parental trait. In a prospective study, Seifer et al (1992) suggest that EE may be a risk factor for poor long-term outcome. Children at age 4 deemed at high risk for psychopathology were followed up at age 13 and EE was found to be one of the many variables associated with poor outcome.

Perhaps it is that some personality types who are high in EE, due to exposure to child psychopathology or for other reasons, have more difficulties changing, whether by an intervention or spontaneously, and so this may lead to worse outcome. Weintraub and Wamboldt (1996) raise the interesting question of whether EE is a phenotypic expression of genetic vulnerability to the same disorder in parent and child? To answer this question, the genetic and environmental contributions to EE need to be teased out in detail, a task which has not yet been tackled in the literature.

Thus, there is no clear answer to the state - trait question. Given that studies have shown changes in EE components, this would indicate that it can be a state, but it is likely that personality factors do have an impact on this.

Much of the research focuses on the effect of high expressed emotion whilst giving little thought to the potential negative effects of low EE. Low expressed emotion may reflect empathy, patience, and respect for the patient but it also may be correlated with undue tolerance for aversive behaviour, low demands an perhaps excessive permissiveness with persons who could function at a higher
level if they were expected to (Hatfield et al, 1989; Kanter et al, 1987).

4.5 Limitations of the study
One of the main limitation of this study is the small sample. Twenty mothers were rated for expressed emotion in relation to their child at two time points but this number may not be large enough to fully explore the role of EE in its interaction with child behaviour problems, nor may it be large enough to detect significant changes. It was beyond the scope of this study to extend the number of participants but this should be kept in mind for future research. In addition to this, the lack of a control group did not allow spontaneous changes in EE to be controlled for and again this is something which should be considered when conducting future research in this area.

4.6 Recommendations for future research
One specific question which EE may be of some help in answering is the issue of dropout which is a real clinical concern in running groups. An examination of whether initial levels of EE affect number of sessions attended and likelihood to drop out of treatment. It is recommended that a larger sample is used and the measurement of EE takes place at more time points such as a longer follow up period following the group to investigate the stability of EE over time.
4.7 Conclusion

This study effectively measures mothers expressed emotion (EE) in a group of children who have been referred to secondary and tertiary level services for conduct problems. Just under half the mothers were rated as high EE prior to the parent training intervention and this decreased significantly following the intervention. Attendance at more than six parent group sessions was associated with lower EE after the group. The criticism and warmth scales were found to change significantly whilst positive remarks and hostility did not change significantly. Overall, none of the mother scored highly on the emotional over-involvement scale and this did not change following the intervention. Depression in mothers was associated with levels of criticism. The small sample and lack of a control group were the main limitations to the study.
REFERENCES


Camberwell Family Interview - Children
PACS SCORES

| EMOTIONAL PATTERN | ATTENTION / ACTIVITY | DISRUPTIVE BEHAVIOUR |

In order to be sensitive to change, the period under question is the last month. Severity rating for an episode which occurs once a month should be included so long as it was not due to exceptional or atypical provoking circumstances. Frequency levels should reflect the occurrence of a mild level of the problem, they should not be confined to the frequency of the most severe problem.
In order to be sensitive to change, the period under question is the last month. Severity rating for an episode which occurs once a month should be included so long as it was not due to exceptional or atypical provoking circumstances. Frequency levels should reflect the occurrence of a mild level of the problem, they should not be confined to the frequency of the most severe problem.
SECTION I: EMOTIONAL PATTERN

1. MISERY.
Is X usually a cheerful child or does he sometimes get miserable?

*If the answer is NO: In the past week, has he been unhappy? How did he show he was unhappy?
*If the answer is YES: Can you describe what he was like the last time he was miserable? Is that what usually happens when he is miserable?

NOTE: Detailed descriptions of the behaviour, such as crying, looks sad etc. should be obtained to ensure that the parent is not talking about defiance: do not count crying as part of a tantrum.

USUAL SEVERITY

No misery 0
Transient misery, lasting less than 6 hours, easy to cheer up 1
Marked eg lasting more than 6 hours or could only be cheered up with difficulty (e.g. long talk or special treat) 2
Severe eg could not be cheered up at all or was talking about a wish to die or run away or too miserable to engage in usual activities 3
Not applicable or situation not arisen 8
No information, don't know or unreliable information 9

NOTE: Rate the most severe problem, even if it is less common than a milder problem, but exclude incidents that are described as highly out of character.

How many days a week would X usually become miserable?
*If the answer is vague: Would it be more or less than 3 days a week?

FREQUENCY OF HIGHEST LEVEL CODED (in the last month)

No misery or less than once a week 0
On 1 or 2 days a week 1
On 3 to 6 days a week 2
Daily 3
Not applicable or situation not arisen 8
No information, don't know or unreliable information 9

FREQUENCY OF LEVEL ONE (in the last month)

Transient misery, lasting less than 6 hours, easy to cheer up:
No misery or less than once a week 0
On 1 or 2 days a week 1
On 3 to 6 days a week 2
Daily 3
Not applicable or situation not arisen 8
No information, don't know or unreliable information 9
2. WORRIES

Does X worry about things, for example school, other people...?

NOTE: A worry is defined as painful or uncomfortable thoughts. A mere preoccupation with something should therefore not be regarded as a worry unless it clearly leads to distress.

*If the answer is NO: In the past week for example, did he worry?
*If the answer is YES: Could you give me an example of what he worried about recently? How long does it last? Is it difficult to reassure him?

USUAL SEVERITY
No worries
0

Mild or transient worrying (easily reassured, little distress, no self-examination, related to clear illness, no interference with activities).
1

Marked, lasting more than 6 hours or difficult to reassure or moderate interference with usual activities or out of proportion to the problem
2

Severe, can not be reassured or marked interference with usual activities, e.g. loss of sleep, not going out etc.
3

Not applicable or situation not arisen
8
No information, don’t know or unreliable information
9

How many days in a week would X usually be worried?
*If the answer is vague: Would it be more or less than 3 days a week?

FREQUENCY OF HIGHEST LEVEL CODED (in the last month)
No worries or less than once a week
0
On 1 to 2 days
1
On 3 to 6 days
2
Daily
3

Not applicable or situation not arisen
8
No information, don’t know or unreliable information
9

FREQUENCY OF LEVEL ONE (in the last month)
Mild or transient worrying:
No worries or less than once a week
0
On 1 to 2 days
1
On 3 to 6 days
2
Daily
3

Not applicable or situation not arisen
8
No information, don’t know or unreliable information
9
3. HEALTH WORRIES

Does X worry about his health? Do you think he imagines that he is ill?

NOTE: If the child has a physical illness such as asthma or diabetes, ask:
Does he worry about it? A child who simply adjusts his life to the illness should not be rated as having a health worry.

*If the answer is NO: For example, in the past week did he worry about his health?
*If the answer is YES: How worried does he get? Can you reassure him? Would it stop him from going out or going to school?

### USUAL SEVERITY

<table>
<thead>
<tr>
<th></th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No health worries</td>
<td>0</td>
</tr>
<tr>
<td>Mild, clearly related to existing illness, little distress, easily reassured, no interference with activities</td>
<td>1</td>
</tr>
<tr>
<td>Marked, fair amount of distress, not easily reassured, moderate interference with activities, occasional self-examination</td>
<td>2</td>
</tr>
<tr>
<td>Severe, very distressed, can not be reassured, persistent self-examination, unrelated to existing illness, marked interference with activities</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

How many days a week would he worry about his health?
*If the answer is vague: Would it be more or less than 3 days a week?

### FREQUENCY OF HIGHEST LEVEL CODED (in the last month)

<table>
<thead>
<tr>
<th></th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No health worries or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On one or two days a week</td>
<td>1</td>
</tr>
<tr>
<td>On 3 to 6 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

### FREQUENCY OF LEVEL ONE (in the last month)

Mild, clearly related to illness, little distress, easily reassured, no interference with activities:

<table>
<thead>
<tr>
<th></th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No health worries or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On one or two days a week</td>
<td>1</td>
</tr>
<tr>
<td>On 3 to 6 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>
4. FEARS

Is X frightened of anything?

*If the answer is NO: For example, a lot of children of this age are frightened of the dark. Is X frightened of that?

*If the answer is YES: What does he do?

*Ask specifically about each fear listed below and rate each fear separately:

- Does not occur 0
- Dubious, minimal 1
- Definite 2

1. Animals, insects, snakes
2. Objects that can cause injury (e.g. cars, knives)
3. Dirt, germs, contamination
4. Being away from home or going to new situations
5. The dark, going to bed
6. School
7. Social situations (travel, shops, swimming pool etc.)
8. Other (give details)

How severe was the worst of these fears over the past year?

**USUAL SEVERITY**

No fears 0

Mild, involves worry or reluctance to approach only but is able to tolerate the situation if need be. 1

Marked, avoids situation eg keeping the light on at night or expresses severe worry and reluctance. 2

Severe, total avoidance leads to handicap to normal life (e.g. not going to school, not going out) or panics or gross anxiety shown 3

Not applicable or situation not arisen 8

No information, don’t know or unreliable information 9
5. EATING PROBLEMS

Do you have any problems with him eating? Do you think he eats too much or not enough? Is he too thin or overweight?

*If the answer is NO: For example, in the past week were there any problems with him eating?  
*If the answer is YES: Can you describe what usually happens?

NOTE: Do not include picking at food or dislikes of certain types of food or a reported liking for so called "junk food".

**USUAL SEVERITY**

<table>
<thead>
<tr>
<th>Category</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No eating difficulties</td>
<td>0</td>
</tr>
<tr>
<td>Mild, one symptom only, no interference with activities, no vomiting, no weight loss, no excessive weight gain</td>
<td>1</td>
</tr>
<tr>
<td>Marked, more than one symptom or some interference with activities but no vomiting, no weight loss or excessive weight gain</td>
<td>2</td>
</tr>
<tr>
<td>Severe, many symptoms or marked interference with activities or vomiting, weight loss, excessive weight gain</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

How many days a week would X show these difficulties?  
*If the answer is vague: Would it be more or less than 3 days a week?

**FREQUENCY OF HIGHEST LEVEL CODED (in the last month)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No eating problems or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On 1 or 2 days</td>
<td>1</td>
</tr>
<tr>
<td>On 3 to 6 days</td>
<td>2</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

**FREQUENCY OF LEVEL ONE (in the last month)**

Mild, one symptom only, no interference with activities, no vomiting, no weight loss, no excessive weight gain:

<table>
<thead>
<tr>
<th>Category</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No eating problems or less than weekly</td>
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</tr>
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<td>On 1 or 2 days</td>
<td>1</td>
</tr>
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<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>
6. SLEEPING PROBLEMS

What about sleeping? Does he sleep well? Does he have difficulty going to sleep, nightmares or does he sleepwalk? (NB: This part is for emotional sleep problems, eg. sleeplessness, night terrors etc., and the effect they have on the child. Difficulty getting the child to bed is covered under "conduct.")

*If the answer is NO: What time does he go to sleep?
What time does he wake up? Does he get tired during the day?

*If the answer is YES: What happens usually?

NOTES:  
*Do not include tiredness during the day due to an unusually late night  
*Do not include problems about going to bed or bed wetting  
*Do not include waking up at night unless it is clearly linked to distress, caused for example by worries or fear of the dark.

USUAL SEVERITY
No sleep difficulties 0
Mild, little distress, no interference with daytime activities 1
Marked, moderate distress or moderate interference with daytime activities, eg late rising because of sleep loss. 2
Severe, marked distress or marked interference with daytime activities 3
Not applicable or situation not arisen 8
No information, don’t know or unreliable information 9

How many days a week would this usually happen?  
*If the answer is vague: Would it be more or less than 3 days a week?

FREQUENCY OF HIGHEST LEVEL CODED (in the last month)
No sleep difficulties or less than weekly 0
On 1 to 2 nights a week 1
On 3 to 6 days a week 2
Daily 3
Not applicable or situation not arisen 8
No information, don’t know or unreliable information 9

FREQUENCY OF LEVEL ONE (in the last month)
Mild, little distress, no interference with daytime activities:
No sleep difficulties or less than weekly 0
On 1 to 2 nights a week 1
On 3 to 6 days a week 2
Daily 3
Not applicable or situation not arisen 8
No information, don’t know or unreliable information 9
PARENTAL PERCEPTIONS OF CHILD'S EMOTIONAL PATTERN

So the chief concern you've raised so far is that s/he

(Choose worst emotional problem)

DURATION
When did it begin?

When did you first notice that it was a problem?

RATE
AGE OF ONSET IN MONTHS

DURATION IN MONTHS

CONTROL
How much do you think that it is within his control?

Do you think he could do more to stop it happening?

How much is it his fault?

How do you tell when he is really upset and when he is playing up?

RATE PARENTAL PERCEPTION OF LOCUS OF CONTROL
Almost always outside child’s control/can’t help it 1
Between 1 and 3 2
Partly in child’s control, partly beyond/Can stop it on some occasions and not on others 3
Between 3 and 5 4
Almost always in child’s control/could stop it on most occasions if he wanted to 5
Not applicable (no emotional problems) 8
No information, don’t know or unreliable information 9

IMPORTANCE
How much of a problem do you consider this to be?

PARENTAL PERCEPTION AND EMOTIONAL REACTION

No problem for them, unconcerned 0
Minor problem parent slightly worried about child’s emotional problem 1
Major problem parent very concerned about child’s emotional problem 2
Severe problem eg parent constantly worrying or very upset or close to breaking point at times 3
Not applicable (no emotional problems) 8
No information, don’t know or unreliable information 9

NOTE: *If there were no emotional problems rate 8 (Not applicable)
MOTHER’S RESPONSE TO EMOTIONAL PATTERN
How do you react when........... behaves like that?

What did you do the last time?

Does it work?

Have you found any other ways of dealing with it?
(Get detailed example)
What steps do you take to avoid it happening in the first place?

FATHER’S/OTHER CARER’S COPING WITH EMOTIONAL PATTERN

Does your partner agree with the way you handle it?

Do you cope in different ways, or overrule each other?

Do you argue in front of him?

*Coping ratings
Mother _______
Father _______

*Parental consistency rating _______

*See the manual for ratings
NOTE: For one-parent families, rate the absent parent’s coping and the parental consistency 8.

EFFECTS
What effect has this problem had on the family?

What effect has it had on your life?

How has it affected your routine?

How do you feel when X behaves like that?

What goes through your mind?

How about if s/he is hurt when playing?
How upset or distressed does s/he get?

What do you do to comfort him?
PARENTAL RESPONSE STRATEGIES
TO CHIEF EMOTIONAL PROBLEM

Please designate yes or no (Y/N)

OFFERED SPONTANEOUSLY

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<tr>
<th>Checks</th>
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<td>Reasons</td>
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<tr>
<td>appropriately</td>
<td></td>
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<tr>
<td>Distracts</td>
<td></td>
</tr>
<tr>
<td>appropriately</td>
<td></td>
</tr>
<tr>
<td>Ignores</td>
<td></td>
</tr>
<tr>
<td>appropriately</td>
<td></td>
</tr>
<tr>
<td>Threatens</td>
<td></td>
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<tr>
<td>Shouts</td>
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<tr>
<td>Hits</td>
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</tr>
<tr>
<td>Steps to avoid</td>
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</table>

ON DIRECT QUESTIONING

<table>
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<tr>
<th>Checks</th>
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<tbody>
<tr>
<td>Comforts</td>
<td></td>
</tr>
<tr>
<td>Reasons</td>
<td></td>
</tr>
<tr>
<td>appropriately</td>
<td></td>
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<tr>
<td>Distracts</td>
<td></td>
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<td>appropriately</td>
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<td>Threatens</td>
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<tr>
<td>Shouts</td>
<td></td>
</tr>
<tr>
<td>Hits</td>
<td></td>
</tr>
<tr>
<td>Steps to avoid</td>
<td></td>
</tr>
</tbody>
</table>
SECTION II. ACTIVITY LEVEL AND INATTENTIVE BEHAVIOUR

1. WATCHING TELEVISION OR VIDEO

Now I would like to ask you how well X concentrates at home. For example, has he watched television or video in the past week? What's his favourite programme? How long did he watch it for?

*If the answer is vague: Would it be more or less than half an hour?

Would that be a typical time for him when he likes a programme?

Usual attention span

<table>
<thead>
<tr>
<th>More than 30 minutes</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 15 and 30 minutes</td>
<td>1</td>
</tr>
<tr>
<td>Between 6 to 15 minutes</td>
<td>2</td>
</tr>
<tr>
<td>Five minutes or less</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

The last time you saw X watching television, was he staying in one place or was he up and down and moving around the room? How often did he move about?

*If the answer is vague: Would it be about every 15 minutes or less?

Usual restlessness

<table>
<thead>
<tr>
<th>No restlessness</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once every 15 minutes</td>
<td>1</td>
</tr>
<tr>
<td>Once every 5 to 15 minutes</td>
<td>2</td>
</tr>
<tr>
<td>Once every 5 minutes or more often</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

NOTE: When the child lies on the floor or stands up while watching television, the ratings remain the same.
When he is sitting down while watching the television, would he usually fidget, like swinging legs, tapping fingers, scratching, fiddling with an object or playing with clothing?

How much of the time does he usually do that?

*If the answer is vague: Would it be all the time, more than half the time or less than half the time?

Usual fidgetiness

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No fidgeting</td>
<td>0</td>
</tr>
<tr>
<td>Less than half the time</td>
<td>1</td>
</tr>
<tr>
<td>More than half the time, but not throughout</td>
<td>2</td>
</tr>
<tr>
<td>Continuous, never stops</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don't know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

II. READING

Has X read or looked at a book or comic on his own recently, by choice, for example in the past week?

That particular time, how long did he read for? Is that the usual time he spends reading?

Usual attention span

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 30 minutes</td>
<td>0</td>
</tr>
<tr>
<td>Between 15 and 30 minutes</td>
<td>1</td>
</tr>
<tr>
<td>Between 6 and 15 minutes</td>
<td>2</td>
</tr>
<tr>
<td>Five minutes or less</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don't know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

NOTES: *Only rate independent reading. Do not rate reading a school book aloud to a parent.
The last time you saw him reading a book or comic, did he stay in one place or was he up and down and off his seat at all?

*If the answer is vague:* Did he sit in one place for more than 5 minutes?

Is this what usually happens when he is reading?

**Usual restlessness when reading**

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No restlessness</td>
<td>0</td>
</tr>
<tr>
<td>Once every 15 minutes</td>
<td>1</td>
</tr>
<tr>
<td>Once every 5 to 15 minutes</td>
<td>2</td>
</tr>
<tr>
<td>Once every 5 minutes or more often</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

**NOTE:** If the child usually reads in bed and does not get out of bed, rate 0.

When he is reading, does he fidget?

*If the answer is vague:* Would it be all the time, more than half the time or less than half the time?

**Usual fidgetiness when reading**

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No fidgeting</td>
<td>0</td>
</tr>
<tr>
<td>Less than half the time</td>
<td>1</td>
</tr>
<tr>
<td>More than half the time, but not throughout</td>
<td>2</td>
</tr>
<tr>
<td>Continuous, never stops</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation has not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>
III. SOLITARY PLAY

Does he like doing things on his own, like painting, drawing, playing with toys?

*If the answer is YES: Can you give me an example you saw in the last week?

The last time he was playing or doing something on his own, how long did he do that?

Is that a typical time for him to play on his own?

*If the answer is vague: Could he play on his own for 30 minutes, or would it usually be less than that?

Usual attention span for solitary play

<table>
<thead>
<tr>
<th>Duration</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 30 minutes</td>
<td>0</td>
</tr>
<tr>
<td>Between 15 and 30 minutes</td>
<td>1</td>
</tr>
<tr>
<td>Between 5 and 15 minutes</td>
<td>2</td>
</tr>
<tr>
<td>Five minutes or less</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

NOTES: *If the attention span differs according to activity, rate the longest duration.
*Do not include activities shared with a parent or another child.

The last time X was playing or doing something on his own, did he get up and move around at all? How often did he do that? Is that what usually happens when he plays on his own?

Usual restlessness in solitary play

<table>
<thead>
<tr>
<th>Restlessness</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>No restlessness</td>
<td>0</td>
</tr>
<tr>
<td>Once every 15 minutes</td>
<td>1</td>
</tr>
<tr>
<td>Once every 5 to 15 minutes</td>
<td>2</td>
</tr>
<tr>
<td>Once every 5 minutes or more often</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>
That particular time he was playing on his own, did he fidget a lot?

*If the answer is vague: Would it be all the time, or more than half the time or less than half the time?

Is that what usually happens when he plays on his own?

Usual fidgetiness in solitary play
- No fidgetiness: 0
- Less than half the time: 1
- More than half the time but not throughout: 2
- Continuous, never stops: 3
- Not applicable or situation not arisen: 8
- No information, don’t know or unreliable information: 9

IV. JOINT PLAY WITH OTHER CHILDREN

Has X recently played indoors with other children, perhaps friends, or brothers and sisters? What were they doing? That particular time, how long did they play together for? Is that the usual time X spends playing with other children?

Usual attention span for joint play
- More than 30 minutes: 0
- Between 15 and 30 minutes: 1
- Between 5 and 15 minutes: 2
- No more than 5 minutes or less: 3
- Not applicable or situation not arisen: 8
- No information, don’t know or unreliable information: 9

When he played with other children was he running around unnecessarily in and out of rooms? (NB In terms of the game, not of the parent’s convenience)

How often did he do that? Is that what usually happens when he plays with other children?

Usual restlessness in joint play
- No restlessness: 0
- Once every 15 minutes: 1
- Once every 5 to 15 minutes: 2
- Once every five minutes or more often: 3
- Not applicable or situation not arisen: 8
- No information, don’t know or unreliable information: 9
V. MEALTIMES

When he has a meal, does he get up and down from her his seat at all?

*If the answer is No because the parent won't allow the child to get up, rate 0.

*If the answer is YES: How many times would he usually get up?

*If the answer is vague: Would he usually get up once or twice or more?

* NOTE: Do not rate getting up to fetch a glass of water, salt etc. unless the parent specifically states these are excuses to get up.

Usual restlessness at mealtimes

No restlessness 0

Once only 1

2 to 5 times 2

More than 5 times 3

Not applicable or situation not arisen 8

No information, don’t know or unreliable information 9
VI. SHOPPING TRIPS

Have you recently taken him to the shops? That particular time, did he run away from you at all? How often did he do that? Is that what usually happens when you take him shopping?

**Usual restlessness when shopping**

<table>
<thead>
<tr>
<th>Restlessness Description</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>No restlessness</td>
<td>0</td>
</tr>
<tr>
<td>Every 5 minutes or less</td>
<td>1</td>
</tr>
<tr>
<td>Every 2 to 5 minutes</td>
<td>2</td>
</tr>
<tr>
<td>More often than every 2 minutes</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

**NOTES:**  
*Include disturbing other shoppers by pushing the trolley in an uncontrolled way*  
*Do not count going away from mother to fetch an item and bring it back*  
*If the parent has stopped taking the child shopping because of disruptive behaviour, rate 3.*

VII. FAMILY OUTINGS

Have you recently been on an outing as a family or visited relatives? On that particular occasion did X stay doing the same thing as the others or did he get up and down, or run about? How much of the time was he doing that?

**Usual restlessness on outings**

<table>
<thead>
<tr>
<th>Restlessness Description</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>No restlessness</td>
<td>0</td>
</tr>
<tr>
<td>Every 10 minutes or less</td>
<td>1</td>
</tr>
<tr>
<td>Every 5 to 10 minutes</td>
<td>2</td>
</tr>
<tr>
<td>More often than every 5 minutes</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or no opportunity to occur in past year</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

**NOTE:** If the parent has stopped taking the child on outings because of disruptive behaviour, rate 3.
VIII. INATTENTIVE BEHAVIOUR (RESEARCH CRITERIA)

I would now like to ask you about the way he carries out tasks like homework, household chores, helping to make things.

What kind of things has he been asked to do recently?

PROBE: "The last time you told him to lay the table, was he/ did he......"

NB: Rate interviewer's assessment of level of problem using all information gathered so far; this may differ from parent's perception.

(1) When you gave him the instructions, how well did he follow through?
Did he complete the task?

Followed all instructions completely 0
Followed the most important instructions but failed to follow others; did the main part of the task. 1
Failed to follow most instructions, including the most important ones; and/or completed less than half the task; gave up quickly. 2
Not applicable or situation not arisen 8
No information, don't know or unreliable information 9

IF HE FAILED THE TASK (ie RATED 2) THEN:

I would now like to ask you some questions about why he might not have done it.

(1A) Did he listen to your instructions and did he understand what you told him to do?

Listened and understood the instructions 0
Did not seem to listen, but showed by her/his actions that the instructions had been heard and understood 1
Did not seem to listen and showed by her/his actions that she/he had only partly understood the instructions 2
Showed a marked lack of attention to what had been said and clearly misunderstood most of the instructions 3
Not applicable or situation not arisen 8
No information, don't know or unreliable information 9
IF RATED 0 OR 1:

(1B) So he did understand. Was the difficulty that he didn’t want to do it, was he refusing to do it or was there some other reason?

Other reason (eg Inattention) 0
Oppositional 2
Not applicable 8
Insufficient information 9

SUMMARY RATING FOR (1)

Followed instructions 0
Followed most instructions/didn’t follow instructions due to oppositionality 1
Failed to follow instructions, but understood, was not oppositional 2

Thank you for giving me that specific example.

Is that typical of the last month?
(2) Did he make careless mistakes while he was doing it?
In general does he often fail to pay close attention to details?

No mistakes, close attention to detail 0
Understood the task, but made one or two unnecessary mistakes, but good enough for purpose 1
Failed to pay close attention, resulting in repeated careless mistakes 2
Was so careless that the task could not be completed or had to be done again 3
Not applicable or situation not arisen 8
No information, don’t know or unreliable information 9

(3) Was he easily distracted from the task, for example by noises or by people coming into the room?

No at all distracted 0
Temporarily distracted, but returned to task of own accord 1
Had to be told to return to task more than once or abandoned task 2
Not applicable or situation not arisen 8
No information, don’t know or unreliable information 9
Thank you for giving me a detailed picture of that particular incident. Now I want to look at the more general picture.

(4) Does he often seem not to listen when you are talking to him?

<table>
<thead>
<tr>
<th>Option</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listens and responds socially appropriately</td>
<td>0</td>
</tr>
<tr>
<td>Listens but not fully attending</td>
<td>1</td>
</tr>
<tr>
<td>Doesn’t notice that he has been spoken to, doesn’t seem to listen; Shows a marked lack of attention to what is being said</td>
<td>2</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

(5) If a task needs organisation, like getting paper, pencils etc. to do homework, or a drawing, or getting cleaning materials when told to do a job in the house, how well does he organise himself?

<table>
<thead>
<tr>
<th>Option</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collects everything needed before starting a task</td>
<td>0</td>
</tr>
<tr>
<td>Sometimes has to get things after a task has been started</td>
<td>1</td>
</tr>
<tr>
<td>Often disorganised fails to set up things necessary for the job; often has to go back and get things</td>
<td>2</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

(6) Does he often lose things necessary for tasks or activities, like clothes, toys, pencils, books?

<table>
<thead>
<tr>
<th>Option</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never loses anything</td>
<td>0</td>
</tr>
<tr>
<td>Occasionally loses something, but does not make a habit of it</td>
<td>1</td>
</tr>
<tr>
<td>Frequently loses things</td>
<td>2</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

(7) Would you say that X is generally forgetful carrying out everyday activities?

**PROBE:** For example getting things ready for school

<table>
<thead>
<tr>
<th>Option</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forgetfulness not a problem</td>
<td>0</td>
</tr>
<tr>
<td>Sometimes forgetful, but does not make a habit of it, does not interfere with activities</td>
<td>1</td>
</tr>
<tr>
<td>Frequently forgetful, leading to disruptive routine</td>
<td>2</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>
(8) When playing games or waiting to be served a meal at the table, does X have difficulty waiting for his turn?

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No difficulty waiting</td>
<td>0</td>
</tr>
<tr>
<td>Becomes impatient very quickly, but can wait</td>
<td>1</td>
</tr>
<tr>
<td>Often goes before his/her turn, or pushes in on other children’s games</td>
<td>2</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

(9) When you ask X questions about school or when you play a quiz game, can he wait until a question has been completed before answering?

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waits until the question is completed</td>
<td>0</td>
</tr>
<tr>
<td>Is somewhat hasty, but listens to the question first</td>
<td>1</td>
</tr>
<tr>
<td>Blurts out an answer before the question has been completed</td>
<td>2</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

(10) Does he often avoid or show strong dislike for tasks such as homework that require sustained concentration, such as homework, drawing or writing?

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No reluctance</td>
<td>0</td>
</tr>
<tr>
<td>Initially reluctant, but no complaints once started</td>
<td>1</td>
</tr>
<tr>
<td>Strong reluctance despite marked efforts to persuade, or continued to complain throughout task</td>
<td>2</td>
</tr>
<tr>
<td>Complete avoidance of task</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>
(11) When he is doing things is it often very noisy? Does he shout or crash around so that it is very loud? Is it hard for him to play quietly?

Able to play quietly 0

Some noisiness but can engage in quiet activity 1

Unable to play quietly; generates excessive noise carrying out tasks which others would do quietly 2

Not applicable or situation not arisen 8

No information, don’t know or unreliable information 9

(12) Does he talk too much, even when most children would be quiet? Have other people commented on it?

