A Portfolio of Academic, Clinical and Research Work

(Volume I)

including

An Investigation into the Association of Eating Disorders and Personality Characteristics in a Female Special Hospital Population

by

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Introduction to the Portfolio

This portfolio (Volume I) includes selected pieces of work completed during the three-year training course in Clinical Psychology. The academic section contains five essays, covering both core and specialist topics. The clinical section comprises an overview of clinical experience, as well as details of all six placements undertaken, including the placement contracts and the summaries of five formal clinical case reports. The research section contains a literature review submitted in the first year, a small-scale research project conducted in the second year, and a large-scale research project completed in the third year. In a separate and confidential volume (Volume II), the five formal clinical case reports are presented in full, as well as all placement documentation, including logbooks of clinical activity and supervisor evaluation forms.

The work in each section is presented in the order in which it was submitted, to reflect the ongoing learning process throughout clinical training.
Academic Section
Summary of the Academic Section

This section contains five essays, selected to reflect the variety of topics covered throughout the three-year course. The first two essays were submitted during the first year, the following two essays were completed during the second year and the final essay was submitted in the third year of training.
Therapy outcome studies suggest that cognitively based interventions are more effective than behavioural interventions as treatment for anxiety disorders. Discuss in relation to Panic Disorder.

Introduction

In recent years, psychological theories have been promoting conditioning, cognitive and personality models to explain the aetiology of panic disorder. Thus, panic disorder has been the focus of extensive research and controversy; and considerable efforts have been made to incorporate the associated physical, cognitive and affective symptoms into an overall diagnostic definition of panic disorder as a discrete syndrome.

The overall definition of panic disorder in the current Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition) (DSM-IV; American Psychiatric Association [APA], 1994) stresses recurrent, unexpected panic attacks, which in turn are defined as periods 'of intense fear or discomfort that are accompanied by ... somatic or cognitive symptoms'. This definition directly acknowledges the cognitive aspects of panic disorder, which are often reported by patients as a sense of imminent danger, including thoughts that they were about to die; lose control; have a heart attack/ stroke; faint; collapse; or ‘go crazy’ (Hibbert, 1984; Ottaviani & Beck, 1987). These cognitions might occur in addition to other somatic and behavioural symptoms. This combination of cognition and affect can result in anticipatory anxiety about future attacks and might lead to the development of avoidance behaviours.

The cognitive model of panic

Underlying cognitive interventions for panic disorder is the cognitive model of panic as proposed by Beck, Emery and Greenberg (1985) and Clark (1986). According to the model, panic attacks result from an abnormality in the client’s thinking due to the tendency to interpret a wide range of bodily sensations (mainly those involved in a normal anxiety response) in a catastrophic fashion. This
misinterpretation is then taken as an indication of an immediately impending physical or mental disaster.

A wide range of internal and external stimuli can trigger panic attacks. If perceived as a source of danger, these stimuli result in a state of fear and apprehension which is accompanied by a range of bodily sensations. If these sensations in turn are interpreted in a catastrophic fashion, they might further increase the perceived threat, resulting in more apprehension and thus leading to a vicious cycle which culminates in a panic attack. Once this tendency to interpret bodily sensations in a catastrophic fashion has developed, two further factors were suggested to maintain the negative thinking process and perpetuate the panic disorder. Firstly, patients show increased attention to their feared bodily symptoms, which heightens their sensitivity to sensations they were not previously aware of. Once noticed, they are taken as further evidence for the presence of some disorder (Clark, 1988). Secondly, clients might engage in certain avoidance behaviours, which prevent them from realising that their fears are unrealistic.

The cognitive model of panic and its consequent assumptions received significant empirical support. Clark, Salkovskis, Gelder, Koehler, Martin, Anastasiades, Hackmann, Middleton and Jeavous (1988), for example, showed that panic patients are more likely to interpret bodily sensations in a catastrophic fashion than those who do not suffer from panic attacks. The researchers also showed that environmental conditions which activate these catastrophic interpretations will increase panic. In addition, they reported that a reduction in the patient’s tendency to interpret bodily sensations in a catastrophic fashion will reduce panic and diminish the effect of agents that otherwise provoke panic attacks.

**Cognitive-behavioural treatment of panic disorder**

Multi-faceted cognitive-behavioural interventions for panic disorder (e.g. Clark, 1989) were developed in accordance with this cognitive model of panic anxiety. Treatment techniques mainly include cognitive restructuring (identifying the catastrophic misinterpretations; generating alternative, non-catastrophic
explanations for the sensation and subsequently challenging the fearful cognitions associated with panic anxiety); breathing retraining; applied relaxation and exposure to somatic sensations. In this skill-training approach patients learn a variety of cognitive coping skills for handling anxiety and for re-evaluating their beliefs about and appraisal of both environmental and physiological cues. Treatment is structured during the therapy sessions and in homework assignments in-between.

Only a few studies used solely cognitive interventions for panic, although several employed cognitive techniques in a multi-faceted treatment package. Because each package contains elements of other treatments, it is difficult firstly to isolate the component that forms the most effective ingredient, and secondly to establish how they can be linked most effectively into one package. However, in order to discuss whether cognitively based interventions are more favourable than behavioural ones in relation to panic disorder treatment, the following studies mainly focus on the effectiveness of the cognitive treatment component.

Empirical evidence emphasising cognitive treatment elements
Early studies such as Gitlin, Martin, Shear, Francis, Ball and Josephson (1985) reported that 10 out of 11 patients receiving cognitive-behavioural therapy (CBT) were panic-free after treatment. In addition, subjects reported that education and reassurance about panic altered their catastrophic cognitions and was perceived as most helpful. Similarly, Rapee, Mattick and Murrell (1986) showed that amongst patients presenting with panic disorder, the provision of accurate information about the source of somatic sensations could attenuate the emotional response to these sensations. The researchers therefore concluded that fear was relieved by inducing a sense of control and correcting faulty attributions. In 1985, Clark, Salkovskis and Chalkley treated 18 panic patients (with and without agoraphobia) with cognitive therapy and breathing retraining. They observed a substantial reduction in panic attack frequency after two weeks of treatment. These gains, which occurred in the absence of exposure to feared, external stimuli, were improved with further treatment and maintained at a two-year follow up. However, the generalisability of
these results is limited, because the sample was restricted to panic disorder patients who experienced hyperventilation symptoms.

In another study, Beck (1988) found promising results for cognitive therapy treating 16 panic patients whose panic frequency decreased from 4.62 per week average to none at the end of treatment. Therapy consisted of an explanation component; reappraisal of thoughts; relaxation; breathing exercises; distraction and exposure. Its success was maintained at a one-year follow-up. Using a similar treatment package, Shear, Bell, Josephson and Gitlin (1988) reported the significant reduction of panic frequency in 10 of 11 patients.

Clark, Salkovskis, Gelder, Anastasiades, Hackmann and Middleton (1989) compared cognitive therapy to alternative treatments for panic disorder. These included applied relaxation (Ost, 1988); involving exposure to the feared situation combined with a special form of relaxation to be used rapidly during an attack; as well as pharmacological treatments. The outcome showed that 90% of patients receiving cognitive therapy became panic-free which was suggested to be at least as good as alternative treatments. Sokol, Beck, Greenberg, Wright and Berchick (1989) treated 17 panic disorder patients with focused cognitive therapy (including breathing retraining; coping self-statements; refocusing techniques and exposure to previously avoided situations) and reported that at the end of treatment, panic attack frequency was reduced to none. However in the absence of an appropriate control condition these results have to be considered cautiously.

More recently, Michelson, Marchione, Greenwald, Glanz, Testa and Marchione (1990) used a combination of cognitive therapy and applied relaxation and reported all their patients to be panic-free after completion of treatment. In 1992, Beck, Sokol and Clark investigated whether the efficacy of cognitive therapy is due to non-specific factors and randomly allocated patients to eight weeks of cognitive therapy or brief supportive therapy. They found that the patients given cognitive therapy showed significantly greater improvements compared to patients in the other treatment condition. This led them to conclude that the effectiveness of
cognitive therapy is not simply due to non-specific factors such as frequent appointments with an empathic therapist.

Kabat-Zinn, Massion and Kristeller (1992) used a meditation-based stress reduction program (mainly consistent with the cognitive-behavioural techniques on noting sensations and thoughts but without viewing them as catastrophic). For 20 out of 22 patients there was a significant statistical and clinical improvement in panic symptoms and panic attack frequency at a three-month follow-up. Furthermore, this improvement was found to be maintained for 18 subjects at a three-year follow-up.

Salkovskis, Clark and Hackmann (1991) examined the efficacy of cognitive therapy in the treatment of seven panic patients with agoraphobia. The results showed that non-focal treatment failed to reduce the frequency of panic attacks and the belief ratings concerning the catastrophic nature of bodily sensations. Four out of five patients treated with cognitive therapy, however, showed a marked elimination of panic attacks after a few sessions. Additionally, a considerable decline in the rating of belief of catastrophic thoughts associated with panic was noted in all patients. The researchers therefore concluded that cognitive procedures directed at changing misinterpretations of bodily sensations can reduce panic attack frequency, whereas non-specific cognitive interventions may not. In addition, this study showed that cognitive techniques without in vivo exposure and without breathing retraining can decrease panic attack frequency. However, during the second treatment stage patients were offered further treatments including exposure, which highlighted that the majority of patients showing extensive avoidance are likely to need some exposure practice in order to improve completely.

Further comparative outcome studies showed that cognitive-behavioural treatment packages (e.g. modelled on the work of Clark, Salkovskis & Chalkley, 1985) are successful and that the cognitive component in combination with graduated exposure and relaxation is most highly successful in achieving a good outcome status after treatment (Michelson, Marchione & Greenwald, 1989). In a review of
seven uncontrolled and three controlled studies evaluating CBT as a treatment for panic attacks, Michelson and Marchione (1991) concluded that CBT provides consistently encouraging findings, including the elimination of panic attacks and anticipatory anxiety in the majority of clients. However it was stressed that a long-term follow-up of these results is needed.

Using a long-term follow-up design, Barlow, Graske, Cerny and Klosko (1989) compared various psychological treatments for panic disorder and found that after treatment more than 85% of the patients using relaxation, interoceptive exposure and cognitive restructuring were panic-free, compared to 60% of the group receiving relaxation training only and 30% of the wait list control. This success was maintained at a one-year follow-up. However the results of this study do not identify a specific mechanism of action, since all three treatment elements are thought to be important in panic treatment. After a two-year follow-up however, the researchers suggested that the relaxation aspect of their treatment package seemed to somehow interfere with the effectiveness of this overall treatment (Barlow, 1990). This was supported by some findings suggesting that instead of reducing anxiety, in some cases relaxation may result in increased anxiety and even panic (Adler, Craske & Barlow, 1987).

However, de Ruiter, Rijken, Garssen and Kraaimaat (1989) found no differential effects of various treatment components such as breathing retraining and cognitive restructuring; graded self-exposure; and breathing retraining, cognitive restructuring and exposure. The researchers instead concluded that breathing retraining and cognitive restructuring were generally less effective in reducing panic frequency than expected.

**Empirical evidence emphasising behavioural treatment elements**

In contrast to the above studies focusing mainly on the cognitive aspects of treatment interventions, several studies have been highlighting the efficacy of behaviourally-based treatment aspects such as exposure, breathing retraining and relaxation. In panic disorder, exposure exercises focus on internal and external fear
associated stimuli. Especially internal cues are often of such short duration or low frequency that arranging prolonged exposure is difficult. However, exposure to somatic sensations (e.g. due to the repeated inhalation of a CO2/oxygen mixture) can produce a significant mean reduction in panic attack frequency (Griez & van den Hout, 1983; 1986).

In breathing retraining, patients are asked to overbreathe and to introspect on the sensations produced. Subsequently, patients are given an explanation of how hyperventilation might produce panic and they are trained in slow breathing. Breathing retraining is an effective treatment component as shown by Bonn, Readhead and Timmons (1984) who reported that at a six month follow-up, the patients receiving breathing retraining and exposure had maintained significantly higher outcome levels than those receiving exposure alone.

However, it has been suggested that it is unclear whether the treatment efficacy of breathing retraining might be due to cognitive factors like the re-attribution of panic attacks to hyperventilation (Clark et al., 1985). Additionally, breathing retraining packages contain a natural exposure element. This suggests that the relative effectiveness of respiratory control needs to be studied in more controlled comparisons.

Ost (1988) compared the techniques of applied and progressive relaxation by teaching patients to observe the first signs of panic and then apply the relaxation accordingly. However, the patients’ attention was also drawn to the negative thoughts as well as the physical sensations and therefore one aspect of treatment can be seen as identifying negative cognitions. Overall, both treatments showed significant post-treatment improvements, even though the results were in favour of the applied relaxation.

**Conclusion**

In conclusion, a rise of psychological interventions for panic disorder has been seen over the past decade. These interventions are mainly based on the hyperventilation,
somatic conditioning and cognitive models of panic and respectively consist of breathing retraining, exposure to somatic cues and cognitive restructuring; most often combined in a multi-faceted treatment package. It becomes apparent in several of the above studies that there is considerable uncertainty regarding which therapeutic aspect is the important component of a treatment package that is commonly multi-faceted in nature.

Nevertheless, many studies have been producing promising overall results for cognitively based interventions for panic disorder, even though further controlled studies are required in the future to show the relative success of such individual treatment components, especially in the long-term follow-up. Based on the empirical evidence cited in this discussion, however, it can be concluded that in clinical practice, cognitively based interventions (naturally including behavioural components) tend to be a more effective treatment of choice than purely behavioural ones.


Long Term Disabilities Essay - Year I

What is psychiatric rehabilitation?
Discuss with reference to at least three models of intervention.

Introduction
Psychiatric rehabilitation is a complex field, with a long-standing and distinguished history. Especially over the last decades, this field has experienced a variety of drastic changes with regard to its underlying theoretical rationales, service development and evaluation, as well as quality of care and staff training.

In general terms, psychiatric rehabilitation can be described as a range of activities undertaken to care for and treat chronic mentally ill patients. However, it seems that one term might be inadequate to describe the range of procedures, which vary enormously according to the mix of patients, their presenting needs and the setting they live in.

Shepherd (1991) proposes that the psychological rationale underlying psychiatric rehabilitation is the dynamic interaction between a patient’s disabilities and their social environment, in order to facilitate that patient’s social adaptation. In this view, rehabilitation addresses the positive objectives of this dynamic adaptation and attempts to maximise functioning, whilst also acknowledging the relatively fixed disabilities and the necessity of providing supportive environments. This might be in contrast to the traditional view of rehabilitation as a process where people are rehabilitated through attempts to improve their functioning, so that they will eventually be able to lead independent lives. Thus, successful rehabilitation enables the patient to achieve the best adaptation possible, in spite of their symptoms. More specifically, rehabilitation interventions should enable patients to optimise their social skills and performance of social roles in as socially valued circumstances as possible. This may include significant improvements in functioning, but in extreme cases can only be a reduction in the rate of deterioration.
Academic Section

Subsequently, psychiatric rehabilitation should aim towards the concept of ‘Normalisation’ (Wolfensberger & Glenn, 1975); avoiding the extremes of ‘over- and underprotection’ and carefully balancing the provision of shelter from potential stresses with allowing independence for patients to use their skills, and thus leading to the most feasible degree of independence and dignity.

In an attempt to provide a comprehensive account as to what psychiatric rehabilitation as such constitutes, this essay will cover the characteristics of the patient group using rehabilitation services; an assessment of their needs and a variety of interventions available to meet these needs. With regard to the role of clinical psychology in psychiatric rehabilitation, this essay will discuss theoretical and practical aspects of various interventions in different settings in order to highlight the vast area of clinical activity within psychiatric rehabilitation services. The interventions discussed include ward-based interventions; interventions focusing on social roles such as work, accommodation and leisure; as well as interventions geared towards patients in families. However, since psychological interventions in psychiatric rehabilitation programmes are likely to be multi-faceted in nature, these interventions potentially overlap, depending on target variables and settings.

The patient

In psychiatric rehabilitation, patients referred to as ‘the chronic mentally ill’ are the proportion of patients who cannot be left unsupported even with the most advanced pharmacological and social care. This group of patients mainly consists of individuals suffering from chronic schizophrenia, as well as chronic affective disorder, chronic personality and conduct disorders, chronic neurotic disorders, neurological or degenerative conditions (e.g. head injury) and problem drinkers or substance misusers.

The most common problems these patients present with are based around deficits in skill and motivation, low levels of personal hygiene, inadequate social skills and the inability to maintain a social interaction, as well as excess bizarre behaviours. It
is especially the lack of motivation and the loss of insight into the consequences of their actions which might result in the carer taking some responsibility for the daily functioning of the patient.

In psychiatric rehabilitation a variety of patient types can be identified. Wing and Morris (1981) group them in the following way. Firstly, the 'Old Long Stay Patients', who have often lived in the hospital for 40 years or more. Secondly, the 'New Long Stay Patients', who have stayed in hospital for more than one year but less than five. This group of patients often has little experience of work or a normal, independent, social existence despite their relatively short psychiatric histories. They often have difficulty in managing their own finances and are socially unskilled, so that they are unable to live independently. Thirdly, the 'New Long Term Patients', who are often young patients who have never been in hospital continuously for longer than three months (therefore not necessarily being long-term inpatients), but nevertheless placing a continuous need for services including hospital admissions. These patients are often socially deteriorating, actively deluded and sometimes violent.