No excessive talk 0

Some excessive talk but able to be quiet when the situation demands 1

Definite overtalkativeness in several situations, ignoring cues not to speak 2

Constantly verbalizing 3

Not applicable or situation not arisen 8

No information, don’t know or unreliable information 9
PARENTAL PERCEPTIONS OF CHILD'S ACTIVITY LEVEL AND INATTENTION

So the problems that you have highlighted in this section are........there don’t seem to be any particular problems in this section, is that right?

(Choose worst problem)

DURATION
When did it begin?

When did you first notice that it was a problem?

RATE
AGE OF ONSET IN MONTHS

DURATION IN MONTHS

CONTROL
How much do you think that it is within his control?
Do you think he could do more to stop it happening?
How much is it his fault?

RATE PARENTAL PERCEPTION OF LOCUS OF CONTROL
Almost always outside child’s control/can’t help it 1
Between 1 and 3 2
Partly in child’s control, partly beyond/Can stop it on some occasions and not on others 3
Between 3 and 5 4
Almost always in child’s control/could stop it on most occasions if he wanted to 5
Not applicable or situation not arisen 8
No information, don’t know or unreliable information 9

EFFECTS
How much of a problem do you consider this to be?
What effect has this problem had on the family?
What effect has it had on your life?
How has it affected your routine?
How do you feel when X behaves like that?
What goes through your mind?

PARENTAL PERCEPTION AND EMOTIONAL REACTION
No problem for them, unconcerned 0
Minor problem parent slightly worried about child’s attention/activity problem 1
Major problem, parent very concerned about child’s attention/activity problem 2
Severe problem, parent constantly worrying/very upset/ close to breaking point at times 3
Not applicable (no attention/activity problems) 8
No information, don’t know or unreliable information 9
MOTHER’S COPING WITH ACTIVITY AND INATTENTION
How do you react when X behaves like that?

What did you do the last time?

Does it work? How effective were you in dealing with it?

Have you found any ways of dealing with the behaviour?

Does your partner agree with the way you handle it?

Do you cope in different ways, or overwhelm each other?

Do you argue in front of him?

FATHER’S/OTHER CARER’S COPING WITH EMOTIONAL PATTERN

Ask the same questions as for the mother

*Coping ratings

Mother  __

Father  __

*Parental consistency rating  __

*See the manual for ratings

NOTE: For one-parent families, rate the absent parent’s coping and the parental consistency 8.
SECTION III: DISRUPTIVE BEHAVIOUR

1. TELLING LIES

Now I would like to ask about some of the things most children do to some extent. For example, would X exaggerate, make up stories that are not true or tell lies?

*If the answer is NO: In the past week for example, did he exaggerate, make up stories or tell lies?
*If the answer is YES: Could you give me an example?

Does he admit to lying when challenged?

**HIGHEST LEVEL OF SEVERITY (in last month)**

| No exaggeration, making up of stories or lies | 0 |
| Exaggeration or making up stories | 1 |
| Lies in order to get out of trouble (white lies) or lies to make trouble for others (siblings) but does not persist when challenged | 2 |
| Serious lies, e.g. lies about where he goes or what he does, never admits to lies or lies to obtain goods or favours or to avoid obligations | 3 |
| Not applicable or situation not arisen | 8 |
| No information, don’t know or unreliable information | 9 |

How many days in a week would he usually exaggerate, make up stories or tell lies?

*If the answer is vague: Would it be more or less than 3 days a week?

**FREQUENCY OF HIGHEST LEVEL CODED (In the last month.)**

| Never or less than weekly | 0 |
| On 1 or 2 days a week | 1 |
| On 3 to 6 days a week | 2 |
| Daily | 3 |
| Not applicable or situation not arisen | 8 |
| No information, don’t know or unreliable information | 9 |

**FREQUENCY OF LEVEL ONE (In the last month.)**

Exaggeration or making up stories:

| Never or less than weekly | 0 |
| On 1 or 2 days a week | 1 |
| On 3 to 6 days a week | 2 |
| Daily | 3 |
| Not applicable or situation not arisen | 8 |
| No information, don’t know or unreliable information | 9 |
II. STEALING

Would X take things that don’t belong to him?

*If the answer is NO: In the past week for example, did he take things?

*If the answer is YES: Has it happened in the past year? What kinds of things did he take?

NOTES: *Include stealing at school, either from other children or items belonging to the school (e.g. pens, pencils, rubbers etc.), or from relatives’ or friends’ homes.

*Do not include taking food or swapping toys

**HIGHEST LEVEL OF SEVERITY (in last month)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not steal in last month</td>
<td>0</td>
</tr>
<tr>
<td>Small items or small amounts of money</td>
<td>1</td>
</tr>
<tr>
<td>Valuable family possessions</td>
<td>2</td>
</tr>
<tr>
<td>Large sums of money or steals from shops</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable info</td>
<td>9</td>
</tr>
</tbody>
</table>

**FREQUENCY OF HIGHEST LEVEL CODED (In the last month.)**

<table>
<thead>
<tr>
<th>Category</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never or less than once a month</td>
<td>0</td>
</tr>
<tr>
<td>More than once a month but less than weekly</td>
<td>1</td>
</tr>
<tr>
<td>Once or twice a week</td>
<td>2</td>
</tr>
<tr>
<td>More than twice a week</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable info</td>
<td>9</td>
</tr>
</tbody>
</table>

Has he ever broken into someone else’s house, building or car? YES/NO

**FREQUENCY OF LEVEL ONE (In the last month.)**

Small items or amounts of money:

<table>
<thead>
<tr>
<th>Category</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On 1 or 2 days a week</td>
<td>1</td>
</tr>
<tr>
<td>On 3 to 6 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable info</td>
<td>9</td>
</tr>
</tbody>
</table>
III. TEMPER TANTRUMS

Does X sometimes lose his temper? Does he start shouting or screaming or stamping his feet?

*If the answer is NO: In the past week for example, has he done anything like that?

*If the answer is YES: Would he also throw things, or kick something like a wall or table? Would he break things or hit someone?

**HIGHEST LEVEL OF SEVERITY (in last month)**

- No tantrums in last month: 0
- Mild, shouting, waving arms, stamping feet: 1
- Marked, throws things, kicks objects: 2
- Severe, breaks things, kicks or hits people: 3
- Not applicable or situation not arisen: 8
- No information, don't know or unreliable information: 9

**NOTE**: In case of different severities, rate the most severe behaviour

How many days in a week would he usually do that?

*If the answer is vague: Would it be more or less than 3 days a week?

**FREQUENCY OF HIGHEST LEVEL CODED (In the last month.)**

- Never or less than weekly: 0
- On 1 or 2 days a week: 1
- On 3 to 6 days a week: 2
- Daily: 3
- Not applicable or situation not arisen: 8
- No information, don't know or unreliable information: 9

**FREQUENCY OF LEVEL ONE (In the last month.)**

Shouting, waving arms, stamping feet:

- Never or less than weekly: 0
- On 1 or 2 days a week: 1
- On 3 to 6 days a week: 2
- Daily: 3
- Not applicable or situation not arisen: 8
- No information, don't know or unreliable information: 9
IV. RUDENESS

Is X cheeky, would he answer you back?

*If the answer is NO: In the past week, for example, has he been cheeky?

*If the answer is YES: Would he also be rude to you or swear at you?
Does he swear at all? (Not necessarily at you).

**HIGHEST LEVEL OF SEVERITY (in last month)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No rudeness or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>Cheeky, answering back, pulling faces without intensely negative attitude</td>
<td>1</td>
</tr>
<tr>
<td>Rude, more disrespectful than being cheeky</td>
<td>2</td>
</tr>
<tr>
<td>Swearing or abusive to one or two parents</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

*NOTES: Rate the most severe behaviour

Do not include cheekiness which by the parents’ account is playful and not intended to be disrespectful.

How many days in a week would he usually do that?

*If the answer is vague: Would it be more or less than 3 days a week?

**FREQUENCY OF HIGHEST LEVEL CODED (In the last month.)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On 1 or 2 days a week</td>
<td>1</td>
</tr>
<tr>
<td>On 3 to 6 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

**FREQUENCY OF LEVEL ONE (In the last month.)**

Cheeky, answering back, pulling faces without intensely negative attitude:

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On 1 or 2 days a week</td>
<td>1</td>
</tr>
<tr>
<td>On 3 to 6 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>
V. DISOBEDIENCE

When you ask X to do something, like putting toys away or laying the table, would he usually do it?

*If the answer is NO: In the past week for example, did he disobey you?

*If the answer is YES: Does he usually try to delay things or would he refuse?

HIGHEST LEVEL OF SEVERITY (in last month)

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No refusing</td>
<td>0</td>
</tr>
<tr>
<td>Mild resistance, answers back but not rude</td>
<td>1</td>
</tr>
<tr>
<td>Marked resistance, refuses to comply, negative or rude replies</td>
<td>2</td>
</tr>
<tr>
<td>Severe, refuses, leading to tantrums or aggressive behaviour</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

NOTE: Include any disobedience, even if parents say the child’s disobedience is related to only particular activities

How many days a week would he be disobedient?
*If the answer is vague: Would it usually be more or less than 3 days a week?

FREQUENCY OF HIGHEST LEVEL CODED (In the last month.)

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No disobedience or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On 1 or 2 days a week</td>
<td>1</td>
</tr>
<tr>
<td>On 3 to 6 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

FREQUENCY OF LEVEL ONE (In the last month.)

Mild resistance: Answers back but not rude:

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On 1 or 2 days a week</td>
<td>1</td>
</tr>
<tr>
<td>On 3 to 6 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>
VI. REFUSAL TO GO TO BED

Do you have trouble getting him off to bed at night, does he refuse to go to bed?

*If the answer is NO: In the past week, for example, was he difficult about that?

*If the answer is YES: Can you describe what usually happens?

HIGHEST LEVEL OF SEVERITY (in last month)

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No difficulties</td>
<td>0</td>
</tr>
<tr>
<td>Mild, grumbling or stalling but not intense or prolonged</td>
<td>1</td>
</tr>
<tr>
<td>Marked, child refuses or has to be coerced into going</td>
<td>2</td>
</tr>
<tr>
<td>Strong, refusal leading to tantrum</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

*NOTE: Rate the most severe behaviour

How many days in a week does he usually behave like that?

*If the answer is vague: Would it usually be more or less than 3 days a week?

FREQUENCY OF HIGHEST LEVEL CODED (In the last month.)

<table>
<thead>
<tr>
<th>Frequency of Highest Level Coded</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On 1 or 2 days a week</td>
<td>1</td>
</tr>
<tr>
<td>On 3 to 6 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

FREQUENCY OF LEVEL ONE (In the last month.)

Mild grumbling or stalling but not intense or prolonged:

<table>
<thead>
<tr>
<th>Frequency of Level One</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On 1 or 2 days a week</td>
<td>1</td>
</tr>
<tr>
<td>On 3 to 6 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>
VII. DESTRUCTIVENESS

Have there been any times recently that he has deliberately broken, torn or spoiled something, like his toys or things belonging to another child? or things in the home?

*If the answer is NO: In the past week, for example, did he do anything like that?
*If the answer is YES: What did he do?

**MOST SEVERE** (in last month)
No destructiveness 0

Destroyed own property only 1

Destroyed siblings possession or caused mild damage outside the home 2

Caused serious damage in the home (e.g. fire setting) or outside the home 3

Not applicable or situation not arisen 8
No information, don't know or unreliable information 9

*NOTE: Rate the most serious behaviour

How many days a week would he usually do that?
*If the answer is vague: Would it be more or less than 3 days a week?

**FREQUENCY OF HIGHEST LEVEL CODED (in the last month)**
Never or less than weekly 0

On 1 or 2 days a week 1

On 3 to 6 days a week 2

Daily 3

Not applicable or situation not arisen 8
No information, don't know or unreliable information 9

**FREQUENCY OF LEVEL ONE (In the last month.)**
Destroyed own property only:
Never or less than weekly 0

On 1 or 2 days a week 1

On 3 to 6 days a week 2

Daily 3

Not applicable or situation not arisen 8
No information, don't know or unreliable information 9
VIII. AGGRESSIVENESS

Does X sometimes get aggressive to other people? Would he try to hurt them physically?

*If the answer is NO: Would he for example hit his brothers or sisters when provoked?

*If the answer is YES: How aggressive does he get? Does he hurt anyone? Do you have to restrain him?

**MOST SEVERE** (in the last month)

- No aggressiveness: 0
- Mild, threatens only or lashes out when provoked: 1
- Marked, is physically aggressive, but only transiently and not intensely: 2
- Severe, attacks people, hurts them, has to be restrained: 3
- Not applicable or situation not arisen: 8
- No information, don’t know or unreliable information: 9

*NOTE: Rate the most severe behaviour

How many days in a week would he usually do that?
*If the answer is vague: Would it be less or more than 3 days a week?

**FREQUENCY OF HIGHEST LEVEL CODED** (in the last month)

- Never or less than weekly: 0
- On 1 or 2 days: 1
- On 3 to 6 days: 2
- Daily: 3
- Not applicable or situation not arisen: 8
- No information, don’t know or unreliable information: 9

**FREQUENCY OF LEVEL ONE** (In the last month.)

Mild, threatens only or lashes out when provoked

- Never or less than weekly: 0
- On 1 or 2 days a week: 1
- On 3 to 6 days a week: 2
- Daily: 3
- Not applicable or situation not arisen: 8
- No information, don’t know or unreliable information: 9
RESEARCH CRITERIA FOR CONDUCT DIFFICULTIES

Rate each question NEVER (0), OCCASIONALLY (1), OFTEN (2).
Rate interviewers assessment of level of problem using all information gathered.

<table>
<thead>
<tr>
<th>Question</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Does he start physical fights with yourself or others? (Exclude siblings)</td>
<td>0</td>
</tr>
<tr>
<td>(2) Does X bully others? (Inflict pain, persistent intimidation, tormenting or molestation?)</td>
<td>0</td>
</tr>
<tr>
<td>(3) Has X been physically cruel to other people? (Tie up, cut or burn?)</td>
<td>0</td>
</tr>
<tr>
<td>(4) Has X been cruel to animals?</td>
<td>0</td>
</tr>
<tr>
<td>(5) Does he stay out after dark even when you’ve told him to be in?</td>
<td>0</td>
</tr>
<tr>
<td>(6) Does he truant from school?</td>
<td>0</td>
</tr>
<tr>
<td>(7) Has he run away from home? (At least twice or once for more than a single night)</td>
<td>YES/NO</td>
</tr>
<tr>
<td>(8) Has X ever used a weapon that could cause serious harm to others?</td>
<td>YES/NO</td>
</tr>
<tr>
<td>(9) Has X committed a crime involving confrontation? (Purse snatching, mugging). [If appropriate ask about forced sexual activity]</td>
<td>YES/NO</td>
</tr>
<tr>
<td>(10) Has he ever deliberately started a fire in order to cause damage?</td>
<td>YES/NO</td>
</tr>
</tbody>
</table>
RESEARCH CRITERIA FOR OPPOSITIONAL DIFFICULTIES

(1) Sometimes children can be contrary. For example, does X often argue with you or teachers or any other adults?

If the answer is NO: For example, in the past week has he argued with adults?

If the answer is YES: How many days in a week does that happen?

If the answer is vague Would it be more or less than three?

**Usual frequency**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On 1 or 2 days a week</td>
<td>1</td>
</tr>
<tr>
<td>On 3 to 6 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

(2) What are the Household rules/chores? Does he often break these? (Get examples)

<table>
<thead>
<tr>
<th>Response</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEVER</td>
<td>0</td>
</tr>
<tr>
<td>OCCASIONALLY</td>
<td>1</td>
</tr>
<tr>
<td>OFTEN</td>
<td>2</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>
(3) Does X deliberately do things to annoy people?

If the answer is NO: For example, in the past week has X deliberately annoyed his brothers and sisters or you?

If the answer is YES: How many days a week does that happen?

If the answer is vague: Would it be more or less than three times a week?

Usual frequency

<table>
<thead>
<tr>
<th>Frequency</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Never or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On 1 or 2 days a week</td>
<td>1</td>
</tr>
<tr>
<td>On 3 to 6 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>
(4) Does X get touchy or easily annoyed by other people?

If the answer is NO: For example, in the past week did he get touchy or annoyed with other people?

If the answer is YES: How many days a week does that happen?

If the answer is vague: Would it be more or less than 3 days a week?

Usual frequency

Never or less than weekly 0
On 1 or 2 days a week 1
On 3 to 6 days a week 2
Daily 3
Not applicable or situation not arisen 8
No information, don’t know or unreliable information 9

(5) Does X get spiteful or vindictive towards other people, like brothers and sisters, or you?

If the answer is NO: For example, in the past week, has he been spiteful?

If the answer is YES: How many days a week does it happen?

If the answer is vague: Would it be more or less than 3 days a week?

Usual frequency

Never or less than weekly 0
On 1 or 2 days a week 1
On 3 to 6 days a week 2
Daily 3
Not applicable or situation not arisen 8
No information, don’t know or unreliable information 9
(6) Does X get angry or resentful?

If the answer is NO: For example, in the past week has he been angry or resentful at all?

If the answer is YES: How many days a week does it happen?

If the answer is vague: Would it be more or less than 3 days a week?

Usual frequency

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On 1 or 2 days a week</td>
<td>1</td>
</tr>
<tr>
<td>On 3 to 6 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Daily</td>
<td>3</td>
</tr>
<tr>
<td>Not applicable or situation not arisen</td>
<td>8</td>
</tr>
<tr>
<td>No information, don’t know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

(7) Does X tend to blame other people for his mistakes or misbehaviour?

If the answer is NO: For example, in the past week has he blamed other people?

If the answer is YES: How many days a week does that happen?

If the answer is vague: Would it be more or less than 3 days a week?

Usual frequency

<table>
<thead>
<tr>
<th>Frequency</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Never or less than weekly</td>
<td>0</td>
</tr>
<tr>
<td>On 1 or 2 days a week</td>
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</tr>
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<td>9</td>
</tr>
</tbody>
</table>
PARENTAL PERCEPTIONS OF DISRUPTIVE OR OPPOSITIONAL BEHAVIOUR

So the problems that you have highlighted in this section are... there don't seem to be any particular problems in this section, is that right? (Choose most severe problem)

DURATION

When did it begin?
When did you first notice that it was a problem?

RATE

AGE OF ONSET IN MONTHS

DURATION IN MONTHS □ □ □

CONTROL

How much do you think that it is within his control?

Do you think he could do more to stop it happening?

How much is it his fault?

RATE PARENTAL PERCEPTION OF LOCUS OF CONTROL

Almost always outside child’s control/can’t help it 1
Between 1 and 3 2
Partly in child’s control, partly beyond/Can stop it on some occasions and not on others 3
Between 3 and 5 4
Almost always in child’s control/could stop it on most occasions if he wanted to 5
Not applicable or situation not arisen 8
No information, don’t know or unreliable information 9

IMPORTANCE

How much of a problem do you consider this to be?

PARENTAL PERCEPTION AND EMOTIONAL REACTION

No problem for them, unconcerned 0
Minor problem parent slightly worried about child’s disruptive behaviour 1
Major problem, parent very concerned about child’s disruptive behaviour 2
Severe problem, parent constantly worrying/very upset/close to breaking point at times 3
Not applicable or situation not arisen 8
No information, don’t know or unreliable information 9
MOTHER'S COPING WITH DIFFICULT BEHAVIOUR

How do you react when X behaves like that?

What did you do the last time?

Does it work? How effective were you in dealing with it?

Have you found any other ways of dealing with the behaviour?

Who usually "wins"? (Parent/Child)

When you have differences, who usually makes it up? (Parent/Child)

How long does a "bad atmosphere" last? ☐ ☐ ☐ ☐ mins

How soon is it possible for you to be on good terms and be nice to him/her? ☐ ☐ ☐ ☐ mins

PARENTAL INTERVENTION STRATEGIES USED IN THE LAST MONTH

SPONTANEOUSLY VOLUNTEERED

Y/N

<table>
<thead>
<tr>
<th>Ignore appropriately</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argue</td>
<td>Y/N</td>
</tr>
<tr>
<td>Distract</td>
<td>Y/N</td>
</tr>
<tr>
<td>Separate</td>
<td>Y/N</td>
</tr>
<tr>
<td>Threaten</td>
<td>Y/N</td>
</tr>
<tr>
<td>Withdraw privilege</td>
<td>Y/N</td>
</tr>
<tr>
<td>Send to room</td>
<td>Y/N</td>
</tr>
<tr>
<td>Shout</td>
<td>Y/N</td>
</tr>
<tr>
<td>Smack/hit</td>
<td>Y/N</td>
</tr>
<tr>
<td>Buy off</td>
<td>Y/N</td>
</tr>
<tr>
<td>Give in</td>
<td>Y/N</td>
</tr>
</tbody>
</table>

Ignore—carry on with what you were doing/ pay no attention/do not speak to child
Argue—disagree with child and begin to get cross
Distract—direct child's attention to another activity
Separate—separate fighting children
Threaten—say frightening or hurtful things to child
Buy off—offer a reward to child to get peace before child has completed the task
Give in—abandon your original goal
### ON DIRECT QUESTIONING

<table>
<thead>
<tr>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignore appropriately</td>
</tr>
<tr>
<td>Argue</td>
</tr>
<tr>
<td>Distract</td>
</tr>
<tr>
<td>Separate</td>
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<tr>
<td>Give in</td>
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</tbody>
</table>

### FATHER'S/OTHER CARER'S COPING WITH OPPOSITIONAL/DEFIANT BEHAVIOUR

*Does your partner agree with the way you handle it?*

*Do you cope in different ways, or over rule each other?*

*Do you argue in front of him?*

*Coping ratings*

Mother ___

Father ___

*Parental consistency rating ___

*See the manual for ratings*

**NOTE:** For one-parent families, rate the absent parent's coping and the parental consistency 8.

### EFFECT

*What effect has this problem had on the family?*

*What effect has it had on your life?*

*How has it affected your routine?*

*How do you feel when X behaves like that?*

*What goes through your mind?*
SMACKING

Do you ever smack him/her?

How often do you find yourself smacking him or giving him a little tap?

Does it help the situation?

Where do you usually smack him?

Do you ever smack him because he is getting on your nerves?

How often?

Have you ever been afraid you might lose your temper and hurt him?

Has this ever happened?

Do you and your partner agree about physical punishment?

How does X react if you smack him?

Frequency per week: □ □
FAMILY RELATIONSHIPS

Thank you for giving me such a good and detailed account of X’s behaviour. Now I’d like to ask about how you and X have been getting on together in the last month.

Do you think that he is a friendly child?

Is he easy to get on with?

Can you get close to him?

In what ways would you like him to be different?

In what ways does he get on your nerves?

*IF YES:* Do you grumble about this to him?

Have you tended to keep out of his way in the last month?

Have you felt differently towards him since this trouble began?

Has the amount of affection you feel for him changed?

Have you behaved differently towards him at all?

Has he behaved differently towards you since this trouble began?

Has the amount of affection or interest he has shown in you changed at all?

Are you satisfied with the amount of affection that he shows you?

*IF NECESSARY:* How would you like things to be different?

*or*

How do you feel about the change?

Does it bother you?
I. SIBLING RELATIONSHIPS

a) Positive interaction
How does X get on with his brothers and sisters? Do they help each other doing homework, tidying up, finding lost objects, making things?

*If there are much younger siblings: Would he help look after them? Would he younger siblings play with them or show them how to do something?

Usual frequency

Frequent daily 0
On 3 or 6 days 1
On 1 or 2 days 2
No positive interaction 3
Not applicable (no siblings) 8
No information, don’t know or unreliable information 9

b) Negative interaction

Do they argue a lot? Do they fight or badly tease each other? Over what sorts of things? How bad does it get? How often do they fight or argue? Who usually comes off worst? Does one of them get hurt? Do things get broken?

Usual frequency

No or seldom any negative interaction 0
Regularly (every few days) 1
About once a day 2
More than once daily 3
Not applicable (no siblings) 8
No information, don’t know or unreliable information 9
II. PARENT-CHILD INTERACTION

a) Communication

Does X talk to you, for example about school or about things that interest him? Would he talk about problems or worries? How often would you and X talk to each other? Do you chat about things that he is interested in?

**Frequency of communication with mother**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>0</td>
</tr>
<tr>
<td>Regular: 4 to 6 days a week</td>
<td>1</td>
</tr>
<tr>
<td>Occasional: 1 to 3 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Little: less than weekly</td>
<td>3</td>
</tr>
<tr>
<td>Very little: less than monthly or not at all</td>
<td>4</td>
</tr>
<tr>
<td>Not applicable (no mother)</td>
<td>8</td>
</tr>
<tr>
<td>No information, don't know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>

Does X talk to his father about school or things that interest him? Would he talk about problems or worries? How often would X and his father talk to each other?

**Frequency of communication with father**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>0</td>
</tr>
<tr>
<td>Regular: 4 to 6 days a week</td>
<td>1</td>
</tr>
<tr>
<td>Occasional: 1 to 3 days a week</td>
<td>2</td>
</tr>
<tr>
<td>Little: less than weekly</td>
<td>3</td>
</tr>
<tr>
<td>Very little: less than monthly or not at all</td>
<td>4</td>
</tr>
<tr>
<td>Not applicable (no father)</td>
<td>8</td>
</tr>
<tr>
<td>No information, don't know or unreliable information</td>
<td>9</td>
</tr>
</tbody>
</table>
b) Joint activities

Do you and X do things together, like playing boardgames or card games? Do you take him to interesting places or do you share a hobby or interest? How much time a week would you spend together?

**Frequency of joint activities with mother**

- More than one hour a week: 0
- Up to an hour per week: 1
- Less than weekly: 2
- Less than monthly or not at all: 3
- Not applicable (no mother): 8
- No information, don’t know or unreliable information: 9

**Does X do anything with his father?**

**Frequency of joint activities with father**

- More than one hour per week: 0
- Up to an hour per week: 1
- Less than weekly: 2
- Less than monthly or not at all: 3
- Not applicable (no father): 8
- No information, don’t know or unreliable information: 9

**NOTE:** Only the frequency of joint activities is rated. The number of joint activities is irrelevant.

What are the best things about him?

What is he really good at?
DAILY ROUTINES

EARLY SUPERVISION

I'd like to focus on what usually happens at home during the day. Every family develops certain routines to cope with everyday events such as mealtimes, bedtimes, and getting up in the mornings.

MORNINGS

I'd like to start by asking you about the mornings:

What time does he usually wake in the mornings?

How often will...be awake before you?

What does he do then?

What is his mood usually like in the morning?

How do you usually greet each other?

MEALTIMES

How about breakfast, what happens then?

Does he eat with you, with the rest of the family, or alone?

Who usually prepares his food?

Does the same thing happen at midday and other mealtimes?

Is this the normal pattern?

If different, In what way?
EARLY SUPERVISION  
*insert code in box*
1. Good
2. Satisfactory
3. Lax
4. Poor, inadequate
5. Negligent

MORNING GREETING  
*insert code in box*
0. None
1. Dubious, perfunctory
2. Verbal
3. Hug, Kiss

MEALS WITH:  
*insert code in box*
0. None
1. Alone
2. Sibs only
3. Other Adult
4. Mother
5. Father
6. With family

REGULARITY: timing  
*insert code in box*
1. Stable routine
2. Predominantly stable
3. Less stable
4. Unstable, haphazard

<table>
<thead>
<tr>
<th>Time</th>
<th>Breakfast</th>
<th>Lunch</th>
<th>Tea/Supper</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>


BED TIMES

You have told me about what happens in the mornings and at mealtimes. We are also interested in what happens when children go to bed.

Does............. have a set bed time?.................................................................

What times does he usually go to bed? ..............................................................

How often would he be up later than this?......................................................

Does he ever fall asleep on the sofa because it is past his bedtime?...................
...........................................................................................................................

Does he take himself to bed or do you go with him?........................................

What about undressing, washing?.................................................................

How do you say goodnight to each other?......................................................
...........................................................................................................................

Does he settle down straight away?.................................................................

How long does it usually take before he falls off to sleep?...............................

Are his bedtimes a problem for you?..............................................................
...........................................................................................................................

NIGHT-WAKING AFTER "SETTLED?"

How about after he has settled down: Does he ever wake up during the night?  
...........................................................................................................................

Who does he ask for when he wakes up?........................................................

What was the last time?....................................................................................

What did you do?..............................................................................................
...........................................................................................................................

How often has that happened during the past month?......................................
...........................................................................................................................
BEDTIMES-REGULARITY
(insert code in box)
1. Regular
2. Regular, flexible
3. Regular, indulgent
4. Quite variable
5. Very irregular

BEDTIME-PATTERN
(insert code in box)
Takes self
Taken by sibs

Rate out of 7:
Settled by parent(s)
Asleep on sofa
Parent's bed

NIGHT WAKING-AFTER "SETTLED"
(insert code in box)
0. No problem
1. Several times per week
2. < once per week
3. Several times per month
4. < once per month
5. Very infrequently

PREDOMINANT HANDLING OF NIGHT WAKING AFTER "SETTLED"
(insert code in box)
0. No problems
1. Mother gets up-comforts, reassures
2. Mother gets up-irritated, may use threats
3. Mother gets up-punishes, smacks
4. Child joins parent
5. Mother ignores
6. Seen to by father
7. Seen to by sibs

FATHER'S PARTICIPATION-NIGHT WAKING
(insert code in box)
0. Never
1. 1-2/7
2. 3-5/7
3. 6-7/7
SUPERVISION: ADAPT QUESTIONING FOR YOUNGER CHILDREN

One problem about bringing up children is trying to ensure they don’t hurt themselves in the home.