Assessment

In the current Care Programme Approach (DoH, 1990), which is increasingly applied to people with long-term mental illness, a thorough assessment of skills and deficits, as well as the social and financial contexts, is emphasised. The assessment of a patient’s physical and psychological health as such is an important base for the psychiatric rehabilitation process inside and outside the hospital, since it ensures that therapeutic goals are set realistically and that disturbances are taken into account in therapeutic planning.

A thorough assessment should emphasise a patient’s past history and current behaviour; looking at assets and deficits as well as deviations of behaviour. The target problems, to be treated later, should be the focus of the functional analysis. Psychological disturbances such as anxiety, aggression and sexual behaviour have especially to be assessed and their extent of interference on a person’s capacity to
function in social roles has to be established. An assessment should also include a patient’s functional capacities such as memory and orientation; literacy and numeracy; self-care; home-management skills and the ability and motivation for effective social interaction and relationships (Lavender & Watts, 1994).

Methods of assessment range from interviewing and rating methods to direct observation of behaviour. Assessment instruments, such as scales for systematically assessing the patient’s social functioning include the Functional Performance Record (Mulhall, 1990) and the ward-behaviour-based REHAB Scale (Baker & Hall, 1983), which is completed by ward staff at the end of a one-week observation period and leads to a deviant and a general behaviour score.

In addition, it is important to assess a patient’s current environment, as this might place a limit on the range of adaptive behaviours they can display. This information can be acquired by using a number of standard checklists, such as the Restrictive Practices Checklist (Wykes, 1982), which covers items such as the tolerance of the use of alcohol in the patient’s immediate environment.

Physical and social environments
An important factor in rehabilitation is the kind of physical and social environments the patient lives in, since these constitute significant influences on the quality of care provided. For example, it was shown that the quality of a patient’s physical environment can facilitate or hinder the progress towards rehabilitation (Holahan, 1976). In practical settings, the quality of physical environments is measured with a variety of standard measures such as the Index of the Physical Environment (Raynes, Pratt & Roses, 1979). This measure looks at the homeliness, comfort and adequacies of the provided facilities in a ward setting. More modern measures such as the QUARTZ-system (Leiper, Lavender, Pilling & Clifford, 1992; Leiper, Pilling & Lavender, 1992) include schedules to assess the physical environment of residential, as well as day-care, settings.
An important part of a patient's social environment consists of the management practices implemented by care staff. These can be defined in terms of Lavender's (1985) three dimensions of 'autonomy-restrictiveness' (allowing patients to make their own decisions); 'personalisation-depersonalisation' (referring to the patient's privacy) and 'social integration-segregation' (referring to the degree of separation between the patient's and the staff's world). In a practical setting these management aspects may be measured by FACE (Clifford & Wolfson, 1989), which is a potential instrument for assessing the quality and appropriateness of care along similar lines.

Another aspect relating to a patient's social environment is the amount of community contact (direct and indirect contact; opportunities for visits and constraints of contacts), a dimension applying to residential as well as community settings. It could be assumed that this is more easily achieved, as the location of care and accommodation is shifted from the hospital to the community. However, Dilks and Shattock (1996) recently examined the amount of community contact by residents of three different units of a rehabilitation service (community house, hospital hostel, house on hospital site). Interestingly, they found the level of community contact to be unrelated to the location of the facilities and concluded that the level of contact might be related to individual factors (e.g. social disability).

Ward-based interventions

It is important how patients are treated by those around them, optimally encouraging autonomy, independence and exercise of skills in order to achieve progress towards rehabilitation. This will especially apply to continuously staffed settings and therefore several desirable staff practices were developed for these settings. The general ward milieu should be stable, with a consistency of staff and low staff turnover. This should also apply to the staff practices and the overall framework. This consistency however requires formal staff training, in order to produce skill changes that will generalise to the ward setting (Hall, 1989).
In a ward setting, patients are often treated on a group basis. Interventions may focus on designing a cognitive-behavioural milieu for groups, which is stable and emphasises high levels of personalisation and engagement. Group programmes are more relevant to patients who are similar in their level of functioning for the target behaviour in question. Therapeutic targets should therefore be applicable to a number of patients and interventions should occur at several opportunities throughout the day. However, programmes should be monitored carefully, since evidence suggests that with too many identified target behaviours, an improvement in those target areas can result in deterioration of non-target behaviours (Hall, Baker & Hutchinson, 1977).

Behavioural methods can be used with individual chronic patients and can modify a range of symptomatic behaviours (Matson, 1980). These techniques include satiation (the constant presentation of a stimulus until the inappropriate response is exhausted); ‘time out’ and providing patients with video feedback of their own behaviour. In addition, there are shaping techniques, imitation procedures, as well as chaining techniques where patients are given appropriate informational feedback, praise and material reinforcement. Self-instructional procedures (Meichenbaum & Cameron, 1973) were also suggested as helpful.

Token Economy is another behaviour modification approach, which led to several therapeutic and research programmes (Matson, 1980) and was suggested to be the treatment of choice for long-stay patients (Hall, 1989). This employs using tokens as a way of immediately rewarding desired behaviour. Tokens later give access to material goods. Reviews however suggest that the social interaction systems and their application might be the key therapeutic ingredient in this intervention (Hall & Baker, 1986). Thus, there are practical implications since the appropriate delivery of tokens (with the associated feedback and specific guidance) is the main process, suggesting that the actual exchange of tokens for material goods might be redundant.
Social roles

In rehabilitation programmes preparing clients for social roles, it is important that clients are involved as much as possible in deciding which social roles are to be targeted in any specific intervention. Once these are defined, different kinds of settings are needed at different stages of the rehabilitation intervention and patients have to be helped through skills training and encouragement to improve their level of performance in a realistic way. Therefore, rehabilitation services have to be organised in a series of increasingly demanding settings in the context of general principles of socialisation (Watts, 1983). For a successful rehabilitation task, the demands and the available support have to be optimally manipulated in order to improve the patient's performance results. The increasing levels of demand can subsequently produce increased self-evaluation, which influences the rehabilitation process successfully, by enabling the patient to respond to task demands constructively without avoidance behaviour and relying less on the support of others. However, rehabilitation services should not only provide the preparation for client roles in society but also facilitate entry into areas of society where they can function in those roles (e.g. facilitated by job-finding clubs (Jacobs, Kardashian, Keel Keinberg, Ponder & Simpson, 1984)).

Anthony (1980) presents skills training as a central feature of rehabilitation, which can improve the performance in a variety of social roles. Many of these programmes include operant conditioning, focusing on using coins; making phone calls and using public transport; and studies show encouraging results (Lutzer, Martin & Rice, 1981). Libermann (1988) showed that social skills treatment packages can improve behavioural skills through techniques like modelling, rehearsal and feedback. However, the long-term benefits of programmes targeting the level of functioning in an everyday environment need to be further demonstrated.

Another psychological intervention considered to be helpful for patients in developing their social roles is cognitive-behavioural therapy; altering the strength
of delusional beliefs (Chadwick & Lowe, 1990) and improving the ability to cope with psychotic experiences (O'Sullivan, 1991).

Work
The provision of work is seen as one of the cornerstones of hospital and community rehabilitation programmes (Lamb, 1982). Schwartz (1976) announced it to be the rehabilitation tool which has been used most extensively and has achieved the most positive results overall. Hartley (1980) defined work beyond the notion of 'employment' as a purposeful activity which structures time, requires effort and has social significance even in the absence of financial gain. Since people with a psychiatric disability are particularly vulnerable to the effects of loss of structure, it was argued that they should be given the opportunity to function in structured social roles, which can be provided by work (Shepherd, 1984).

Research showed that work enables patients to adapt to social demands and that they are aware of the detrimental effects of the lack of work (Rapoport, 1960). Wing and Freudenberg (1961) demonstrated the value of work as a means of social stimulation, when the social behaviour of chronic schizophrenic patients in a hospital workshop improved under favourable supervision conditions. In a longitudinal study, Wing and Brown (1970) compared the social environments of three mental hospitals and showed that a deterioration in chronic schizophrenic patients was associated with a lack of occupation. They therefore concluded that work has positive effects on the social behaviour and the symptomatology of this patient population.

Factors which determine the employability of people with psychiatric disabilities are good social relationships as well as appropriate social behaviours, and therefore these were suggested to be developed in work rehabilitation programs (Watts, 1978). Consequently, work rehabilitation, even in the most sheltered settings, can provide relevant training for future employment and preparation for social integration (Miles, 1971).
In a work-focused rehabilitation service, the facilities provided depend on the needs of the population and the type of work available. Most advantageous are community-based day rehabilitation units. Such units should provide a full rehabilitation diagnosis; rehabilitation planning with agreed goals; and rehabilitation interventions enabling the patient to make choices, develop skills and practise work adjustment activities (Lang & Rio, 1989). Together with the provision of stable medication and training in other skills, the goals are for clients to slowly progress to other work settings.

Thus, various types of employment constitute a work-oriented rehabilitation programme. Sheltered employment in sheltered placement schemes enables clients to earn their living within the conditions of open employment, while being given certain concessions alongside the ‘able’ workforce. These schemes are advantageous, because they do not segregate disabled people and provide a variety of work in diverse settings. However, it also requires the co-operation of different agencies which may sometimes be difficult. Sheltered workshops in the community (Piling, 1988) or industry (Wansborough & Cooper, 1980) are the resource for patients who need supervision, social contacts and a daily occupational routine in sheltered conditions, which in turn enables patients to manufacture a variety of products (Grove, 1989) and provide services (Mills, 1991). In this context, Warr (1987) has emphasised attributes such as the opportunity for control and skill use; externally generated goals; variety; environmental clarity; the availability of money; physical security and a valued social position.

Psychological input offers a variety of techniques, such as behavioural methods to modify work-related behaviour. For example, to combat low productivity, the provision of graphic feedback on the productivity, combined with social stimulation and reward for good performance, were found to produce good results (Walker, 1979). Self-instructional methods and desensitisation are useful means of managing initial anxieties to ensure a change in attitude, which is often underlying successful rehabilitation. Social skills training is crucial for future employability and can be provided by specific interventions (Liberman, Mueser, Wallace, Jacobs, Eckman &
Massel, 1986). Methods such as role-playing techniques can produce significant improvements in skills such as interviewing, but the problem of generalisation (Shepherd, 1986) is still likely to remain.

Overall, employment chances for the psychiatrically disabled are extremely low and it was reported that despite the important role of work in rehabilitation, a patient discharged from a psychiatric hospital has a greater chance of returning to hospital than returning to work (Anthony, Cohen & Danley, 1988). This might partly be due to the stigma of mental illness amongst employers, making them reluctant to hire people with psychiatric disabilities. This raises the importance of a network of support for any work rehabilitation system, which should also aim to influence the attitudes of employers and workshop staff to their disabled workers. Scott (1982), for example showed that lack of support was the greatest source of anger amongst employers who were reluctant to hire disabled applicants.

Accommodation

Patient accommodation constitutes another important part of psychiatric rehabilitation, due to hospital closures and the recent move towards care in the community. Depending on a patient’s abilities and the services and funds provided, patients reside in a range of hospital, hostel, group-home and domestic settings, with a range of staffing levels and social contacts. The large range of facilities also includes therapeutic communities, halfway houses, group homes, staffed hostels, hostels for respite and crisis care, as well as family fostering (Rowland, Zeelan & Waismann, 1992).

The emphasis in supported accommodation has been on group living (Rowland, Zeelan & Waismann, 1992), which can prevent loneliness, even though many clients living in hostels would prefer to live alone (Nordentoft, Knudsen & Schulsinger, 1992). Interestingly, socially stimulating environments created by group-home living might even produce an increase of psychotic symptoms (Falloon & Marshall, 1983). Optimal seems the provision of a range of accommodation,
shifting from group living to smaller single or couple units with flexible staff input dependent on funding available.

In decisions about placing patients, their level of functioning in daily living skills and their degree of anti-social behaviour should be measured. However, most often the disruptive behaviour displayed by some clients makes it difficult to place them in structured and supported accommodation, and it was shown that antisocial behaviour is an important determinant of placement success (Clifford, Charman & Webb, 1991).

Furthermore, it is of importance to prepare long-stay residents for a move from the hospital site to the community. This can be done through preparation packages, implemented and designed by staff and residents, which help to familiarise them with their new homes and their new routines before having to cope with the move.

Leisure
Another important rehabilitation intervention is training in the use of time for recreation and socialising, ideally engaging in spare-time pleasurable activities, which may be shared with others. When successful, this can contribute to social adjustment, enjoyment and personal fulfilment, especially as inactivity and social isolation are known to contribute to increased disability (Ekdawi & Conning, 1993).

However, patients may lack motivation, knowledge and skill, as well as money to engage in hobbies and develop social networks. They often show low levels of socialisation and social interactions may be passive and limited, with poor communication skills and a restricted range of emotional expression (Leff, O'Driscoll & Dayson, 1990). These deficits in socialising skills are likely to affect the use of leisure time and highlight the need for service provisions in that direction. Rehabilitation training in the effective use of leisure time involves behavioural skills training; support in developing social networks and counselling (Wallace, Liberman & MacKein, 1992).
As part of a rehabilitation service follow-up study, Collis and Ekdawi (1984) used self-report time budget schedules for weekdays and Sundays. Waking time was divided into obligatory activities and leisure activities. Both hospital and community rehabilitation programmes helped clients to use their leisure time more effectively, although it seems debatable whether this resulted in personally fulfilling activities or just 'filling empty hours'.

Patients in families
The treatment of chronic patients in families is another modality where psychological rehabilitation input might be appropriate. Advice and support should be available to all family members involved. This can be achieved by self-help groups of relatives, including some professional input (Kuipers, McCarthy, Hurry & Harper, 1989). These are designed to share information and feelings, which are often similar for the families involved. In addition, the availability of a crisis team was shown to prevent hospital admissions (Hoult, 1986).

Another rehabilitation intervention for patients in families focuses on the concept of Expressed Emotion (EE), which is an indirect measure of attitudes, criticism and coping responses which are directed towards the patient on a day-to-day basis. EE is determined by the number of critical comments, positive remarks, hostility, emotional over-involvement and warmth, which in high levels has a strongly associated relapse link (Vaughn & Leff, 1976). However, research showed the successful experimental manipulation of EE (Leff, Berkovitz, Eberlein-Vries & Sturgeon, 1982) and this led to the development of social intervention and treatment packages at the patient’s and the relative’s level. These psycho-educational programmes aim to change the attitude and behaviour of family carers and include components such as stress support for families, problem-solving skills, intra-family communication and educational components (Smith & Birchwood, 1987). This useful and cost-effective family intervention (Leff, Berkovitz, Shavit, Strachan, Glass & Vaughn, 1989) is an important element in modern rehabilitation services (Smith & Birchwood, 1990), even though the long-term effectiveness of these interventions needs to be carefully evaluated.
Conclusion
Overall, it can be noted that despite the recent shift in rehabilitation from the mental hospital to community settings, the therapeutic problems in such long-term care settings remain and clients still struggle with simple, everyday problems of life. Psychiatric rehabilitation in any setting should therefore help patients to a good adjustment, bearing in mind their needs and capacities from a social-interactional angle. Thus, rehabilitation 'is about people and how they behave towards one another' rather than just facilities (Shepherd, 1991).

In sum, this essay presents a brief overview of what the current concept of psychiatric rehabilitation constitutes, by outlining various psychological interventions applied in several settings (e.g. hospital; community) and levels (e.g. individual; group; family). These interventions include in-depth psychological assessments; behaviourally based interventions (e.g. Token Economy); cognitive interventions (e.g. self-instructional procedures); a combination of both approaches (e.g. social skills training), as well as conventional cognitive-behavioural therapy (e.g. with families). Overall, these interventions were shown to be effective when used in a variety of sheltered environments, thus preparing clients for several social roles (e.g. employment; leisure; social integration) and improving specific functions, as well as enhancing their social status and self-esteem.

It becomes apparent that some principles used in rehabilitation may overlap, but the specific objectives are different for each client and numerous techniques depending on circumstances are involved. However, looking at the cited studies above, it can be concluded that a behavioural approach seems to be the most appropriate general framework in which to fit these techniques. Nevertheless, long-term outcomes have to viewed with caution, since patient gains are often situation-specific to certain settings and do not transfer (Hollingsworth & Foreyt, 1975).

In addition, the material presented highlights various general issues of relevance in psychiatric rehabilitation; such as the communication with direct carers regarding consistency and realistic expectations in preparing, implementing, maintaining and
evaluating rehabilitation programmes; or the provision of networks to support care
staff as well as family members, so that they in turn can effectively help to improve
their patient’s quality of life.
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Learning Disabilities Essay - Year II

Concern has been raised regarding a relationship between two clients of the same sex but of differing levels of ability living in a staffed home.

What are the areas that need to be considered when reflecting on this relationship, with specific reference to consent and policy issues?

Introduction

The past two decades have seen a growth of the normalisation philosophy and this has prompted a new look at the rights of people with learning disabilities. Nevertheless, the presence of sexuality in this population has frequently been seen as presenting a problem rather than a positive human attribute (Kreutner, 1981). Originally, men and women with learning disabilities were seen as having strong sexual inclinations, coupled with poor personal control, thus making them a menace to society at large. This resulted in segregated colonies for the 'mentally defective'; punishment for discovered sexual activity; prohibition of marriage; as well as laws permitting sterilisation without consent (Craft, 1987). Consequently, mentally handicapped people were viewed as a 'sexually oppressed' group (Kempton, 1977). However, researchers early identified sexuality as a central issue in the institutionalisation of adults with a mental handicap, which might constitute a barrier to their transfer to community settings (Egerton, 1967).

It has been argued that despite the recently growing body of literature on the importance of sexual expression for people with learning disabilities (Ames, 1991; Parker & Abramson, 1995), this development has neither been accompanied by widespread sexual education, nor environments that facilitate sexual opportunities or relationships (Ames, 1991). More specifically, in a review of studies that evaluate factors involved in successful integration (Malin, 1982; Felce, 1988; Bruininks, Thurlow, McGrew & Lewis, 1990), reference is made in some studies to opportunities for friendships and relationships, but sexuality as a factor in social integration is not recognised, nor is the need to develop functional skills in this area through training (Toomey, 1993).
Bearing in mind that the theoretical principles of 'Normalisation' (Wolfensberger, 1980; 1983) and O'Brien's (1987) 'Five Accomplishments' have a direct relevance to people's sexual and emotional lives (Brown, 1992) the above scenario of a relationship between two clients of the same sex but differing levels of ability living in a staffed home will be discussed, with reference to: their differing levels of ability; the risk of sexual abuse; the concept of consent; the current law relating to learning disabilities and homosexual activities; as well as the implications on policy issues. Furthermore, related issues of significance such as parental and staff attitudes, as well as the role of sexual education are mentioned in brief only, due to the limitations of space. However, it seems that all of these areas, some of which are closely interlinked, are of considerable importance when reflecting on this relationship.

**Levels of ability**

Several behavioural characteristics have been identified that might distinguish people with different levels of learning disabilities, with regard to their sexuality (Kramer-Monat, 1982). Since the differing levels of ability displayed by the two clients in the above scenario are not specified, the main distinguishing factors for different categories of ability are outlined, because in a practical setting some of these might significantly influence various aspects of the nature of this relationship.

Individuals with *mild learning disabilities* display similar to average psycho-social-sexual behaviour and explore, adapt and control sexual impulses in similar ways to the majority of society. They are capable of developing appropriate adaptive skills with the help of sexual education. People with *moderate learning disabilities* in turn might show a delay in secondary sexual characteristics and their degree of adaptive and psycho-social-sexual behaviour might be limited. They were reported to function on a more primary reinforcement level, even though they might respond to sexual education in order to develop more appropriate adaptive behaviours. Clients with *severe learning disabilities* tend to show a clear lack in the development of adaptive psycho-social-sexual behaviour; as well as displaying reduced sexual development and poor control of their sexual impulses. Individuals
with profound learning disabilities show very little adaptive behaviour and their predominant reactions are impulsive, with frequently displayed self-stimulatory behaviour (Kramer-Monat, 1982).

Risks of sexual abuse

It is generally recognised that people with learning disabilities are at an increased risk for sexual assault and sexual abuse (Sobsey, Gray, Wells, Piper & Reimer-Heck, 1991); and that the occurrence of sexual exploitation often has a life-long impact on the victim (Cole, 1991). Research has established that for many people with learning disabilities, sexual abuse occurs over periods of time in a variety of settings, including institutions and community residential facilities. Furthermore, it often involves caregivers, other providers, family members and peers with learning disabilities (Mansell, Sobsey & Calder, 1992). Additionally, misconceptions about their own asexuality have often been responsible for depriving people with learning disabilities of access to sexual education, thus increasing their vulnerability to the exploitation by others (Shaman, 1986). In addition, Cambridge (1994) suggested that people with learning disabilities may lack the assertiveness needed to negotiate consensual sex, thus making sex potentially more exploitative.

Specific studies, investigating the number and nature of allegations of abuse within this client population, reported that 20% occurred in institutions, whereas the remaining 80% were reported in community programmes (Sundram & Stavis, 1993). Additionally, it was noted that the mishandled incidents most frequently reported involved sexual behaviour, especially sexual conduct between residents of facilities. Consequently, this might be a fact worth acknowledging when reflecting on the relationship in the above scenario.

Additionally, it is important to highlight the risk of HIV and sexually transmitted diseases in relation to sexual exploitation, since some people with learning disabilities have HIV infections or AIDS, and some have died from AIDS-related illnesses (Cambridge, 1994). Furthermore, a needs assessment exercise identified deficits in the health promotion and HIV prevention for men with learning
disabilities who engage in homosexual sex (Taylor-Laybourne & Aggleton, 1992). Consequently, Cambridge (1994) stressed the need for methods to assess informed consent for sexual relationships and HIV antibody testing, since men with learning disabilities are especially at risk because they do not have access to safer sex information (about same-sex behaviour) and do not automatically link into networks provided for gay men. Additionally, their limited cognitive ability may result in difficulties in associating sex with HIV (Cambridge, 1994). In order to address these issues, it was highlighted that the key objectives could be identified as some sort of shared development between the mainstream HIV and learning disability services (Cambridge, 1994).

However, with regard to the above relationship occurring in a staffed home, it might be hypothesised that people living in the community face a different set of emotional and sexual health risks than they do in a hospital setting. McCabe (1993) noted that in the absence of adequate sexual knowledge, de-institutionalisation may increase the already high level of vulnerability to abuse for people with learning disabilities. On the contrary, it was argued that services better integrated in the community might mean that people are more open and thus closer to the risks faced by the rest of society, rather than pose specific risks of exploitation and contribute to the abuse found in institutions (Crossmaker, 1991). However, both of these views would be influenced by an array of individual factors in any practical setting. Regarding the above scenario, all of the previously outlined issues are of importance when reflecting on the given relationship. Nevertheless, this should not result in discouraging homosexual behaviour, but in providing support around safer sex, assertiveness work and counselling, using special resources (Cambridge, 1994).

The concept of consent

Generally, consent can be defined as granting permission for something to be done. In applying the concept of consent to sexual activity involving people with learning disabilities, most of the law was developed in the context of criminal prosecutions of individuals without learning disabilities who had sexual relationships with
individuals incapable of consenting due to mental impairment (Sundram & Stavis, 1994). Consequently, individuals with a severe mental handicap are protected from sexual exploitation by the Sexual Offences Act (1967), because under Section 1 of this Act it is specified that a 'severely mentally handicapped' or 'defective' individual cannot validly give consent. It is this inability to provide consent due to a mental impairment that triggers the provider's obligation to protect from harm those people with learning disabilities who are incapable of self-protection.

Stavis (1991) identified three key elements defining legally sufficient consent. These include firstly the knowledge of important aspects of a decision and its risks; secondly the intelligence or understanding indicating that the knowledge is comprehended; and thirdly voluntariness. When assessing an individual's ability to consent, problems are likely to arise, because there are no standardised criteria for assessing whether a person with learning disabilities is able to provide informed consent to sexual relations (Abramson, Parker & Weisberg, 1988). Thus, in the absence of coercion, determining consent requires the evaluation of vague and abstract concepts (Parker & Abramson, 1995). However, some legal attempts have focused on an individual's capacity to make a decision (Stavis, 1991). This information may be obtained by clinical determination (a clinician who is recognised by the court) and judicial determination (made by a court of law based on the evidence and expert opinion). Furthermore, it was reported that specific factors often considered together with expert testimonies are: the difference between the chronological and the mental age; the IQ and general level of learning disability; the degree of functional abilities; the attendance of special schools; the actual knowledge of the sexual act; and the ability to resist coercion of authority figures (Sundram & Stavis, 1994). In addition, sexual education itself has often been cited as the obvious prerequisite for the ability to provide informed consent to sexual relations by people with learning disabilities (Ames, 1991). However, it has also been stressed that informed consent itself cannot be properly evaluated among professionals, who do not accurately assess the legal criteria necessary to establish

\[1\] The definition of a severe impairment of intelligence in this context would be determined by an IQ below 50 and severely impaired social functioning.
it (Parker & Abramson, 1995). This might be an important aspect to consider for staff who are allocated to reflect on a relationship like in the above scenario.

The law relating to learning disabilities and homosexuality

As the understanding about the social situations of people with learning disabilities is improved, the law and legal procedures also reflect this progress in a greater understanding of learning disabilities; its consequences for the individual; as well as the related social changes (e.g. leading to the emergence of the self-advocacy movement). In general, people with learning disabilities (other than severe) are treated the same as ordinary people in the law (Gunn, 1985). However, as outlined above, especially with regard to sexual exploitation, people with learning disabilities constitute a group that is vulnerable to abuse. Therefore the law is expected to protect the individual from abuse and provide specific guidance about the duty of care to those who offer professional input to clients with learning disabilities (Nunkoosing, 1995).

The law as it relates to learning disabilities and sexuality in general (including homosexuality), is of a rather complex nature. Since it is not specified in the above scenario whether the homosexual relationship between the clients is of a male or female homosexual nature, both cases will be briefly considered here, since they are treated differently under common law. Generally, acts of female homosexuality are legal, provided that both females consent and are over the age of 16. The only offence concerned with female homosexuality is that of indecent assault. Indecent assault is also relevant concerning male homosexuality, as well as the Sexual Offences Act (1956), indicating that acts of gross indecency and buggery (anal intercourse) are illegal. However, the Sexual Offences Act (1967) legalises male homosexual acts, provided that both parties consent; are at least 21 years of age and the act takes place in private. More recently, the report of the Policy Advisory Committee on Sexual Offences (1981) recommended that the age of consent for male homosexual acts should be lowered to 18, a change which was implemented in 1994.
Nevertheless, the criterion of privacy might present a problem for people with learning disabilities living in hospitals or hostels, because it might be difficult to define a private place if bedrooms are shared and toilets are communal. These issues might raise the question of whether mentally handicapped men in residential care are deprived of the rights enjoyed by citizens outside, because there is no privacy. However, it appears that the question of whether an act took place in private is very much a question of fact, the answer to which may vary conceivably from case to case. Gunn (1985) therefore argued that it would seem feasible that a private bedroom in residential accommodation, such as a hostel or group home is a private place, provided no third persons (particularly staff) have ready, unannounced access to the room.

However, on drawing together the legal information from above in relation to the given scenario, it can be noted that in accordance with the current Sexual Offences Act, a learning disabled man who wishes to have a homosexual relationship must ensure that both partners are over 18 and not severely handicapped, because a severely handicapped man cannot validly give the consent which would make the homosexual act in private between males lawful. Nevertheless, similarly to the case in this discussion, research has shown that most partners chosen by hospital residents are usually hospital residents themselves (Craft & Craft, 1982). However, it is doubtful that either participant could be prosecuted, as a severely mentally handicapped person could not be expected to know that his partner was legally inappropriate (Craft & Craft, 1982).

Generally, for criminal proceedings to be instituted, the matter must be reported to the police. However, there is no duty upon the police to prosecute even when a known offence is reported to them. They are unlikely to prosecute when the relationship is meaningful and not dangerous (particularly if both parties to the relationship are mentally handicapped) (Gunn, 1987). This in turn would be the basis for constructing a legal 'get-out clause' that would help to facilitate a relationship under the circumstances specified in the above scenario. Gunn (1985) proposed that two males both with severe mental handicap may legally have a
homosexual relationship if neither could be expected to recognise the degree of impairment of his partner. Alternatively, Gunn (1985) also suggested that a man may have a homosexual relationship with a man with severe mental handicap if it could be argued that he did not know and had no reason to suspect that his partner has a severe mental handicap. This might particularly apply to a man with a mild learning disability. All in all, whilst homosexual relationships for men with learning disabilities are not legally straightforward, these two points may be of some value in permitting non-exploitative relationships (Gunn, 1985) and therefore should be considered when reflecting on the relationship in the given scenario.

On the contrary, however, it might be argued that staff turning a 'blind eye' to such behaviour might be regarded as facilitating an offence. Generally, providers have the obligation to safeguard the welfare of people with learning disabilities and therefore a continuously staffed home like in the given example has clear and broad responsibilities for the supervision and protection of the residents in its custody (Sundram & Stavis, 1994). Thus, the previously discussed issues have to be viewed with caution, because Sundram and Stavis (1994) noted that even if the learning disabled individual may not be exposed to criminal liability for sexual conduct, a lack of the capacity to consent may expose the provider to liability (e.g. due to the knowledge of the incapacity of one or more parties to consent to sexual relations and due to the intent to have such individuals engage in sexual relations). Overall, the law offers little help as to whether assistance with sexual relationships by staff would be seen in the same category of caring as for example toiletting, or whether it could be considered as sexual assault (Gunn, 1985). However, when reflecting on the above scenario it might be suggested that if an intervention took place in accordance with an official therapeutic policy directive, legal problems would not arise (Harvey, 1983).

**Policy issues**

As demonstrated above, the question of formal policies and guidelines is becoming of increasing importance. With the recent emphasis on consumer empowerment and choices, there has been a growing recognition that policies prohibiting or
discouraging sexual behaviour deprive many capable individuals of fundamental rights and important life choices (Sundram & Stavis, 1993). Booth and Booth (1992) therefore argued for the use of tolerant policy statements on sexuality and learning disabilities by the organisations involved with those clients. Policies should not be restrictive and clients were suggested to be involved in their production. However, this suggestion is suitable for those with milder disabilities but not for those with severe and profound levels of learning disability, who are not able to give consent and whose sexual activities are restricted by the law (The Law Commission, 1991). As previously mentioned, this consequently creates a dilemma for workers in this area, since 'sexual intervention' might be an offence, yet inactivity may also be legally indefensible (Craft, 1992). This makes constructing policies especially difficult and there is little in the current literature to provide assistance (McCabe, 1993). However, the Department of Learning Disabilities at Nottingham University has initiated a project on 'Sexuality and Profound and Multiple Impairment' which makes significant advances in a relatively under-researched field by actively addressing this important and difficult aspect of community care (Reid, 1995).

Craft (1987) suggested that policies relating to sexual behaviour should contain positive statements of rights and possibilities, in the context of existing laws. They should be reviewed regularly so that new staff and new clients are made familiar with them, as well as to ensure they do not become dated. The overall advantages of policy guidelines for clients with learning disabilities are multiple. Policies help to interpret and supplement the law, as well as interpret statements of principle (e.g. the UN declaration of human rights (Harvey, 1983)). Furthermore, they contribute to stating the rights of people with learning disabilities (thus acknowledging their rights to be sexual beings and have ordinary life experiences), but also clarify where limitations of rights are essential (Harvey, 1983). On a more practical level, policies help to identify current restrictive practices and promote the least restrictive alternative, thus resulting in a more client-empowering environment with enhanced dignity and respect. In this context, policies might also lead to the availability of appropriate socio-sexual education and counselling services for
specific needs. Therefore, policies may help to foster individual development and might guard against adverse publicity, as well as decreasing the possibility of abuse (Craft, 1987). Furthermore, they may serve as a safeguard against moral behaviour, beliefs and attitudes of staff members or parents.

The advantages of policy guidelines for staff are also numerable. Boundaries of acceptable behaviour become clearly defined; legal positions are clarified and responsibilities for teaching/ counselling clearly allocated. This ensures that training needs are acknowledged and catered for. Policies also help in providing a baseline for the consistency in teaching and counselling, as well as for the general reaction to sexual behaviour. Furthermore, management decisions are facilitated and a base for the discussion with parents is given. Policies might additionally serve to remove tension created between staff (e.g. by unresolved problems and unstated procedures (Kempton, 1982)).

However, despite the highlighted advantages and needs for policies on sexuality, they appear to be scarce in practical reality. Koheeallee and Dustin (1989) surveyed clinical psychologists in the South West Thames Region and found that most units in this region did not have a policy for dealing with the sexuality of people with learning disabilities. However, the three existing policies included statements on a philosophy on sexuality, along with specific guidelines. Furthermore, it was reported that staff found its most useful aspect to lie in setting out legal and ethical boundaries of permissible behaviour, which in turn provided a framework for training and education, and to which specific cases could be referred. The relationship in the given case of this discussion, for example, might be considered as one of these specific cases and depending on individual circumstances, the areas to be reflected upon would be more closely defined by an existing policy on homosexuality in people with learning disabilities. However, in looking at the above research it might be hypothesised that there are no guiding policies at present in the given scenario, which might be related to the fact that their production necessitates confronting many controversial issues. This in turn raises the question as to what extent progressive policies can be devised and implemented.
with all their cost implications, at a time when the service is under financial pressure (Koheeallee & Dustin, 1989).

Conclusion

Contemporary service models for people with learning disabilities are concerned with enabling people with the exercise of choice and self-determination. Consequently, sexual behaviour has become relatively common in hospitals for people with learning disabilities, as their residents move about in the community as part of this normalisation programme. Generally, key working, care management and individual service planning currently offer formal mechanisms to respond to sexuality, sexual health and personal relationships (Cambridge, 1996).

However, this essay has specifically discussed several related areas that need to be considered when reflecting on the given homosexual relationship in the above scenario. Bearing in mind that every presenting case has its individual circumstances, it can generally be concluded that this discussion has highlighted the need for a specific research focus on the development of interpersonal relationships, including a sexual dimension, among the people with learning disabilities who are currently placed in various community settings. Many of these people have the knowledge and skills to develop and maintain social and sexual relationships, whereas others may require further education, for example in learning about relationships; physiology; as well as the stimulation and control of bodily feelings, which in turn teaches responsibility and control (Craft & Craft, 1982). However, all of these individuals will place demands upon services to provide the opportunity and privacy they will require in exercising their rights as capable adults; and psychologists can contribute in campaigning for laws that protect, enhance and safeguard these rights of people with learning disabilities (Nunkoosing, 1995).
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Older Adult Essay - Year II

What factors are involved in suicidal behaviour in older people?