Do you have any worries about safety in the home with .... or the others?..........

eg. Have you had to take any special precautions like having stair gates, fire guards made, etc.?...............................................................................................................................

What about when you are busy?..........................................................................

Are you able to leave him on his own playing in another room or do you always have to be watching him?..........................................................................................

If yes:

How long can you leave him playing on his own indoors before you have to check out that everything is alright..........................................................................................

What about outside?

Is he allowed to play on his own outside or with friends?.................................

How far do you let him go?................................................................................

Would you ever let other children take him further away to play eg.to shops, park etc?..........................................................................................................................

How long would it be before you checked where he was, if he was playing outside?...............................................................................................................

Do you have any rules about who he plays with?.................................................

..........................................................................................................................

Do you always know where he is and who he is playing with by name?..............

Is it important that you know his friends’ parents?...........................................

Does he have children to play in the home?.....................................................

How often?...........................................................................................................
SAFETY PRECAUTIONS
*(insert code in box)*
0. None
1. Dubious
2. Definite

CHECKING (inside)
*(insert code in box)*
1. <10 mins
2. 10-20 mins
3. 20-30 mins
4. >30 mins
5. Never

OVERALL SUPERVISION INDOORS
*(insert code in box)*
1. Good
2. Average
3. Generally satisfactory but poor in some areas
4. Poor

PLAYING OUT
*(insert code in box)*
0. not allowed out
1. Plays in definite patch
2. Plays mostly on definite patch
3. Frequently off patch
4. No specified territory

CHECKING (outside) *(insert code in box)*
1. <10 mins
2. 10-20 mins
3. 20-30 mins
4. >30 mins
5. Never

OVERALL SUPERVISION, PLAYING OUT
*(insert code in box)*
0. Not allowed out without an adult
1. Well supervised
2. Adequately supervised
3. Generally adequate, occasionally poor
4. Generally poor

CHAPERONAGE *(insert code in box)*
0. Not allowed to play with other children
1. Allowed to play with others in own home only
2. Allowed to play with others in home or well known other child’s home
3. Allowed to play outside on well-known patch with other known children.
4. Allowed to play on patch with other children not known to parents.
5. Allowed to play with known children, territory undefined
6. Allowed to play with unknown children, territory undefined
PLAY AND INTERACTION

Most mothers vary in the amount of time they spend cuddling, playing doing things with their children.

How about you, what sort of things do you do together?.................................................................

.......................................................................................................................................................

Do you ever cuddle each other just for fun?...................................................................................

How many cuddles did you give each other yesterday?.................................................................

What sort of toys does s/he have?....................................................................................................

Does s/he have a special place for them?......................................................................................

Children enjoy playing and showing their toys to others, in what ways do you play together?........................................................................................................................................

.......................................................................................................................................................

How often do you do this?..................................................................................................................

What does s/he enjoy doing most with you?...................................................................................

(PROBE re time spent, whether activity is jointly engaged upon by mother and child, whether mother supervises, etc.)

IF THERE ARE OTHER CHILDREN IN THE FAMILY:

You have.......children, is there anyone with whom you particularly enjoy playing, or doing things with?.........................................................................................................................

IF INDEX CHILD NOT SUGGESTED:

How about .........? Is playing with her/him something you enjoy?..............................................
**CUDDLING FOR FUN**

*insert code in box*

<p>| | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>0. None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Sometimes</td>
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<td></td>
</tr>
<tr>
<td>2. Often</td>
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</tbody>
</table>

**TYPE OF TOYS AVAILABLE AT HOME**

*insert code in box*

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0. None</td>
<td>Cuddly toys</td>
<td></td>
</tr>
<tr>
<td>1. Some</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. A lot</td>
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</tbody>
</table>

- Imaginative toys
  - e.g. dolls' house,
  - Constructor toys, e.g. lego, puzzles
- Representational toys
  - eg. paints/books

**TOYBOX/CUPBOARD**

*insert code in box*

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>0. No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Yes</td>
<td></td>
<td></td>
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</tbody>
</table>

**TYPE OF PLAY**

*insert code in box*

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 0. None | Imaginative, symbolic play
  - eg. mums & dads
  - Constructoral
    - i.e. puzzles/game
| 1. 1-2pw |   |   |
| 2. 3-6pw |   |   |
| 3. >Daily | Drawing/reading
  - listening to stories
| 4. Daily | Watching TV with mother
  - Rough and tumble
  - Household activities
|   |   | Other |
CHILD PREFERENCE
(insert code in box)
0. None
1. Index child
2. Other

MOTHER'S ENJOYMENT OF PLAY
(insert code in box)
0. Little or none
1. Some
2. Moderate
3. A great deal

With index child
With other
WHAT HAPPENS WHEN MOTHER IS BUSY?

What about the times when you are busy, for example cooking, ironing, drying dishes? What does he do then?

........................................................................................................................................

PROBE: Does mother fit her work around the child’s routine, or does the child fit around hers?

........................................................................................................................................

Does s/he come along to you and want to help when you are getting on with things?

........................................................................................................................................

Is s/he really a help or rather a nuisance?

........................................................................................................................................

CARE OF CHILD WHEN BUSY (usual pattern)

1. With parents
2. Other adult
3. With sibs/peers
4. Left alone-engaged in activity
5. Left to own devices
6. Naptime (in cot or pram)
7. In cot/pram (to contain)

ACCEPTANCE OF CHILD WHEN BUSY

1. Acceptance/enjoyment
2. Mild acceptance
3. Neutral
4. Mild Rejection
5. Rejection
*OVERALL RATING OF WARMTH TOWARDS THE CHILD
Based on information obtained during the entire interview

A great deal of expressed warmth 0
Quite a lot of demonstration of warmth 1
Moderate demonstration of warmth 2
Little or no demonstration of warmth 3
Not applicable or situation not arisen 8
No information, don’t know or unreliable information 9

Warmth ratings
Mother
Father

*OVERALL RATING OF CRITICISM TOWARDS THE CHILD
Based on information obtained during the entire interview

No expressed criticism 0
Very little expressed criticism 1
Some expressed criticism 2
Quite a lot of expressed criticism 3
A lot of criticism throughout 4
Not applicable or situation not arisen 8
No information, don’t know or unreliable information 9

Criticism ratings
Mother
Father

*OVERALL RATING OF PARENTAL COPING
Based on information obtained during the entire interview

Mother’s overall coping
Father’s overall coping
Parental consistency in coping

* For ratings see manual
PACS: HAND SCORING GUIDES

SECTION I: EMOTIONAL PATTERN

1. MISERY
   SEVERITY = \text{TOTAL} / 2 = \text{MEAN}
   FREQUENCY OF LEVEL 1 =

2. WORRIES
   SEVERITY = \text{TOTAL} / 2 = \text{MEAN}
   FREQUENCY OF LEVEL 1 =

3. HEALTH WORRIES
   SEVERITY = \text{TOTAL} / 2 = \text{MEAN}
   FREQUENCY OF LEVEL 1 =

4. FEARS
   SEVERITY ONLY =

5. EATING
   SEVERITY = \text{TOTAL} / 2 = \text{MEAN}
   FREQUENCY OF LEVEL 1 =

6. SLEEPING
   SEVERITY = \text{TOTAL} / 2 = \text{MEAN}
   FREQUENCY OF LEVEL 1 =

SUMMARY

EMOTIONAL SCORE:

FINAL TOTAL OF MEANS PLUS SCORE FOR 'FEARS', DIVIDED BY NO. OF ITEMS RATED (MAX. 6) =

Norms for 6-7 year olds: no disorder mean 0.5, +1SD (top 16%) 0.8, +2SD (top 2%) 1.1

Maudsley referred cases with emotional disorder 1.0
### SECTION II: ATTENTION AND ACTIVITY

#### ATTENTION SCORE

<table>
<thead>
<tr>
<th>DURATION</th>
<th>TELEVISION</th>
<th>BOOK</th>
<th>PLAY ALONE</th>
<th>JOINT PLAY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>NO. RATED</strong></td>
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</table>

**ATTENTION MEAN** =

#### ACTIVITY SCORE

<table>
<thead>
<tr>
<th>FIDGET</th>
<th>TELEVISION</th>
<th>BOOK</th>
<th>PLAY ALONE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No. RATED</strong></td>
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</tr>
</tbody>
</table>

**ACTIVITY MEAN** =

### SUMMARY

**HYPERACTIVITY SCORE:**

**ATTENTION MEAN SCORE** =

**ACTIVITY MEAN SCORE** =

**TOTAL** =

**DIVIDE BY 2 = HYPERACTIVITY MEAN** =

*Norms 6-7 year olds: no disorder 0.5, +1SD (top 16%) 1.0; +2SD (top 2%) 1.5; Maudsley ADDH 1.3, Maudsley Hyperkinetic 2.0*
SECTION III: ANTISOCIAL BEHAVIOUR

1. LIES

SEVERITY =
FREQUENCY OF LEVEL 1 =
TOTAL / 2 = MEAN

2. STEALING

SEVERITY =
FREQUENCY OF LEVEL 1 =
TOTAL / 2 = MEAN

3. TANTRUM

SEVERITY =
FREQUENCY OF LEVEL 1 =
TOTAL / 2 = MEAN

4. RUDENESS

SEVERITY =
FREQUENCY OF LEVEL 1 =
TOTAL / 2 = MEAN

5. DISOBEDIENCE

SEVERITY =
FREQUENCY OF LEVEL 1 =
TOTAL / 2 = MEAN

6. REFUSAL BED

SEVERITY =
FREQUENCY OF LEVEL 1 =
TOTAL / 2 = MEAN

7. DESTRUCTIVENESS

SEVERITY =
FREQUENCY OF LEVEL 1 =
TOTAL / 2 = MEAN

8. AGGRESSIVENESS

SEVERITY =
FREQUENCY OF LEVEL 1 =
TOTAL / 2 = MEAN

SUMMARY

A CONDUCT SCORE: FINAL TOTAL OF MEANS DIVIDED BY NO. OF ITEMS RATED (MAX. 8) =

Norms for 6 - 7 year olds: no disorder 0.8, +1SD (top 16%) 1.2, +2SD (top2%) 1.6
Maudsley referred cases with conduct disorder 1.5

B RESEARCH CRITERIA: ADD UP NO. OF RESEARCH CRITERIA SCORING 2 OR YES FOR

CONDUCT DISORDER, 2 OR 3 FOR OPPOSITIONAL DEFIANT DISORDER

(A) CONDUCT DISORDER (see p. 34 - max 10 items) =

Total of 3 or more = diagnosis of Conduct Disorder

(B) OPPOSITIONAL DEFIANT DISORDER (add up items [max. 7] on pp35 - 38, then add in as an
extra item 'tantrums' if MEAN for 3. TANTRUMS above is 2.0 or more) =

Total of 4 or more = diagnosis of Oppositional Defiant Disorder
Academic Dossier
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<th>Section</th>
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1.6 Discussion 185

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1.1 Introduction

The aim of this review is to explore the literature of the psychological and psychosocial effects of being burned in childhood. By way of an introduction, the classification, diagnosis and epidemiology of burns in children are outlined. The review then examines outcome studies which include studies completed with children who have been burned, adults who have been burned as children, studies which examine family factors and studies which investigate specific psychological sequelae such as body image.

The first study to examine the psychological consequences of burns in children was conducted by Woodward (1958) and it is this study which prompted the path for further research in this area. However, on examination of the literature following a Psychlit and Medline search, many of the studies conducted in the 1970's and before were primarily case studies or studies with very small samples. The majority of the larger studies were conducted from the late seventies and early eighties when research in the area became more prolific and hence it was decided to restrict this review to more recent years and to focus on the last twenty years. Therefore, this review is based on a Medline and Psychlit search from 1980 onward, as well as cross referencing with papers and book chapters. The search was limited to English language publications. For a review of the earlier research on burn injury, the reader is recommended to consult the comprehensive review by Tarnowski, Rasnake, Gavaghan-Jones & Smith (1991).
1.2 Epidemiology

Burns have become the second leading cause of death in childhood after road traffic accidents (Lissauer & Clayden, 1997). However mortality from burn injury is decreasing (Feller, Flora & Bawoll, 1976) due to the improvement in medical technology and intervention such as early excision and grafting, increased ability to prevent infection and the use of artificial skin. As such, approximately 80% of patients with greater than 80% total body surface area burns survive (Wolf, Rose & Desai, 1997). Therefore, the new morbidity includes the quality of life of burn victims who have managed to survive what are often very severe and traumatic burns and the psychological effects these injuries may have.

Although burns represent a relatively small percentage of all types of childhood injury, they assume importance because of their sequelae and the subsequent impact on the medical care system (Feck & Baptiste, 1979). There are two main developmental peaks in burn injury, namely toddlers, at the onset of walking and exploration and during adolescence (Smith & O'Neill, 1984; Green, Fairclough & Sykes 1984; Herd, Widdowson & Taner, 1986; Phillips, Mahairas & Hunt, 1986). Some studies report more boys than girls being burned (eg: Blakeney, Meyer, Robert, Desai, Wolf & Herndon D (1998) who report that twice as many males (n=47) as females (n=25) were treated for severe burns, as do Mason & Hillier (1993) and Byrne, Love, Browne, Brown, Roberts & Streiner (1986)). However, this gender difference is not necessarily reflected in some of the outcome studies. For example, Knudson-Cooper (1981) have a similar sex ratio, as do Jesse, Strickland, Leeper & Wales (1992) and Zeitlin (1997).

Social class differences have also been implicated in burn injuries, with those from the lower social classes being more at risk for being burned. Blakeney et al (1998) report that a large number of the sample were from poverty situations with half living in single-parent families. Zeitlin (1997), using a Finnish population, reports an over representation of children from lower social class in her study.
There are various types of burns and differences have been identified between the under and over 10-year old children. Scalds are the most frequent causes of burn injury in the younger age group, this decreases with increasing age, when burns including those caused by flame and clothing burns become more prevalent in the older age group. Other frequently mentioned burns include contact and flash burns and those due to hot fat and chemicals. Burns can also be inflicted in abuse situations, although very few studies attempt to differentiate the effect of burns caused by physical abuse in childhood.

1.3 Classification of burns

Classificatory systems such as the World Health Organization’s International Classification of Diseases (ICD) and the Diagnostic and Statistical Manual of Mental Disorders (DSM) systems are rarely used for the classification of burns. Langley (1984) discusses the difficulty involved in classifying burn injury using the ICD codes and indeed most studies do not use a classification system. Rather the burn injury is classified according to the agent which caused the burn eg: thermal, or the vector of the agent and the extent of the burn.

The extent of a burn is measured by its depth (partial or full thickness of the skin layer). A secondary burn involves damage which extends into the second or dermal layer of the skin and this will usually heal spontaneously. A third degree burn affects the three skin layers, the skin is destroyed down to and including the subcutaneous layer which includes the hair follicles and sweat glands. The extent of the total body surface area (TBSA) affected is one of the most commonly used measure of degree of damage and it is this which is used in the vast majority of studies to describe severity. A TBSA from 1-24% is considered mild; TBSA from 25-39% is considered moderate and greater than 39% considered severe (LeDoux, Meyer, Blakeney & Herndon, 1998). However, different cut-offs are used in some studies (eg:Blakeney, Meyer, Moore, Broemeling, Hunt, Robson & Herndon, 1993) which can make comparison of burn severity difficult. However, as Knudson-Cooper (1981) points out, the
severity of a burn is not necessarily related to the percentage of the body which is burned, but the depth and the location are also important in assessing the severity of the injury. All deep second and third degree burns leave permanent scarring. Without proper aftercare burn scars can become extremely disfiguring due to hypertrophy or buildup of scar tissue which continues to grow after the wound is closed. Also, the scar can contract leading to contractures across joints which may lead to deformities and disability (Knudson-Cooper, 1981).

Overall, a burn can result in long term disfigurement, disability and change in body image, as well as loss of self-esteem. The medical procedures to treat the wounds can themselves be very painful and traumatic and the overall recovery process often requires a long rehabilitation period. Therefore, it is important to consider the psychological effects of hospitalization as well as the effects from the trauma itself. Although many studies make reference to the effect of hospitalization, there are no attempts to separate the effects of this in relation to the trauma itself. Once survival has been determined, the focus moves to promoting the highest quality of life possible after the burn injury experience (Baker, Jones, Sanders, Sadinski, Martin-Dufy, Berchin & Valentine, 1996).

1.4 Outcome Studies

Psychological support and the understanding of the psychological sequelae is more developed for adult populations than child populations who have experienced being burned. Malt (1980), in a comprehensive review of the adult literature, concluded that approximately 30% of adult burn survivors experience psychosocial adjustment problems secondary to burns, with anxiety and depression being the most commonly reported psychological symptoms.

Most authors agree that studies of child burn victims and the psychological sequelae following these injuries have yielded contradictory results (Sawyer, Nimde & Zuker, 1983; Byrne et al, 1986; Zeitlin, 1997). This may be for a variety of reasons and certainly the diversity of methodology employed in the studies
contributes to the range of results. The methodological problems which plague many of the studies include small sample size, lack of control groups, paucity of measures of reliable outcome, response bias and the lack of prospective studies. Other issues which make comparison between studies problematic include the range of outcome variables used, such as the variety of measures of severity of burn, the age at which the burn occurs, the time since burn and the variety of psychosocial measures used.

A large majority of the studies included for consideration in this review were completed at the Shriners Burns Institutes of which there are two in the US - one in Boston and one in Texas (Knudson-Cooper, 1981; Blakeney, 1988; Blakeney, Portman & Rutan, 1990; Blakeney et al 1993; Blakeney et al, 1998; Kavanagh 1983; LeDoux et al, 1998 amongst others). These institutes provide free medical care for children in the US and can admit children from a huge geographical area. Some of the samples in the Blakeney studies include children from up to 50 American states. Only a small minority of the studies are conducted in Britain which may be a reflection of this being a less well developed research area in this country. However, it is likely that the findings are comparable across cultures, given the uniformity of burn injury. Cultural differences is not an area which has been investigated in the literature on burns.

Some argue that the characteristics of the burn injury, such as the degree and location of the burn as well as length of hospital stay, age at which burn occurs and time since the burn may be predictive of postburn psychosocial and physical adjustment (Baker et al, 1996) and the majority of studies use these variables when investigating outcome.

1.4.1 The use of strict diagnostic criteria as outcome measures

The study carried out by Stoddard, Norman, Murphy & Beardslee (1989) is the only one to examine the psychiatric outcome for children who are burned using DSM-III criteria for psychiatric classification. A matched control design using
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children enrolled in a health maintenance organization was used and in-depth diagnostic interviews were carried out with parent and child to diagnose past and present disorders (n=60, age 7-19 years, (burns participants: ≥6 months post burn, mean burn TBSA 39%)). The reported incidence of phobias (20-30%), overanxious disorders (37%), PTSD (54%), oppositional disorder (23%), enuresis (30%) and encopresis (10%) were overall quite high and significantly higher than in the control group. The rates of depressive disorders were found not to be significantly different between the two groups. More pronounced psychopathology was evident in those with larger burn area and severe disfigurement, low socio-economic status and parental emotional problems. It must be noted that these figures included children who displayed full and partial symptoms of these disorders and so did not necessarily meet full DSM-III criteria and these symptoms could be exhibited at any time since the injury. There was also a high participant refusal rate (35%) which may introduce bias in the overall results. It is however, one of the only studies which attempts to measure post traumatic stress disorder (PTSD) in the children who have been burned.

1.4.2 Maternal ratings of child outcome

Studies which use only maternal ratings for child adjustment include Sawyer, Nimde & Zuker (1983), Byrne et al (1986), Tarnowski, Rasnake, Linscheid & Mulick JA (1989) and Le Doux et al (1998). Tarnowski et al (1989) (n=68) conclude that the prevalence of behavioural disturbance, as rated only by the CBCL (Achenbach & Edelbrock, 1983) in long-term paediatric burn survivors are lower than previously found in other studies. There was no difference between the behavioural adjustment in this sample of burn patients compared with nonburned, nonclinic children (using the CBCL norms). A small minority of the sample (13%) did however have overall adjustment scores in the deviant range (T scores in excess of 70 which is 2 SD above the norm). These children tended to be older, which is in agreement with the findings of Sawyer et al (1983) who found that adolescent burn victims show a markedly poorer psychosocial adjustment when compared with younger burned children. They were also more
likely to be classified in the lowest SES rating but there was no difference on
burn severity or time since injury which is also in agreement with Sawyer et al
(1983). The study by Sawyer did not include some of the predictor variables
included in the Tarnowski analysis such as presence of facial burns and burn
visibility. The average age was also significantly older in the Sawyer study,
which had excluded children less than 8 years and those who sustained injuries
less than 3 years prior to follow-up. An important point that Tarnowski et al
(1989) make is that their study focuses on what might be termed 'intermediate
outcome' (1-5 years post injury) and that 'evaluations conducted over longer
periods might result in a different pattern of findings'. None of these studies give
information on pre-morbid adjustment in the children.

Byrne et al (1986) focused on the factors which help protect children from poor
psychosocial adjustment, referring to this as 'resilience'. The sample consisted
of 145 randomly selected children (mean age=8, sd=4), who had been attending
a regional burn centre. The children had major or minor burns, classified
according to 'stringent criteria' which were not elaborated upon. The measures
were all maternal ratings with the mothers completing the Achenbach
Behavioural Profile (Achenbach & Edelbrock, 1983), Psychosocial Adjustment
to Illness Scale (PAIS) (Derogatis & Lopez, 1983) and Family Environment Scale
(FES) (Moos & Moos, 1974). A social competence score, derived from the
Achenbach Behavioural Profile was used to provide a global index of child's
competences. The study found that 'the degree of disability, degree of
disfigurement, present age and age at time of burn do not distinguish between
high and low social competence of children'. However, they found that burn
severity does distinguish between high and low social competency groups, with
the more socially competent children having more severe burns. However, the
mean burn size of 16% TBSA was relatively small in this sample, compared to
other samples who refer to 'severe burns'. Time since burn also distinguishes
these two groups which is unsurprising and has been found in other studies.
Mothers adjustment to the child's burn was not found to be significant, hence
disagreeing with other studies (Brown, Byrne, Brown, Pennock, Streiner, Roberts, Oyla, Truscott & Dabbs, 1985) which suggest that it is an important feature. A key message from this study is the importance of not assuming severity and extent of burn will negatively influence outcome. However, the lack of data on preburn adjustment and the absence of a control group do need to be taken into account when interpreting these results. In the Browne et al (1985) study, both adults and children were included in the sample and using questionnaire measures, severity of burn and time since burn were found not to be related to psychosocial adjustment. There was a higher prevalence of maladjustment in children compared to the adults and the variance was accounted for by mother’s adjustment and methods of coping. The study by LeDoux et al (1998) will be addressed later.

1.4.3 Studies which use a wide range of outcome measures
Young adult survivors of burn injury in childhood were investigated by Blakeney et al (1988) and the overall conclusions were that this group were ‘no more depressed, no more likely to be addicted to drugs and alcohol, no more socially reclusive and no more suicidal than the normal population’. This sample (n=38) were aged 14-32 years (age at burn 5 mo-17 years, time since burn 2-31 years) who were at least 2 years post burn. They were divided into three groups according to the burn severity, with over 40% TBSA being categorized as a ‘severe’ burn. The adolescents and young adults who participated were administered a test battery which included the Minnesota Multiphasic Personality Inventory (MMPI) (Dahlstrom, Welsh & Dahlstrom, 1975) and Suicide Probability Scale (SPS) (Cull & Gill, 1982) as the measures of psychopathology, the Cattell Culture Free Intelligence Test (CCFIT) (Cattell, 1959), Family Environment Scale (FES) (Moos & Moos, 1984) and the Body Attitude Scale (Kurtz, 1969). Demographic information was also collected. All these measures have good standardization data with the exception of the Body Attitude Scale. Again, as in other studies, a subsection of the sample do experience psychological disturbance and do not make as good adjustments as
others. One of the main factors which differentiate this group of poorer adjusters is the familial support system which emerges as an 'important contribution to the development of psychopathology in these survivors'. The authors conclude that 'families that fail to provide cohesive support for the individual seems to contribute to the individuals's assumption of feelings of helplessness and hopelessness, lack of self-worth and depression'. Although differentiating the effect of the presence or absence of facial burns on the individual was one of this studies aims, the number of participants without facial burns was very small so no comparisons could be made.

Improvements on this 1988 study by Blakeney were made in a subsequent study (Blakeney et al, 1993). A larger sample size was used (n=60, age 4-18 years) and severity of burns was divided into three groups ('small burns' 15-20% TBSA; 'moderate burns' 35-50% TBSA and 'large burns' 70%+ TBSA). The assessment tools used included the CBCL, Teacher Report Form (TRF) and Youth Self Report Form (YSRF) (Achenback & Edelbrock, 1991). Detailed analyses of the results were computed according to gender, age and burn category. Again, as in the previous study, the children were not found to be suffering from major psychiatric disturbances or severe behavioural problems. However, the scores on the CBCL differed significantly from means of the normative groups, although still remained within the normal range. Parents reported more problems than either the teachers or the children themselves. The authors discuss the discrepancies between the different informants and although they make some quite interesting suggestions, such as denial of problems by children, parents misperceiving the child behaviour and perceiving them to be less competent than they actually are, no firm conclusions are drawn.

The investigation of personality traits in relation to well and poorly adjusted children was investigated by Moore, Blakeney, Broemeling, Portmean, Herndon & Robson (1993) who made use of the 16 Personality Factor Questionnaire (16PF) (Cattell, Eber & Tatsuka, 1970) and the Suicide Probability Scale (SPS).
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Following on from Andreason and Norris's (1972) suggestion that personality assessment tests such as the MMPI may not be an appropriate measure of adjustment, Moore uses a personality assessment for 'the identification of strengths and weaknesses of individual personality characteristics that facilitate or diminish the individual's ability to adjust to his or her changed life' rather than being used to estimate psychopathology as has been done in previous research eg: Blakeney et al, 1988. A small sample (n=32) of children aged 12 or older who had sustained burns of greater than 25% TBSA and were at least one year post burn were recruited for the study. As it is not a prospective study, the results only allowed the personality traits which are related to good and poor adjustment to be identified rather than elucidating how personality characteristics affect adjustment. Individuals high on extraversion, self-confidence and emotional stability had less depression, less hostility and were less likely to think of suicide as an option than those individuals who do not possess such traits (Moore et al, 1993).

As is clear from the literature so far discussed, many studies include a wide range of burn severities in their samples. An informative study which focuses only on burns of 80% or greater total body surface area was conducted by Blakeney et al (1998). All children were included who had experienced this high level of burn as frequent follow-up of these children automatically takes place. In total, since 1982, 72 children were treated for ≥80% TBSA burns. Of these, data is available on 64 children of up to 15 years post burn. The study uses similar measures as in Blakeney's previous studies and uses the data from many patients who had been included in the earlier studies with the added advantage of more repeat assessments. Similar questions were posed as before such as asking about the existence of emotional and behavioural difficulties and the competencies of the survivors and how they may have changed over time. Conclusions reached from this study are that all observers report the burned children to be mildly diminished in academic and social competence, which is in agreement to that found by Meyer, Blakeney & Le doux (1995) in a study of
survivors with burns of more moderate severity. Just under 40% of the children were rated below normal on at least one of the measures, indicating that a significant number of children do experience difficulties in some areas of their lives. In this study, the teachers rated more children as having difficulties than either the parents or the children themselves, which is in contrast to the Blakeney et al (1993) study. The authors do point out that a number of risk factors for the development of behavioural problems, poor self-esteem and academic problems exist in this sample, due to the large number of families of the children being classified as ‘dysfunctional’ so the difficulties experienced may not necessarily be due to the burn injury. The design of the study does not allow this aspect to be further evaluated. The adjustment of the children and their parents does not appear to change over time, a finding which does not agree with previous studies (eg: Blakeney et al, 1993). Parents report high levels of stress even many years after the injury which is of concern given the importance of good parental adjustment and coping skills. Even given the extent of the injuries in the children in this sample, ‘58% are perceived to be functioning with no more problems than the normative reference population’ so indicating that severe burn is not necessarily going to result in future problems.

1.4.4 Outcome in pre-school children following burn injury

With regard to very young children, Mason and Hillier (1993) completed the only study (and indeed one of the few UK studies) which focused solely on preschool children who have been burned. It is a short term prospective study and uses both qualitative and quantitative methods. A total of 57 thermally injured children under 5 years were consecutively recruited for the study. Interviews took place with mothers and children at three time points over 6 months following the injury. The findings indicate that a significant number of children display ‘minor’ or ‘major’ disturbed behaviour immediately following discharge and that this decreases over a six month period. Both under 2’s and over 2’s respond with similar behaviour changes, both show significant increases in being miserable or moody and have sleep disturbances. Both groups show an
increase in incidence of clinginess, tempers and fears. Eating is not significantly affected which is surprising as the literature shows this to be a common problem following hospitalization (Prugh & Eckhard, 1975). The findings are similar to changes in children's behaviour following hospitalization but as there is no control group it is impossible to say whether burn injured children differ in their reactions from children hospitalized for other reasons. Children under 2 years seem to be affected for more prolonged periods, although the number (n=18) is small and it may be that it is due to the hospitalization rather than the thermal injury itself.