Introduction
Following Durkheim's study in 1897, there has been a long-standing interest in the phenomenon of suicide. For all types of suicidal behaviour, research has generated substantial social, psychiatric and psychological information; as reflected by the range of contemporary and 'dated' references that are of relevance to the following discussion. However, the elderly are an age group where the incidence and prevention of suicidal behaviour has been relatively ignored (McIntosh, 1992). This is despite the fact that suicide in the elderly constitutes a problem far bigger than in other age groups (DeLeo & Diekstra, 1990). Hence, rates and risks of suicide are highest among the elderly (Shulman, 1978; Richman, 1991) and it has been noted decades ago that suicide among older people is likely to become an increasing problem as the proportion of old people in our communities increases (Swinscow, 1951).

Suicide has been defined as 'a focused consideration of how one dies by one's own direct action' (LaGreca, 1988). Furthermore, the World Health Organisation (Diekstra, Maris, Platt, Schmidtke & Sonneck, 1989) has proposed detailed definitions for suicide, attempted suicide and parasuicide with regard to their outcome and initiation, thus highlighting important epidemiological, aetiological and motivational differences between these acts.

Prevalence
Suicides are disproportionately common amongst older people (Woods & Britton, 1985), with the exception of extreme old age (Batchelor, 1957). Suicide rates peak after the age of 65; being highest in the age group 75-84, followed by lower rates in the 65-74 age group (National Centre for Health Statistics (NCHS), 1989). Overall, in 1985, 1025 elderly people over the age of 65 years in England and Wales committed suicide, amounting to 24% of the total (Cattell, 1988).
Attempted suicide is less common among the elderly (Weissman, 1974) and rarely constitutes a gesture (Batchelor, 1957), as suicide attempts of older people tend to be the most psychologically serious and medically dangerous (Weiss, Nunez & Schaie, 1961). Elderly people often use very efficient and violent means in suicidal acts (Dublin, 1963), which seems to confirm that their suicidal attempts are nearly always genuine. Furthermore, elderly individuals more frequently attempt suicide in conditions in which interference by others is unlikely and only a minority make overt suicidal threats (DeLeo & Diekstra, 1990). This implies that older persons with suicidal ideation are more likely to carry out the act successfully than younger persons and that failure to do so might be due to reasons other than determination of the actor.

Interestingly, research points to a long-term decline in elderly suicide rates (NCHS, 1989); possibly due to larger proportions of low-risk groups (females) among the total older population (McIntosh, Hubbard & Santos, 1980); the availability of antidepressants; and the increases in economic security and health care for this age group (Busse, 1974). However, although the current generation of elderly might be at lower risk than in the past, it should be kept in mind that they remain the highest-risk age group for suicide and the decline in their suicide rates may only be temporary (Haas & Hendin, 1983).

**Epidemiological findings**

There appears to be a tendency in old age for male suicide rates to be higher (Sainsbury, 1963; NCHS, 1989). During the ages 65-69, male suicides outnumber their female counterparts by a four to one ratio, even though there is still no satisfactory explanation why suicide among men is more common (Miller, 1979). Among the elderly, suicides for whites are higher than those for non-whites (McIntosh, 1992), even though the relationship between suicide and age has been found in cross-cultural analyses of both industrial and traditional societies (Stack, 1980).
Outline of factors involved in suicidal behaviour in older people
Suicide rates among older adults are not simply related to the increase in the proportion of the older population, which suggests that individual, social and cultural aspects do influence the incidence of suicide among elderly people (Sainsbury, 1963). Generally, explanations for the high elderly suicide rate evolve around the intense and accelerated rate of changes the elderly experience as they age, many of which incorporate role change and loss (LaGreca, 1988). However, an encompassing rationale for elderly suicide is not easy to formulate, as the precipitating factors and motives for suicide in old age tend to be less easily identifiable, because they are more subtle and less interpersonally related (Richman, 1991).

Overall, suicidal motivation for the elderly involves several factors, and thus suicidal behaviour is conceptualised as being multi-factorial in nature. Hence, a combination of the following circumstances might produce a situation with which the older adult feels unable to cope, possibly leading to suicide, which was also described as the ultimate coping mechanism because ‘it rids one of the need to cope further’ (LaGreca, 1988).

Depression, dementia and mental illness
Early investigations of mental illness after the age of sixty have emphasised the link between depressive illness and old age (Batchelor, 1957). Psychiatric studies have demonstrated the significance of depression as a common setting for suicide in this age group (Barraclough, 1971). Gurland and Cross (1983) reported that depression underlies two-thirds of suicides among the elderly. In his enquiry into elderly suicides in London, Cattell (1988) noted that 79% of his sample exhibited depressive symptoms prior to death, including 32% with ‘true depressions’.

Depressive states and dementias might lead to symptoms such as lowered mood, insomnia, tension, agitation and psychotic-like symptoms; and the resulting threat of admission to a psychiatric hospital might constitute an immediate precipitant of a suicidal attempt (Batchelor, 1957). Furthermore, negative evaluations of one’s life
in old age, issues of controlling the time of death, and negative attitudes toward old age are also possible contributors to suicidal ideation (McIntosh, 1992). Emotional motives such as feelings of hate, fear and guilt (even though related to depression) seem to be present to a lesser extent in old age than in younger age groups (Batchelor, 1957). Possibly because of that reason, the signs of biopsychosocial conditions such as depression are often disregarded or seen as manifestations of old age and dementia (Richman, 1991).

Only a minority of elderly suicidal people suffered from dementia (Batchelor & Napier, 1953). Thus, only a small number of people (10%) attempted suicide when confused and this confusion was said to be of acute onset and organically determined (Miller, 1979). However, Cattell (1988) suggested that structural cerebral changes may predispose a person to disinhibition which could tip the balance between self-control and suicidal action in the vulnerable individual.

Cattell (1988) noted that schizophrenic illness predisposes to suicide in the elderly and Richman (1991) postulated that the diagnostic category of paranoid schizophrenia is most often a form of camouflaged depression. Thus, the contribution of paranoia to suicide is large, but has been relatively ignored until recently, when the affective and dynamic roots of paranoid symptoms have been recognised and cited to be as frequent as depressive ones in the suicidal elderly (Richman, 1991).

**Family and previous personal histories**
Batchelor and Napier (1953) reported a family history of psychiatric problems in the majority of their sample and in 17% there was a family history of suicidal acts. Birren (1964) cited negative factors, including family members that have been institutionalised for mental illness and broken homes in childhood as possible precipitants for suicide in the elderly. Cattell (1988) reported 43% of his sample to have had previous depressive episodes and Chynoweth (1981) noted that in his sample, 33% of suicidal older adults had presented with psychiatric diseases, 29%
had previously attempted suicide and 13% had similar cases in their family histories.

Richman (1986) proposed the following characteristics of families with an elderly suicidal member: an inability to accept change; interpersonal conflicts; disturbed family structures; affective difficulties and an intolerance for crises. He also suggested that this family legacy of suicide is a long-term failure to resolve a major crisis, which results in further crises handed down from generation to generation (Richman, 1993). Furthermore, individual personality traits that were associated with suicidal older people include sensitivity and shyness, dependency, egocentricity, rigidity, compulsion and restricted interests, all of which might limit their social adaptation (Batchelor, 1957) and adjustment to changes (DeLeo & Diekstra, 1990). Overall, this emphasises the importance of personal histories, including previous suicide attempts and a history of suicide in the family (Richman, 1993).

Physical illness
There is a higher incidence of physical decline, illness and incurable conditions, accompanied by extraordinary pain among older committers (Sainsbury, 1963; Conwell, Rotenberg & Caine, 1990). Thus, physical infirmity, chronic illness or the diagnosis of an incurable disease in older people might initiate introspection, resulting in the realisation of one's own frailty or the threat of permanent dependence. This painful self-awareness of age and helplessness, in combination with a major illness, can therefore be viewed as a strong motivator to end the pain and low quality of life through suicide (Osgood, 1985). Sometimes, even the fear of developing a biological disorder may precipitate a suicide (Lester, 1987). This might be explained by the fact that an older person might have greater difficulty in evolving new values and a self-image that can tolerate and incorporate infirmity (Miller, 1979). Furthermore, the presence of unremitting pain was suggested to produce profound alterations in self-perception, impair the capacity for enjoyment and foster dependence. (Cattell, 1988).
Although the majority of suicidal old people are suffering from significant physical illness at the time of suicidal ideation, physical illness appeared to be a major precipitant in only 35% of cases (Sainsbury, 1963). However, Cattell (1988) reported at least 56% of his sample having ill-health prior to death, with 63% showing post-mortem abnormalities and 21% mentioning pain prior to death. Furthermore, physical conditions might possibly act to enhance other co-existing psychosocial factors (e.g. the genesis and prognosis of depression), which could lead to suicide in the elderly (Baldwin & Jolley, 1986).

**Bereavement**

The loss of a loved one, particularly in old age, seems an important precipitant for suicide and the wish to rejoin the dead person might be a factor in a quarter of all suicidal attempts in old age (Batchelor, 1957). Grief, disruption and isolation caused by the loss of an important relationship are significant factors in suicide patterns (Kaprio, Koskenvuo & Rita, 1987). Isolation in particular is a significant factor in suicide among the widowed elderly (Bock, 1972), as the incidence of morbidity and mortality became elevated by as much as 40% during the crucial first year following a spouse’s death (Parkes, Benjamin & Fitzgerald, 1969). Especially the elderly widower seems to be most vulnerable to these effects (LaGreca, 1988), although Cattell (1988) reported bereavement to be the main precipitant in only 14% of his cases, with no significant sex differences found.

**Alcohol addiction**

A high incidence of alcohol abuse was suggested to precipitate a suicidal attempt in old age; and by releasing inhibitions, the ingestion of alcohol might sometimes lead to suicide (Batchelor, 1957; Miller, 1979). Cattell (1988) reported alcohol in the blood of 29% of his sample on post-mortem. Widowers seem to be more at risk for alcoholism (DeLeo & Diekstra, 1990) and furthermore, the sense of hopelessness accompanying alcoholism seems a major factor in elderly suicide (Beck, Steer & McElroy, 1982).
Social isolation
Durkheim (1897) concluded that a common factor in all suicide patterns was psychosocial isolatedness, due to lessened contact and integration of older adults in society; and their increasing withdrawal from lifelong goals and roles. Sainsbury (1955) reported a significant correlation of suicide rates with social isolation, thus confirming the importance of this recognised risk factor. Cattell (1988) reported that 61% of his suicidal elderly sample were living alone. Furthermore, 16% appeared to have no contact with family or friends, thus further reinforcing the need for contact and belonging.

Isolation therefore deprives individuals of emotional support, prevents therapeutic intervention and aggravates suicidal intent (Barraclough, 1971). In addition to living alone and having no friends, Richman (1993) cited living in the inner city or in socially disorganised areas, as well as the social withdrawal of a couple, as important risk factors for elderly suicides. Furthermore, loneliness and alienation also featured in older people who lived with their younger relatives, but felt rejected. Batchelor and Napier (1953) reported feelings of loneliness and emotional motives like ‘being a burden on others’ and ‘being unwanted’ in 23 out of 40 cases. Serious suicidal potential is also associated with feelings of ‘helplessness, hopelessness, exhaustion and failure’ (Farberow & Shneidman, 1961) and expressions of feeling unnecessary, useless and devalued in the family and social network (Richman, 1993).

Social factors
Retirement from employment, changes in domestic circumstances and financial anxieties are often poorly adapted to in old age and might be of significance in suicides among the elderly (Batchelor, 1957). Roscow (1967) pointed out that the aged reach the only stage in the life cycle where status and role loss occurs and the knowledge, wisdom, experience and abilities of the elderly are often not recognised by society at large. Thus, while society finds little to exalt about old age, it even heightens individual consequences of growing old and leads to psychological factors, such as self-hate among the elderly (Richman, 1993).
Consequently, the symbolic meaning of life alters to such a degree that some elderly people experience a loss of self-esteem and meaning (La Greca, 1988), leading to feelings of uselessness, a lack of purpose, despair and disgust. Especially the first few years after the end of active employment in males might be crucial precipitants for elderly suicide (Solomon, 1981). This was confirmed by the findings that during WW II when older men were able to find useful employment, their suicide rate fell; and increased during the economic depression, as a consequence of the effects of unemployment (Sainsbury, 1955). Thus, being gainfully occupied seems an important factor in protecting an individual from suicide, because being employed means that one has a purpose to one’s activities, is fulfilling a valued social function and is a useful member of the community (Miller, 1979).

In a comparison of socio-economic age groups, Sainsbury (1963) found that suicide rates tend to decrease after the age of 65 in higher socio-economic classes and substantially increase in the lower ones. This might be due to the fact that the older male of the lower class is more likely to undergo some degree of economic stress, suffer frustration from his feelings of uselessness, and more often suffer from organic disease. Factors that help to insulate the ‘upper class aged’ from suicide in turn might be because the higher classes tend to retire to opportunities for more varied interests, as well as a more secure economic situation (Sainsbury, 1961). However, the elderly who have lost much in social status appear to be more likely to commit suicide than those who have always been used to having little (Batchelor, 1957).

Marital status seems another demographic variable to influence suicide risk among the elderly, with those being married, integrated into a family and involved in social activities being less at risk for suicide (Gibbs & Martin, 1964). Elderly people whose marriages are intact have the lowest suicide rates (Busse & Pfeiffer, 1969), and among people who are married, children appear to be an extra buffer against suicide (Miller, 1979). This was confirmed by McIntosh (1987), who noted that the elderly widowed, unmarried and divorced (especially males) are observed to have
higher suicide rates, a finding that is even increased when people live alone (Resnik & Cantor, 1970). Thus, a decrease in family integration combined with role loss, is associated with suicide in older adults (Richman, 1993).

**Extreme dependency**

The prospect of becoming extremely dependent and/or institutionalised was suggested to represent a threat to many older adults which might trigger a suicidal reaction (Miller, 1976; DeLeo & Diekstra, 1990). This was recently confirmed by Loebel, Loebel, Brandon, Centerwall and Reay (1991), who reported that 44% of elderly people in their sample left indications that the suicidal act was precipitated by anticipation of a nursing home placement. On the contrary to this fear of hospitalisation, Cattell (1988) cited a recent hospital discharge to be a well established precipitant for elderly suicide.

Elderly adults who reside in nursing homes have largely gone unstudied with respect to suicidal behaviour (McIntosh, 1992). However, one study established that the old in nursing homes have several high-risk factors associated with suicide, including greater health problems, less contact with family and more advanced age (Osgood, Brant & Lipman, 1991). Thus, residing in a nursing home may not in itself be protective against suicide (Osgood & Brant, 1990).

**Other precipitating motives**

Leviton (1973) hypothesised that the sexuality of the aged is directly related to their suicide, as they feel they have lost the ability to sustain loving, sexual relationships. Furthermore, for ageing women it has been argued that the transition from pre- to post-menopause is a most difficult one (Breed, 1967), symbolising loss, and thus possibly influencing age peaks for suicide.

Help-rejecting, hostile and suspicious attitudes among suicidal elderly towards helpers and society might also precipitate suicidal acts (Richman, 1993). Factors behind such rejection include the sense of stigma attached to being suicidal; parallel attitudes in the family and an inadequate response of the helping professions when
elderly people go for help. The need to have control was another motivational element cited to be sometimes present in geriatric suicides; and the motivation to defy and control death to some degree seems to encourage some elderly people to kill themselves, rather than wait passively for death to overtake them (Butler & Lewis, 1973). Additionally, Morgan (1989) suggested that an older adult may have a more completely formulated plan for their suicide, due to an 'enhanced degree of comfort with the idea of suicide', which in turn also increases risk.

Prognosis and prevention

Prognosis is variable and depends on a variety of interlinked factors. Even though many elderly people attempting suicide recover and return home, the relapse rates are high (Batchelor, 1957), and of those who attempt suicide in old age around 8% will commit suicide within three years of the first attempt (Kreitman, 1976).

Suicide prevention centres (e.g. the Samaritans) do not appear to reach the elderly (Atkinson, 1971) and new approaches are necessary to identify the suicidal elderly and put them in contact with therapy settings (McIntosh, 1992). These suggestions are encouraging, as research established that a team approach appears to be 'optimal' for dealing with older suicidal individuals (Shneidman, 1985) and that the elderly proved to be good candidates for individual and group therapy techniques (Butler, Lewis & Sunderland, 1991). Furthermore, Osgood (1985) presented several strategies for reducing the suicide rate among the aged, all of which emphasise the assumption that the aged will not opt for suicide if society made it clear to them that they were still wanted and appreciated. Thus, a vast majority of elderly suicides could be potentially preventable (Richman, 1991), with improvement of training, education and services for the suicidal elderly (McIntosh, 1992), as well as with a more serious consideration given to retirement planning and examining the needs and interests of the retired elderly (Rachlis, 1970).