1.4.5 Studies focusing on specific psychological sequelae
Specific psychological sequelae of burn injury which have been addressed separately in the literature are i) sleep disorders in children and ii) the presence of PTSD and iii) effect on body image. Although, the inclusion of PTSD in the DSM-III did not occur until 1980, no attempt to investigate the prevalence of it in children who have been burned was made until Stoddard (1993). Given the often traumatic cause of a burn, it is somewhat surprising that PTSD has not been addressed more often. As mentioned previously, Stoddard et al (1989) uses DSM-III for the psychiatric classification of problems in children who have been burned, of which PTSD is included and Kravitz, McCoy, Tompkins, Daly, Mulligan, McCauley, Robson & Herndon (1993) examines the prevalence of sleep disorders, which can be a symptom of PTSD in children at least one year post burn although they do not address PTSD per se in this study.

One of the features most common in children who have experienced hospitalization are sleeping difficulties and Kravitz et al (1993) observed that staff involved in the care for burn injured children reported frequent episodes of nightmares, night terrors and sleep walking in children who had been admitted to burns units. This led them to conduct the only thorough investigation of sleep problems following burn injury. The theoretical framework of sleep suggests that sleep disorders may be viewed as alterations in coping. A sample of 82 children
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(age 30 mths - 20 years, mean burn injury 44% TBSA, mean age at time of injury 4.2 years) who were admitted to the two units were included in the study. Data was gathered from interviews with parents and children (if developmentally appropriate) and observation by staff. The results show that 'the incidence of reported at-home sleep disorders was much greater than that reported in the literature for normal childhood patterns'. These manifested as nightmares (37%), bed-wetting (24%) and sleep-walking (18%). There was no relationship between problems and age at time of burn, length of time after burn injury or history of previous sleep problems. Daytime napping occurred far more often than would be expected for the development level of the children indicating that the sleep problems resulted in sleep deprivation for this group. A strength of the study is being able to compare pre-morbid levels of sleep problems, although as this was done retrospectively a degree of caution must be advised. It is however, one of the only studies which does allow some comparison with behaviour prior to the burn injury. Although the authors make reference to sleep problems being common features of PTSD, it was beyond the scope of the study to diagnose PTSD or discuss this in more detail.

1.4.6 Body Image as an outcome measure of psychological sequelae

Body image 'is a central part of the "self concept" and consists of a person's feeling about his body' (Knudson-Cooper, 1981). In the measurement of self-esteem, self-evaluation of appearance is a stronger predictor of global self-esteem than self-evaluation in other domains (Renick & Harter, 1989). Hence, most of the studies investigating body image have the assessment of self-esteem as a core element. Knudson-Cooper (1981) is one of the first studies to explore the effect of burn injury of the development of body image in children, although previous studies have explored this concept in relation to visible injuries, disability and illness. A sample of 89 young adults (age 16-28, 4-23 years post-burn, mean burn 27% TBSA) were sent a battery of questionnaires designed to measure psychosocial adjustment. Assessment of scarring was done using the concept of 'cosmetic impact' which assesses disfigurement along
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a 4 point continuum for each body part using photographs taken during the last hospital stay. The Coopersmith Self Esteem Inventory for Adults was used in addition to the Burn Related Supplement which included questions specifically related to the burn injury. The study concludes that 'victims of severe burns can and do make a positive adjustments to their injury and that the resulting outcome is not influenced by physical variables relating to the severity of the burn or variables relating to age and sex'. Self-esteem was found not to be related to any burn related variable and does not allow adjustment to be predicted. The authors conclude that, emotional adjustment is a complex process which is strongly influenced by internal acceptance and external social support. Very detailed descriptions of burn severity and disfigurement as well as the developmental level of individuals are considered in this study which is widely quoted in the literature and appears to be a benchmark study.

Orr et al (1989) conducted one of the largest studies (n=121) focusing on body image and self-esteem using postal questionnaires for patients who had been burned within the preceding 10 years. They concluded that perceived social support, particularly from friends was important in relation to body image, high self-esteem and low levels of depression. This is interesting as social support has not been investigated in relation to body image before (Orr et al, 1989) and the findings supports the buffering hypothesis of social support. Sex differences appeared in body image ratings which is consistent with the research on body image in general, ie; females having a poorer self-image than males, and unsurprisingly, more positive body image scores were associated with greater self-esteem scores. There was under 50% response rate to the questionnaires which is a common problem with postal surveys, so introducing possible response bias.

One of the few prospective studies in the literature was conducted by Beard et al (1989), albeit using a very small sample. Six children attending primary school were followed up over five years and the results of this very small study
suggest that initially all children experienced adjustment problems including developmental regression, anxiety and sleeping problems. The acquisition of a positive self-image facilitated by parents was concluded to be the primary factor influencing adaptation. The small sample limits the validity of this study and hence it is difficult to allow too much weight to be placed on the results.

With regard to the measurement of self-esteem without specific reference to body image, variable accounts are found in the literature. Robert, Meyer, Bishop, Rosenberg, Murphy & Blakeney (1999) focuses on adolescents with visible scars resulting from burn injury, and although it is a small sample (n=14), the results indicate that these adolescents exhibited a similar or higher degree of self-worth as compared to their peers. Stoddard (1982) contains interesting anecdotal evidence of body image difficulties but the use of only three case studies does not contribute hugely to the literature.

1.4.7 The consideration of family factors
Family factors with respect to burn injury in childhood have been viewed from different angles within the literature. The effect on the family, of which mothers have been most widely researched, as well as the family factors associated with good and bad adjustment in children have been targeted.

A number of studies have identified the importance of family support systems and cohesiveness as a factor which contributes to better outcome for paediatric burns victims (Blakeney et al, 1988; Blakeney et al, 1990; LeDoux et al, 1998). In samples of children with small and moderate burns, a strong relationship between parental adjustment and that of the children has been found (Blakeney et al, 1988; Blakeney et al, 1990; Meyer et al, 1994). Psychosocial adaptation of a child depends primarily on the family milieu (Blakeney, 1993; Blakeney, 1988) and there is high correlation between the adjustment of parent and child (Meyer, 1994).
The Family Environment Scale (FES) (Moos & Moos, 1984) appears to be the most widely used measure reported in the literature of family factors (Blakeney et al 1988, 1990, 1993, 1998). It is a questionnaire consisting of 90 true/false statements that relate to ten subscales reflecting social-environmental characteristics of families within three domains, and is said to have good reliability and validity. However, the lack of interview data which, it may be argued, could give further information on issues within families is not available within the literature, nor are pre-morbid levels of family functioning.

LeDoux et al (1998) conducted a study to examine the relationship between psychosocial adjustment of the burned child and the characteristics of the child's family. Using a stratified random sampling technique, the parents of 35 children (age 9-18 years, 1-5 years post-burn, 3-92% TBSA burn), were administered a number of standardized questionnaires. Using the CBCL cut-off of $T \geq 60$, the sample was divided into two groups, 'troubled' ($T \geq 60$) and 'untroubled' ($T \leq 60$). The FES subscales was the most important instrument in revealing differences between the two groups. The subscales measuring 'cohesion', 'organization' and 'achievement orientation' were higher for the untroubled group and 'conflict' was lower. The authors conclude that 'work with the family to promote cohesion, to decrease conflict, to enhance stability and to promote expectation of positive achievement must be a part of the rehabilitation of the burned child'.

Within the study on pre-school children mentioned above, Mason and Hillier (1993) also focus on maternal responses to burn injury in these preschool children. Using an interview schedule devised for the study they derive a model of the mothers responses, termed 'the Maternal Thermal Injury Response Pattern', which describes a phasic pattern of general response categories. This model consists of three stages, ending with rationalization of the injury but it is of questionable use either for research or clinical purposes given the in-depth interview required to classify the stage of the mother. Using Goldberg's 60 item General Health Questionnaire, mothers psychiatric morbidity following the burn
injury was found to be significantly higher than in the general population, and although it decreased with time it was still higher than in the preinjury period. The limitations of the GHQ, including the lack of validity for retrospective use and not being designed to measure problem severity were acknowledged by the author. However, the study highlights the trauma for mothers who experience their very young child being burned and how these difficulties are often neglected within the clinical setting. Other conclusions reached in this study are that children with disturbed behaviour following a thermal injury are more likely to have a mother with a history of depression and added stress (lower socioeconomic status and additional worries) and have a mother who was blamed for the accident. Mothers with a child who experience a more severe thermal injury will take longer to come to terms with the injury and those mothers who were most stressed prior to the accident and who had a previous tendency to depression, will have more psychiatric morbidity following the burn injury.

1.5 Conclusions
Overall, good psychological adjustment of children who have been burned has been found in a number of studies (eg:-Browne et al, 1985; Byrne et al, 1986, Orr et al, 1989, Blakeney et al, 1988, 1993) and a minority of studies document a significant number of children with poor psychosocial adjustment (eg: Tarnowski et al, 1983). However, it is important to note that within every sample, a subsection of children experience emotional distress at various time points following a burn injury, both in the short and long term. A number of risk factors have been identified, with one of the most important which emerges being poor family support, lack of cohesiveness and poor maternal mental health. Family ‘stress’ factors such as low socio-economic status and the inevitable concomitants of this have also been highlighted. Indeed, not only are these risk factors for poor adjustment, but for experiencing a burn injury in the first place. In parallel, resilience factors which protect children from increased difficulties are also important to consider.
With regard to factors associated with outcome, burn size is consistently found not to be related to psychological outcome (Blakeney, 1988, 1993). Time since the burn has been shown to affect adjustment with longer time meaning better outcome overall.

It is beyond the scope of this review to discuss the clinical interventions which have been found to be useful in the initial stages of the burn injury and hospitalization and in the long term rehabilitation. However, given resources difficulties in many NHS services, prioritizing children for immediate intervention to assist minimizing the long term sequelae of burn injury may be seen to be important. On the other hand, it could be argued that all children who experience burns and their families should be offered psychological support regardless, but this is certainly not the case at the moment. Very few of the studies discussed what type of intervention, if any, had been provided for the children prior to the participation in the research studies, so it is not possible to conclude whether the outcome would have been different. Premorbid information is also unavailable so it is difficult to conclude whether the effects are from the burn injuries themselves or whether preexisting problems have been exacerbated by the injury. These issues need to be kept in mind for future research in this area.

As Blakeney et al (1998) conclude in their study which focuses on severe burns, it is a striking testament to human resilience that so few of these children do develop serious psychological and social difficulties. 'Severe burn injury, disfigurement and physical impairment do not necessarily render a child useless and unhappy, nor do they overwhelm the child's defences and leave him/her forever morose or angry'. Overall, the importance of studying the effects of burn on children allows more information to be gained on how intervention might facilitate even more satisfying futures for the increasing number of children who survive burn injuries.
REFERENCES


The Treatment of Social Phobia in Children

1.1 Introduction

The diagnostic criteria for social phobia in children has shifted significantly following the revisions made to its diagnostic criteria in DSM-IV (American Psychiatric Association, 1994). Most research regarding social phobia has been conducted with adults, where a clear diagnostic set of criteria has been available for many years. It is only very recently that social phobia in children is being increasingly recognized and therefore studied. This review aims to critically review the literature of the treatment of social phobia in children. It will begin with outlining the definition and classification of social phobia. This is followed by a short overview of the epidemiology of social phobia after which the treatment studies will be discussed.

This review is based on references identified by a PsychLit and Medline search. Book chapters and papers were also cross referenced to ensure all relevant articles were found. It is limited to English language publications.

1.2 Definitions and Classification

Social phobia is defined as 'a marked and persistent fear of one or more social or performance situations in which the person is exposed to unfamiliar people or to possible scrutiny by others. The individual fears that he or she will act in a way (or show anxiety symptoms) that will be humiliating or embarrassing (American Psychiatric Association, 1994). The definition used in ICD 10 is quite similar, describing social phobia as a fear of eating, speaking or writing in public. Social phobia can be further broken down into subtypes (i) generalized, a fear of social situations across the board and (ii) specific, a fear of certain situations eg: performance in front of an audience, with the former being the more severe (Turner, Beidel & Townsley, 1992).
The diagnostic definition of social phobia is the same for both children and adults, indicating some continuity of disorder from childhood to adulthood and in general, in children, the social fears associated with the disorder are similar to those noted in adults. 'In children, there must be evidence for capacity for social relationships with familiar people and the anxiety must occur in peer settings not just in interaction with adults (American Psychiatric Association, 1994). The criteria also stipulate that the child's anxiety, experienced on entering social situations must be indicated by one of a variety of behaviours: crying, tantrums, freezing or withdrawal from that situation. A difference in diagnostic criteria for children is the lack of need for insight; unlike adults, children are not expected to be aware of their difficulties or the severity or abnormality of them.

As the definition and classification of social phobia has only been clarified in recent years, these changes have led to much confusion in the literature regarding its etiology, course, clinical manifestations and prognosis. The term 'social phobia' was first used in the psychiatric literature more than 20 years ago (Marks, 1970) but was only formally introduced into the American diagnostic nomenclature with the 1980 publication of the DSM-III (American Psychiatric Association, 1980). In 1985 social phobia was called the 'neglected anxiety disorder' (Liebowitz, Gorman, Fyer & Klein, 1985) and anxiety encompassing social evaluative fears (the main core of the fears association with social phobia) could be categorized as being part of overanxious disorder, avoidant disorder or social phobia. Just to confuse the matter further, there is an extensive behavioural literature on children and adolescents described as shy, withdrawn or peer-neglected (Beidel & Randall, 1994) but these children do not necessarily share all the same features as those diagnosed with social phobia according to DSM-IV criteria. However overlaps in symptoms do exist between these groups of children. Differential diagnosis between these anxiety categories can be very difficult, as discussed by Beidel & Randall (1994). Other comparisons which exist in the literature of disorders which are closely related to social phobia,
include the comparison of social phobia with shyness, elective mutism and school refusal. For the purpose of this review, the author aims to focus primarily on the studies which focus on children with a diagnosis of social phobia according to DSM-IV or ICD-10 diagnostic criteria, but discussion of the above associated diagnosis will take place as is appropriate.

1.3 Epidemiology

The prevalence of social phobia varies according to diagnostic criteria and the assessment methodology used to study the condition. Most of the current epidemiological data available for childhood social phobia are based on DSM-III-R criteria (Beidel & Turner, 1998) and bearing in mind that using these criteria, children with social fears could be given a diagnosis of social phobia, overanxious disorder or avoidant disorder, prevalence estimates are only approximate. The prevalence rates for children and adolescents in the normal population have been reported at between 1-7.6% (eg: Anderson, Williams, McGee & Silva, 1987; Shaffer, Fisher, Dulcan, Davies, Piacentini, Schwab-Stone, Lahye, Bourbon, Jensen, Bird, Canino & Regier, 1996) using DSM-III-R criteria. However, the latter study did not attempt to clarify whether the sample was representative of the population as a whole. In a review of epidemiological studies, Costello and Angold (1995) conclude that social phobia is rare with prevalence rates of below 2%. If the three diagnostic groups are combined, the prevalence rates for social fears increase to 9.6% (Kashani & Orvaschel, 1990) which is very similar to a recent adult epidemiological study (Schneier, Johnson, Hornig, Liebowitz & Weissman, 1992). In clinical samples, prevalence rates of 15% -18% of children with a primary diagnosis of social phobia have been found ( Last, Perrin, Hersin & Kazdin, 1992; Albano, Marten, Holt, Heimberg & Barlow, 1995). In an interesting comparison, Kendall & Warman (1997) reported that 18% of their clinic sample met DSM III-R criteria for social phobia, whereas 40% of the same sample met DSM IV criteria.

Social phobia has a peak age of onset during mid-adolescence, but can be
diagnosed in children as young as 8 years old (Beidel, 1998). There is an increase in reported social-evaluative fears with age (Kashani & Orvaschel, 1990). Several studies confirm the equal gender ratio of social phobia (Beidel, 1999; Bernstein, Borchardt & Perwein, 1996) although parental report of childhood social phobia may be higher for girls (Beidel, 1999) and two studies have reported higher rates of social phobia in girls (Crick & Ladd, 1993; LaGreca & Stone, 1993). The relationship between social phobia and gender is not, therefore, wholly clear-cut. In one of the few studies examining cultural differences, no difference in prevalence of social phobia was found between Caucasians and African-Americans (Neal & Ward Brown, 1995).

### 1.4 Types of fears
Social fears are very common in children. Beidel (1991) explored the types of fears experienced by socially phobic children in more detail and found the following prevalence rates: public speaking (89%), eating in front of others (39%); writing on the blackboard (29%); going to parties (28%); using public toilets (24%) and speaking to authority figures (21%). It has also been estimated that a fear of speaking to peers would be present in approximately 40% of children with social phobia (Beidel & Turner, 1998). Children with social phobia experience a distressing event approximately every other day and the majority of these incidents occur in school (Beidel, 1991). The most common incident reported was an unstructured interaction with a peer, for example having to talk to or work with another child within school. Socially phobic children also report lower perceptions of their social competence and higher trait anxiety (Beidel, 1991). Overall, they suffer 'substantial emotional distress and impairment in their daily social and academic functioning. They have few if any friends, are extremely lonely and avoid extracurricular activities (Beidel, 1999).

### 1.5 Treatment Studies
A recent review by King and Ollendick (1997) on the treatment of childhood phobias outline the most commonly used treatment strategies. They are derived
from principles of classical, vicarious and operant conditioning and from recent advances in information processing theory. They conclude that the most effective and durable treatments draw on all the principles and theories in a complex, interactive fashion (King & Ollendick, 1997). The key principle is exposure which according to Marks (1975) is the underlying mechanism in the use of behavioural procedures: "an important mechanism shared by all of these methods is exposure of the frightened subject to a frightening situation until he acclimatises". The procedures addressed in the review include systematic desensitization, emotive imagery, flooding, modelling, contingency management, cognitive-behavioural strategies and behavioural family interventions. It is interesting, that even in this relatively recent, comprehensive review, little mention is made to treatment of social phobia. However, it does provide a good basis for understanding the rationale of treatment approaches commonly used to treat anxiety disorders in childhood, of which social phobia is one.

Studies evaluating the efficacy of interventions for social phobia can usefully be divided into three groups. The first group, (section 1.5.1) of which there are few studies, have used a carefully diagnosed sample of children with social phobia diagnosed according to specific diagnostic criteria. The second group (section 1.5.2) consists of intervention trials for children with a range of anxiety disorders which include social phobia. The third group (section 1.5.3) consists of studies that have reported the treatment of children who have presented in other ways or with clinical features which may be common in children with social phobia but where diagnostic criteria do not strictly apply eg: school refusal or selective mutism. Shyness in children is also considered in this group given the similarities inherent in both problems.

1.5.1 Studies using children diagnosed with social phobia
In considering social phobia in the strictest sense, this first group is the most important to consider. There are only two studies reported in the literature which focus only on children diagnosed with social phobia according to diagnostic
criteria (Albano, Marten, Holt, Heimberg & Barlow, 1995; Beidel, Turner & Morris, 1996). Both these studies contain relatively small samples and do not compare the interventions against control groups. However, they do detail interventions specifically designed to treat social phobia, with Albano et al (1995) conducting a pilot study evaluating cognitive-behavioural treatment program specifically for adolescents with social phobia and Beidel et al (1996) evaluating an intervention study for preadolescent children.

The study by Albano et al (1995) was very small with only five participants (2 females, 3 males, age 13-17 years) who took part in a group consisting of 16 sessions run over 3 months. Four of these sessions included parental involvement. The program (Cognitive-Behavioural Group Treatment for Adolescents (CBGT-A)) was developed as a downward extension of the successful adult social phobia protocol (Heimberg, Dodge, Hope, Kennedy, Zolla & Becker, 1990). The program was divided into two components, the first part using psychoeducation and skill building, including cognitive restructuring and assertiveness training and the second part consisting of exposure, including simulated within-session exposure and in vivo exposure. Homework assignments were completed between sessions. A wide range of assessment tools were used, including a diagnostic interview (Anxiety Disorders Interview Schedule-Child and Parent Versions (ADIS-C/P)) (Silverman & Nelles, 1988), behaviour tests (including an oral reading and impromptu talk, physiological measures and a self report questionnaire (State-Trait Anxiety Inventory for Children-Trait form, STAIC-T; Spielberger, Edward, Lushene, Montouri, Platzek, 1973), which were completed before the group and at 3 and 12 month follow-up. Overall, the results were very promising with social phobia decreasing to subclinical levels for 4 out of the 5 participants at 3 month follow-up and at one year 4 of the 5 were free from symptoms with 1 participant having subclinical features. Comorbid symptoms also decreased. Clearly, this study has a number of methodological constraints, including the lack of control group and very small number of participants, hence, it is difficult to generalize these results or
conclude what parts of the intervention were particularly effective. However, it is useful in its description of an intervention which specifically targets social phobia in adolescents.

Beidel et al (1996) focussed on a younger population (age 8-12 years) and devised an intervention program directed specifically at these preadolescent children. Called Social Effectiveness Therapy for Children (SET-C), again this program was developed as a result of studies of adult social phobia and its components are very similar to those described in the Albano et al (1995) study. A range of assessment procedures were used and children were assessed pre and post group, although the follow-up period was not entirely clear from the authors report. The assessors were blind to the time of assessment. The numbers were higher in this study (n=16) and following 12 weeks of treatment, a decrease in anxiety as rated in the Social Phobia and Anxiety Inventory for children and observed anxiety was reported. Again no control group was used, hence reducing the applicability of the study, although the authors report that an evaluation of the SET-C with a credible control group was planned. The results of this study were unavailable at the time of writing this review.

1.5.2 Treatment studies using mixed anxiety groups which include those with social phobia

This second group of studies, includes intervention studies which were designed to decrease anxiety in children and include sub-samples of children with social phobia. The series of studies by Kendall et al (Kendall, 1994; Kendall & Southam-Gerow, 1996; Kendall, Flannery-Schroeder, Panchelli-Midel, Southam-Gerow, Henin & Warman, 1997) and Barrett (Barrett, Dadds, Rapee & Ryan 1996; Barrett, 1998) all conduct trials using cognitive-behavioural procedures (CBT), using the *Coping Cat programme* (Kendall, 1994) or *Coping Koala programme* (Australian version, Barrett et al, 1996) to alleviate children' fears. This programme combines several procedures to treat anxiety disorders in children including relaxation training, cognitive restructuring and exposure to
anxiety-producing situations. The main differences in these programmes are that they do not include social skills training as part of the intervention, compared to the CBGT-A (Albano et al, 1995) and SET-C (Beidel et al, 1996) programs which address social skill deficits directly.

Kendall (1994) completed the first randomized control trial to treat anxiety disorders in children (aged 9-13 years). In this study, a 16 session, cognitive-behavioural treatment (CBT) was compared with a wait-list condition for three anxiety disorders, namely, separation anxiety disorder (SAD) (n=8), avoidant disorder (AD) (n=9), and overanxious disorder (OAD) (n=30), as identified by the DSM-III-R. However, no specific mention is made of social phobia in this study, although in later studies, Kendall discusses social phobia as being included in avoidant disorder (Kendall, Flannery-Schroeder, Panichelli-Mindel, Southam-Gerow, Henin and Warman, 1997) (see later). The assessment battery comprised of a structured diagnostic interview (ADIS-C/P), a variety of standardized self-report measures and parent and teacher measures. Overall, this methodologically sound study provides support for the effectiveness of CBT for children with anxiety problems which are maintained at one year follow-up and three year follow-up (Kendall & Southam-Gerow, 1996). Although, the results warrant optimism in terms of a possible effective intervention for anxiety in children, it does not necessarily add to the knowledge of the effectiveness of this type of treatment for social phobia. Even if social phobia is assumed to be subsumed under the avoidant disorder type, the results are not analysed by diagnosis. In a larger study (n=94, age 9-13 years), Kendall et al (1997), again confirmed the efficacy of CBT, in a replication of the previous study but with a new sample of children with anxiety disorder. In this study, acknowledgement is made to the change in diagnostic categories in the interim period in which these studies took place (overanxious disorder became defined as generalised anxiety disorder and avoidant disorder became part of the category of social phobia, (DSM-IV)). The authors report that social phobia "is considered with avoidant disorder as 'a comparison of cases diagnosed independently by both
systems revealed that the change in nosology had not changed the characteristics of identified cases" (Kendall & Warman, 1996). A significant reduction on severity scores, according to children and parent reports were found and a significant proportion of cases returned to non-clinical levels for anxiety following treatment and in comparison to controls and these changes were maintained at one year follow-up. The changes were reported to be consistent across the three diagnostic groups.

However, caution may be required here in interpreting these results in respect to social phobia. Certainly overlaps exist between avoidant disorder and social phobia and the diagnostic criteria for each is similar. However, some differences have been found, particularly in relation to social skills. Marks (1985) described two groups of social phobics: 'pure' social phobics who do not have social skills deficits or those with social skills deficits who are likely to meet criteria for avoidant disorder. Empirical evidence for this distinction has been demonstrated by Turner et al (1986), who found that patients meeting criteria for social phobia were rated by observers as generally more socially skilled than were those diagnosed with avoidant disorder. Hence, avoidant disorder of childhood may represent an extreme form of social phobia, similar to the relationship that exists between social phobia and avoidant personality disorder in adult populations (Herbert, Hope & Bellack, 1992, in Beidal and Randell, 1994). These studies do demonstrate the efficacy of the treatment for avoidant disorder and hence one could tentatively conclude that the results also apply to those with social phobia but this must not necessarily be a foregone conclusion.

The need for parental involvement in the treatment of anxiety was addressed by Barrett, Dadds and Rapee (1996) who carried out a large randomized control study (n=79) of children aged 7-14 years, incorporating a structured family intervention in the treatment. Although other studies had addressed the importance of family involvement, this study was the first to systematically evaluate the family's role in an intervention for anxiety. Nineteen (24%) of this
sample were diagnosed as having social phobia according to a structured diagnostic interview. The children were randomly assigned to receive cognitive behaviour therapy (CBT) alone, CBT plus a family management intervention and a waiting list control. The family management intervention had three main components: (1) training parents to reward courageous behaviour and discourage excessive anxiety in the child, (2) to deal with their own emotions and anxiety and (3) to use communication and problem-solving skills. The addition of a family based intervention enhanced the treatment outcome on nearly all of the measures and those reaching diagnostic criteria following the treatments was significantly lower than in the CBT treatment group. Again, as in the previous studies, these results were not analysed separately by specific diagnosis and so it is unclear whether these interventions were specifically effective for children with social phobia (Beidal & Turner, 1998).

Another study by Barrett (1998), evaluated a CBT intervention, this time using a group format which included a family based intervention. A total of 60 children were recruited and randomly assigned to 3 groups (group CBT, group CBT plus family management and wait list). Only a small minority of these (n=4) were diagnosed with social phobia using ADIS-C/P, with other diagnostic categories including overanxious disorder (n=30) and separation anxiety disorder (n=26). Using an interview and a variety of standardized self-report measures, the effectiveness of the interventions was evaluated at posttreatment and 12 month follow-up. Across the treatment conditions, 65% of children no longer fulfilled diagnostic criteria for an anxiety disorder in comparison with one quarter of children on the wait list. At the 12 month follow-up, more children (85%) who had received the group CBT plus family management were diagnosis free compared to the group CBT only (65%), indicating added benefits from the addition of a family component, hence in agreement with Barrett et al (1996). This study the group intervention proves as effective as individual intervention in the Barrett et al (1996) study. As has been common in the previous studies mentioned, the data was not analysed by diagnostic category, although given
the very small number in this sample with social phobia, even if it had been it would probably have been of limited value.

Approaching intervention for anxiety disorders in a different way to the above studies, Dadds, Spence, Holland, Barrett and Laurens (1997) conducted a prevention and early intervention controlled trial. They demonstrated that in a sample of 128 children derived from a total population sample of 1786 children screened for anxiety, 45 had either a full diagnosis or features of social phobia. These children, in addition to those with a variety of other anxiety diagnoses were randomly allocated to a 10 week school-based child and parent focused psychosocial intervention ((based on the Coping Koala program (Barrett, Dadds & Holland, 1994)) or to a monitoring group. Children who received the intervention has lower rates of anxiety disorder at 6 month follow-up compared to those who were identified but only monitored. The authors conclude that the intervention as successful in reducing rates of anxiety disorder in children with mild-moderate anxiety disorders, as well as preventing the onset of anxiety disorders in children with early features of them. Again, it is unclear how effective this study was in either treating or preventing the onset of social phobia as the authors analyse the results by group rather than diagnosis.

To summarise the studies discussed in this section, a common feature is a lack of arialses by diagnoses, although there does appear to be good evidence for the efficacy of multi component therapy including CBT and family involvement in the treatment of anxiety disorders in childhood. A common feature in all the studies so far mentioned is the use of some sort of exposure in the treatment package, which, as mentioned earlier is one of the key components for dealing with anxiety. Social skills deficits are also frequently mentioned as being a core component in those with social anxiety and is certainly included in some of the interventions discussed. The use of social skills training will be discussed in more detail in the next section.
1.5.3 Other associated groups

These groups are also important to consider, as, despite the lack of strict diagnostic criteria which inevitably results in difficulty with generalization, some features of the children who present with school refusal, selective mutism or shy/socially withdrawn/isolated have common features with those diagnosed with social phobia. These samples are usually heterogeneous in nature but some of the findings may be applicable to children with social phobia.

1.5.3.1 School Refusal

School refusal is a relatively common clinical presentation which may be related to a variety of disorders. Separation anxiety, simple or social phobia and major depressive disorder are the most frequent diagnoses for school refusers, with many cases having multiple diagnoses (King, Ollendick & Tonge, 1995). When the concern centres upon social situation that are perceived as threatening, the diagnosis is more likely to be social phobia (Phelps, Cox & Bajorek, 1992). Kearney and Silverman (1990) suggest four categories of functions served by school refusal of which 'escape from aversive social situations' is one. They say 'this concerns problems based upon negative relationships with others (teachers and/or peers), particularly where an element of evaluation is perceived to be present'. Last, Hansen & Franco (1992) reported that 30% of children who were school refusers had social fears.

King, Tonge, Heyne, Pritchard, Rolling, Young, Myerson & Ollendick (1998) conducted a study to evaluate the efficacy of a 4 week cognitive-behavioural treatment program for children who refused to go to school. The sample consisted of 34 children who all met Berg and colleagues (1969) criteria for school refusal. Using the ADIS-C and ADIS-P to document diagnosis, 6% of the sample were reported as having social phobia. The children were randomly assigned to the cognitive-behavioural treatment or a waiting list control. The results indicated a significant improvement in school attendance for those children receiving the treatment, as well as improvements of self-reports of fear,
anxiety, depression and coping which were maintained at 3 months follow-up. However, the results are not reported by diagnostic category so it is not possible to deduce how the social phobia group did and whether it differed from the other diagnostic groups on any of the measures pre and post treatment. King, Tonge, Turner, Heyne, Pritchard, Rollings, Young, Myerson & Ollendick (1999) conducted another similar study with 20 children of whom only 2 had a diagnosis of social phobia and again did not analyse the results by diagnosis. Similarly, in a study carried out by Last et al (1998), although attempts were made at the assessment stage to diagnose the children (n=54) using a modified version of the Schedule for Affective Disorders and Schizophrenia for School-Age Children (K-SADS-P) (Last, unpublished), the authors combine the primary diagnosis of simple and social phobia, giving an overall rate of 58%. Therefore this study does not provide particularly useful information regarding social phobia and its presentation as school refusal, nor does it present the results by diagnostic category so does not contribute to our understanding of treatment efficacy for social phobia. In Elliott’s (1999) comprehensive review on conceptualization, assessment and treatment of school refusal, he suggests that where refusal is considered to be primarily the result of a strongly phobic reaction to being in school, systematic desensitisation and immediate or gradual exposure to school are recommended. Where it is largely a means of avoiding social and/or evaluative situations, modelling, role play and cognitive therapy are suggested.

1.5.3.2 Selective mutism

Although, it is beyond the scope of this review to critically evaluate the literature on the treatment of selective mutism, it is important to note that it has been more recently viewed as a severe form of social phobia (Black & Uhde, 1992) as oppose to being viewed primarily as a form of oppositional behaviour as it has been in the past. In a study by Black and Uhde (1995), they found that 95% of their sample of selectively mute children met the criteria for social phobia. However, one of the differences between children presenting with social phobia and selective mutism is that they often exhibit forms of defiant and oppositional
behaviours as well, which does complicate the clinical presentation and thus the choice of the intervention (Beidel & Turner, 1998). There are no published controlled empirical studies of the behavioural treatment of selective mutism (Beidal & Turner, 1998) although case descriptions suggest that behaviour therapies or combination treatments may be effective. Beidel & Turner (1998) outline a treatment approach for selective mutism which may encompass social phobia using their SET-C program.

One important issue from the consideration of these studies is the clinical presentation of social phobia and how this may affect what treatment interventions are chosen to deal with it.

1.5.3.3 Shy, socially withdrawn or isolated children

Shyness has most often been thought of as a personality or temperamental attribute rather than a psychological construct (Turner, Beidel & Townsley, 1990). Whether it is true to say that social phobia can be viewed as a form of extreme shyness, in the same way that severe forms of 'sadness' may be conceptualised as depression as Stein (1996) has purported, is an interesting question. In a paper discussing social phobia and its relationship to shyness, Turner et al (1990) discuss that although some similarities do exist such as fear of negative evaluation, avoidance of anxiety producing situations, social skills deficits and similar somatic responses in social situations, there are also important differences. Social phobics display more severe avoidance behaviour than do the shy, they have an earlier concern with social evaluation and the severity of the social skills deficits may differ. The authors conclude that it is unclear if social phobia represents an extreme form of shyness or a qualitatively special type of shyness. Not all those with social phobia are shy, as in the case of those with specific phobias eg: speech phobias. Hence, it does not appear that shyness is a necessary condition for one to become social phobic.

Social skills training (SST) is designed to teach those skills necessary for
effective interpersonal discourse (Beidel & Turner, 1998) and has proved effective in increasing social interaction in children with mild to moderate levels of social withdrawal (Sheridan, Kratochwill & Elliott, 1990; Whitehill, Hersen & Bellack, 1980) as well as in shy adolescents (Christoff, Scott, Kelly, Baer & Kelly, 1985). This latter study was had only a small number of participants (n-6). Typically, SST provide children with instruction in specific behaviours, for example smiling, eye contact, initiations, conversational skills, modelling of effective social behaviours, opportunities to practice the behaviours and verbal feedback regarding the appropriate response. The intent is to teach the necessary skills and give children the opportunity to put them to use. Jupp and Griffiths (1990), in one of the few comparative treatment trials using SST, reported that both a traditional discussion psychotherapy group and a SST group improved social interaction in shy adolescents. Only the SST group had a change in self-concept. Similar outcomes were found in a study by Schneider and Byrne (1987) with socially withdrawn children. In all of these studies, it not possible to know how many of these children in the samples would have also met the criteria of social phobia and hence it is not possible to apply these findings directly.

However, it must be pointed out that SST alone would not be expected to produce an optimal treatment outcome because a crucial component of any successful intervention (prolonged exposure to the feared situation) had not been addressed adequately (Beidel & Turner, 1998).

It is interesting to note that one of the core differences in the anxiety interventions investigated in the previous two sections, is that the studies addressing social phobia included a SST component in their intervention, whereas the studies using a variety of anxiety diagnoses did not. Given a commonly found feature of social phobia is impairment of social functioning, it may be argued that the inclusion of SST in addition to behavioural tasks involving exposure is an important factor as part of any intervention.
1.6 Discussion

What is clear from this review is that there are very few treatment trials to evaluate intervention for social phobia in children. The small number of studies which do exist demonstrate the effective use of interventions involving cognitive-behavioural strategies and parental involvement. Methodological constraints limit the generalizability of these studies. Other studies do demonstrate the efficacy of cognitive-behavioural strategies for anxiety disorders, both individually and within a group setting with the added component of family involvement increasing the effect. However, issues regarding diagnosis and a lack of clarity about the effect of interventions for different diagnoses makes it difficult to reach any firm conclusions regarding the most effective treatment for children with social phobia. Cognitive behavioural therapy has been shown to be an effective treatment for anxiety disorders in childhood. The application of this intervention primarily to children with social phobia have been relatively limited. However, it is promising that randomized control treatment trials have demonstrated good efficacy over and above controls so a future direction for research may be extend these studies to focus specifically on social phobia.

There is an absence of data addressing important clinical issues such as characteristics of those who refuse treatment, those who drop-out of treatment or those who do not improve with treatment. In addition to this, the subtypes of specific or generalized social phobia are rarely discussed in the outcome literature. Many studies use multi component treatment but little is known about the relative efficacy of the different components. Therefore, these are areas which could be targeted by further research.

In considering the literature on any type of intervention studies within psychological research, it is important to consider that they are efficacy trials. That is, they evaluate the intervention under optimal condition (Roth & Dadds, 1999). However, the majority of interventions provided for children and families who present to mental health clinics are implemented in not-so-optimal
conditions with exclusion criteria not optional. Staff may not be as specialized nor research motivated. Therefore the ecological validity of intervention trials must be given careful consideration.

In order to further our understanding of treatment appropriateness and effectiveness for social phobia, and as is the case for interventions for any clinical problem, longitudinal studies are necessary to (1) develop efficacious and effective programmes (2) discover the specific factors necessary and sufficient to prevent the onset of anxiety disorder and build resilience and (3) track the effectiveness of these strategies over time (Roth & Dadds, 1999).
References


ADDITIONAL MATERIAL

(i) Thesis submitted in part fulfilment of the MSc in Clinical Psychology, Institute of Psychiatry, Sept, 1996

(ii) Copy of the candidates clinical psychology degree qualification
The Investigation of Predictors and Characteristics associated with Body Size Dissatisfaction in Female Adolescents

Elizabeth Collins

Dissertation submitted in partial fulfillment of the requirements for the award of Master of Science Degree in Clinical Psychology, Department of Clinical Psychology, Institute of Psychiatry
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ABSTRACT

Problems associated with body image and eating difficulties have long been identified in women and their occurrence generally begins during adolescence. Little is known about the individual factors which are associated with body shape dissatisfaction. Using a cross-sectional design, with a large subject group, this study aims to identify the characteristics which are associated with body size dissatisfaction and to investigate the factors which may predict its occurrence. Actual body weight was found to be a significant correlate of feeling dissatisfied but the results also suggest that it is a combination of developmental, social and personality factors which are also important predictors of body size dissatisfaction.
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1.1 Definition

In order to explain what is meant by body size dissatisfaction, it is pertinent to make reference to the concept of body image. Body image is the way people perceive themselves and equally important, the way they think others see them (Fallon, 1990). Body image includes perception of the extent to which a person matches the standard and the perception of the relative importance that members of the cultural group and individuals place on the match (Fallon & Rosen, 1985).

There is a large literature on body image. The body image construct is multidimensional with a number of conceptualizations. Generally, researchers and clinicians have focused on the physical appearance aspect of body image which has been subdivided into two components. The first is a perceptual component, commonly referred to as size-perception accuracy (ie: estimation of body size) and the second is a subjective component, which entails attitudes toward body size/weight, other body parts or overall physical appearance (Cash & Brown, 1987). Other conceptualizations of body image have also generated considerable research. For instance, a perturbation of neurological functioning may lead to various body-image disturbances such as the failure to perceive that a part of the body belongs to the self. Another
disturbance involves the actual loss of a part of the body with a coexisting lack of perceptual realizations of the loss - the phantom-limb phenomena (Thompson, Penner and Altabe, 1990). It is apparent that the phrase body image has been used as an umbrella label with its specific meaning depending on an individual researcher's definition. During the past decade, much research in this area has focused on size overestimation in individuals with eating disorders (Cash & Brown, 1987). However, it is becoming apparent that many non-eating disordered individuals have some level of appearance-related, body-image disturbance, such as general dissatisfaction with their body, specific size/weight dissatisfaction, or size perception inaccuracy (especially overestimation of body sizes) (Cash, Winstead & Janda, 1986; Thompson & Psaltis, 1988; Thompson & Spana, 1988).

Explanations of disturbance generally fall into two categories: theories that identify the factors that lead to subjective body dissatisfaction, and preliminary models which offer an understanding of perceptual body size overestimation. This dichotomization fits with the findings which indicate that there is little overlap between evaluative and perceptual aspects of disturbance (Thompson, Penner and Altabe, 1990). Indices of the evaluative component of body image disturbance include affective, cognitive and behavioural aspects and together these may contribute to what is referred to as body dissatisfaction (Thompson, Altabe, Johnson and Stormer, 1994; Williamson, Barker, Bertman and Gleaves, 1995).
1.2. **Assessment of Body Image**

To date over 40 instruments for the measurement of some aspect of body image have been published (Thompson, 1992). Most of these techniques have focused on the assessment of the physical appearance component of body image. The interest in this aspect of body image can be traced to the studies by Slade and Russell (1973) that observed greater size overestimation in anorexics than among controls.

There are two broad categories of devices used for the assessment of the perceptual components of body image. Cash and Brown (1987) labelled these two categories the 'body-part' and 'distorting image' (whole-body) procedures. Body part procedures require that subjects match the width of the distance between two points to their own estimation of the width of a specific body site. There are a host of procedures which have been devised for doing this. Whole image adjustment methods require subjects to manipulate material eg: photographs or videos to match their own conception of their size.

Measures vary greatly in the specific aspect of the subjective component of physical appearance that is measured. The most widely used methods of determining an overall rating of size/weight satisfaction are the schematic figures or silhouettes of different body sizes, ranging from very small to very large (Fallon & Rozin, 1985; Keeton, Cash and Brown, 1990; Thompson & Psaltis, 1988). Subjects are asked to choose the
figure that they think reflects their current and ideal body size. The discrepancy is taken as an indication of level of dissatisfaction. Questionnaire measures generally focus on a broader conception of the subjective component. Some scales focus fairly exclusively on weight/size dissatisfaction (e.g., Body Cathexis Scale (Secord & Jourard, 1953); Body Parts Satisfaction Scale (Berscheid, Walster and Bohnstedt, 1973); Eating Disorder Inventory (Garner, Olmstead & Polivy, 1983)).

One difference between size estimation / figure choices and subjective components, is that the former does not prove that one is dissatisfied, whereas the latter is all about subjective dissatisfaction. There is a large overlap between subjective measures of body image disturbance. A study by Thompson, Altabe et al (1994) where a number of commonly used measures were subjected to factor analysis, concluded that the measures under investigation largely reflected an underlying single factor of body image.

1.3 Epidemiology of Body Shape Dissatisfaction

1.3.1) Gender

It is well established that it is the females in our society that have a thin ideal body size, which has become thinner over the centuries. Fashions in thinness have been identified by the study of models shown in women's magazine's (Silverstein et al, 1986) and by ascertaining the
thinness of contestants for beauty pageants. Garner et al (1980) obtained the recorded weights of contestants for the Miss America Pageant from 1959 to 1978. He concluded that there had been a clear shift towards a thinner ideal shape for women in western culture over the 20 year period. It also noted that these changes in ideal weight occurred within the context of increasing weight norms for the general population of young women. However, given that fashion models are much the same now as they were in the 1970's, there is no evidence for a thinner ideal now. It may be that pressure for thinness is not just focusing on the younger age group, but is apparent for older women also.

Many studies have shown that women, many of them normal weight, are dissatisfied with their weight and shape and would like to be thinner (Gamer et al, 1980; Fallon & Rozin, 1985; Rozin & Fallon, 1988; Wardle and Beales, 1986; Thompson & Psaltis, 1988). Adolescent boys are more interested in gaining or maintaining weight whereas girls’ desire to lose weight begins to mount at puberty, increasing through adolescence (Nylander, 1971). College females judge their current figure to be significantly heavier than their ideal figure. In contrast, male college students feel themselves to be close to their ideal in weight (Cash and Pruzinsky, 1990)

Cash et al (1986) in a survey of 2,000 adults in the USA found that 47% of females and 29% of males who were actually normal weight classified
themselves as overweight. In contrast, 40% of underweight women judged themselves to be normal weight, compared to only 19% of men. This survey revealed that 55% of females and 41% of males expressed dissatisfaction with their body weight. Studies have found that men and women did not differ on several global measures of body dissatisfaction, rather, it is the specific focus of their discontent that was different; females generally wanted to be thinner, whereas males were as likely to desire to be heavier (Cash & Brown, 1989; Silberstein, Striegel-Moore, Timko & Rodin, 1988). As the female body has more fat than the male body, women, therefore, naturally deviate from a lean and toned norm. If this is the ideal, females of normal weight are misjudged and also misjudge themselves as overweight (Fallon, 1990). Although the cultural preoccupation with size and attractiveness does affect men as well as women, the sociocultural pressure for women to be thin, results in there being a clear gender difference in body size dissatisfaction.

1.3.2) Age

Early adolescence is one of the modal ages of onset for body dissatisfaction, dieting and eating problems (Crisp, 1980; Levine, 1987). However, opinions differ as to the stage at which weight concerns emerge as significant. Most of the research initially focused on teenager and student populations, with the attention only recently being turned to the younger age group. Nylander (1971) was one of the first to describe not only dieting in adolescents, but also a high incidence of feeling fat at
each age level in 14-18 year old Swedish high school girls. However, this study is compromised because of the choice of a purportedly high risk sample. In studies of British teenage girls, weight dissatisfaction was found to be relatively stable over the 14-18 age group (Wardle and Beales, 1986) although dissatisfaction with the size of individual body parts has been found to increase with age (Davies and Furnham, 1986; Solomons et al, 1988). Several studies have concluded that a range of dieting concerns are in place by the age of 12 years old (Moore, 1988; Hill et al, 1989). Wardle and Marsland (1990) in a study with 846 girls found that the levels of weight concern were almost as high in the 11 year olds as in the 18 year olds. This absence of age effects reinforces the notion that weight concerns are already well established in girls by the early teenage years. In a study of children aged 7 to 12 years old, 41% of the girls reported having tried to lose weight and 55% of the girls wanted to be thinner, with this desire increasing with age (Maloney, McGuire, Daniels & Specker, 1989).

As many of the studies do not report objective weight indices, it makes it impossible to evaluate the 'appropriateness' of such concerns and behaviour. Hill et al (1992) did account for body weight and found that children as young as 9 years who were not overweight, felt dissatisfied with some element of body shape or weight and pursued dieting as a course of action. In a review by Feldman, Feldman and Goodman (1988), they concluded that children acquire an active dislike of the
obese body build by 6 to 9 years of age and by the age of at least 7 years they have acquired adult cultural perceptions of attractiveness. Therefore the evidence points to the effects that societal pressures and stereotypes have on young children which is decreasing the age at which body concerns become active.

1.3.3) Social Class

Surveys conducted in the United States have generally shown that the level of fatness in adults is related to socio-economic status (SES) (Garn, Sullivan and Hawthorne, 1989). For adult females, the relationship between socio-economic status (SES) and fatness level is strongly and linearly negative. Females of higher SES tend to be leaner (Garn, 1986) whereas poorer females tend to be fatter and are more often obese (Stunkard et al, 1972). Wardle and Marsland (1990) in a large study of British children (n=846), using school as a surrogate measure of SES, confirmed this finding. They showed that higher SES children were taller and thinner than lower SES children.

Weight concern and dieting behaviour has been shown to be more common in higher social class girls and women in America. For example, Rosen et al (1987) found that adult females and young girls of higher socio-economic status have been shown to diet more often than females of lower social class in the United States. A study by Dornbush et al (1984) found a positive association between greater desire for thinness
and social class in girls, although not in boys. They reported that the social status differences were most striking in the thinnest girls, with five times as many thin girls from the higher income group than from the lower income group wanting to be thinner. This was replicated by Drewnowski et al (1994) in a group of college students. Self reported body measurements were used to calculate BMI, and SES was assessed using father's education as a predictor of family income. They reported that the prevalence of dieting, binging and vigorous exercise for weight control increased with SES for women but not for men.

Although the differences are not large, body satisfaction has also been shown to be related to SES, irrespective of body size. In the study by Wardle and Marsland (1990), when they took the variation in body size into account, they found that on measures of body image there was a trend, in the girls, for more weight concern in those from the higher social status schools. They had a tendency to feel less satisfied with their bodies, were more likely to want to lose weight and were much more likely to describe individual parts of their bodies as too big.

Whitaker et al (1989) carried out an epidemiological study on school children (n=5596) living in a geographically defined population in the USA. This study which had a high completion rate, used self reported weight and height to compute BMI, and used the students report of the educational and occupational status of both parents to measure social
class. They found that 95% of girls of all social classes above the median BMI want to weigh less regardless of social class. However, higher social class girls were more likely than their lower class counterparts to have dieted in the past year, especially those who were heavier. They found that anorexic and bulimic symptoms among nonreferred adolescents were not strongly associated with the upper social classes. The authors propose that these findings suggest that it is the combined effects of age, sex and BMI that are more clearly implicated in the struggle to be thin than is social class. Sobal and Stunkard (1989) in a review of the literature, suggest that a number of variables may mediate the influence of attitudes towards obesity and thinness among females. These include dietary restraint, physical activity, social mobility and inheritance.

The literature does suggest that social class differences exist in actual body size, satisfaction with the body and dieting behaviours. However, the differences are not large nor is the relationship a simple linear one. The debate over the mechanisms and pathways that lead to this has yet to be solved and it is likely that a number of predisposing factors and vulnerability factors play an important role.

1.3.4) Culture

As each cultural group has its own definition of beauty, it is likely that a cultural difference may exist regarding ideal weight. The prevailing idea
of thinness as a marker of beauty in women has been identified as an important factor in the aetiology of eating disorders. In non-Western societies where thinness is usually not associated with wealth, sexuality, fertility and womanhood, there is a lower prevalence of disordered eating (eg. Buhrich, 1981). Furnham and Alibhai (1983) found Kenyan women rated larger figures more favourable than British women. In a study of mothers attending a paediatric clinic in London, Hodes et al (1996) found that UK and Mediterranean mothers find slimmer figures of girls more attractive than mothers from South Asia, the Caribbean, and sub-Saharan Africa. There were no differences in the actual body shape of mothers and children, nor maternal eating attitudes between ethnic groups. Therefore, the results were not related to individual differences in weight or eating attitudes, but reflected culturally influenced differences in attitudes to the body.

Studies have found ethnic differences in disordered eating within Western countries and it is clear that there is an effect of sociocultural actions. For example, Nasser (1986) found that Arab students in London had higher scores on a measure of eating pathology than Arab students in Cairo and other community studies have suggested that the less westernised cultural groups report a lower rejection of obese body types (Rips et al, 1989). Mumford et al (1992) in a study of adolescent girls attending school in Lahore, Pakistan, found that there were higher levels of abnormal eating attitudes in the girls most exposed to Western culture.
There was also evidence that this relationship was mediated through greater dissatisfaction with body shape. Raich (1992) in a comparative study found that 70% of American girls compared with only 48% of Spanish female adolescents want to be thinner than their current size.

Wardle and Marsland (1990) in a study of 11 to 18 year olds, showed that there were significant differences between white, black and Asian group in almost all of the measures of weight concern and these were independant of socio-economic effects. Black girls were less likely to feel fat, want to lose weight or think that specific parts of their bodies were ‘too big’. More black girls also wanted to gain weight. This finding with respect to their body image could therefore represent a lesser investment with the developed world’s obsession for thinness in women (Wardle and Marsland, 1990). Asian girls were not as likely to think of themselves as being fat as the white girls, but were more likely than the black girls. This may be explained by Asian girls having fewer positive cultural images of ‘bigness’ in women to identify with than those from African and Caribbean cultures. There may also be a traditional association of smallness and beauty in Asian societies.

In contrast, Hill and Bhatti (1995) illustrated that British preadolescents of Asian origin appear to be at least as vulnerable to eating disorders as British caucasians. Their desire for thinness was present even though the Asian girls had a significantly lower body weight than their Caucasian
peers. Although documentary evidence has yet to be accumulated that points to changes in the body weight of significant female images in the Asian media, Hill and Bhatti (1995) point out that contemporary evidence shows that Hindi film actresses appear much slimmer than the more voluptuous figures which were characteristic up to the early 1980's. Also, given that this is a younger sample (average age = 9 years) than the Wardle and Marsland sample, it points to the impact culture may have on the younger and possibly more vulnerable age group. Emphasis on thinness is not the only cultural variable that has been thought to contribute to the development of eating disorders (Striegal-Moore et al (1991). Other social climate variables may be potential risk factors such as competitive environments and environments which foster conformity to traditional norms and which encourage women to engage in traditionally feminine behaviours may be conducive to the development of disordered eating (Rodin, Silberstein & Striegel-Moore, 1985).

It is clear that there is a cultural effect on desire to be thin and body dissatisfaction but more work needs to be done on establishing the relationship between cultural ideals and the body image of individuals (Wardle and Marsland, 1990).

1.4 The Body Dissatisfaction Continuum: Links between Body Dissatisfaction, Dieting and Eating Disorders

The presence of body image dysfunction and eating disturbance in
adolescent females has been well documented (Fabian and Thompson, 1989; Thompson, 1990, 1992). Overconcern with body size leads to eating disorders which has been shown by a number of cross-sectional (Fabian and Thompson, 1989; Leon et al, 1993) and prospective studies (Attie and Brook-Gunn, 1989; Striegel Moore et al, 1989; Rosen et al, 1990). Fabian and Thompson (1989) found that subjective body dissatisfaction was highly correlated with eating disturbance in female adolescents. Leon et al (1993) found that body dissatisfaction was one of the strongest predictors of risk factors associated with eating disturbance. Attie and Brooks-Gunn (1989) evaluated eating disturbance, body dissatisfaction, maturational status, family relationships, and psychopathology in adolescents girls over a 2 year period. They found that body dissatisfaction was the only significant predictor of increases in eating dysfunction. However, eating disorder subjects cannot be distinguished from other weight preoccupied women on ratings of body dissatisfaction alone (Garner, Olmsted & Garfinkel, 1983; Wilson & Smith, 1989).

Dieting which is a response to feeling fat and is a tangible manifestation of the thinness ideal, normally precedes the onset of an eating disorder (Polivy and Herman, 1985) and is regarded as an important risk factor for the development of an eating disorder (Striegel-Moore et al, 1986). By 15 years old, the relative risk of dieters becoming cases of eating disorder is eight times that of non-dieters (Patton, Johnson-Sabine et al,
It is commonly assumed that dissatisfaction with some element of body shape or weight is the instigator for dieting in adolescents and adults. The apparent relationship between dieting and dissatisfaction with body weight or shape is present in both adults and young adolescents alike, but is complicated by the individuals' weight status (Hill et al, 1992). Many of the studies do not report objective weight indices making it impossible to evaluate the 'appropriateness' of such concerns and behaviour. There are higher rates of body size dissatisfaction in those who are overweight according to standard height/weight charts or own subjective ratings (Davies and Farnham, 1986a,b; Eisele et al 1986).

Hill et al (1992) investigated dieting motivation and the underlying attitudes to body weight and shape in 9 and 14 year old girls. The study confirmed the presence of high levels of dieting motivation in a number of adolescent and pre-adolescent children. Although, dieting motivation and body discontent were apparent in girls who were overweight (more that 10% over their age standardized weight norm), a large proportion of the sample showing restrained eating behaviour were not overweight and a few were actually underweight. The highly restrained girls expressed low body esteem and discontent with their body build, weight and certain regions of their body. Furthermore, their 'ideal' body shape was significantly slimmer than their perception of their current body shape and
slimmer than that of even the non-dieters. Therefore, it appears that it is not just actual body weight that leads to body dissatisfaction but for many girls, it is their perception of their body shape which is at the root of their motivation to diet (Hill et al, 1992). A similar conclusion was drawn in a study of 15 year old girls by Wadden, Foster, Stunkard & Linowitz (1989) who found it was perceived weight rather than actual weight which was best correlated with weight and figure dissatisfaction.

Fairburn and Beglin (1990) suggested that research is needed to shed light on mechanisms that may influence development of eating disorder symptomatology and to identify variables that could serve as potential targets for prevention efforts. Going on the 'continuum hypothesis' which has been proposed (Nylander, 1971; Fries, 1974), body size dissatisfaction is one of the first steps in the pathway to the development of eating disorders. Strober (1986) concluded that although weight preoccupation and attendant behaviour such as dieting may be widespread among girls and women, comparatively few go on to develop severe, full-blown eating disorders. However, it can pose its own significant clinical issues in the absence of a diagnosed eating disorder. Only recently have investigators begun to articulate various theoretical approaches for the development of body image disturbance (Cash and Pruzinsky, 1990; Thompson, 1990) and there is a notable absence of studies testing these various theoretical approaches in the development of body image problems. Even though only a few of those with body size
dissatisfaction go on to develop an eating disorder, elucidating contributing factors at the beginning of the chain may provide useful information.

1.5 **Aetiological Factors in Eating Disorders**

There is a plethora of research on aetiological factors in the development of eating disorders although there is no widespread agreement as to its cause. There are a number of explanatory models and the literature frequently refers to causation as being 'multifactorial'. Many factors, including a wide range of psychological, social and physical factors have been suggested as probably contributing towards risk. These include elements such as cultural fashions in eating behaviour and body-shape ideals, personality structure, family environment, genetics and sexual experience (Campbell, 1995). Although no description has yet identified a necessary causal element in eating disorders, these factors may contribute to the understanding of part of the pathway, that of the development of body dissatisfaction and abnormal eating attitudes.

Given that a large number of factors are associated with the aetiology of eating disorders, only a small number of them will be addressed here. Only some social and psychological elements are pertinent to this study given that their association stems further than to the development of eating disorders. These factors which are correlated with abnormal eating attitudes and which are deemed to be important include family
factors (Striegel-Moore and Kearne-Cooke, 1994; Belfer, 1983), self-esteem (Button, 1985, 1992, 1993) and personality characteristics such as anxiety (Fisher, 1991, 1994), and perfectionism (Rastam and Gilberg, 1992).

1.5.1) Family Factors
An extensive theoretical and clinical literature suggests that familial factors contribute to the development of eating disorders. Social learning theory proposes that parents are important agents of socialization who, through modelling, feedback and instruction influence their children's body image and eating behaviour. Family relationships and dynamics also have a part to play in the development of eating disorders, with families with high standard for achievement, little support for autonomy, and blurred interpersonal boundaries leaving the adolescent girl with doubts about her sense of effectiveness and deficits in her self-esteem (Katz, 1985; Kog et al, 1985; Minuchin et al, 1978).

Striegel-Moore and Kearne Cooke (1994) completed a study investigating parents' attitudes concerning their child's physical appearance, and eating behaviour and factors that affect their attitudes. More negative attitudes were reported with increasing age of the child and with greater importance of beauty being emphasized for females. Direct parental pressure to be slender also appears to be correlated with broader measures of weight concern, dieting behaviour and other forms of
potentially unhealthy eating in girls (Levine et al, 1994).