Conclusion

Overall, there is still much to be learned about predictive variables with respect to geriatric suicides. However, as the financial and occupational status of older adults
declines and their physical and intellectual abilities become impaired, they are more likely to experience a decline in the capacity to find gratification in social effectiveness, competence, acceptance and productivity, which in turn might lead to psychological problems such as self-referred anger, low sense of achievement, low self-confidence and self-esteem, frustration and helplessness, as well as lowered mood.

Thus, in sum the literature presents suicide in old age as based on the individual’s experience of the role loss of what makes life worthwhile and the loss of energies and skills needed to cope and function. Furthermore, in many cases these roles are lost but not replaced and suicidal despair may heighten if the family and society do not respect or maintain them (Richman, 1993). In addition to these biopsychosocial changes and losses, specific factors that might point to successful suicide in the elderly are the individual’s personality and established coping style, prior suicidal behaviour, bereavement, recognisable psychiatric disorder, physical health problems, and lowered interpersonal, social and financial resources, as well as increasing social isolation. In conclusion, this multi-factorial aspect of suicide implies that effective prevention involves intervention with respect to several factors, but a diminution of the level of subjective psychological pain associated with any of these factors usually leads to a decision to live rather than die (McIntosh, 1992).
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Is neuropsychological rehabilitation effective?

Introduction
Neuropsychological rehabilitation is an emerging area of specialisation that expanded rapidly over the last two decades, due to the increased emphasis on neurorehabilitation following traumatic brain injury, stroke and other neurological disorders (Hanlon, 1994). However, as the word 'rehabilitation' has acquired many connotations (Wade, 1992), this essay will firstly provide a brief overview of this specialised area, including a definition and a limited outline of models and treatment methods of neuropsychological rehabilitation. This is intended to provide a sufficient base for discussing whether neuropsychological rehabilitation is effective, with reference to specific cognitive functions such as attention, memory, language, visuo-spatial processing, and executive functions. Finally, conclusions will be drawn and future directions will be outlined.

Definition
The International Classification of Impairments, Disabilities and Handicaps (ICIDH; WHO, 1983) defines rehabilitation as 'a problem-solving and educational process, aimed at reducing the disability and handicap experienced by someone as a result of a disease, always within the limitations imposed both by available resources and by the underlying disease'. Thus, emphasising a holistic and multidisciplinary approach to patient care, rehabilitation can essentially be seen as management of change. Therefore, terms such as 'management of a neurological disability' are being suggested as the most appropriate description of neuropsychological rehabilitation, as its goal remains to minimise handicap, however using a more effective focus upon disability (Wade, 1992).

The primary goal of neuropsychological rehabilitation is to improve the quality of life of patients who have sustained neurological injury, which may involve cognitive, behavioural, emotional, and social factors. These in turn might affect interpersonal, marital, vocational, educational and recreational domains, as well as
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functional independence in activities of daily living (Hanlon, 1994). Thus, the construct of Activities of Daily Living (ADL) forms the focus of much rehabilitation in practice (Wade, 1992).

During the neuropsychological rehabilitation process, the stages of assessment (identification of strengths and weaknesses); planning (analysing the problems and setting goals); treatment (intervention to reduce disability and handicap); care (intervention to alleviate consequences of disability); and evaluation (checking on the effectiveness of any intervention) are emphasised. Measures (e.g. behavioural mapping and engagement levels to monitor activity in a rehabilitation setting) are employed at most stages of this cycle, as there is an increasing interest in the processes of rehabilitation. Furthermore, with recent service developments, an obvious need to measure the input of resources is present (Wade, 1992).

Models and methods of neuropsychological rehabilitation

Models of cognitive processing and neurophysiological functioning have aimed to explain brain-behaviour relationships and provide a basis for understanding cognitive dysfunction and neurobehavioural disorders (Hanlon, 1994). Part of this challenge is to develop a model of how a particular function is reinstated, as cognitive rehabilitation is only legitimate if the underlying cognitive model is correct (Basso, 1989). Despite several suggestions, it remains difficult to plan an effective and efficient programme of therapy without an accepted model of how recovery is achieved (Beaumont, 1983). Thus, the integration of such models in the development of therapeutic interventions has been limited (Hanlon, 1994). Consequently, cognitive rehabilitation suffers from the lack of a theoretical foundation, from which cognitive treatment methods are derived and assessed, with regard to their efficacy in meeting treatment objectives (Wood, 1990). However, numerous models are presently employed in the development and application of therapeutic approaches, aimed at the amelioration of cognitive deficits resulting from brain injury.
Programme models characterise the majority of cognitive rehabilitation programmes (Hanlon, 1994). These include structured treatment procedures (at group and individual level) provided by a multi-disciplinary team, aiming at the remediation and restoration of cognitive deficits, with treatment goals being individualised to the specific needs of the patient. Furthermore, patients might also be treated within a psychotherapeutic milieu using a group focus, which emphasises cognitive, emotional, and psychosocial issues in a systematic sequence of treatment procedures (Ben-Yishay & Prigatano, 1990). Another form of milieu therapy is 'reality orientation' (Miller, 1977), which can help brain-injured and demented patients to acquire basic information, in order to generate appropriate behaviour (Beaumont, 1983). Due to their nature, these approaches are advantageous to ongoing research on the efficacy of rehabilitation (Hanlon, 1994).

Further primary approaches to cognitive rehabilitation include the general stimulation or direct retraining approach. This involves routine engagement in repetitive exercises, like cognitive rehabilitation workbooks or computer-assisted rehabilitation programmes marked for cognitive retraining. The latter of these in particular appear to have a sufficient number of practical advantages encouraging researchers to continue their experimental investigation (Matthews, Harley & Malec, 1991). It is this approach which is most widely used in rehabilitation (Wilson, 1989), even though there is limited evidence that practice alone results in generalisable functional gains (Hanlon, 1994). The neuropsychological approach of the substitution-transfer model involves training in the substitution of a comparatively intact cognitive system for an impaired cognitive function. It employs techniques such as visual imagery to facilitate verbal retention, as well as verbal mediation and elaboration to compensate for visual memory dysfunction. However, whilst effective with specific patients, this approach lacks global applicability and might be cognitively demanding, thus often exceeding the learning capacity of many patients (Hanlon, 1994). The functional compensation and adaptation model, based on the dynamic localisation of psychological functions and the reorganisation of functional systems (Luria, 1966), was stated to be the most applicable and effective approach in rehabilitation (Hanlon, 1994). Functional
adaptation involves the use of strategies and adaptive equipment available, to increase functional performance and enable the patient to perform tasks that can no longer be performed in a conventional manner. Therefore, patients are trained in the use of external devices (e.g. memory notebooks) and alternative strategies (e.g. visual communication systems, systematic problem-solving approaches) to compensate for deficits in memory, attention, communication, perception, motor integration and executive function. Behavioural approaches, based on operant conditioning and behaviour modification (Wood & Eames, 1981), have only recently been utilised in cognitive rehabilitation, but considerable success has been reported with patients manifesting behavioural disorders, executive dysfunction, and severe intellectual impairment (Hanlon, 1994). In an attempt to elicit or eliminate specific behaviours, techniques employed include environmental control and restructuring (e.g. using stimulus-response conditioning, skill training, and strategy substitution) (Gross & Schutz, 1986); various reinforcement schedules and shaping (Wood, 1987); response cost (Alderman & Ward, 1991); and training of incompatible behaviours (Hanlon, Dobkin & Thomas, 1993).

Studies of rehabilitation of specific cognitive functions
Cognitive rehabilitation can be regarded as a set of different procedures used to improve personal functions related to different cognitive domains. Principles for training are different, as applied to different cognitive skills (Sohlberg & Mateer, 1989b). However, remediating cognitive deficits remains a great challenge within brain-injury rehabilitation (Diller, 1976). In general, numerous outcome studies have reported promising results in establishing the efficacy of neuropsychological rehabilitation programmes, with regard to psychosocial status (Christensen, Pinner, Moller Pedersen, Teasdale & Trexler, 1992); neuropsychological functioning (Ruff, Baser, Johnston, Marshall, Klauber, Klauber & Minteer, 1989); vocational outcome (Ben-Yishay, Silver, Piasetsky & Rattok, 1987); and functional performance in activities of daily living (Mills, Nesbeda, Katz & Alexander, 1992). However, methodologically-sound studies that examine the effect of a rehabilitation programme are uncommon (Hanlon, 1994), and studies incorporating a randomised design with a control group are rare (Ruff et al., 1989).
Attention
Difficulties in attention and concentration are one of the most common functional changes following head injury. Despite its prevalence, therapeutic approaches with significant effects on functional performance are limited (Hanlon, 1994). However, considerable success in the remediation of basic attentional dysfunction following brain injury has been reported by Ben-Yishay, Piasecksky and Rattok (1987). They employed the orientation remedial model (ORM), which is a hierarchically organised clinical strategy, including separate treatment components. These address interdependent elements of attention or concentration and involve treatment procedures, such as computerised psychomotor tasks of increasing difficulty. The results of this study showed significant task-specific effects, with some degree of generalisation to related tasks, thus suggesting that the ORM model is an effective method to remediate basic attentional deficits with selective brain-injured patients (Hanlon, 1994).

Sohlberg and Mateer (1987) designed a well-controlled study to assess the effectiveness of a hierarchic attention-retraining programme with brain-injured patients involved in cognitive rehabilitation. The researchers assessed the effects of treatment on a specific function such as attention, independent of other cognitive functions (Barlow & Hersen, 1984). The therapeutic tasks represented five levels of attention (focused, sustained, selective, alternating, divided) and the results revealed considerable gains in attentional capacity from this process-specific approach. Researchers such as Scherzer (1986) and Wood (1986) also reported some encouraging findings, due to the effects of structured treatment programmes on basic attentional functions.

Memory
Impairments of memory are also among the most common residual deficits following even mild head injury (Brooks, 1983). Memory impairment, especially when combined with attentional dysfunction, represents one of the most debilitating manifestations of brain injury. Thus, given the inherent role of learning in most therapeutic interventions and rehabilitation processes, memory and learning
difficulties further limit the potential for significant gains in other functional domains (Hanlon, 1994).

Despite the lack of evidence that direct retraining approaches (memory exercises) may result in functional memory improvement (Glisky & Schacter, 1986), these techniques are some of the most widely used in cognitive rehabilitation and are the basis of most commercial computer programmes intended for memory retraining (Hanlon, 1994). Even though the goal of memory rehabilitation is to restore memory processes through training, no significant training effects on general mnemonic function have been documented, especially when using the computer to administer restoration-orientated memory exercises (Schacter & Glisky, 1986). This might be because the underlying assumptions of restoration are often theoretically ill-founded (Schacter & Glisky, 1986). However, patients can learn to operate and interact with computers in a laboratory setting (Glisky & Schacter, 1986), as well as in a real-world job involving data entry (Glisky & Schacter, 1987), which might after all suggest a different role for computers in memory rehabilitation than has been considered previously (e.g. as aids for employment support).

Similarly, approaches based on the substitution model are commonly used, despite a lack of efficacy studies demonstrating significant effects on functional memory capacity. However, several studies have reported significant effects in recall of task-specific information resulting from visual imagery training (Kovner, Mattis & Goldmeier, 1983); verbal elaboration and organisation (Gianutsos & Gianutsos, 1979); face-name associations (Wilson, 1981); peg systems (Patten, 1972); and rehearsal-retrieval practice (Schacter, Rich & Stampp, 1985). Thus, various strategies enhance memory processing, but patients may not consistently use them in their everyday life. Therefore, reports of maintenance and generalisation of these effects are infrequent (Stern & Stern, 1989), which is not surprising given the cognitive demands that the acquisition and application of such techniques requires of an already impaired memory system (Richardson, 1992). Nevertheless, one organisational strategy (including preview, question, read, state, test) was reported
to have a significant degree of generalisation to naturalistic settings (Grafman, 1984). Further cognitive strategies, especially for verbal memory deficits, (e.g. non-verbal, visual imagery mnemonics and elaborate coding) have also been described to improve performance (Crovitz, 1979).

Hanlon (1994) noted that compensatory techniques based on the functional adaptation model are considered to be the most effective approaches to the remediation of memory. For example, instructional and practical training in the use of external memory aids (e.g. notebooks, calendars, labels, calculators) is practical and can be efficiently generalised to different situations (Harris, 1984). Harris (1984) also demonstrated that external aids (e.g. computers) can be useful in real-life environments to aid performance of real-life tasks. A structured and systematic training sequence for the implementation of memory aids was also described by Sohlberg and Mateer (1989b), who reported an effective carry-over to activities of daily living (ADL). Furthermore, considerable potential for memory rehabilitation was also cited to be in the acquisition of domain-specific knowledge and skills that are useful in everyday life (Schacter & Glisky, 1986); as well as in prospective memory training (Sohlberg, White, Evans & Mateer, 1992). The latter focused on the preserved memory and learning processes of amnesic patients and demonstrated the successful acquisition and retention of domain-specific knowledge (e.g. commands, vocabulary), which is directly applicable to tasks of daily living (Hanlon, 1994). Thus, several studies have shown that patients can learn specific, new skills, even though memory does not improve in a general sense (Wilson, 1987).

Language

Techniques in aphasia rehabilitation aim to increase communicative capacities, through the implementation of basic language interventions and supplementary communication strategies. However, it is still debated whether these techniques actually help in recovering language skills (Basso, 1989). The major rehabilitative approaches in this area include direct stimulation, substitution, and functional compensation. The direct stimulation model, assuming that language can be
restored through repetition, systematic cueing and stimulus manipulation, has generated some controversy because of the paucity of controlled, methodologically correct studies, demonstrating its effectiveness. This led some researchers to conclude that aphasia therapy has no specific effect (Basso, 1989) and that there is little evidence that this approach results in functional gains beyond those expected from spontaneous recovery (Miller, 1984).

Based on Luria’s functional substitution approach (Luria, 1963), contemporary analyses of this approach to aphasia rehabilitation show successful tendencies (Goodglass, 1987). Similarly, approaches from work in psycholinguistics demonstrated that global aphasics could learn a symbol system for communicative purposes (Glass, Gazzaniga & Premack, 1973) or effectively use a visual communication system (Gardner, Zurif, Berry & Baker, 1976). Furthermore, deblocking language production through gestural expression (Weigl, 1981) and pointing gestures (Hanlon, Brown & Gerstman, 1990) can significantly improve oral naming in non-fluent aphasics. Davis and Pring (1991) reduced word-finding deficits by combining semantic and phonological approaches and found generalisation and maintenance effects of treatment.

Compensatory models, focusing on various aspects of non-verbal communication, such as signal systems (Skelly, Schinsky, Smith, Donaldson & Griffin, 1975); pantomime therapy (Schlanger & Freimann, 1979); and gestural communication systems (Helm-Estabrooks, Fitzpatrick & Barresi, 1982), have also been applied with some success. Other compensatory communication devices include communication boards, picture charts and electrical scanning units (Hanlon, 1994). Further psychological approaches include behavioural retraining routines and task analyses (Golden, 1981), as well as techniques based on the principles of operant conditioning (Goldfarb, 1981).

Visuo-spatial processing and perception
Impairment of visuo-spatial processing and visuo-perceptual function are common following neurological insults, and may include deficits of object recognition or
agnosia, defective discrimination of spatial relations, unilateral spatial inattention, and deficits in spatial integration. Their effect on functional performance is pervasive and tends to affect the entire range of human activities (Hanlon, 1994). Attempts to remediate visual processing following brain injury have been limited and a direct retraining approach has generally been employed (Hanlon, 1994). For example, through repeated engagement in computerised tasks, involving visual scanning and reaction time, the visual discrimination of patients with visual field defects was reported to have been improved (Gianutsos & Matheson, 1987).

Sohlberg and Mateer (1989a) based another study on the process-specific approach and reported notable improvements in the visual discrimination of form and spatial relations, by utilising hierarchically organised tasks that were consistent with the hierarchic levels of the visual-processing system. Improvements in the recognition of objects and pictures was also reported in patients suffering from visual object agnosia (Wilson, 1990).

A primary focus in stroke rehabilitation is the unilateral neglect syndrome, due to its disruptive impact on functional performance (Hanlon, 1994). Diller and Weinberg (1977) used systematic and functionally orientated treatment procedures (e.g. visual scanning training) in a controlled group study. This was stated to remain the most effective and influential approach to the remediation of left hemi-inattention (Hanlon, 1994). Furthermore, replicable significant effects were also reported following training on somato-sensory awareness and spatial organisation (Weinberg, Diller, Gordon, Gerstman, Lieberman, Lakin, Hodges & Ezrachi, 1979). Using similar procedures to Weinberg and colleagues, researchers using a multiple-baselines-across-behaviours design demonstrated a significant increase in attention to left hemispace following a right hemisphere stroke (Hanlon, Dobkin, Hadler, Ramirez & Cheska, 1992). They used a multi-sensory cueing strategy and visual tasks included copying sentences and reading articles, both of increasing horizontal length; environmental search tasks; as well as counting and identifying in- and outdoor stimuli. It was reported that patients were effectively trained to
compensate for left hemi-inattention with carry-over effects to functional tasks, including mobility and self-care.

Executive function

Executive dysfunction (e.g. deficits of goal formulation, planning, organisation, sequencing, and self-regulation) is common following head injury, particularly due to the vulnerability of the frontal region to damage from impact forces (Hanlon, 1994). These disturbances of problem-solving, as well as behavioural excesses and deficits, can be extremely debilitating, and the role of executive functions on the selection and prioritisation of information, as well as behavioural control, may as such have a significant impact on memory function and attention (Hanlon, 1994).