Pike and Rodin (1991) suggest that mothers of daughters with eating problems differed from mothers of controls in their dieting history and in their belief that their daughters should lose weight. They found that mothers of girls with high levels of bulimic symptomatology reported more dieting and more disordered eating attitudes than did mothers of girls with few bulimic symptoms. They were also more critical of their daughters' weight and attractiveness than are mothers of girls with low disordered eating scores. They suggest that mothers of eating-disordered adolescent girls were unable to model healthy eating behaviours or alternative strategies of coping with anxiety. However, these result do not permit a discrimination between modelling influences, direct contingencies or reward and punishment in regard to weight control, and direct communication of information (Levine et al, 1994).

Moreno and Thelen (1993) extended the work of Pike and Rodin (1991) concerning parental factors and eating problems among females. They obtained information from mothers, fathers and daughters. The bulimic group perceived themselves to be overweight, engaged in radical means of weight control and perceived more parental pressures to diet and exercise. The mothers were significantly different from mothers of normal students in restricting their daughters food intake, encouraging their daughters to diet and exercise in order to lose weight and perceived their
daughters' as being overweight. It was also found that the perceptions of the daughters were consistent with their mothers reports. Levine et al (1994) found that a girl's reports of her mother's investment in her own slenderness was a significant independent correlate of nonpathological dieting. This suggests that maternal concerns with weight and shape serve as important modelling cues for a young adolescent girl's weight management efforts.

Thelen and Cormier (1995) in a study of 9-10 year olds in two parent families, found that daughters' body weight, desire to be thinner, and dieting were positively correlated with their mothers' and fathers' reported encouragement of daughters to control weight but this only remained significant for fathers when body weight was controlled for. This study failed to offer support for the notion that children imitate the weight concern behaviours of their parents. However, the authors suggest that the degree of eating pathology, in terms of concerns with body image and dieting behaviour was not sufficient to investigate the influence of modelling.

Attie and Brooks-Gunn (1989) in a prospective study, found that daughters' perceptions of family relationships were not associated with self-reported eating problems, once other variables such as psychopathology and personality were taken into account. Maternal ratings of the family milieu, however, did predict eating problems. Girls
who report high levels of eating problems live in families marked by relatively less cohesion, organization and expressiveness according to reports by their mothers and which is similar to clinical findings (Goldstein, 1981; Johnson & Maddi, 1986). The discrepancy between the findings using mothers and daughters rating of the Family Environment Scale (Moos, 1974) does suggest differences in their perceptions of the families functioning or in their unwillingness to report them. They also found that mothers' disturbed eating style and desire to be thinner approached significance as a predictor of the daughter' dieting and negative body image.

Mitchell et al (1986) report that a large number of bulimic patients described having started binge-eating during a period of dieting, and the majority reported that they had perceived pressure from family members and or friends to lose weight. The results are consistent with the findings of Wold (1985) and Pruitt (1987) concerning the perceptions of family members concerning being overweight. These findings are important because they indicate that family members may have a significant influence in the development of binge-eating as well as dieting.

Streigel-Moore, Silberstein, and Rodin (1986) proposed that family members amplify the sociocultural importance of attractiveness, which, for females, is equated with thinness. The authors suggest that if mature female members of the family place heavy emphasis on attractiveness
and thinness, consider weight under volitional control, model weight
preoccupation and dieting, and encourage attempts at weight loss, the
younger female members are likely to diet and are at greater risk for the
development of eating disorders. It is possible that a parent who models
weight concern and disordered eating serves as a strong influence for the
same-sexed child to engage in similar behaviours (Boskind-White and

Clearly, family factors do have a part to play in the aetiology of eating
disorders. Social learning and family dynamics may both contribute to
dieting behaviour and increase the risk of developing eating disorders.
At what level the influence of the family contributes to eating difficulties
and body image has not been investigated. The study of family factors
is important in extending the information about the mechanism of family
influence in the development of body dissatisfaction

1.5.2) Self Esteem

Self-esteem whether positive or negative is an individual self-evaluation
(Coopersmith, 1967). Women with eating disorders often have extremely
low self-esteem, feelings of being a bad person, and dread of rejection
or abandonment (Garfinkel & Garner, 1982). Obese adults and
adolescents generally have lower self-esteem than their normal weight
peers (Stunkard and Mendelson, 1967; Allon, 1979, Sobal and Stunkard,
1989).
Walsh-Pierce and Wardle (1990) carried out a study on self-esteem, parental appraisal and body size in children. They found that children were aware of what their parents thought of their body size. There was a tendency for lower self-esteem in fatter girls and thinner boys but these effects are small. There was some link between beliefs of one's presentation and self-esteem. Parental perception of overweight is associated with low self-esteem but only for girls and not for boys. They also found that children are accurate predictors of parental evaluation and that their self esteem scores are influenced both by actual parental dissatisfaction and beliefs about parental dissatisfaction. The data from the study was not analysed in a way that would distinguish actual body size from parental attitudes to body size, and it is the latter which might provide a negative influence on the child's body image.

Bem's (1978) theoretical work provides a model for the association between parent-child interaction and self-esteem. According to Bem, children learn that their observable behaviours are labelled by parents and the perception of these labels becomes a source of self-description. Therefore overweight children may understand from parents that their body size indicates that they eat too much and need to be more physically active. These attitudes would seem to imply parental dissatisfaction with the child's appearance and behaviour and could influence the child to a negative self appraisal and hence to lower self esteem (Walsh Pierce and Wardle, 1990).
The first prospective study on the role of self-esteem as one possible vulnerability factor in the development of eating/weight concerns was conducted by Button et al (1996). They showed that girls with low self-esteem at age 11-12 were at significantly greater risk of developing the more severe signs of eating disorders, as well as other psychological problems, by the age of 15-16 years. However, other variables are likely to play a part in the aetiology, for example ‘fatness concern’. This variable was the strongest predictor in a multiple regression when a number of eating/weight variables were entered. Actual body size was not controlled for in this study. ‘Fatness concern’ at age 11-12 was also predictive of feeling too fat and having a history of dieting at age 15-16. Difficulties at school were also implicated to some extent but not tested directly in this study. Girls with low self-esteem at 11-12 years and age 15-16 were also more likely to display a greater number of wider concerns such as regarding health, family and school problems, a tendency to worrying and nervousness. The authors suggest that some girls carry a general vulnerability to psychological problems into adolescence, of which the development of eating problems is one manifestation. They suggest that future research will need to examine self-esteem alongside other potentially important psychological variables to establish their relative importance/interaction as vulnerability/protective factors (Rutter, 1987).

Thus, given the evidence in the literature on the importance of self-
esteem in relation to development of eating disorders and other psychological problems, the role of self-esteem should be evaluated as a potential contributor of body dissatisfaction.

1.5.3) Personality Characteristics

Personality factors and affective vulnerability may contribute to the development of eating problems (Attie and Brooks-Gunn, 1989) and perfectionism is one such characteristic which has been deemed important. For example, there is evidence that many anorexics show perfectionistic or obsessional tendencies (eg: Dally & Gomez, 1979) and Slade (1982) suggests that predisposing factors for the development of anorexia nervosa involve a combination of perfectionist tendencies and general dissatisfaction.

Perfectionism, is defined by Frost, Marten, Lahart and Resenblate (1990) as the setting of excessively high standards for performance accompanied by overly critical self-evaluations. One manifestation of an excessive personal expectation of superior achievement may be to have a perfect figure and represent the ideal body for women in society. Perfectionism is a construct which overlaps with the rigorous self-discipline and austerity of the ascetic (Szmukler and Patton, 1995). Other factors which are related to eating disorders are feelings of ineffectiveness, depressive symptoms, self-regulatory deficits, obsessional characteristics, social introversion, overly compliant
behaviour and cognitive styles such as inflexible thinking. Little research has examined personality variables in nonclinical samples to determine what factors or combination of factors may predispose an adolescent to develop eating problems as opposed to other maladaptive behaviours such as depression or delinquency (Attie and Brooks-Gunn, 1989). Even less research has examined the contribution of personality factors in the development of body size dissatisfaction. Perfectionism and anxiety regarding evaluation of others have been chosen as potentially important characteristics in the development of body size dissatisfaction. Neither have been included in previous research in this area to the authors knowledge.

1.6 Aetiological Factors in Body Size Dissatisfaction

There is a substantial literature on the aetiology of eating disorders and the role of body image disturbance in their development, but only recently has research begun to offer hypotheses regarding the mechanisms underlying the development of disturbances in body image. Studies conducted by Thompson and colleagues in the United States (Thompson, 1992; Thompson and Heinburg, 1993; Thompson, Coover, Richards, Stormer and Thompson, 1996) has contributed significantly to work in this area.

In a review by Thompson (1992) seven hypotheses which had been put forward as explanations of body image disturbance were identified.
These include 1) menarcheal timing, 2) sociocultural influences, 3) self/social comparison tendencies, 4) negative verbal commentary (a history of being teased about appearance), 5) cortical deficits, 6) adaptive failure (an ability to modify perception of self consequent to weight loss), and 7) a perceptual artifact hypothesis (a general perceptual tendency to overestimate small sizes). These hypotheses were further classified by Thompson into four primary approaches to explain the development and/or maintenance of body dissatisfaction (Thompson, 1992). The classification as delineated by Thompson are 1) social comparison, 2) sociocultural issues, 3) negative verbal commentary and 4) maturational status. Generally speaking, his classification can overall be dichotomized into social and developmental theories both which have been individually examined (eg: Levine 1994a, 1994b) within the literature. Other researchers have included additional factors such as weight status in the developmental categorisation, as higher levels of body dissatisfaction have been noted in adolescents who are overweight or rate themselves as overweight (Thompson, 1995). The classification as outlined by Thompson should not be seen as absolute. It does however, provide a useful framework with which to examine the potential contributory factors to body size dissatisfaction.

1.6.1) Social Theories

1.6.1.1) Social Comparison

The social comparison explanation is derived from Festingers theory of
social comparison (1954) which shows that individuals have an innate drive to compare themselves to others. This drive to socially compare may cause individuals to be quite sensitive to external influences in the form of feedback. If the comparison or feedback is in terms of one's body eg: teasing regarding appearance, an individuals' body image may be affected. Striegal-Moore et al (1986) found that women's tendency to compare their own weight to other individuals was significantly correlated with feeling fat. Thompson, Heinberg and Tantleff (1991) also found that appearance comparison was related to body dissatisfaction.

Heinberg and Thompson (1992) used experimental manipulation of comparative feedback to investigate the importance of the specific comparison target. They found that there was a significant effect on measure of self-esteem and mood if subjects size feedback was in reference to a group they were more familiar with and easily identified with (eg: family, friends), rather than to a generic group (eg: stranger walking down the street). Tendency to compare has been shown to be related to eating disturbance (Thompson, 1992). It was also found that females had a greater association between ratings of the importance of social comparison targets and body image/eating disturbance than males. It was suggested that women’s attribution of importance to a target leads them to actually engage in the comparison process. It is possible that, once the comparison process is engendered, women may compare in a different manner than men. For instance, a woman may make an upward
comparison, rating herself lower on appearance than on the target. This may, in turn, lead to an increase in disturbance. On the other hand, a male, may make a downward comparison, finding himself to be better of than the target. Men may use this type of comparison to encourage or motivate them to make changes whereas women may react with despair and dysphoria (Thompson and Heinberg, 1992).

1.6.1.2) Socio-cultural Issues

It has been argued that there is a significant sociocultural element in the aetiology of eating disorders and it has perhaps the most widespread support in being a contribution to body size dissatisfaction (Thompson, 1992). It consists of 4 basic components. First, since the 1950s, the ideal woman, as portrayed in fashion magazines has become thinner, despite the fact that the average size of woman has increased (Garner et al, 1985; Silverstein et al 1986). Second, the thin shape has become a symbol not only of beauty but also of professional success (Silverstein and Perdue, 1988). The normative nature of weight and shape dissatisfaction, as well as dieting, among American girls and women reflects the internalization of these messages (Polivy & Herman, 1987). Third, women and especially adolescent girls have been led to believe that the thin 'look' is obtainable through dieting, exercising and other weight management techniques. Fourth, direct exposure to subcultures emphasizing the importance of body shape, slenderness, and perfectionist achievement, such as ballet dancers, greatly increases the

Although there is no doubt that socio-cultural issues are important, the nature of them (eg: the media) almost guarantees that many people will be subjected to the same messages, yet only a percentage of the population become dissatisfied with their body shape. It is the internalization component of sociocultural attitudes which appear to contribute to a much greater degree than simple awareness of social pressures to be thin and beautiful. This acceptance of media messages may be more damaging than the simple recognition of prevailing social influences. However, what is it that makes somebody more likely to internalize these messages? Other important mediating factors, such as personality traits eg: perfectionism must be involved to make some individuals more vulnerable to this cultural preoccupation with thinness. Also, the meaning attributed by different individuals to the socio-cultural messages might be affected depending on the ethnic group and social class membership of the individual.

1.6.2) Developmental Theories
1.6.2.1) Negative Verbal Commentary (Teasing)

Although teasing (negative verbal commentary) can be a benign form of interaction, it can be experienced quite negatively by some persons (Shapiro, Baumeister and Kessler, 1991). Teasing may have an
especially negative impact when the target of the teasing represents a particularly sensitive feature such as weight or shape (Thompson, Fabian, Moulton et al, 1991).

The onset of interest in teasing as a possible factor contributing towards the development of body size dissatisfaction began with two large scale surveys conducted in the United States by Berscheid, Walster & Bohnstedt (1973) and Cash, Winstead & Janda (1986) who found that adult women who had been teased as adolescents about their appearance had higher levels of body dissatisfaction than women who had not been teased. Fabian and Thompson (1989) found a strong relationship between levels of teasing, body dissatisfaction, eating disturbance, and depression in adolescent females. This led to the formation of a negative verbal commentary hypothesis for the development of body dissatisfaction, eating disturbance and general psychological distress (Thompson, 1992).

Brown, Cash, and Lewis (1989) found that adolescents with binge-purge behaviours had a greater history of being teased that non-eating disturbed controls. Thompson and Heinberg (1993) found that specific teasing about weight/size, but not general appearance, was a significant and consistent predictor of body dissatisfaction and eating disturbance. Thompson et al (1995) conducted a study to replicate and extend previous examinations of possible causal sequences for the development
of body image, eating disturbance and general psychological function. The role of teasing (which has not been included in previous longitudinal studies) was evaluated, along with weight and maturational status, as possible precursors of body dissatisfaction, eating problems and overall psychological functioning. They found that level of obesity and perceived weight but not maturational timing, had a directional influence on the other variables. They also found that teasing history was significantly related to the development of body image and eating disturbance, both at the time of the study and at a 3 year follow-up.

Parents and family members may pressure their daughters through direct and persuasive comments designed to establish the importance of both dietary restraint and vigilant concern about the possibility of becoming fat (Levine et al, 1994). Fabian and Thompson (1989) found that the self-reported frequency of teasing was significantly correlated with low scores on a body esteem scale and high scores of the drive for the thinness subscale of the Eating disorders Inventory for girls 10 through 15 years of age.

1.6.4) Maturational Status

As girls mature sexually, they accumulate large quantities of fat in subcutaneous tissue, as indicated by increased skin-fold thickness (Young, Sipin & Rek, 1968). For the adolescent girls, this 'fat spurt' is one of the most dramatic physical change associated with puberty,
adding an average of 11 kg of weight in the form of body fat (Brooks-Gunn & Warren, 1985). As increases in body fat during the pubertal years are associated with desire to be thinner (Dornbusch et al, 1984), the timing of maturation may influence the emergence of dieting behaviour (Attie & Brooks-Gunn, 1989). Proponents of a maturational status contribution to body dissatisfaction focus on the timing of menarche as an important element in the development of body dissatisfaction (Stormer & Thompson, 1996). Early physical maturation, generally defined as the experience of puberty prior to one’s peer group or early menarche (11 years of age or earlier), was found to be associated with elevated body dissatisfaction in early work in this area (Thompson, 1990). As, early maturers are heavier than their late maturing peers (Brooks-Gunn, 1988), this may contribute to their increased feelings of dissatisfaction.

Attie and Brook-Gunn (1989) measured pubertal status on the basis of 1) their response to questions asking if they had begun to menstruate; these reports tend to be quite accurate (Bean et al, 1979; Brooks-Gunn et al, 1987), 2) and using the Tanner growth stages for breast and pubic hair development (Marshall and Tanner, 1969). They suggest that eating problems emerge in response to physical changes of the pubertal period. When body fat, was used as an index of maturational status, it was positively associated with eating problems, but actual maturational timing was not. The authors suggest that the rapid accumulation of body fat that
is part of the female experience of puberty may function as a triggering event for dieting behaviours. When physical maturational status and age were controlled for, girls who felt most negatively about their bodies had higher EAT scores. Stormer et al (1996) found that maturational status as measured by age of onset of menarche did not contribute to the prediction of body dissatisfaction and eating disturbance. They included a number of variables in their analyses and suggested that it was the combined influence of developmental variables that led to the onset of internalization of societal standards of acceptable appearance. Levine et al (1994) found that those girls who had begun menstruation used more weight management methods than did girls who had not yet begun menstruation. There was no difference between these groups in shape dissatisfaction or in disturbed eating.

As maturational status occurs at a time in a girls life when a number of challenges are confronting her, it may be a combination of related factors that may lead to the development of body dissatisfaction. Studies need to be done which control for these other factors such as actual body weight to evaluate the contribution of maturation. Is it just menarche per se or is it the combination of physiological and socio-cultural aspects which contribute to the development of body size dissatisfaction in adolescent girls?
1.7 Comparing the Theories

Research suggests that there are various different strands which contribute towards phenomenon associated with body image disturbance and disordered eating. Studies tend to examine different elements making it difficult to draw substantial conclusions.

Attie and Brooks-Gunn (1989) evaluated eating disturbances, body dissatisfaction, maturational status, family relationships and psychopathology in adolescents females over a 2 year period. They found that body dissatisfaction was the only significant predictor of increases in eating dysfunction. Williamson et al (1995) conducted a study of female athletes, a population considered to be 'at risk' for eating disorders due to psychosocial pressure to maintain a thin body shape (Brownell et al, 1992; Striegel-Moore et al, 1986). This study, which used structural modelling analysis, confirmed the psychosocial model of risk factors for developing eating disorder symptoms. Perceived social pressure for thinness and personality characteristics such as negative emotionality and negative appraisal of achievement were associated with increased concern about body size and shape. Excessive concern about body size mediated the relationship between these antecedent risk factors and eating disorder. The authors concluded that eating disorders in athletes are multi determined and are not simply a function of the emphasis in thinness in some women's sports or the personality characteristics of some young women. More likely, several risk factors
must occur during the same time period to cause overconcern with body size and shape, which in turn leads to pathological eating, dieting and purgative habits.

As an extension of Thompson and Heinberg's study (1992), Stormer and Thompson (1996) tested the four factors which have been hypothesized to lead to body image problems. They found that even with self-esteem and level of obesity taken account of, social comparison and societal factors such as attitudes and values, were significant predictors of body dissatisfaction and eating disturbance. Negative verbal commentary also explained a small part of the variance, but, maturational status did not contribute uniquely in any analysis.

Levine and Smolak (1992) proposed the cumulative stressor model that emphasized the contribution of normative development factors to individual differences in severity of body dissatisfaction and eating problems. The model postulates that three aspects of early adolescence 1) weight/fat gains associated with advanced pubertal status, 2) onset of dating and 3) intensification of academic demands, interact with a slender body ideal to determine the onset of either nonpathological dieting or eating disturbances in adolescent girls. All these changes occur normatively during ages 11-14 (Brooks-Gunn, 1987) and each appears to enhance the salience of and dissatisfaction with appearance, body shape and body fat (Gralen, Levine, Smolak & Murnen, 1990; Richards
et al, 1990; Striegel-Moore et al, 1986). On the basis of this model, Levine et al (1994) found that the synchronicity of events was important. They found that in those girls where concurrent onset of menstruation and dating occurred, significantly more weight management behaviour was engaged in than if each one by itself. When both advanced pubertal status and dating onset are present, the addition of academic threat is associated with a large increase in risk for disturbed eating. Perceived parental pressure to be slender and peer investment in dieting also accounted for a proportion of variance in disturbed eating. The results suggested that the interaction among cumulative developmental changes in early adolescence, adherence to a slender body ideal, and sociocultural pressures for thinness is useful in distinguishing middle schoolers at risk for subclinical eating disturbances. However, as this was a cross sectional study, there was a loss of subjects due to incomplete data and there was an absence of body mass indices, the study can only constitutes tentative support for the model.

Levine, Smolak and Hayden (1994) found that two strong correlates of drive for thinness and disturbed patterns of eating were 1) reading magazines that contain information and ideas about an attractive body shape and about weight management and 2) weight/shape-related teasing and criticism by family. The study found that a powerful predictor of investment in thinness, weight management behaviour and disturbed eating was the extent to which the girl reported that beauty and fashion
magazines were an important source of information about ideals and how to obtain an attractive body shape. However the cross-sectional nature of the data make it impossible to address the direction of causality here. Therefore it is unclear as to whether it is those girls who feel dissatisfied with their body who turn to magazines to provide information or whether the reading of such material induces a desire to lose weight and to become preoccupied with body size. This study also found that weight related teasing and criticism by family members contributed to variation in body dissatisfaction, investment in thinness, weight management behaviour and eating disturbance. There was not a strong relationship between peer teasing and body dissatisfaction.

Although Stormer and Thompson (1996) have examined a number of hypotheses put forward to explain the development and/or maintenance of body image disturbance, individual personality characteristics such as perfectionism were not included as potential predictors. Other work such as that carried out by Levine, concentrated on developmental aspects as potential contributors.

The present study attempts to look at the factors found to contribute to the development of body size dissatisfaction with the inclusion of personal characteristics which may help explain why some people may be more vulnerable to being dissatisfied with their bodies.
1.8 **Aim of Study**

The aim of this study is to investigate the factors associated with body size dissatisfaction in adolescent girls. Existing theories of body size dissatisfaction identify weight, early menarche, teasing and social comparison as influences. Consideration of the literature on eating disorders suggests that low self esteem and perfectionism could also contribute to body size dissatisfaction. In addition, socio-cultural factors have been implicated, with some suggestion that social and cultural background could engender either slimmer ideals, or greater distress associated with discrepancies between the self and the ideal.

**Hypotheses**

- Body size dissatisfaction will be associated with BMI
- Independently of BMI, body size dissatisfaction will also be associated with teasing.
- Body size dissatisfaction will be associated with low self esteem, perfectionism and fear of negative evaluation.
- Body size dissatisfaction will be higher among girls from higher social status backgrounds who will have thinner ideal sizes

The possible mediators of the socio-economic differences will be evaluated by carrying out multivariate analyses in which social and individual factors are included.
CHAPTER 2

METHOD

2.1 Subjects

The subjects were girls who were recruited from 5 different single sex schools. Two schools were in London and three in Ireland. The schools were chosen to provide a cross section of individuals from various backgrounds. School 1, was a non fee paying comprehensive school in inner London with a mixed ethnic and racial background from a variety of socio-economic groups. School 2, also based in London was a fee paying private school, 99% of pupils coming from a professional background. The three Irish schools were non fee paying based in urban areas with a cross section of pupils from urban and rural areas and from a variety of backgrounds. School 3 was a large city based secondary school with approximately 60% of the pupils coming from a professional background. School 4 and 5 were based in the same city and in both 30% of the pupils came from professional backgrounds, 20% from single parent families and 30% from 'quite deprived' backgrounds.

Girls were approached in whole classes at school and asked to complete the questionnaire during that lesson period. Only one girl out of those approached refused to fill out the questionnaire.
2.2 Design

The study is a cross-sectional design using a questionnaire to survey the views and attitudes of female adolescents. The questionnaire was filled out in the presence of the research psychologist. The subjects were also weighed and their height measured.

2.3 Procedure

The study was approved by the Ethical Committee of the Bethlem and Maudsley NHS Trust. Schools were approached by writing a letter to the principal explaining the purpose of the study and the procedure that would be involved. This was followed up by a visit to discuss the schools participation further. One school approached did not agree to participate but the other schools were enthusiastic about the research and helpful in carrying it out.

Having acquired the permission of the schools, times were organized to carry out the research. Four schools allowed access to their classes over a number of consecutive days. One school allowed access to a number of classes on a weekly basis.

The research was carried out in a class setting with the teacher absent. The research psychologist was accompanied by an assistant. The classes consisted of between 20-30 pupils. Each session began with a brief introduction about the research and consent was sought from the
pupils to partake in the project. The questionnaires were distributed and the girls were told to answer the questions as honestly as possible without conferring. They were also informed that it was not an exam and the research did not have anything directly to do with their school. The subjects were told not to write their names on the questionnaire to ensure total confidentiality. Each questionnaire was identified by a number. The researcher was present for the full duration of the session to answer any queries that may have arisen from filling out the questionnaire. While the questionnaire was being completed, the assistant called out each person by their questionnaire number to be weighed and their height measured. This was done in a quiet corner of the classroom away from the other pupils to provide maximum privacy. If this was not possible in the classroom, then it was carried out outside the classroom. The subjects were informed about the measuring procedure at the beginning. As each pupil was identified by a number, the measurements could be matched up with the corresponding questionnaires at the end of the session.

Body weight was determined to the nearest 0.1kg using digital scales with the subjects wearing school uniform without shoes or jackets. Standing height was measured to the nearest millimetre using a wall mounted measuring instrument. Pupils were measured with shoes removed and the body positioned against the wall.

The whole procedure took 30-40 minutes depending on the age of the
girls and the size of the class. An opportunity was provided at the end of the session for further questions and discussion. The pupils were then thanked for their participation in the study.

2.4 Measures

A questionnaire was devised for the purpose of this study. It consisted of a total of 89 questions. Many of the components of the questionnaire were derived from existing standardized measures for maximum comparability with other work. However, some instruments had to be shortened. Some of the questions used were devised for the purpose of this research. This was done if no adequate material already existed in the literature. The following is a breakdown of the areas investigated by the questionnaire.

a. Socio-Demographic Information

General background information including the age of the child, the number of siblings in the family and the ethnic background were gathered. The ethnic background question gave a short list of possible answers and included an 'other' category for those who did not consider themselves to fit into the predefined ones. It was deemed useful to get some sort of indication of the social background of the children so a surrogate measure of socio-economic status was included consisting of the newspaper mostly read at home. This was coded according to which socio-economic group most commonly read each paper, based on data
in the Advertising Statistics Yearbook 1995 and statistics provided by individual newspapers. This method is a very crude measure of social background but avoided intrusive or difficult to answer questions. For the purpose of this research, the social classes are divided into three categories, roughly according to whether the readership was primarily AB, C or DE.

b. **Body Mass Index**

Height and weights were taken by the researcher and BMI (weight/height$^2$) was computed. BMI, often referred to as Quetelets Index, provides the most reliable assessment of the degrees of adiposity of all the calculated indices in children (Michielutte et al, 1984; Rolland-Cachera et al, 1982) and is widely viewed as more practical and subject acceptable in large sample studies (Garrow & Webster, 1986). This is chiefly because it does not require children to remove clothing and is not reliant on individual differences and judgement in estimating skeletal size or in assessing triceps and scapula skinfold thickness yet it generally correlates highly with skinfold thickness and laboratory measurement of fat (Billewicz et al, 1962; Gouldbourt & Medalie, 1974).

c. **Maturational Status**

A question asking whether menstruation had begun and if so at what age it had occurred was asked to get an estimate of the maturational status.
d. **Body Satisfaction**

One question asking about satisfaction with the body was used. A five point scale was provided to rate body satisfaction from much too thin to much too fat. This scale has been used widely in research by Wardle (eg: Wardle & Marsland, 1990).

e. **Body Size Ideal**

Figure drawings devised by Stunkard, Sorenson and Schulsinger (1983) were used. They consisted of 7 figures ranging from a very thin, emaciated looking female to a very fat female (see questionnaire in appendix b for figures). The subjects were asked which way was the ideal way for a grown-up woman to look.

f. **Teasing**

Information about teasing history, including being teased for being thin and fat was gathered. Existing questionnaires were not deemed appropriate in their entirety for this study. Therefore the questions used were devised solely for the purpose of the questionnaire, the content which was based on the existing literature. Questions about how often the teasing had occurred, who did it and how it made the person feel were included. No reliability or validity information is available.

g. **Family Dieting and Weight Concern**

The modified version of Family History of Eating Survey (Moreno &
Thelen, 1993) was used. This was originally designed to compare parental concern about child's weight with child's perception of this parental concern. It assess's attitudes about being overweight, dieting, and familial eating patterns as perceived by parents and students, respectively. The items were generated based on research suggesting that these variables may be associated with the development of abnormal eating patterns. The child's version of the questionnaire was used in this study.

**Eating Attitudes**

The children's version of the Eating Attitudes Test (ChEAT) was used. The ChEAT is based on the 26 item version of the Eating Attitude Test (EAT-26) and was designed for use with children aged 8 years to 13 years (Maloney et al, 1988).

The EAT-26 is an abbreviated 26 item version of the EAT-40 and is highly correlated with it ($r=0.98$). It is a 26 item, 6 point, forced choice, self-report inventory that measures dieting behaviour, food preoccupation, anorexia, bulimia, and concerns about being overweight. The EAT-40 and EAT-26 has been used as a screening instrument for detecting previously undiagnosed cases of anorexia nervosa in populations at high risk for the disorder (Garner & Garfinkel, 1980). Both versions have demonstrated concurrent and predictive validity as well as reliability (Garner et al, 1983).
In the ChEAT, some words are simplified eg: 'terrified' is changed to 'scared', and 'preoccupied with' is reworded as 'think a lot about'. The few changes involved substituting simpler synonyms for words in questions where trial subjects or three consulting developmental specialist indicated the original words were too difficult for 3rd or 4th graders (Maloney et al, 1989). It consists of 3 subscales: (1) Dieting (2) Bulimia and Food Preoccupation and (3) Oral Control. Only subscales 1 and 3 were used for the purpose of this study. The reported test-retest reliability correlation was 0.81 (N=68) and internal reliability was high (Cronbach's alphas = 0.76) (N=318).