Approaches based on environmental control and behaviour modification seem to be the most widely used techniques to manage self-regulation deficits (Benedict, 1989). Traditional behavioural techniques, such as 'time out' and positive reinforcement, were reported to be successful in managing aggression and socially inappropriate behaviours following head injury (Wood, 1987). Response cost has also been reported to be effective in the management of verbal outbursts, repetitive speech and aggression, with treatment gains being maintained following treatment withdrawal (Alderman & Ward, 1991). Improvements and generalisation effects in self-regulation were also reported, following the training of an incompatible behaviour with a patient showing severe behavioural dyscontrol (Hanlon et al., 1993).

Cognitive-behavioural therapy that aims to modify cognition, in addition to overt behaviour, is also being employed to address self-regulation deficits. Using a self-instructional training procedure, Cicerone and Wood (1987) reported success in teaching a patient to verbalise a plan of behaviour before and during the execution of a task, leading to an improved performance, with some generalisation to novel situations. Similar results with this verbal regulation strategy were achieved recently (Cicerone & Giacino, 1992).
Providing an overall structure (Luria & Tsvetkova, 1964) and breaking down complex multi-step problems by using a specific problem-solving approach, was reported to result in significant effects on psychometric measures of planning and problem-solving in a controlled group study (von Cramon & Matthes-von Cramon, 1990). Sohlberg and Mateer (1989a) described a therapeutic programme for the treatment of executive deficits, including the selection and execution of cognitive plans; time management; and self-regulation. Improving reasoning and judgement, involving some computer-assisted procedures, have also been investigated (Goldstein & Levin, 1987). The efficacy of these approaches, however, remains to be established. Nevertheless, most recently a well-controlled study reported that patients’ performance improved on selected neuropsychological test scores and cognitive functioning, following cognitive rehabilitation (Ho & Bennett, 1997). This led the researchers to suggest that traditional measures of efficacy of cognitive rehabilitation may be insensitive to the cognitive sequelae of mild head injury, partly due to compensatory strategies invoked by the subject.

Conclusion
In sum, neuropsychological rehabilitation has generated increasing interest (Beaumont, 1983) and holds great promise in its primary objective. However, it remains only tested in parts (Levin, 1990), often presenting with a number of methodological shortcomings that are difficult to control. Furthermore, the literature in this field remains uneven, revealing differences and inhomogeneity of rehabilitation texts (Basso, 1989). Additionally, Hanlon (1994) emphasised that overall relatively few studies have proven that neuropsychological and cognitive rehabilitation has a significant impact on the quality of life of brain-injured patients. Thus, the actual efficacy of neuropsychological rehabilitation remains a controversial issue (Hanlon, 1994), with the differences among the various approaches being large in both accuracy of description and in content (Basso, 1989). Consequently, there is a rising demand for efficacy studies that demonstrate the effect and validity of a specific cognitive intervention or rehabilitation programme on functional performance (Hanlon, 1994; Ho & Bennett, 1997).
However, as discussed above, some of the studies examining efficacy of specific cognitive interventions are encouraging and should be pursued (Lynch, 1988), even though the inherent limitations that may influence research with brain-injured patients (e.g. spontaneous recovery, heterogeneity of subjects) need to be considered. Nevertheless, results of investigations based on less than ideal research designs should not be subjected to dismissal if the limitations of such designs are acknowledged and modest conclusions are offered (Matthews, Harley & Malec, 1991).

**Future directions**

Rehabilitation can be informed by, as well as inform, models of cognitive processes (Basso, 1989). Thus, cognitive rehabilitation techniques and procedures should be empirically validated and their efficacy should be established in terms of specific cognitive domains under study (Matthews, Harley & Malec, 1991). Consequently, therapeutic approaches developed for the remediation of disturbances in specific cognitive functions need to demonstrate their effectiveness in well-controlled designs, and can only be meaningful if they are systematically co-ordinated with other neuropsychological rehabilitation interventions (Ben-Yishay & Prigatano, 1990). This appears to be the challenge of neuropsychological rehabilitation, as future studies need to demonstrate that its interventions directly influence a patient’s functional performance, thus leading to a notable impact on the quality of life of a brain-damaged individual.
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Clinical Section
Summary of the Clinical Section

This section comprises a brief overview of the candidate’s clinical experience over the six placements undertaken during the three years of clinical training. The section also contains the summaries and contracts of the four core clinical placements and the two specialist placements, plus a summary of each of the five formal clinical case reports. These case reports are submitted in full in a separate, confidential volume (Volume II), which also contains the logbooks of clinical activity and supervisor evaluation forms for all completed placements. The included clinical case reports have been selected to demonstrate the variety of clinical work undertaken in the four core placements and the forensic specialist placement. They describe extended diagnostic and psychometric assessments, as well as individual therapeutic work with clients across the life-span, using different therapeutic approaches. All identifying details in these case reports have been changed to maintain the clients’ anonymity.
Overview of Clinical Experience

1. Adult Mental Health Core Placement - Year I
In addition to joint work with other professionals, the candidate independently undertook direct clinical work with twelve clients (seven men and five women) in an outpatient setting. These clients covered an age range from 25 to 51 years and one client was from a different ethnic background. The clinical problems encountered included anxiety (specific phobias, panic disorder, GAD), PTSD, depression, adjustment difficulties, anorexia nervosa, substance abuse, psychosis, as well as relationship difficulties and anger-management problems. Eight clients were seen for individual therapy, mainly using a cognitive-behavioural approach and occasionally employing brief focal psychodynamic techniques. Various psychometric measures were used to evaluate the therapeutic outcome. Four clients were seen for neuropsychological assessments, using a range of standardised tests. In addition to direct clinical work, the candidate attended departmental meetings, workshops, group supervision, and gave a presentation to a multi-disciplinary audience.

2. Learning Disabilities Core Placement - Year I
Whilst working within a multi-disciplinary team, the candidate independently undertook direct clinical work with eight clients (five men and three women) between the ages of 14 and 64. Within a community and a hospital setting, the candidate was exposed to all levels of learning disability and practised extensive liaison with different services, care staff and relatives. Two clients were seen for individual therapy (skills teaching, challenging behaviour), using behavioural and cognitive-behavioural approaches; whilst six clients were engaged in extended assessments of cognitive functioning and independent living skills. A variety of psychometric measures employed with this client group were encountered and feedback was given at a variety of levels. The candidate co-facilitated a six-session, structured sexual education group, including the pre-and post-group assessments of male and female group members. In addition to direct clinical work, the candidate visited a variety of facilities for clients with learning disabilities, attended
departmental and team meetings, case conferences, gave a presentation to the department and taught a two-hour session on challenging behaviour.

3. Child and Adolescent Core Placement - Year II
Within a specialist hospital unit and a community setting, the candidate independently undertook direct clinical work with nine children (six boys and three girls), aged between 2 and 15 years. Six children were engaged in extended assessments (social communication difficulties, language delay, behavioural problems), using child-specific psychometric measures, behavioural observations and extended liaison with educational services and parents. Three children were seen for individual therapy (anxiety, chronic ill-health, OCD, anorexia nervosa), using behavioural programmes and cognitive-behavioural approaches modified to an age-appropriate level. The candidate engaged in a joint systemic family therapy intervention to address a variety of intra-familial problems related to a child’s encopresis. The candidate co-facilitated and evaluated a five-session, structured social skills training group for adolescent boys presenting with severe behavioural difficulties. In addition to direct clinical work, the candidate presented a seminar to a multi-disciplinary audience, undertook a piece of service-related research, and attended a variety of clinical and business meetings. Furthermore, the candidate engaged in the observation of and liaison with a large variety of multi-disciplinary professionals working within the paediatric services.

4. Older Adult Core Placement - Year II
Within a multi-disciplinary team, the candidate independently undertook direct clinical work with six clients (women), aged between 68 and 81 years. Within community and inpatient settings, five clients engaged in individual therapy (anxiety, depression, chronic pain, bereavement, avoidant personality disorder, behavioural and relationship problems), whilst one client was seen for an extended neuropsychological assessment and a subsequent intervention (memory difficulties, depression, anxiety). Appropriately adapted to the client’s level of functioning, cognitive-behavioural, schema-focused and narrative approaches were employed, in addition to memory retraining strategies and validation therapy. Furthermore, the
candidate engaged in a joint systemic intervention for couples. The candidate co-facilitated and evaluated a five-session, mixed-sex, reminiscence group for clients suffering from Alzheimer’s type dementia. In addition to direct clinical work, the candidate liaised extensively with a variety of services for the elderly, attended seminars, clinical and business meetings, provided consultancy to other team professionals and gave a presentation to the multi-disciplinary team.

5. Forensic Specialist Placement - Year III
Within a maximum security setting, the candidate completed the formal hospital induction programme, worked in acute and rehabilitation settings, and liaised with various professionals working within the hospital’s rehabilitation and education services. The candidate engaged in a joint admission assessment and independently undertook direct clinical work with five patients, aged between 22 and 39 years (four men and one woman). Two clients engaged in individual therapy (psychosis, substance abuse, borderline personality disorder, history of childhood sexual abuse, fire-setting, severe self-harm, depression, eating disorder), using cognitive-behavioural approaches for schizophrenia, supportive psychotherapy and narrative therapy. Three clients were seen for extended admission assessments, psychosexual assessments and cognitive assessments, using standardised psychometric tests, as well as measures specific to the forensic environment. The candidate co-facilitated and evaluated an eight-session, structured anger-management group for males from a variety of ethnic backgrounds, presenting with various diagnoses (psychosis, psychopathic disorder) and behavioural management problems. In addition to direct clinical work, the candidate attended departmental meetings, seminars, case conferences, mental health review tribunals, and gave a presentation as part of a staff training workshop.

6. Eating Disorders Specialist Placement - Year III
Within a multi-disciplinary, specialist eating disorders community service, the candidate independently undertook direct clinical work with five clients (women), aged between 19 and 32 years. Three clients engaged in individual therapy for a variety of eating disorders (anorexia nervosa, bulimia nervosa, binge-eating
disorder), as well as comorbid difficulties (depression, anxiety, substance abuse, borderline personality disorder, self-harm, childhood trauma, relationship difficulties). An eclectic approach to therapy was adopted, drawing on cognitive-behavioural, schema-focused, and narrative approaches, in addition to some aspects of dialectical behaviour therapy and interpersonal psychotherapy. Two clients were seen for extended assessments, using various psychometric measures and scales designed for the use with eating-disordered clients. The candidate co-facilitated two respective, six-session, structured self-help groups, based on psycho-educational approaches to eating disorders. The candidate also co-facilitated bi-monthly, unstructured, psychotherapeutic support groups for women with mixed eating difficulties. In addition, the candidate was part of the reflection team of the family therapy services, following one family throughout the intervention. In addition to direct clinical work, the candidate attended clinical and business meetings and community case conferences, and liaised with a variety of services and professionals.
Adult Mental Health Core Placement Summary

Location: Horsham and Crawley NHS Trust
Horsham Hospital
Horsham
West Sussex

Dates: October 1995 to March 1996

Main Supervisor: Maeve Crowley

Co-Supervisor: None

Departmental Base: Horsham Hospital
**Adult Mental Health Placement Contract**

**Aims:**

1. To gain experience of assessments and interventions with adult clients with a wide range of problems.

2. To gain experience of a range of psychotherapeutic models with particular emphasis on behavioural interventions, cognitive-behavioural interventions and the theory of psychodynamic approaches.

3. To experience working in a variety of settings including outpatient work, day hospital work, inpatient wards and community settings.

4. To gain experience of working with mental health professionals in a multi-disciplinary team and to observe some of that work and gain an understanding of the role of the clinical psychologist within that team.

5. To take advantage of opportunities to attend other teaching and training events, including a DCP conference, guest lectures and meetings of the Special Interest Group (SIG).

6. To observe the supervisor working with a range of clients at various stages of the therapy and to have two hours of supervision weekly to discuss client work, theoretical models and other relevant issues.

**Client contact:**

1. To work with at least ten clients from a broad range of ages and possibly different ethnic groups for independent direct work.

2. To work with individuals suffering from anxiety disorders (phobias and panic attacks), depression, eating disorders, adjustment difficulties,
relationship difficulties, temper problems, substance abuse and physical disability.

3. To have some exposure to working with clients with long-term disabilities and psychosis.

**Assessment procedures:**
1. To learn and use appropriate interviewing skills.

2. To use standardised assessments and rating scales (e.g. WAIS-R, WMS, NART, BAI, BDI).

**Multi-disciplinary team work:**
1. To do joint work and observations with other mental health professionals (CPNs, social workers, psychiatrists) in various settings (inpatient, community).

**Departmental Activities:**
1. To participate in departmental and speciality meetings.
The assessment and treatment of a female client presenting with a specific phobia, using cognitive-behavioural therapy.

Mrs X., a 52-year-old lady, was referred by her GP for psychological treatment for her long-standing problems relating to her claustrophobia. Measures used during the assessment stage included the Fear Questionnaire, which indicated that Mrs X. perceived her phobic symptoms as ‘markedly disturbing’ (6), as well as scoring highly on the subscale relating to agoraphobia (22 out of 40). Regarding her clinical presentation, Mrs X. reported several anxiety symptoms including an accelerated heart rate, sweating, shaking and a dry mouth when confronted with feared situations such as using trains, coaches, tubes, elevators or toilet cubicles. Furthermore she reported being afraid of making a fool of herself in public by fainting. Mrs X. also suffered from considerable anticipatory anxiety and hypervigilance. Over the years, Mrs X. had developed significant avoidance behaviours, resulting in severe limitations in her daily life. On exploring the history of Mrs X.’s problems it became apparent that she had encountered various frightening experiences throughout her life, which related to being enclosed without being able to free herself (e.g. in a hut and in a crowded tube train).

Her difficulties were formulated within the cognitive-behavioural model of phobic anxiety, including physiological, behavioural and cognitive symptoms which were maintained by factors such as avoidance, low self-confidence, hypervigilance and anticipatory anxiety, thus creating a vicious cycle of fear.

Based on this theoretical model, the treatment plan included educational components; self-monitoring of anxiety symptoms and cognitive restructuring; gradual, repeated and prolonged exposure to a hierarchy of feared situations; relaxation training and controlled breathing; as well as distraction and the use of positive self-statements. Some time was also spent addressing Mrs X.’s current relationship difficulties and feelings of guilt with regard to her mother, as those seemed to exacerbate her overall anxiety.
Treatment ended with a planned discharge after eight sessions. At the end of therapy, Mrs X.'s quality of life had improved significantly (e.g. less avoidance behaviours, increased flexibility in daily life, fewer anxiety symptoms), which in turn was reflected in her decreased anxiety ratings on the Fear Questionnaire (2 = 'slightly disturbing') and a reduction of scores from 22 to 2 on the agoraphobic subscale. A relapse prevention plan and the re-formulation of this case are discussed.
## Learning Disabilities Core Placement Summary

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<thead>
<tr>
<th>Location</th>
<th>Surrey Heartlands NHS Trust</th>
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<td>St Ebba’s</td>
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<td></td>
<td>Epsom</td>
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<td>Surrey</td>
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| Dates             | April 1996 to September 1996 |

<table>
<thead>
<tr>
<th>Main Supervisor</th>
<th>Zillah Webb</th>
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<tr>
<td>Co-Supervisor</td>
<td>Liz Marlow</td>
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| Departmental Base | Cavell House, St Ebba’s      |
Learning Disabilities Placement Contract

Aims:
1. To achieve at least an acceptable standard in the core competencies as applied to clients with a learning disability as specified in the clinical placement handbook.

2. To introduce the trainee to this client group and to give experience with a full range of disabilities in both community and hospital settings.

3. To develop the trainee’s awareness of the clients’ needs.

4. To have experience of the range of possible psychological assessments, therapeutic interventions and theoretical models.

5. To gain experience of alternative therapies e.g. aroma therapy, music therapy, drama therapy, multi-sensory environment.

6. To gain awareness of broader systemic and service issues.

Objectives:
1. To select, use and interpret norm-referenced and criterion tests.

2. To enable the trainee to communicate effectively with learning disabled clients using modified language and non-verbal methods, including Makaton signing.

3. To plan and undertake at least part of therapeutic interventions, one behavioural and one of another orientation.

4. To communicate the formulation, method and outcome of an intervention in writing.
Clinical Section

5. To present a psychological intervention to a multi-disciplinary group.

6. To observe the work of other professionals in the multi-disciplinary team to gain an understanding of the inter-relationship.

Method:
1. To attend meetings of the Psychology Department held in alternate weeks.

2. To attend meetings of the CTLD held in alternate weeks.

3. To attend a CTLD training day.

4. To attend a SIG (PLD) meeting.

5. To present a case report to a multi-disciplinary group.

6. To give a seminar to the department.

7. To work a shift in a home and spend time in a variety of learning disability settings to gain experience with the client group and their lifestyles.

8. To apply the WAIS-R, Leiter and BPVS.

9. To carry out one in-depth psychometric assessment.

10. To apply the HALO and Vineland or STAR.

11. To design and evaluate a behavioural programme including a functional analysis.
12. To work directly one-to-one with a minimum of two clients with involvement in at least ten others in all, and to provide a detailed formulation and report on two of these clients.

13. To participate in focused group work with another psychologist or undertake similar joint work.

14. To observe the work of another psychologist in assessment and therapy sessions.

15. To communicate results of psychological assessments with staff carers in a residential setting.

16. To do the same with parent/ carers in a common setting.

17. To observe the work of other professionals in NHS, Social Services and educational settings.

18. To attend a meeting in which service development or organisational change issues are discussed.

19. To endeavour to cover the following areas: sexuality, bereavement/ loss, skills teaching, social skills, challenging behaviour, cross-specialism and ethnic minorities.

**Parameters of the placement:**

1. Supervision minimum for 90 minutes per week and monthly joint supervision.

**Agenda for supervision:**

1. Ongoing case work, placement issues, professional development, general issues arising, process issues, policy issues and goal setting.
Learning Disabilities Case Report Summary - Year I

An extended assessment of a male client with Asperger’s Syndrome.

A 37-year-old man, Mr X., was referred by his Community Nurse to the team psychologist for an extended cognitive assessment, possibly leading to a diagnosis of Asperger’s Syndrome. Psychometric testing using the WAIS-R revealed a full-scale IQ in the lower average range (84), with no significant differences between his verbal (87) and performance (82) IQ. Mr X.’s performance on several subtests relating to aspects of social interactions, relationships and judgements, all of which are of relevance in the presentation of Asperger’s Syndrome, are discussed. In an individual interview with Mr X., a variety of different formalised tests and tasks were combined, in order to obtain direct factual and behavioural information. These tasks included the ‘Theory of mind test’, ‘Awareness of social conventions’, the ability to empathise and understand other people, an assessment of clumsiness, an assessment of relevant components of the social interaction, and an identification of special interests. Mr X.’s performance on these tasks was discussed in relation to relevant research findings on the characteristics associated with Asperger’s Syndrome.

Furthermore, an individual interview with Mr X.’s mother yielded information on his early physical, cognitive, language, social and emotional development. Additional information on his early play and schooling, as well as on current issues such as sympathy for others, interests, activities, routines, rituals and relationships was obtained. The conclusions from these individual interviews supported that Mr X. was currently displaying a variety of characteristics that matched the diagnostic criteria known as Asperger’s Disorder in the DSM-IV (APA, 1994). These mainly centred around a qualitative impairment in social interactions (e.g. a history of poor social interactions, impaired non-verbal behaviours and a lack of social and emotional reciprocity), as well as restricted, repetitive and stereotyped patterns of behaviour, interests and activities (e.g. an inflexible adherence to routines, repetitive motor mannerisms and a preoccupation with technical details).
Within this diagnostic formulation, reference is made to recommendations and future management issues that would enable Mr X. to maximise his strengths and develop his skills further.
**Child and Adolescent Core Placement Summary**

**Location:** North Downs Community NHS Trust  
Buryfields Clinic  
Guildford  
Surrey

**Dates:** September 1996 to March 1997

**Main Supervisor:** Olwen Wilson

**Co-Supervisor:** None

**Departmental Base:** Buryfields Clinic/ Royal Surrey County Hospital
**Child and Adolescent Placement Contract**

**Aims:**
1. To gain clinical experience of children with organic, cognitive, educational, emotional and behavioural problems in the pre-school and middle school age range. Some adolescence and family therapy experience will also be available.

**Objectives:**
1. To observe and work with a wide range of children with developmental, behavioural and/or emotional problems. This will be achieved by firstly observing and then working within the Child Development Centre and the Child and Family Consultation Service, using a variety of disciplines including neuro-paediatrics, speech and language therapy, physiotherapy, occupational therapy, social work, psychotherapy, family therapy, toy library, Opportunity Play Group, as well as psychology services across North Downs to include the Trauma Clinic, the Eating Disorders Clinic, the Challenging Behaviour Clinic, the Attention Deficit Disorder Clinic and the parent support groups for language disorder, autism and Asperger’s Syndrome.

2. To become familiar with a range of assessment tools and techniques, including developmental tests, intelligence tests, projective tests, questionnaires, video, one-way vision and radio microphones. Sample reports will be provided and a video teaching period will be offered. Independent client assessment will be arranged and one of these will be assessed through a one-way vision screen.

3. To experience working within a team of other professionals and liaise with the wider network of professionals working with children. Opportunities will be available to attend case conferences in schools and Social Services departments. Visits to schools and other child institutions will be organised.
Clinical work:
1. To develop interviewing skills with young children and their parents through independent referrals and joint work.

2. To practise assessment and therapy with a range of pre-school and school-age children individually, in groups and through parental management advice.

3. To liaise with other professionals working with children, including paediatrics, child psychiatry, speech therapy, physiotherapy, occupational therapy, nursery school teachers, special school teachers, educational psychologists, health visitors, ward staff, community nurses and general practitioners.

4. To research one particular topic from the clinical work and read material relevant to the clinical work.

5. To take opportunities to teach colleagues in allied professions (e.g. ward nurses).

6. To run a small project such as a social skills group.

Indirect or observational work:
1. Observation of supervisor and other professional working with children in the Children’s Unit, The Opportunity Play Group, The Child and Family Consultation Centre and the Child Mental Health Outpatients.

2. Visits to other centres including special schools, respite care, nursery schools, special units in normal schools and normal schools.

3. Attend case conferences and network meetings where appropriate.
Clinical Section

Professional:

1. To attend weekly supervision.

2. To attend speciality and professional liaison meetings where possible.

3. To keep accurate and up-to-date records of clinical work.
A 15-year-old girl, X., had been referred by her GP for urgent admission to the local hospital on the grounds of severe malnutrition. Following discharge, she was referred to the Child and Family Consultation Service for specific psychological input relating to her eating difficulties, as well as to her attitude to weight and shape, self-esteem, assertiveness, relationship difficulties and identity as a professional gymnast (the last of which inevitably required an exploration of the heightened awareness to her weight). At assessment, X. obtained a body mass index of 17 (undernourishment) and she scored significantly above the cut-off points on the majority of the eight subscales of the Stirling Eating Disorders Scales, which placed her in the eating disorders range. In terms of current symptomatology, X. displayed a persistent fear of being overweight and a dissatisfaction with her body shape, as reflected in her cognitions, feelings of self-blame and guilt. She had restricted her calorie intake significantly and had engaged in compulsive exercise and compulsive weighing.

X.'s difficulties were formulated from a systemic, a psychodynamic and a cognitive-behavioural perspective, although the intervention was based on the cognitive-behavioural formulation. Furthermore, based on a multi-factorial model of eating disorders, individual, familial, sociocultural, psychological and biological factors, as well as precipitating events and perpetuating factors were also considered. Thus, X.'s difficulties appeared to stem from a number of core beliefs about herself; feelings of low self-esteem, internal conflict, a wish for control and perfectionistic traits, which, in combination with high parental expectations and professional pressures to perform at the highest standard, led to a relentless cycle of starvation and exercise. The trigger for her current symptoms was seen as a comment by her coach, demanding further weight loss if she was to succeed at an international level of competition.
The cognitive-behavioural treatment plan was focused on providing X. with information and psycho-education; teaching her how to monitor and alter her maladaptive cognitions; problem-solving and assertiveness training; re-attribution techniques addressing her distorted body image; and systematic desensitisation techniques relating to her anxiety of progressive weight gain. Regular behavioural experiments and homework tasks reinforced the material covered during sessions.

Despite a slight set-back in weight gain, X. reported considerable physical and psychological achievements gained after seven sessions of therapy (e.g. normalisation of eating pattern and counteraction of obsessive compensatory and food-focused behaviours). These were also reflected in her improved scores on the Stirling Eating Disorders Scales, some of which however remained within the eating disorders range. Within the re-formulation of the problem, X.’s current progress and future recommendations are discussed.
Older Adult Core Placement Summary

Location: Heathlands Mental Health NHS Trust
CMHT for the Elderly
Farnham Road Hospital
Guildford
Surrey

Dates: April 1997 to September 1997

Main Supervisor: Ajay Kapoor

Co-Supervisor: None

Departmental Base: CMHT(E), Farnham Road Hospital
**Older Adult Placement Contract**

**Placement aims:**

1. To develop a knowledge of the role of different professionals within the CMHT(E) and of the range of services available to older adult clients. This is to be achieved through attending team meetings, shadowing members of staff and visiting services.

2. To develop skills in formulation, drawing on a range of models including cognitive, behavioural, systemic and possibly psychodynamic models.

3. To develop a knowledge of assessment tools used with this client group, including tools specifically designed for older adults and the modification of generic tools.

4. To have exposure to at least one intervention specifically designed for older adults.

5. To see approximately ten clients for independent treatment, covering a range of ages and, if possible, someone from a different ethnic background.

6. Desirable specific activities include:
   - Working with clients with organic, functional and ill-health problems (e.g. chronic pain)
   - Working with carers
   - Working in clinical areas including depression, bereavement, abuse, cognitive change with age, strokes, dementia, adjustment and adaptation difficulties, and mortality
   - Working in professional areas including consultancy and teaching
Older Adult Case Report Summary - Year II

Neuropsychological assessment of an older adult presenting with memory loss and a history of depression. The complexities of a differential diagnosis.

Following the discharge from the local psychogeriatric ward, Mrs X., a 68-year-old lady, was referred to the CMHT(E) for a psychometric assessment of her cognitive functioning, as well as for the possible involvement in counselling and the management of her memory deficits. A detailed clinical assessment was followed by an in-depth psychometric assessment, including the WAIS-R four subtest short form, the Schonell Graded Word Reading Test, the Graded Naming Test, the Wechsler Logical Memory Scale, the Rey Auditory Verbal Learning Test, the Warrington Recognition Memory Test, the Adult Memory and Information Processing Battery, the Hospital Anxiety and Depression Scale, the Hand-Eye-Ear Test and several unstandardised tests of motor and movement co-ordination. These tests revealed that Mrs X.'s general intellectual level was in the low average range and highlighted a marked decline in verbal and visual memory, which was above that expected in normal ageing. Her test performance and indirect behavioural information suggested difficulties in her short- and medium-term memory. However, despite her history, Mrs X. showed no current indication of depression.

These results are discussed in depth within the context of research literature, focusing on aspects of clinical presentations of both an early dementing process and depression, which are difficult to separate, as not mutually exclusive and often confused. As no clear differential diagnosis was established in this case, a therapeutic intervention was devised, which focused on Mrs X.'s present strengths (e.g. social and self-care abilities) and promoted her activity levels within a structured environment, so that she could retain her independence and experience some success. Regarding Mrs X.'s memory difficulties, approaches emphasising general stimulation, repeating information in order to improve retention, as well as secondary memory aids were employed. As Mrs X. demonstrated some learning ability, personal counselling seemed appropriate (e.g. at times using aspects of
Validation Therapy) and she was taught some cognitive-behavioural anxiety management techniques (e.g. relaxation and controlled breathing).

The therapeutic outcome after four sessions of intervention, the follow-up and the reformulation, as well as the strengths and weaknesses of this work, are discussed.
Forensic Specialist Placement Summary

Location: Broadmoor Special Hospital Authority
Crowthorne
Berkshire

Dates: October 1997 to April 1998

Main Supervisor: Beverley Brown

Co-Supervisor: Pat Short, Mary Hill, Fiona Clark

Departmental Base: Broadmoor Special Hospital
Forensic Specialist Placement Contract

Content of placement:

1. Formal hospital induction course including health and safety.

2. Placement orientation within the hospital, including the attendance of clinical team meetings on male and female wards of differing levels of security; shadowing a social worker; visiting patient education facilities and rehabilitation therapy services; observing the admissions panel, a mental health review tribunal and attending an Institute of Psychiatry forensic seminar. Visits to other forensic services, including Holloway Prison.

3. Clinical observation of supervisors and other professionals in direct clinical work and clinical/business meetings.

4. Clinical assessment activity, including the observation of a neuropsychological assessment and a joint admission assessment, followed by an independent neuropsychological assessment, an independent admission assessment and an independent psychosexual assessment.

5. Therapeutic interventions with a female patient referred for self-harm, eating disorder and a history of sexual abuse; a male patient referred for cognitive-behavioural therapy for schizophrenia; and an anger management group consisting of six male patients.

6. To gain knowledge of organisational and management issues by attending weekly department meetings, ward clinical team meetings and familiarisation with relevant policies.

Process of placement:

1. Specifying placement days, trainee office accommodation, regular supervision and secretarial support.
Mrs X., aged 26, who was held in a secure forensic environment under Section 37/41 of the Mental Health Act, with a diagnosis of psychopathic disorder, was referred to the team psychologist for assistance in exploring her history of sexual abuse, addressing her acts of deliberate self-harm and managing her anger. Mrs X. presented with a variety of difficulties, including a personality disorder with dependent and borderline features, depressive illness, bulimia nervosa, as well as a history of alcohol and drug abuse. The initial assessment revealed that Mrs X.’s conflicting feelings towards herself and others were mainly related to her extremely disruptive upbringing and a fragmented family life that was dominated by severe emotional, physical and sexual abuse. In particular, her recurrent self-harming behaviours and angry outbursts appeared to be triggered by direct or indirect exposures to past traumatic events (e.g. through phone calls from her father or post-traumatic flashbacks of abusive experiences). The initial formulation attempted to encompass all aspects of Mrs X.’s complex presentation, emphasising the development of internal representations of herself (e.g. schema) that contributed to the manifestation of a severe personality disorder of the borderline type and its associated characteristics (e.g. emotional instability, self-harm, anger, mood swings and turbulent interpersonal relationships).

As Mrs X. had engaged in previous therapeutic interventions, including cognitive-behavioural approaches and psychotherapy, and had expressed ambivalence regarding individual therapy in general, it seemed appropriate to invite her to work within an alternative framework such as the narrative model. The rationale and strengths of this model in relation to childhood sexual abuse are discussed in depth and therapy focused on current interactional patterns, taking a solution-focused and meaning-orientated perspective. Themes discussed during therapy sessions emphasised Mrs X.’s strengths; focused on exceptions and a conceptualisation of the future without her difficulties; attempted to deconstruct her abuse-saturated life
story; externalised her problems; and helped her to re-author her story, viewing herself as competent, in control and resourceful. The precise techniques and question styles used in therapy are described within the context of the current literature and various examples are given.

However, therapy was terminated prematurely after four sessions, due to Mrs X.'s unexpected re-traumatisation (an abusive phone call from her father) and subsequent withdrawal from therapy. Treatment was formally ended with a therapeutic letter written to Mrs X., which strongly reflected and reinforced the work she had undertaken within the narrative framework. The overall outcome, the strengths and weaknesses of this work, as well as a re-formulation, are discussed.
**Eating Disorders Specialist Placement Summary**

| **Location:** | Kingston & District Community Health Trust  
|              | Kingston Hospital  
|              | Kingston-upon-Thames  
|              | Surrey |
| **Dates:**   | April 1998 to September 1998 |
| **Main Supervisor:** | Rhona Trotter  
| **Co-Supervisor:** | Jo Ross-Gower |
| **Departmental Base:** | Kenley Extension, Kingston Hospital |
**Eating Disorders Specialist Placement Contract**

**Eating disorders team meetings:**
1. To attend team business meetings.
2. To attend day unit meetings.
3. To attend regular allocation meetings.
4. To attend multi-disciplinary team liaison meetings.

**Clinical work:**
1. Groups:
   To take part as a co-facilitator in two guided self-help groups for clients with eating disorders (12 sessions).
   To take part as a co-facilitator in a bi-monthly late evening eating disorders support group.

2. Individual:
   To see for assessment and/ or treatment a range of clients with bulimia nervosa, binge-eating disorder and anorexia nervosa (initial caseload five clients, to be reviewed after initial assessment to ensure adequate cover of the various diagnoses).
   To take part in review meetings of complex eating-disordered clients.

3. Consultation:
   To attend one case conference (multi-impulsive bulimic client).
   To attend complex child protection conference involving multi-impulsive bulimic client.
4. Other:

To attend one national Eating Disorders Special Interest Group.

To attend liaison meetings with multi-disciplinary eating disorders team members.

To attend individual meetings with involved professionals, including consultant psychiatrists, clinical nurse specialists, occupational therapists, dieticians and day unit psychologists.

To attend psychology department meetings and seminars.
Research Section
Summary of the Research Section

This section contains three research components submitted over the three years of clinical training. All of these research components focus on the general topic of eating disorders, although each piece of work discusses entirely different aspects of this pathology. The first component is a literature review from the first year, reviewing the recent findings on anorexia nervosa and bulimia nervosa in males. The small-scale research project completed in the second year evaluated a community-based eating disorders service for adolescents by specifically examining the levels of parental and adolescent satisfaction. This project was conducted within a placement and therefore the work considers service implications in addition to theoretical aspects. The large-scale research project from the third year investigates the association between eating disorders and personality characteristics in a female special hospital population.
Literature Review - Year I

**Anorexia Nervosa and Bulimia Nervosa in Males:**

* A Review of Recent Findings.

**PREFACE**

Eating disorders in general have a long-standing history regarding their classification, aetiology and treatment. The occurrence of these disorders in males particularly has been a source of interest and controversy in psychology and medicine for several hundred years. However, the presentation of eating disorders in males has been periodically neglected and has only recently been placed back at the forefront of research. This in itself reflects an increased awareness and acknowledgement of the occurrence of these disorders in males. However, whilst issues concerning eating disorders in males are beginning to be re-explored, more questions than answers exist.