1. **Self Esteem**

A reduced version of the Piers Harris Childrens Self Concept Scale (Piers Harris, 1969) was used. The Piers Harris Childrens Self Concept Scale is a self report test consisting of 80 yes-no items and it is widely used to assess self esteem in children. In this test the children were asked to circle Yes or No to the statements. Two subscales were used which were based on the factor analysis by Michael et al (1975). These were the Physical Appearance and Attributes Scale which consists of 19 items and the Self Depreciation Scale which consists of 8 items. The physical appearance scale has been used across a number of samples of different age groups by Michael et al, 1975; Piers-Harris, 1984). The Self Depreciation Abasement factor is designed to measure self-dissatisfaction reflecting anxiety and alienation characteristics. It is
composed of mainly nonbehavioural items dealing with emotionality components.

The appearance-related scale allows a more specific reference to an individual's interpretation of the strengths and weaknesses of their self-presentation as an integral part of their self-concept. This subscale is designed to assess how an individual values their body and body characteristics and suggests the nature of the child's self-evaluative beliefs. High scores reflect a positive awareness of one's physical presentation whereas low scores may reflect beliefs that one's physical appearance does not measure up to one's expectations.

The reliability of the total scale is judged to be satisfactory (Kuder-Richardson formula 21 - coefficients ranging from 0.78 to 0.93). An average test-retest reliability coefficient of 0.71 has been reported on the total score with 10 year old children (Wolf et al, 1982). There is also support for concurrent and construct validity (Piers Harris 1969).

Fear of Negative Evaluation (FNE)

This questionnaire was devised by Watson and Friend (1969) as a measurement of social evaluative anxiety. It was designed to assess apprehension about others' evaluations, distress over their negative evaluations, avoidance of evaluative situations and the expectation that others would evaluate oneself negatively. The original questionnaire
consists of 30 items. Fifteen of these items were used for the purpose of this study (two words were changed - evaluate-judge and brood-worry). The double negative questions were eliminated as they were deemed too confusing for the age group being studied. Each statement had to be rated True or False. A high FNE score indicates a fear of criticism and seeking of social approval.

The FNE has been utilized in many studies of social anxiety with an adult population. The product-moment, test retest reliability correlation = 0.78 (Turner et al, 1987) which indicates significant reliability.

k. Perfectionism

This scale was taken from the Eating Disorder Inventory (Garner and Garfinkel, 1979; Garner, Olmstead, Bohr & Garfinkel, 1982) which was developed as a screening instrument for detecting cases of anorexia nervosa in groups at high risk for the disorder (Garner & Garfinkel, 1980), as well as identifying abnormal eating patterns among college students (Button & Whitehouse, 1981; Clarke & Palmer, 1983) and women from the general community (Cooper & Fairburn, 1983). It consists of 65 items in total and has 8 subscales. The scale has demonstrated reliability (standardized Cronbach's Alpha = 0.90 for an anorexic patient sample and 0.91 for a female control sample) and internal consistency (item-total correlations range from 0.50 to 0.83 for the anorexic sample and from 0.51 to 0.78 for controls. The Perfectionism subscale consists of a total
of 7 items. It has a reliability coefficient (standardized Cronbach's Alpha) of 0.76 for normal subjects and 0.85 for the anorexic group.

2.5 Data Analysis

Descriptive statistics were used to summarise the characteristics of the sample. Factor analysis was performed on the measures used to compare factor structures on this population with previous research. Frequencies and correlations were computed for each measure and to investigate their relationship to age, BMI and body satisfaction. Multiple regressions were performed to identify predictors of body size dissatisfaction and analyses of variance were used to identify differences between social background and the psychological sequelae.
CHAPTER 3

RESULTS

The results of this study are presented in 5 sections. The first section contains descriptive information about the sample. The second section provides a summary of the results of the factor analysis which was carried out for validation purposes on some of the standardised measures used in the study. The third section comprises the information regarding the population as a whole. The fourth section uses multiple regression analyses to explore the predictors of body size dissatisfaction and the final section examines the differences between schools/social class.

3.1 SOCIO DEMOGRAPHIC DETAILS

A total of 766 questionnaires were completed in all. Just under half the sample came from the London schools with 53% of the sample coming from Irish schools. The details are given in Table 1.

The age range was 12 to 16 years with almost half of the sample in the 13 - 14 age range, and the rest being 12, 15 and 16 years old. The majority of the sample were white with the rest of the sample being comprised of Black Caribbean, Black African and Asian and some other groups which were not categorised. The small number of girls from ethnic minorities may be due to the fact that over half the sample was
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</tbody>
</table>

* Newspaper type corresponding to SES 1 = A/B, 2 = C1/G2, 3 = D/E
taken from Irish schools which were comprised mainly of Caucasians. Socio-economic status was indexed by the newspaper mostly read at home and coded according to industry statistics on which socio-economic group most commonly read each paper. The majority of the sample fell into the A/B category with the D/E category following closely behind and with fewer in the C1/C2 category.

The average family size consisted of 2.25 children (sd = 1.62). This ranged from being from being an only child to belonging to a family of 14 children.

3.2 VALIDATION OF MEASURES

Factor analysis was performed on a number of the measures as an exploratory process to investigate the factor structure with this population. A principal components analysis with varimax rotation was considered to be the most appropriate technique.

3.2.1. Children’s Eating Attitude Test (ChEAT)

Two subscales, one measuring dieting behaviour and the other measuring oral control were included. The factor analysis identified 3 factors, and based on eigenvalues over 1, the first factor comprised primarily the ‘dieting’ items and the second factor comprised the ‘oral control’ items. Table 2 shows the factor structure of the data and the distribution of the items. Overall, the factor analysis did confirm the
<table>
<thead>
<tr>
<th>Subscale 1: Dieting</th>
<th>Factor 1 (37% variance)</th>
<th>Factor 2 (12% variance)</th>
<th>Factor 3 (6% variance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am scared about being overweight</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am aware of the energy content in food that I eat</td>
<td>0.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I avoid foods such as bread, and potatoes</td>
<td>0.36</td>
<td>0.53</td>
<td></td>
</tr>
<tr>
<td>I feel very guilty after eating</td>
<td>0.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think a lot about wanting to be thinner</td>
<td>0.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think about burning up energy when I exercise</td>
<td>0.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think a lot about having fat on my body</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I stay away from foods with sugar in them</td>
<td>0.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I eat diet foods</td>
<td>0.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel uncomfortable after eating sweets</td>
<td>0.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have been on a diet</td>
<td>0.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I like my stomach to be empty</td>
<td>0.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I enjoy trying new foods</td>
<td>-0.19</td>
<td>0.42</td>
<td></td>
</tr>
</tbody>
</table>

| Subscale 2: Oral Control              |                         |                         |                        |
|---------------------------------------|-------------------------|-------------------------|                        |
| I stay away from eating when I am hungry | 0.70                    | 0.32                    |                        |
| I cut my food into small pieces       |                         | 0.43                    |                        |
| I feel that others would like me to eat more | 0.81                    |                         |                        |
| Other people think I am too thin      |                         | 0.67                    |                        |
| I take longer than others to eat my meals | 0.56                    |                         |                        |
| I can show self-control around food   |                         | 0.13                    | 0.72                   |
| I feel that others pressure me to eat |                         | 0.75                    |                        |
existence of these two scales in the population. On the basis of this, three overall scores were computed. One measuring dieting behaviour (CHDIET), one measuring oral control (CHORAL) and an overall attitude score (CHEAT) which is a combination of the two subscales.

3.2.2 Piers Harris Self Concept Scale

A reduced version of the original questionnaire was used on the basis of a factor analysis conducted by Michael et al (1975). The factors measuring physical appearance and self depreciation, as labelled by Michael et al (1975) were used for the purpose of this project. Factor analysis conducted on the data from this sample revealed a total of 8 factors which were broadly separated into items measuring physical appearance and self depreciation. The physical appearance factor was subsequently divided into 2 factors, one which related to actual physical appearance eg: 'I am good looking' and the other which related to other aspects of the self eg: 'I am cheerful'. Table 3 shows the distribution of the items within three factors, giving the highest loading for each item.

For the purpose of the analysis, a total of 4 scores were computed. One was the sum of the physical appearance items (PHYSAPP), one was the sum of the other appearance items (OTHAPP), one was the sum of the self depreciation items (DEPREC) and the final score was the total esteem score (ESTEEM).
Table 3: Factor structure for the Piers Harris Self Concept Scale

<table>
<thead>
<tr>
<th>Subscale 1: Physical Appearance</th>
<th>Factor 1 (19% variance)</th>
<th>Factor 2 (7% variance)</th>
<th>Factor 3 (6% variance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am good looking</td>
<td>0.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have a pleasant face</td>
<td>0.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have a good figure</td>
<td>0.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have nice hair</td>
<td>0.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have pretty eyes</td>
<td>0.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My looks bother me</td>
<td>-0.36</td>
<td>0.25</td>
<td></td>
</tr>
</tbody>
</table>

Subscale 2: Other items relating to self

<table>
<thead>
<tr>
<th></th>
<th>Factor 1 (19% variance)</th>
<th>Factor 2 (7% variance)</th>
<th>Factor 3 (6% variance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am popular with girls</td>
<td>0.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am popular with boys</td>
<td>0.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am strong</td>
<td>0.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am good in my school work</td>
<td>0.45</td>
<td>-0.05</td>
<td></td>
</tr>
<tr>
<td>I am intelligent</td>
<td>0.49</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td>My classmates in school think I have good ideas</td>
<td>0.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My friends like my ideas</td>
<td>0.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am lucky</td>
<td>0.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am an important member of my class</td>
<td>0.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am cheerful</td>
<td>0.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am a good person</td>
<td>0.23</td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td>When I grow up, I will be an important person</td>
<td>0.29</td>
<td>0.09</td>
<td></td>
</tr>
</tbody>
</table>

Subscale 3: Self Depreciation

<table>
<thead>
<tr>
<th></th>
<th>Factor 1 (19% variance)</th>
<th>Factor 2 (7% variance)</th>
<th>Factor 3 (6% variance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>My classmates make fun of me</td>
<td>0.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am always dropping things</td>
<td>0.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I cry easily</td>
<td>0.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I try to make something, everything seems to go wrong</td>
<td>0.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am stupid about most things</td>
<td>0.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My family is disappointed in me</td>
<td>0.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is usually my fault when something goes wrong</td>
<td>0.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am unpopular</td>
<td>0.30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.3. Perfectionism

This scale was derived from the Eating Disorders Inventory. The factor analysis revealed two factors, one consisting of two items, which related to perfectionistic expectations by family, and the other which related to one's own expectations and consisted of 4 items. See table 4 for the item distribution. As there was only a total of 6 of items in this section one overall perfectionism score was computed for the purpose of the analysis.

3.2.4. Fear of Negative Evaluation Questionnaire

This questionnaire had not been used with a similar population before and no previous references to factor analysis could be found in the literature. A reduced version of the original questionnaire was used for the purpose of this research. The factor analysis indicated two underlying factors with the majority of items loading on one factor. See table 5 for the distribution of items. The items used in the questionnaire were taken to represent one factor of social anxiety and an overall score was computed for the sample (FNE1).
Table 4: Factor structure for the Perfectionism subscale from the Eating Disorders Inventory

<table>
<thead>
<tr>
<th>Subscale 1: Own expectations</th>
<th>Factor 1 (45% variance)</th>
<th>Factor 2 (18% variance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I try very hard to avoid disappointing my parents and teachers</td>
<td>0.71</td>
<td></td>
</tr>
<tr>
<td>I hate being less than best at things</td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>I feel that I must do things perfectly or not at all</td>
<td>0.59</td>
<td></td>
</tr>
<tr>
<td>I have extremely high goals</td>
<td>0.76</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subscale 2: Expectation by family</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>My family expects me to be perfect</td>
<td>0.89</td>
</tr>
<tr>
<td>My parents expect excellence from me</td>
<td>0.82</td>
</tr>
</tbody>
</table>
Table 5: Factor structure for Fear of Negative Evaluation Questionnaire

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1 (37% variance)</th>
<th>Factor 2 (7% variance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I worry about what people will think of me even when I know it won't make any difference</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>I become tense and jittery if I know someone is sizing me up</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>I am often afraid that I may look ridiculous or make a fool of myself</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>I am frequently afraid of other people noticing my shortcomings</td>
<td>0.63</td>
<td></td>
</tr>
<tr>
<td>If someone is judging me I tend to expect the worst</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>I am afraid that others will not approve of me</td>
<td>0.60</td>
<td></td>
</tr>
<tr>
<td>I am afraid that people will find fault with me</td>
<td>0.63</td>
<td></td>
</tr>
<tr>
<td>When I am talking to someone, I worry about what they may be thinking</td>
<td>0.54</td>
<td></td>
</tr>
<tr>
<td>I am usually worried about what kind of impression I make</td>
<td>0.57</td>
<td></td>
</tr>
<tr>
<td>I worry that others will think I am not worthwhile</td>
<td>0.52</td>
<td></td>
</tr>
<tr>
<td>Sometimes I think I am too concerned with what other people think of me</td>
<td>0.64</td>
<td></td>
</tr>
<tr>
<td>I often worry that I will say or do the wrong things</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>I am usually confident that others will have a favourable impression of me</td>
<td>-0.75</td>
<td></td>
</tr>
<tr>
<td>I often worry that people who are important to me won't think very much of me</td>
<td>0.62</td>
<td></td>
</tr>
<tr>
<td>I worry about the opinions my friends have about me</td>
<td>0.58</td>
<td></td>
</tr>
</tbody>
</table>
3.3 DESCRIPTIVE INFORMATION FOR THE ENTIRE POPULATION

3.3.1. Body Size and Menarcheal Status

Table 6 shows the average BMI and menarcheal status in each age group of the sample. The majority of the sample had already begun menstruation (N=599, 79%) at the time the survey was completed.

3.3.2. Body Dissatisfaction (BS33)

Just under half the population felt their body size was 'about right' with over a third feeling that they were 'a bit too fat'. Only a small number felt that they were 'much too thin. See Table 7 for further details. A correlation coefficient between BMI and satisfaction was computed scoring body satisfaction from 1-5 with higher scores indicating more dissatisfaction. Those who were objectively fatter as indicated by BMI clearly felt fatter (r = 0.54, p<0.05). Feeling fatter was also marginally correlated with age (r = 0.10, p<0.001) indicating that increasing age leads to increasing dissatisfaction with body size. However, when BMI is controlled for, this effect disappears (r=0.023, p=0.53)

3.3.3 Body Size Ideal

A selection of 7 figures depicting different sized women were provided for the girls to choose what their ideal figure for a grown up woman to look like would be. Table 8 shows the percentage of girls choosing each figure. Figures 3 and 4 were chosen by the majority of the sample with only a small minority choosing figures 1, 2 and 5. For some analyses the
Table 6: BMI and menarcheal status in relation to age

<table>
<thead>
<tr>
<th>AGE in years</th>
<th>12 (&amp; under)</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI mean (sd)</td>
<td>20.14 (3.36)</td>
<td>21.1 (3.96)</td>
<td>22.04 (4.12)</td>
<td>22.06 (4)</td>
<td>21.95 (3.17)</td>
</tr>
<tr>
<td>Menarcheal Status</td>
<td>Post-</td>
<td>40% (56)</td>
<td>71% (128)</td>
<td>91% (176)</td>
<td>98% (121)</td>
</tr>
<tr>
<td></td>
<td>Pre-</td>
<td>60% (86)</td>
<td>29% (52)</td>
<td>9% (17)</td>
<td>2% (2)</td>
</tr>
</tbody>
</table>

Table 7: Body Dissatisfaction distribution of the sample and association with BMI

<table>
<thead>
<tr>
<th>Body Dissatisfaction</th>
<th>Much too thin</th>
<th>A bit too thin</th>
<th>About right</th>
<th>A bit too fat</th>
<th>Much too fat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much (sd)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body dissatisfaction</td>
<td>2% (15)</td>
<td>11% (85)</td>
<td>44% (331)</td>
<td>37% (278)</td>
<td>7% (51)</td>
</tr>
<tr>
<td>BMI mean (sd)</td>
<td>17.7 (1.9)</td>
<td>18.0 (2.2)</td>
<td>20.17 (2.7)</td>
<td>23.5 (3.5)</td>
<td>24.72 (4.8)</td>
</tr>
</tbody>
</table>

Table 8: Percentage choosing different sized figures as their ideal

Figures

1 0.4% (3)
2 4% (29)
3 42% (321)
4 52% (392)
5 2% (14)
6 0% 0%
7 0% 0%
figure numbers were treated as scores, with larger numbers referring to a larger preferred figure. There was no significant correlation between body ideal and either BMI or body dissatisfaction. Although age was not significantly correlated with body ideal the trend suggested that the older girls were more inclined to chose a smaller size.

3.3.4 Teasing

The majority of the sample said that they had never been teased for being fat or for being thin. Table 9 shows the distribution of frequency of being teased for the sample. Overall, slightly more girls had been teased for being thin than for being fat. More girls had been teased for being fat by their families than friends and more had been teased for being thin by their friends than their families. Table 10 shows the percentage of those who had been teased by their family or friends. Those who had been teased for being fat were more likely to become upset about it than those who were teased for being thin. Table 11 show the percentage of those who had been upset for being teased and to what extent.

Being teased was significantly related to actual body size as measured by BMI. Those who were more often teased for being fat were more likely to be fatter and those who were teased for being thin were more likely to be thinner. Body dissatisfaction was also related to being teased, with those who were teased for being fat thinking that they were fatter and vice versa for those who were thin. Tables 12 and 13 show the body
Table 9: Frequency of being teased (by family or friends)

<table>
<thead>
<tr>
<th>Frequency of being Teased</th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Being Thin</td>
<td>65% (499)</td>
<td>12% (95)</td>
<td>14% (106)</td>
<td>3% (23)</td>
<td>4% (28)</td>
</tr>
<tr>
<td>For Being Fat</td>
<td>70% (537)</td>
<td>14% (104)</td>
<td>10% (79)</td>
<td>2% (19)</td>
<td>3% (20)</td>
</tr>
</tbody>
</table>

Table 10: Frequency of being teased by family and friends

<table>
<thead>
<tr>
<th></th>
<th>Teased by Family</th>
<th>Teased by Friends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thin</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>35% (95)</td>
<td>65% (172)</td>
</tr>
<tr>
<td>Fat</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>52% (116)</td>
<td>48% (107)</td>
</tr>
</tbody>
</table>

Table 11: Effect of being teased

<table>
<thead>
<tr>
<th></th>
<th>Not Upset</th>
<th>Upset a little</th>
<th>Upset a lot</th>
<th>Really upset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>69% (174)</td>
<td>24% (63)</td>
<td>3% (7)</td>
<td>3% (9)</td>
</tr>
<tr>
<td>Fat</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>27% (60)</td>
<td>32% (72)</td>
<td>18% (41)</td>
<td>23% (50)</td>
</tr>
</tbody>
</table>

Table 12: Frequency of being teased for being fat and corresponding body satisfaction and BMI scores

<table>
<thead>
<tr>
<th>Frequency of being Teased for being fat</th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Dissatisfaction mean (sd)</td>
<td>2.09 (0.77)</td>
<td>2.81 (0.59)</td>
<td>3.04 (0.64)</td>
<td>3.22 (0.53)</td>
<td>3.41 (0.59)</td>
</tr>
<tr>
<td>BMI mean (sd)</td>
<td>20.38 (3.06)</td>
<td>23.24 (4.31)</td>
<td>24.11 (4.01)</td>
<td>27.14 (4.78)</td>
<td>24.76 (3.80)</td>
</tr>
</tbody>
</table>
Table 13: Frequency of being teased for being thin and corresponding body satisfaction and BMI scores

<table>
<thead>
<tr>
<th>Frequency of being Teased for being thin</th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Dissatisfaction mean (sd)</td>
<td>2.6 (0.73)</td>
<td>2.01 (0.62)</td>
<td>1.80 (0.81)</td>
<td>1.78 (0.59)</td>
<td>1.28 (0.89)</td>
</tr>
<tr>
<td>BMI mean (sd)</td>
<td>22.50 (3.81)</td>
<td>19.28 (2.39)</td>
<td>19.04 (2.38)</td>
<td>19.20 (2.22)</td>
<td>18.40 (2.44)</td>
</tr>
</tbody>
</table>

dissatisfaction and BMI scores for frequency of being teased for being fat and thin. There was no association between age and being teased.

3.3.5 Family Dieting Behaviour

More mothers than fathers were reported to have gone on a diet, although a fifth of the sample did not know whether their parents had dieted or not. Table 14 shows frequencies of parental dieting.

The majority of the sample said that their parents never encouraged them to go on a diet with just under half the sample saying that they had been encouraged at some point to take exercise in order to lose weight or keep from gaining weight. Most of the sample had never had their food restricted by either of their parents. The majority reported that weight was talked about to some extent at home with a fifth saying that it was never talked about at home. Table 15 shows the frequencies for the family dieting behaviour.
Talking about weight at home, being encouraged to diet, being encouraged to exercise and being encouraged to restrict food intake were scored using a 5 point scale, with lower scores indicating lower frequencies. In all cases, there were positive correlations with BMI and body dissatisfaction. Table 16 show the correlation coefficients for each of these variables.

Table 14: Frequency of parental dieting

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>1-2 times</th>
<th>3-5 times</th>
<th>6-10 times</th>
<th>11+ times</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother</td>
<td>31% (234)</td>
<td>24% (183)</td>
<td>15% (116)</td>
<td>5% (40)</td>
<td>4% (33)</td>
<td>20% (159)</td>
</tr>
<tr>
<td>Father</td>
<td>54% (413)</td>
<td>17% (130)</td>
<td>6% (46)</td>
<td>3% (19)</td>
<td>0.8% (6)</td>
<td>19% (147)</td>
</tr>
</tbody>
</table>

Table 15: Frequency of family dieting-related behaviours

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Once in a while</th>
<th>Fairly often</th>
<th>Very often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talk about weight at home</td>
<td>19% (143)</td>
<td>46% (353)</td>
<td>18% (151)</td>
<td>8% (63)</td>
<td>7% (56)</td>
</tr>
<tr>
<td>Parents encouraged you to diet to lose weight</td>
<td>83% (633)</td>
<td>12% (94)</td>
<td>2% (16)</td>
<td>0.4% (3)</td>
<td>3% (77)</td>
</tr>
<tr>
<td>Parents encouraged you to exercise to lose weight</td>
<td>55% (421)</td>
<td>17% (129)</td>
<td>16% (123)</td>
<td>8% (58)</td>
<td>4% (34)</td>
</tr>
<tr>
<td>Parents restrict food intake so will not gain weight</td>
<td>71% (543)</td>
<td>16% (123)</td>
<td>8% (61)</td>
<td>3% (20)</td>
<td>2% (17)</td>
</tr>
</tbody>
</table>
Table 16: Correlation coefficients between BMI, body dissatisfaction and family dieting behaviour

<table>
<thead>
<tr>
<th></th>
<th>Frequency of talking about weight at home</th>
<th>Frequency of being encouraged to diet</th>
<th>Frequency of being encouraged to exercise</th>
<th>Frequency of restriction of food intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI</td>
<td>( r = 0.23 ) *</td>
<td>( r = 0.40 ) *</td>
<td>( r = 0.41 ) *</td>
<td>( r = 0.30 ) *</td>
</tr>
<tr>
<td>Body Dissatisfaction</td>
<td>( r = 0.23 ) *</td>
<td>( r = 0.34 ) *</td>
<td>( r = 0.37 ) *</td>
<td>( r = 0.25 ) *</td>
</tr>
</tbody>
</table>

\* \( p < 0.001 \)

3.3.6 Eating Attitudes (ChEAT)

The maximum score for eating attitudes as measured by the Children's Eating Attitude Test was 60. This was a total of two subscales, one relating to dieting behaviour and attitudes and the other to oral control. The higher the score the more dysfunctional the attitudes which were being expressed. The range for the 'diet' score was 0-39 and 'oral control' 0-21. The average 'diet' score was 5.5 (sd = 7) and median was 3. The average ‘oral control’ score was 2.1 (sd = 3) and median was 1. The average overall score which is a combination of the 'dieting' and 'oral control' subscale, was 7.6 (sd = 8.7) and median was 5.0.

Garner, Olmstead, Bohr and Garfinkel (1982) have provided data on a group of anorexics, where the mean score on the dieting subscale as measured by the EAT was 19.9 (sd 10.9) (N=160). The mean score for a female comparison group was 7.1(sd 7.2) (N=140). The mean score for oral control was 8.3 (sd 5.8) for the anorexic group and 1.9 (2.1) for the
female comparison group. There is no baseline data available for the Childrens version of the EAT but the literature suggest that the accuracy of the original EAT-26 has been maintained even with its modification. The study by Maloney et al (1988) reports that 7% of children from normal schools scored within the anorexia nervosa range which matches reports in the literature on adolescents and adults. The mean scores for the two subscales were lower for the present sample.

The overall attitude score was significantly correlated with BMI (r = 0.20, p< 0.001) and body dissatisfaction (r = 0.41, p< 0.001). The 'dieting' subscale was also correlated with BMI (r = 0.28, p< 0.0001) and body dissatisfaction (r = 0.50, p<0.001). The 'oral control' subscale is significantly correlated with BMI (r = -0.10, p<0.05) although not with body dissatisfaction.

3.3.6.1 Attitudes to dieting

A third of the sample thought that strict dieting was not a good way to lose weight. However, 35% thought it was a 'slightly' good way of loosing weight, 12% thought it was a moderately good way, and 16% thought it was a quite or very good way of losing weight. There was a significant correlation between thinking that dieting was a good way to lose weight and feeling fat (r = 0.20, p< 0.001) and having a higher BMI (r=0.09, p< 0.05)
3.3.7 Fear of Negative Evaluation

The maximum score attainable was 15 with a high score signifying high anxiety. Four percent of the sample scored 0 indicating a lack of anxiety regarding evaluation by others. There was a relatively equal distribution of scores from 1 - 15. The average score was 8.2 (sd = 4.4), the median and mode were both 8.

Studies using the FNE have mostly used adult populations and a modified version of the FNE was used for the purpose of this study as the full version was deemed too difficult for children to understand. Therefore there are no norms with which to compare this population.

Fear of negative evaluation was significantly correlated with body dissatisfaction (r = 0.20, p < 0.001), age (r = 0.14, p < 0.001) and BMI (r = 0.08, p < 0.05).

3.3.8 Perfectionism

The maximum score attainable was 18 with a high score indicating increased perfectionism. 25% of the sample scored 0 and only 3% scored between 12 and 18. The average score was 3.5 (sd = 4) the median was 2 and the mode 0.

Data from an anorexic group showed a mean perfectionism score of 8.6 and for recovered anorexics, 6.6, while the mean score for female college
students was 6.4 (N=271, sd=4.3) (Garner and Olmstead EDI manual). The average score for the present sample was therefore low.

Perfectionism was not correlated with body dissatisfaction (r = 0.06, p = 0.86), BMI (r = 0.03, p = 0.39) or age (0.01, p = 0.6).

3.3.9. Esteem

The maximum score attainable for overall esteem was 26 with a high score indicating high self esteem. The overall average score was 18.9 (sd = 4.5) and median of 20. The overall physical appearance esteem score ranged between 0 -18. The mean was 12.55 (sd = 3.61) and the median was 13. This was made up of two physical appearance scores, one based on actual physical appearance characteristics and the other based on related physical appearance characteristics. The physical appearance score ranged between 0 - 6. The mean score was 3.6 (sd = 1.7) and median was 4. The other appearance related score ranged between 0 -12 with an average score of 8.8 (sd = 2.4) and a median of 9. The 'self depreciation' esteem score ranged between 0 - 8, the average score was 6.3 (sd = 1.6) and median of 7.

As only 2 subscales consisting of 26 items from the original 80 item questionnaire were used, it is not possible to compare the overall esteem scores with the results from other research. A study by Walsh-Pierce and Wardle (1992) used the physical appearance subscale (13 items) and
found the mean score to be 8.56 (sd=13.1, n=409) which compared closely to the published mean (8.47, sd=3.24, n=237) (Piers-Harris, 1984). If the physical appearance scale had been composed of 13 items with this population, prorating suggests that the average score would be 9.06, which is comparable with the previous study.

There was a significant negative correlation between the overall esteem score and body dissatisfaction (r = -0.20, p<0.001). This was true for all the esteem subscales indicating that those who feel fatter have a low esteem about appearance and self in general. There was no significant correlation between overall esteem and BMI (r = 0.01, p = 0.75) although a significant negative correlation was found between the physical appearance esteem and BMI (r = -0.14, p<0.001).

3.4 PREDICTORS OF BODY SIZE DISSATISFACTION

In order to identify the factors which contribute significantly to body size dissatisfaction, each of the factors which have been claimed in the theoretical papers discussed earlier were tested by univariate analysis. Two ways of indexing body dissatisfaction were used, first the variable measuring perception of body size and second the esteem variable related to physical appearance. Subsequently, a series of multiple regression analyses were conducted to determine significant predictors for body size dissatisfaction. Each of the models which have been shown to be related to body dissatisfaction were entered together to examine the
contribution of each.

3.4.1 Body Dissatisfaction - Feeling Fat

1  BMI

BMI is the main factor in feeling fat ($r=0.54$, $p<0.001$)

2  Early Menarche

An analysis of variance showed that girls who began menarche before 12 years ($n = 141$) were slightly more dissatisfied than those who had not (menarche under 12 years - mean body size dissatisfaction score = 2.57; menarche over 12 years - mean body size dissatisfaction score = 2.30), $F = 8.73$, $p < 0.001$. However, those who begin menarche early are also more likely to be heavier and when BMI was included as a covariate, the effects of early menarche disappear.

3  Body Ideal

Analysis of variance was conducted using the score of the figure selected to examine the contribution of sociocultural effects to body size dissatisfaction. There is no doubt that cultural ideals do explain why ideals are so thin, but there is no evidence from our data that thinner ideals result in more body size dissatisfaction.

4  Socio-economic status

Using newspaper read as an indicator of social class, there was no link
with on body size dissatisfaction. When the same analysis was conducted between the different schools, the school which had the highest proportion of children from professional backgrounds has the highest number of girls who feel fat, yet they were actually thinner than the girls from the other schools. This indicates that it may be the daily social environment provided by a school which may play an important role in a girl's feelings about her body. The girls at this school also had more parents who were dieting compared to the other schools.

5 Teasing

Those girls who had been teased for being fat were more dissatisfied with their bodies. See Table 12 for body size dissatisfaction scores in relation to the frequency of being teased. An analysis of variance showed that this was significant ($F = 62.76, p<0.001$), even when BMI was taken into account ($F = 24.53, p<0.001$).

6 Family Pressures

An analysis of variance showed a significant effect for 'family talking about weight' ($F=10.65, p<0.001$) which was even stronger when BMI was a covariate ($F=65.35, p<0.001$). 'Family encouragement to exercise' was also significantly related to dissatisfaction ($F=30.94, p<0.001$) and remained so when BMI was a covariate ($F=69.25, p<0.001$).
7 Personal characteristics
There was no effect for perfectionism or esteem. Fear of negative evaluation was associated with higher body dissatisfaction ($r=0.20$, $p<0.001$).

3.4.1.1 Multivariate Analysis
The variables found to be significantly related to body size dissatisfaction were entered in a stepwise fashion. Table 17 shows the values for each variable in the final regression equation.

3.4.2 Physical Appearance Esteem
1 BMI
Physical esteem was significantly correlated with BMI ($r = 0.14$, $p<0.001$).

2 Early Menarche
There was no effect for early menarche.

3 Body Ideal
There was no effect for body ideal.

4 Socio-economic status
There was no effect for socio-economic status (newspaper) or school type, even when other variables are controlled for.
5. **Teasing**

There was a significant correlation between frequency of being teased and appearance esteem ($r = 0.24$, $p < 0.001$). When BMI is controlled for the effect is still significant ($r = 0.21$, $p < 0.001$).

6. **Family**

There was no effect for any family characteristics.

7. **Personal Characteristics**

There was a significant correlation between physical appearance esteem and fear of negative evaluation ($r = 0.41$, $p < 0.001$) and self depreciation ($r = 0.34$, $p < 0.001$). However, there is no effect for perfectionism.

3.4.2.1 **Multivariate Analysis**

The only factors which were entered into the regression were BMI, being teased for being fat, self depreciation and fear of negative evaluation.

See table 18 for the regression equation.
Table 17: Regression equation for the variables contributing to body size dissatisfaction - variables added in order presented

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0.005</td>
<td>0.019</td>
<td>-0.007</td>
<td>-0.23</td>
<td>p = 0.81</td>
</tr>
<tr>
<td>BMI</td>
<td>0.91</td>
<td>0.008</td>
<td>0.410</td>
<td>11.49</td>
<td>p&lt; 0.001</td>
</tr>
<tr>
<td>Frequency of talking about weight at home</td>
<td>0.021</td>
<td>0.024</td>
<td>0.027</td>
<td>0.86</td>
<td>p&lt; 0.5</td>
</tr>
<tr>
<td>Frequency of parents encourage to exercise</td>
<td>0.069</td>
<td>0.024</td>
<td>0.096</td>
<td>2.87</td>
<td>p&lt; 0.001</td>
</tr>
<tr>
<td>Frequency of being teased for being fat</td>
<td>0.213</td>
<td>0.029</td>
<td>0.244</td>
<td>7.25</td>
<td>p&lt; 0.001</td>
</tr>
<tr>
<td>FNE</td>
<td>0.018</td>
<td>0.006</td>
<td>0.096</td>
<td>3.16</td>
<td>p&lt; 0.001</td>
</tr>
</tbody>
</table>

Table 18: Regression equation for the variables contributing to physical self esteem

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI</td>
<td>-0.08</td>
<td>2.28</td>
<td>p&lt; 0.02</td>
</tr>
<tr>
<td>Frequency of being teased for being fat</td>
<td>-0.10</td>
<td>2.57</td>
<td>p&lt; 0.01</td>
</tr>
<tr>
<td>Piers Harris 'self depreciation' scale</td>
<td>0.21</td>
<td>5.70</td>
<td>p&lt; 0.001</td>
</tr>
<tr>
<td>FNE</td>
<td>-0.29</td>
<td>7.83</td>
<td>p&lt; 0.001</td>
</tr>
</tbody>
</table>

3.5 Social Background Differences

Analysis of variance was carried out on the independent psychological variables to investigate social background differences. A similar analysis was subsequently completed to investigate any differences between the
There was a significant difference between the three social groups (A/B, C1/C2, D/E) for BMI with class D/E having the highest average BMI as indicated by the Tukey HSD test (F = 3.122, p<0.05). If BMI and age are controlled for, differences in body satisfaction for the three groups were still significant (F = 76.34, p<0.001) with the higher social class (A/B) being more dissatisfied (mean BSD score = 2.43). The mean body size dissatisfaction score for social class C1/C2 was 2.30 and for D/E it was 2.29. There is no significant difference for body ideal.

A one-way analysis of variance was carried out on the overall scores for esteem, fear of negative evaluation, perfectionism and eating attitudes. The only variable that reached significance was perfectionism, which indicated that social group A/B had the highest mean score according to the Tukey HSD test (F = 4.14, p< 0.05). There was no difference between groups for the overall ChEAT score but the diet subscale, when BMI and age were controlled for, reached significance at the 0.001 level (F=17.65). Social group A/B had the highest average ChEAT score (5.8, sd=7.57). This was followed by social group D/E (4.72, sd=6.66) and then C1/C2 (4.72, sd=5.90).
This study set out with a number of aims regarding the evaluation of possible predictors of body size dissatisfaction in female adolescents. The results of this investigation confirms several of the findings of previous research and puts forward other explanations for the development of body size dissatisfaction.

Dissatisfaction with body size is part of the more general phenomenon of body image disturbance, although quite often the terms are used interchangeably. Much of the literature has focused on how disturbances in body image contribute to the development of abnormal eating patterns and eating disorders. This study focuses on the other end of the continuum to investigate characteristics which predispose a young women to dissatisfaction. It is based on a large sample which has been taken from a cross section of a nonclinical population of adolescent girls from different cultural and social backgrounds. This is in contrast to other studies which measure similar issues, but use much smaller samples (eg: Thompson et al, 1995; Stormer and Thompson, 1996; Levine et al, 1994; Attie & Brooks-Gunn, 1989).

A number of standardised measures were used in this study, including measures of all the main factors which have been proposed as relevant
to the development of body size dissatisfaction. An exploratory factor analysis broadly confirmed the validity of the standardised measures with this sample. There were some variations in the factor structure of some of the measures as a few of the items did not fit exactly. However, this was only for a small minority of the questions and it was deemed appropriate to maintain the original factor structures in the analysis of the data. The scores on the Children’s Eating Attitude Questionnaire and the Perfectionism scale from the Eating Disorders Inventory were slightly lower than have been found in previous populations. However, most standardisation data are from adult groups rather than from children’s groups which may explain some of the difference. The scores on subscales from the Piers Harris Self Concept Scale were comparable to the results obtained in the study conducted by Walsh-Pierce and Wardle (1992) if the differing number of items is taken into account.

This study looked specifically at feeling fat as a significant form of dissatisfaction with body. This is in keeping with sociocultural findings of thinness being identified as ideal for women. Given that body size dissatisfaction is affected by actual weight status, it is important to measure weight in order to evaluate the appropriateness of the concern. Therefore, this study was careful both to measure actual BMI, and control for it in the analysis. Both univariate and multivariate analysis were used to evaluate the data.
The general results of the study are discussed first and this is followed
by a discussion on the more specific predictors of body size
dissatisfaction and subsequently the social class differences. Finally, the
limitations of the study and recommendations for future research are
outlined.

4.1 The General Findings of the Study

Just under half the population surveyed said that they felt fat, with very
few girls saying that they felt thin. The distribution of girls saying that
they felt thin, just right or fat is similar to that found by Wardle and
Marsland (1990). Objective body size (BMI) increased with age as
expected. Body size dissatisfaction, as measured by the girls subjective
opinion whether they felt thin, just right or fat, was correlated with BMI.
This is also the same as that found in other studies (eg: Wardle and
Marsland, 1990) and confirms one hypothesis of the study.

Girls who thought they were fat were most likely to think that dieting was
a good way of losing weight as did girls who had a higher BMI. Those
who had a higher BMI and who felt dissatisfied with their bodies were
more likely to engage in dieting behaviours, confirming the results found
dissatisfaction was correlated more highly with dieting behaviour than
was BMI, which indicates that perception about body size is more
significant than actual body size in triggering dieting. Those girls with a
lower BMI were more likely to engage in 'oral control' behaviours, such as showing self control around food and feeling pressurised by others to eat.

Body size ideals were measured using a set of figures varying in fatness, to see if a slim body ideal was associated with more dissatisfaction. The majority of the sample chose two of the middle range of the seven figures, which gave very little variability in the scores. Perhaps if a larger choice of figures in this 'normal range' was presented, differences would have been measurable. There was a trend for the older girls to pick a smaller size but this did not reach significance. Body ideal was not found to be related to body size dissatisfaction. Based on this data, there is no evidence that it is the size of a girl's ideal that determines whether she feels too fat or not.

Those who began menarche before the age of 12 years were more dissatisfied with their bodies than those who began at a later age. However as this was related to BMI, this indicates that early maturation serves to increase dissatisfaction via the weight gain associated with puberty. This is in agreement with Attie and Brooks-Gunn (1989) who found that it was body fat which was positively associated with eating problems and not actual maturational timing. An early experience of puberty may be a triggering event for dissatisfaction, but other factors which occur at a similar time in a girl's life may also have an impact.
The literature suggests that family factors are often important in the development of eating disorders, both via social learning and also family dynamics. The scope of this study did not extend to evaluating the dynamics of the family and the possible influence upon eating problems, but it did investigate the girls impression of family dieting behaviour and attitudes, and its association with body size dissatisfaction. Girls in the sample were more likely to report that their mothers had dieted than their fathers. Only a small proportion said that they themselves had been encouraged to diet to lose weight, with a higher proportion being encouraged to exercise. Encouragement to diet or exercise were associated both with BMI and body dissatisfaction, as were talking about weight at home and restriction of food intake. Therefore, there does seem to be a relationship with family influences and feeling dissatisfied with body size. However, whether family influences cause body dissatisfaction cannot be concluded on the basis of this. A number of the girls mentioned informally in discussions following the research session, that although their parents did encourage them to exercise and eat less, it was not to lose weight but to maintain a healthy lifestyle. Therefore, this may be seen as a positive point created by an awareness of healthy lifestyles, rather than serving to increase vulnerability to developing pathological eating patterns or placing them on the continuum towards developing eating disorders. It must be kept in mind however, that it is the way which these messages are perceived and internalised which may be more important.
Negative verbal commentary, usually called teasing, which may occur during childhood or adolescence, has been suggested to be a significant developmental factor which may play an important part in the development of body dissatisfaction. The present study found that girls had been teased both for being thin and fat, with slightly more girls being teased for being thin than for being fat. The content of teasing was related to actual body size. Being teased for being fat appeared to have a more negative impact on the individual, as there were more reports of being very upset, than when teased for being thin. Friends were more likely to tease a girl for being thin, whereas family were more likely to tease a girl for being fat. Teasing was related to body dissatisfaction, as those who were teased for being fat thought they were fatter independently of BMI, thus confirming the second hypothesis of the study. Being teased about body size, particularly during puberty when a girl's body is going through numerous developmental changes, can strike a vulnerable nerve. This may be more so if adaptation to pubertal change is proving difficult. The timing of the teasing was not investigated and could well have occurred during earlier childhood and not necessarily during puberty. Given that teasing per se does have an effect on body dissatisfaction, examining the temporal issue may provide further information as to its actual role in the development of body image problems.

Little research has examined personality variables in nonclinical samples
to determine what factors, or combination of factors, may predispose an adolescent to develop eating problems or to be dissatisfied with their body (Attie and Brooks-Gunn, 1989). We chose to assess perfectionism, self-esteem and social evaluative anxiety as these have all been implicated in the aetiology of eating disorders.

Perfectionism was not found to be associated with any of the variables in this study. This leads to the conclusion that it may be a trait which emerges as eating problems progresses, rather than contributing to them at a very early stage. However, self-esteem and fear of negative evaluation were found to be important factors.

Those who feel fatter have a low self esteem overall, whereas those with a higher BMI were only found to have low self esteem on the physical appearance esteem subscale. This suggests that it is not necessarily the actual body weight that affects self esteem, rather it is the individuals perception and satisfaction with their size and what they think they look like. There was no significant correlation for age but the trend would suggest that increasing age results in lower esteem. This may be explained by the increase in size with age, although there may be factors other than weight which is associated with adolescents which may explain this. Fear of negative evaluation was also found to be an important factor and was associated with BMI and body dissatisfaction. This suggests that those who feel fatter, and less attractive, are more
likely to feel apprehension about others evaluations and are more
distressed by a negative evaluation. The third hypothesis, is therefore
only partly confirmed as body size dissatisfaction is associated with low
self esteem and fear of negative evaluation, although not with
perfectionism.

4.2 Multivariate analysis
Physical esteem and perception of body size were the two variables used
to index body size dissatisfaction for the multivariate analysis. This is
because perceiving oneself to be too fat or too thin was taken to indicate
some element of dissatisfaction. Given that those who thought they were
too fat were more distressed by this, than those who thought they were
too thin, fatness was taken to represent dissatisfaction.

4.2.1) Feeling Fatter
In the multivariate analysis, only those factors which were found to be
related to feeling fat with univariate analyses were entered. This showed
that BMI was the most important contributing variable to feeling fat.
When this was controlled for, being teased for being fat, fear of negative
evaluation, talking about weight at home and being encouraged to
exercise were the most important factors. Self-esteem was dropped out
as an independent factor in causing a girl to feel fat.
4.2.2 Appearance Esteem - as an indicator of poor body image

Fewer factors were related to low self-esteem in relation to physical appearance. BMI was again an important predictor as was being teased for being fat, even when BMI was taken into account. However, early menarche, body ideal or family characteristics were not found to be predictors. Fear of negative evaluation and self depreciation were found to be significant predictors, indicating that it is the psychological characteristics of a person which appear to have the most impact on esteem.

Both analyses suggested the most important predictors of body size dissatisfaction, other than actual body size, are being teased for being fat and personality characteristics of finding it difficult to deal with criticism by others and caring a lot what people think. Family attitudes and behaviour such as talking about weight and encouragement to exercise also has an impact, although only for feeling fat and not for appearance esteem. Those with low appearance-esteem who perceive their appearance as not measuring up to expectations are more likely to also be more dissatisfied with themself as a whole and feel more alienated and anxious. It is likely that a combination of these factors in any one person will increase the likelihood of feeling dissatisfied with their bodies, in particular body size. Subsequently, this predisposition may increase the likelihood of going on to develop further eating problems. The idea that body shape ideal is associated with variation in body shape...
dissatisfaction was not supported. This fails to confirm an oft cited cause of dissatisfaction. One explanation may be that body shape ideals at a society or cultural group wide level, influence the member of that society, but effects of variation within a society is too subtle to detect. So body size ideals may explain difference between, for example, African and American women.

4.3 Social Class Differences

The literature on weight concerns and eating disorder has suggested the problem is more widespread in those from higher social classes. Wardle and Marsland (1990) studied adolescent concerns about weight and eating and found that girls from higher SES background schools showed more concern that those from lower SES schools, although they were actually slimmer. Dieting was also more common in girls from the higher SES schools. However, in the present study, socio-economic status was not found to be a predictor of body size dissatisfaction, nor was it related to having a thinner ideal, which disconfirms the fourth hypothesis. However, there were problems relating to the measurement of social class. Although using 'newspapers read' as an indicator for social class has been used effectively in other studies, the fact that the present study used a mixture of English and Irish subjects and hence different national newspapers, may have made the results less reliable. This may be due to the large proportion of Irish who read local papers and the smaller number of national papers to choose from.
Using school attended as a variable did highlight some interesting differences and the 'schools' variable contributed to the variance in the regression for body size perception although not for physical esteem. The school with the highest number of girls from higher social classes were found to be thinner but more dissatisfied. They also had higher perfectionism scores that the other schools, but there were no differences in body size ideal. However, as not enough data was available to classify social class on the basis of school type, these results cannot be generalised to the population as a whole. Therefore, the final hypothesis of the study was not proven.

This study has investigated the factors associated with body size dissatisfaction and can support the main hypotheses put forward, with the exception of some personality characteristics and social class. The evidence found does provide some support for the developmental and social theories indicated in the literature. In support of the developmental theory, being teased for being fat, although not for being thin, appears to be an important predictor for feeling dissatisfied with body size. Early maturation was not a predictor once BMI was taken into account. Social influences such as family pressures to control weight did appear to be important, particularly in relation to feeling fat. These effects may be amplified by personality characteristics, particularly for those who feel anxious about negative evaluation and thus find it difficult to deal with criticism. It may be that these people find it more difficult to deal with
comments about appearance and perceive the messages received more negatively. The pathway to the development of body size dissatisfaction is obviously not a clear cut one and may be confounded by many different factors. This study has attempted to elucidate this pathway and provide a clearer idea about the important predictors in body size dissatisfaction.

4.4 Limitations of this Study

The main limitation of this study is its cross sectional nature, as this is potentially a problem in searching for causal pathways. It is important to understand what processes may be involved in the possible aetiology of body size dissatisfaction, and subsequently eating disturbance, but this study can only derive hypotheses about what the causal relationships may be. As Stormer and Thompson (1996) state, regressions cannot rule out the possibility that the predictors are correlative, but not causative and so the utilization of longitudinal models to help disentangle the temporal issue is indicated. Also, the measurement of social class was flawed in this study due to the difficulty in comparing different newspapers from different countries. Had this not been the case, social class effects may well have been apparent. Body size dissatisfaction was classified primarily according to feeling fat. Although, this is certainly a cause for feeling dissatisfied with one's body, it may be useful to use more robust measures of body size dissatisfaction.
4.5 Recommendations for future research

To date, there is no longitudinal investigation that has included an evaluation of sociocultural and social comparison variables. This type of study would add further support for these explanations of body image, and lead to the future development of well-formed theoretical models of body image disturbance (Stormer and Thompson, 1996). The focus of this study was on females, investigating sex differences may highlight further important factors associated with the development of body size dissatisfaction. As personality characteristics were found to be an important predictor, more comprehensive measures of personality and psychological characteristics would be an interesting way forward.
CONCLUSION

As hypothesized, body size dissatisfaction was associated with objective size as measured by BMI. Independently of BMI, it is also associated with being teased for being fat, although not for being thin. It is associated with low self-esteem, in particular esteem associated with physical appearance, and fear of negative evaluation, although not with perfectionism. Family factors, particularly talking about weight and encouragement to exercise were found to be important. No differences in relation to body size ideals were found. No social class effects were illustrated although this may be partly due to the measurement techniques used in the study. The study offers some support for the developmental and social theories of body size dissatisfaction.
REFERENCES


Garrow JS & Webster J (1986). Quetelet's index as a measure of fatness. International Journal of Obesity, 9, 147-153,  


Michael WB, Smith RA & Michael JJ (1975). The factorial validity of the Piers-Harris Children's Self-Concept scale for each of three samples of elementary, junior high and senior high students in a large metropolitan high school district. *Educational and Psychological Measurement, 35,* 405-414.


APPENDIX

A: Letter to school

B: Questionnaire
Dear <Headteacher>  

I am writing to request the participation of your school in a research project I am undertaking as part of my Masters degree in Clinical Psychology.  

As I am sure you are aware, teenagers, particularly girls, are often preoccupied with their weight. A small proportion of these girls go on to develop an eating disorder. As part of my research I am attempting to ascertain what people are more likely to feel dissatisfied with their bodies and to investigate characteristics and predictors of this. Exploring this may help towards a greater understanding of the cause of anorexia and bulimia nervosa.  

My project would involve giving those girls aged 12 to 16 years questionnaires to fill out. The questionnaire asks questions about eating and dieting behaviours and would take approximately 20-25 minutes to complete. I would also like to measure the height and weight of each girl who completes a questionnaire. Ideally a group of 25-30 girls in a room during a 40 minute period would be sufficient for this. Ethical permission for this research has been granted by the Bethlem and Maudsley Trust.  

If your school does decide to participate, consent would be sought individually from each girl and those not willing to be involved would not have to.  

If you would like to discuss this with me further, please do not hesitate to contact me.  

My telephone numbers are:  

Otherwise I will contact you over the next few weeks. Thank you very much for your help.  

Yours sincerely  

Elizabeth Collins  
Clinical Psychologist in Training
YOUNG WOMEN’S DIETING SURVEY

This questionnaire contains questions about eating, dieting and what you think of your body. Please read each question and answer according to what you think best suits you. There are no right or wrong answers. All your answers will be confidential and cannot be related back to you, so please be truthful. It is important to answer all of the questions. Please ask me if you have any questions.

Thank you.

Liz Collins
Psychologist

Weight

Height
1. How often has your mother gone on a diet to lose weight?
   - Never 1-2 times 3-5 times 6-10 times 11+ times Don't know

2. How often has your father gone on a diet to lose weight?
   - Never 1-2 times 3-5 times 6-10 times 11+ times Don't know

3. Do you talk a lot about weight in your home?
   - Not at all a little occasionally frequently often

4. Has your mother or father ever encouraged you to go on a diet to lose weight?
   - Never 1-2 times 3-5 times 6-10 times 11+ times

5. Has your mother or father encouraged you to exercise in order to lose weight or keep from gaining weight?
   - Never rarely once in a while fairly often very often

6. Does your mother or father restrict (or try to restrict) your food intake so that you would not gain weight?
   - Never rarely once in a while fairly often very often

7. Do you think that strict dieting is a good way to lose weight?
   - Not at all slightly moderately quite a bit very much

8. Have you ever been teased for being fat?
   - Never seldom sometimes often very often
   **If you have never been teased for being fat go straight to question 10**

   **If you have been teased for being fat, go straight to question 10**
   a) Have you been teased by members of your family?
      - YES NO
   b) Have you been teased by others at school?
      - YES NO

9. If you were teased for being fat, how did this affect you
   **Please tick**
   - Really upset me
   - Upset me a lot
   - Upset me a little
   - Did not upset me at all

10. Have you ever been teased for being thin?
   - Never seldom sometimes often very often
   **If you have never been teased for being thin, go straight to question 12**

   **If you have been teased for being thin, go straight to question 12**
   a) Have you been teased by members of your family
      - YES NO
   b) Have you been teased by others at school
      - YES NO

11. If you were teased for being thin, how did this affect you
   **Please tick**
   - Really upset me
   - Upset me a lot
   - Upset me a little
   - Did not upset me at all
Please CIRCLE each statement TRUE or FALSE as you feel it applies to you.

2. I worry about what people will think of me even then I know it won't make any difference.
   TRUE  FALSE

3. I become tense and jittery if I know someone is sizing me up.
   TRUE  FALSE

4. I am often afraid that I may look ridiculous or make a fool of myself.
   TRUE  FALSE

5. I am frequently afraid of other people noticing my shortcomings.
   TRUE  FALSE

6. If someone is judging me I tend to expect the worst.
   TRUE  FALSE

7. I am afraid that others will not approve of me.
   TRUE  FALSE

8. I am afraid that people will find fault with me.
   TRUE  FALSE

9. When I am talking to someone, I worry about what they may be thinking.
   TRUE  FALSE

10. I am usually worried about what kind of impression I make.
    TRUE  FALSE

11. I worry that others will think I am not worthwhile.
    TRUE  FALSE

12. Sometimes I think I am too concerned with what other people think of me.
    TRUE  FALSE

13. I often worry that I will say or do the wrong things.
    TRUE  FALSE

24. I am usually confident that others will have a favourable impression of me.
    TRUE  FALSE

25. I often worry that people who are important to me won't think very much of me.
    TRUE  FALSE

26. I worry about the opinions my friends have about me.
    TRUE  FALSE

Please read each statement and circle the most appropriate one.

27. My family expects me to be perfect.
    Never  rarely  sometimes  often  very often  always

28. I try very hard to avoid disappointing my parents and teachers.
    Never  rarely  sometimes  often  very often  always

29. I hate being less than best at things.
    Never  rarely  sometimes  often  very often  always

30. My parents expect excellence of me.
    Never  rarely  sometimes  often  very often  always

31. I feel that I must do things perfectly or not do them at all.
    Never  rarely  sometimes  often  very often  always

32. I have extremely high goals.
    Never  rarely  sometimes  often  very often  always

Please tick

33. Do you think you are:

   much too thin
   a bit too thin
   about right
   a bit too fat
   much too fat
14. I am scared about being overweight.

Never rarely sometimes often very often always

35. I stay away from eating when I am hungry.

Never rarely sometimes often very often always

36. I cut my food into small pieces.

Never rarely sometimes often very often always

37. I am aware of the energy (calorie) content in food that I eat.

Never rarely sometimes often very often always

38. I avoid foods such as breads, potatoes and rice.

Never rarely sometimes often very often always

39. I feel that others would like me to eat more.

Never rarely sometimes often very often always

40. I feel very guilty after eating.

Never rarely sometimes often very often always

41. I think a lot about wanting to be thinner.

Never rarely sometimes often very often always

42. I think about burning up energy (calories) when I exercise.

Never rarely sometimes often very often always

43. Other people think I am too thin.

Never rarely sometimes often very often always

44. I think a lot about having fat on my body.

Never rarely sometimes often very often always

45. I take longer than others to eat my meals.

Never rarely sometimes often very often always

46. I stay away from foods with sugar in them.

Never rarely sometimes often very often always

47. I eat diet foods.

Never rarely sometimes often very often always

48. I can show self-control around food.

Never rarely sometimes often very often always

49. I feel that others pressure me to eat.

Never rarely sometimes often very often always

50. I feel uncomfortable after eating sweets.

Never rarely sometimes often very often always

51. I have been on a diet.

Never rarely sometimes often very often always

52. I like my stomach to be empty.

Never rarely sometimes often very often always

53. I enjoy trying new foods.

Never rarely sometimes often very often always
<table>
<thead>
<tr>
<th>Statement</th>
<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
<td>54. I am good looking.</td>
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<td>55. I have a pleasant face.</td>
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<td>56. I have a good figure.</td>
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<td>57. I have nice hair.</td>
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<td>58. I am popular with girls.</td>
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<tr>
<td>59. I am popular with boys.</td>
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<td>60. I have pretty eyes.</td>
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<td>61. I am strong.</td>
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<td>62. I am good in my school work.</td>
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<td>63. I am intelligent.</td>
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<td>64. My looks bother me.</td>
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<td>65. My classmates in school think I have good ideas.</td>
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<td>66. My friends like my ideas.</td>
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<td>67. I am lucky.</td>
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<td>68. I am an important member of my class.</td>
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<td>69. I am cheerful.</td>
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<td>70. I am a good person.</td>
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<td>71. When I grow up, I will be an important person.</td>
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<td>72. My classmates make fun of me.</td>
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<td>73. I am always dropping or breaking things.</td>
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<td>74. I cry easily.</td>
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<td>75. When I try to make something, everything seems to go wrong.</td>
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<td>76. I am stupid about most things.</td>
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<td>77. My family is disappointed in me.</td>
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<td>78. It is usually my fault when something goes wrong.</td>
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<td>79. I am unpopular.</td>
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<td>80. How old are you?</td>
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<td>81. How would you identify yourself as?</td>
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<td>White</td>
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<td>Asian</td>
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<td>Other (please name)</td>
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<td>82. How many sisters do you have?</td>
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<td>83. How old are they?</td>
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<td>1. ___  2. ___  3. ___  4. ___</td>
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<td>84. How many brothers do you have?</td>
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<td>85. How old are they?</td>
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<td>1. ___  2. ___  3. ___  4. ___</td>
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<td>86. What newspaper is most often read at home?</td>
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<td>The Sun</td>
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<td>The Daily Telegraph</td>
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<td>OTHER</td>
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UNIVERSITY OF LONDON

King's College London
(Institute of Psychiatry)

Elizabeth Collins

having completed the approved course of study and passed the examinations has this day been admitted by King’s College London (Institute of Psychiatry) to the University of London Degree of

MASTER OF SCIENCE

in Clinical Psychology

Principal, King’s College London

Vice-Chancellor

1 November 1996