Because of its relative rarity, the condition in males remains relatively poorly understood and documented. However, the recent trends in industrialised countries emphasising the value of thinness and fitness may suggest that these disorders may be increasing in males, although their presentation may differ from that typically displayed in females. Indeed, clinical reports of eating disorders in males provide tentative evidence that these conditions in males are on the increase (Hartley, 1994). In addition, personal accounts of men suffering from anorexia nervosa or bulimia nervosa have emerged in health sections of magazines, newspapers and even in TV documentaries. Those accounts often highlight that even professionals do not readily recognise the presenting symptoms, and therefore the number of undiagnosed eating disorders in males might be substantial.

This review focuses solely on anorexia nervosa (AN) and bulimia nervosa (BN) in males and provides an overview of current issues of relevance to their occurrence. These issues include the diagnostic definition of eating disorders, their history in males, characteristics in prevalence and presentation, male-specific epidemiological risk factors and interventions. The review comprises the presentation of AN and
BN in males as a domain in its own right, as well as highlighting similarities and
distinctions from females, with regard to the characteristic features, predisposing
factors and treatment aspects. The term ‘males’ will be employed throughout the
review as it includes boys, adolescents and adult men.

I. INTRODUCTION
The predominant interest in anorexia nervosa and bulimia nervosa has been in
relation to their occurrence in females, although there have been recent reports of
the expression of these disorders in males (Crisp & Burns, 1983; Robinson &
Holden, 1986; Turnbull, Freeman, Berry & Annandale, 1987). Several factors
emerge which highlight the difficulties in diagnosing males with eating disorders,
and which might serve as a potential explanation for the relative neglect of eating
disorder diagnoses in the male population.

i) Definition
Some standard classification systems contain overly restrictive and somewhat
quantitative criteria for making an eating disorder diagnosis. Some even exclude
males due to the diagnostic criteria requiring the presence of amenorrhea (in AN).
This is the case in the current Diagnostic and Statistical Manual of Mental
Disorders (Fourth Edition) (DSM-IV; American Psychiatric Association [APA],
1994) where the disorder must include the absence of at least three consecutive
menstrual cycles in order for AN to be diagnosed in females. However, there is no
mention of a comparable diagnostic requirement for males, which has led some
researchers to question the validity of this sex-based criterion (Scott, 1986;
Andersen, 1992). In addition, the psychodynamic notion of ‘fear of oral
impregnation’ (Kessler, 1966) clearly excludes males from a diagnosis.
Consequently, this poses a major limitation and highlights a need to modify the
diagnostic criteria so that a formal inclusion of both sexes can be accommodated.

Relevant to the diagnostic definition of AN or BN is the central psychopathological
fear of fatness and attempts of self-induced weight loss. Thus, incorporating the
above critique, a non-gender-biased definition for AN could entail a self-induced
loss of substantial amounts of weight; a morbid and pervasive fear of fatness; a disturbed body image and an abnormality of reproductive hormone functioning (e.g. in males lowered testosterone levels are a direct consequence of excessive weight loss) (Russell, 1979). BN in contrast could be characterised by a morbid fear of becoming fat, as well as compulsive and repeated binge episodes, leading to physical and psychological distress, followed by a variety of compensatory behaviours to avoid weight gain.

For this review, however, the close relationship between AN and BN will be emphasised, in order to acknowledge that these syndromes are points along a single continuous spectrum of disorders rather than separate unrelated entities, as eating disorders arise de novo but also develop out of each other (Russell, 1979).

ii) History

In any clinical area where a research interest has only recently been developed, the literature is likely to include case studies, as well as initial anecdotes for information and speculation. However, eating disorders in males have been recognised for as long as they have in the female. Slade (1984) even suggested that the number of male anorectics appearing in early medical accounts raises the question of whether it is only in the last century that AN has been a predominantly female illness.

In 1694, R. Morton, a London physician, presented the first well-documented cases of AN in the English language. One of them was a Minister’s son who, once removed from his home and provided with a milky diet, showed marked improvement on his self-induced emaciation. Further male AN cases reported in eighteenth-century medical history include R. Whytt’s (1764) report of a boy who, after losing a lot of weight suddenly switched to bulimic behaviour; and R. Willan’s (1790) account of an English man who died after fasting for 78 days. In 1874, following W. Gull’s acknowledgement of the occasional occurrence of AN in men, the term ‘Anorexia Nervosa’ was being introduced, in preference to ‘Anorexia Hysteria’, as hysteria was considered a uniquely female condition.
However, during the current century, the occurrence of AN in males has been remarked upon less frequently, partly due to the restrictive diagnostic criteria, as well as socioculturally determined stereotypes that males do not develop eating disorders. Crisp (1967) initially re-emphasised the occurrence of AN amongst male patients and research rapidly emerged, including clinical reviews of AN in males by Beaumont, Beardwood and Russell (1972) (including a total of 250 male AN patients); Crisp and Burns (1983); Vandereycken and Van den Broucke (1984) (including 107 individual male cases of AN); Sterling and Segal (1985); and Scott (1986) (including 59 cases of male AN).

The history of males with BN has not been discussed as widely in the literature, because BN was not formalised as a separate diagnostic entity until the late 1970’s (Russell, 1979). However, a few reports exist on the topic including Mitchell and Goff’s (1984) description of 12 males suffering from BN, as well as the findings on three male bulimics presented by Gwirtsman, Roy-Byrne, Lerner and Yager (1984).

II. PREVALENCE
Several studies have attempted to establish a reliable prevalence rate for the occurrence of eating disorders in males. However, the obtained estimates need to be viewed with caution, as these studies often differ in their diagnostic criteria and sampling methods, and it is therefore difficult to reach an overall conclusion. Nevertheless, estimates of the adult male/ female ratio in eating disorders have been reported as varying between 1 to 10 (Vandereycken & Van den Broucke, 1984) and 1 to 20 (Hall, Delahunt & Ellis, 1985). Other researchers, including Andersen (1988) found that 10% of all cases presenting at an eating disorders clinic were male. Similarly, Rastam, Gillberg and Garton (1989) reported an eating disorder prevalence of 10 females to 1 male in a community-based study.

In addition to the above limitations in the prevalence literature, different estimates also depend on the symptomatic aspects examined. For example, Halmi, Falk and Schwartz (1981) found that 5% of male college students experienced binge-eating...
but not all purged or experienced a fear of fatness. In contrast, a study using stricter inclusion criteria, reported a lower percentage of 0.5% of males displaying bulimic features (King, 1986; 1989).

Studies also suggested that in the younger age group, the male/female ratio of eating-disordered patients is higher than in adults. Bryant-Waugh, Knibbs, Fosson, Kaminski and Lask (1988) found that 27% of children aged 8-14 in an AN study were male. This is a larger figure compared to the above estimates of males with AN in older onset patients. Similarly, Jacobs and Isaacs (1986) found 30% of their pre-pubertal anorectics to be male, while Higgs, Goodyear and Birch's (1989) study included 8 boys (30%) from a total of 27 cases of AN in subjects aged between 8-16 years. In a Norwegian study, Nielsen (1990) reported that 20% of their anorectic patients aged between 10-14 years were boys. These consistent figures suggest that in children, males are more likely to present with an eating disorder than is the case in older patients, because around 20-30% of young clinic populations with eating disorders (especially AN) are male. This could be explained by using Slade's (1982) aetiological model of eating disorders, suggesting that the background and precipitating factors for developing these disorders might be less sex-specific for children than older patients (Bryant-Waugh, 1994). For example, commonly identified contributory factors, such as parental separation, are not related to sex and therefore might be one of the reasons why the sex imbalance in the eating disorders ratio is less marked in children than in adults. However, this hypothesis requires further scientific exploration.

Explanations for the lower prevalence of AN/BN in males
Researchers have suggested a variety of biopsychosocial explanations for the number of eating disorders remaining undiagnosed in males and the low prevalence of eating-disordered male patients in general.

i) Biological explanation
A biological explanation for the low prevalence of eating-disordered males emphasises the basic physiological differences between males and females in
hormonal, endocrinological and neurotransmitter levels, as well as different percentages of stored body fat. Andersen (1992) suggested that the high ratio of testosterone to oestrogen in males appears to contribute to the increased ratio of lean muscle to body fat. Thus, the fact that men generally have a lower percentage of body fat than women, due to its gender-specific functions, might be related to the rare reports of eating disorders in males (Frisch, 1988).

ii) Psychosocial explanation
Most researchers favour psychosocial rather than biological reasons to explain the differential rate of eating disorders in males and females. As noted above, discrepancies between theoretical diagnostic measures may partly account for the lower reported prevalence rates of eating disorders in men. Furthermore, it has been argued that males are reluctant to seek help for stereotypical female disorders (Schneider, 1991) and that those with eating disorders are too embarrassed to report their symptoms to doctors (Andersen & Mickalide, 1983). In addition, males might assume themselves not to be vulnerable, because of the view that eating disorders only occur in adolescent females. Similarly, professionals themselves may fail to diagnose the condition in males. Bhanji (1979) reported that 40% of internists and 25% of psychiatrists believed that AN is only found in the female sex. More recently, Whyte and Kaczkowski (1983) found that 25% of psychiatrists and psychologists considered the female sex as a basic characteristic, particularly of AN and the researchers therefore concluded that eating disorders were often considered not to exist in men. Scott (1988) additionally suggested that clinicians may find it difficult to diagnose eating disorders in males due to an emphasis on somatic complaints in males which might obscure the central psychopathology.

It has also been suggested that adolescence (often the time of onset for eating disorders) is qualitatively and quantitatively more difficult for females than males (Gomez, 1991). Psychodynamic interpretations of these biological differences have led to suggestions that during puberty, girls experience more radical changes in body shape and that the male counterpart to menstruation, ejaculation, is less frightening to the male. Boys have therefore less conflict regarding self-assertion at
the onset of puberty, whereas in girls the high incidence of eating disorders is a
defence against conflicts in sexual emergence (Sours, 1980).

iii) Sociocultural explanation
Many researchers have focused on further sociocultural factors to explain gender-
specific vulnerabilities in eating-disordered populations. It has been established that
more females than males diet to lose and control weight (Hsu, 1989) and that
female magazines promote and contain articles and advertisements of weight loss
up to ten times more often than comparable male magazines (DiDomenico &
Andersen, 1990). This might suggest that the proportionality between the
sociocultural emphasis on weight loss in females to males is correlated to the 10:1
ratio of cases of eating disorders. These suggestions are confirmed by findings
reporting that vulnerable male subgroups show an increased incidence of eating
disorders, proportional to the emphasis of that subgroup on weight loss. Athletes
like wrestlers (Steen, Oppliger & Brownell, 1988) and jockeys (King & Mezey,
1987) show eating abnormalities to attain low weight, which in turn mirrors the
increased rate of eating disorders in comparable female subpopulations such as
dancers or models. These results suggest that whenever weight loss is required for
a subgroup of individuals, there is an increased incidence of eating disorders.

Schneider (1991) additionally suggested that eating-disordered men often worked
out excessively in an attempt to look more masculine, in contrast to anorectic
females who exercised excessively to avoid looking feminine. The fact that males
tended to exercise more excessively to stay thin rather than vomit or restrict food
might also cloud the true prevalence rates of eating disorders in males, as it is more
socially acceptable for men to exercise to excess than it is for women.

Summary
In summarising the above hypotheses concerning the gender-specific prevalence
rates of eating disorders, the balance of evidence suggests that these behavioural
disorders are primarily triggered by socioculturally mediated pressures, even
though there may be important secondary biological contributions to their
perpetuation. Furthermore, it can be hypothesised that if society placed as much pressure on males to lose weight as is the case for females, there would be an increase in the prevalence of eating disorders amongst men. However, it appears that the highlighted methodological and diagnostic limitations in this area of eating-disorder research require some further attention before these findings can be fully validated.

III. PRESENTATION

i) Similarities

Several researchers concluded that there is little difference between the sexes in terms of the physical, behavioural and cognitive features of the disorder (Sterling & Segal, 1985). The researchers reported that apart from obvious physiologically related differences in presentation (amenorrhea); the onset, weight loss, emaciation, hormonal changes and other starvation or binge/purge-related symptoms are the same. Both sexes also reported a fear of fatness, a refusal to maintain a normal body weight, body-image difficulties, compensatory behaviours and a rigidity in thinking (Sterling & Segal, 1985). These findings generally apply to children, as well as adults, with eating disorders, even though research has shown that a greater proportion of boys present with other disorders characterised by low weight and eating difficulties (Bryant-Waugh, 1994). Furthermore, in boys, food refusal and fear of becoming fat appeared to be linked to the notion of health and fitness rather than to ideal body shape.

In an early comparison, Beaumont et al. (1972) reported that the clinical picture of eating disorders in adult males was similar to that in females. The illness started in adolescence; nearly half of the patients were previously obese and food refusal was often made on the grounds of medical complaints. The researchers also reported that 13 out of 25 male patients displayed purging, vomiting and strenuous exercise, as well as preoccupations with weight and obsessional behaviour. Vandereycken and Van den Broucke (1984) reached a similar conclusion regarding the presentation of eating disorders in both sexes and reported similarities regarding ‘anorectic behaviour’, distorted body image, as well as physiological changes. The
researchers did however report that males were more obsessional and manipulative. Scott (1986) similarly reported no significant gender-dependent differences between males and females with AN regarding their symptomatology, epidemiology, endocrinology and outcome of syndromes. More recently, Woodside, Garner and Rockert (1990) found male patients to be no different from female patients, either clinically or in terms of treatment response.

ii) Differences

Other research, however, has highlighted that there are significant differences between male and female eating disorder cases, particularly regarding premorbid factors as well as presentation. Crisp and Toms (1972) reported that eating disorders in males involved a greater pathology than in females; that males were more difficult to treat and presented with greater psychosexual conflict. Other studies, however, have not confirmed these specific findings (Mintz, 1983). Nevertheless, more recent findings supported the notion that males tended to manifest BN more severely (Schneider & Agras, 1987) and that males in general seemed to be more disturbed and more difficult to treat (Yager, Kurtzman, Landsverk & Wiesmeier, 1988).

Crisp, Burns and Bhat (1986) compared the clinical features and prognosis of 102 anorectic females to 36 male AN cases. They concluded that both sexes suffering from AN displayed similarities, but also noted that males were significantly less concerned about their superficial fatness and more concerned about lean body mass and its significance for strength, dominance and masculinity. Males were also more likely to be premorbidly athletic. Drenowski and Yee (1987) documented a parallel dissatisfaction with body weight in males and females, with the significant difference that men were split between those wishing to lose weight (40%) and those wishing to gain weight (45%), whereas women only wanted to lose weight. They also reported that men usually exercised, whereas women lost weight purely by dieting. The researchers therefore proposed that the major risk factor for developing an eating disorder may be the dieting pattern itself and that the actual
behaviours relating to diet and exercise may be the crucial difference between the sexes with respect to the aetiology of eating disorders.

Confirming the above findings, Andersen (1988; 1990; 1992) identified a cluster of interrelated factors specific to males prior to their actual presentation of dieting behaviour. Males were reported to have a desire to promote muscle definition rather than thinness. They displayed a perceived abnormality in body shape and strived for a more masculine definition of muscles. In addition, they often suffered from pre-illness obesity as a consequence of which they experienced negative social consequences of being fat during puberty. Their reasons for dieting were more often related to sporting activities and fitness in order to gain more self-esteem. Men dieted to prevent weight gain following a sports injury or to become more attractive to homo- or heterosexual partners. Males also dieted to avoid a medical illness they had observed developing in their families, which was related to weight. Thus, the researchers suggested that males seemed to be more sensitive to this particular aspect than females. Andersen (1992) also highlighted that males reported a desire to avoid looking like their obese fathers, with whom they were conflicted. However, these ‘father-son conflicts’ relating to the onset and maintenance of eating disorders in males are not fully explored and have to be viewed with caution. In addition, the study highlighted that the sample of males displayed extreme personality vulnerabilities, as well as a considerable degree of distress regarding their sexual identity. Males were reported to have suffered more significant difficulties relating to their sexual orientation, rather than actual sexual abuse prior to their eating disorder. Men were also found to experience a gradual decrease in testosterone and a change in libido and sexual performance with a progress in illness. However, no study has yet examined the possibility that a pre-existing testosterone deficiency can either directly or indirectly influence the onset of eating disorders in males, since the resulting problems of body image and low self-esteem might be related.

Regarding the link between the occurrence of eating disorders and social class, it has been reported that AN amongst females is over-represented in upper social
classes (Jones, Fox, Babigian & Hutton, 1980), although other studies suggested that eating disorders were equally distributed throughout all social classes (Garfinkel & Garner, 1982). In relation to males, Palmer (1980) noted that the social class bias may be even less evident, with relatively more males coming from 'working-class' homes. This is in line with previous findings that male anorectics tend not to display social class skewing (Marshall, 1978).

Summary
In sum, it can be concluded that the presentations of AN and BN are generally more alike than dissimilar in males and females, and that the differences observed in terms of psychopathology may warrant speculation as to the relative contribution of cultural factors for males and females who develop the disorder. Additionally, some of the minor differences observed might also be due to chance or selection factors and therefore their scientific value might be limited. However, it appears that several premorbid factors might be more specific to males than females. These include the repeated findings that male patients have a premorbid history of obesity; that their resulting shape-consciousness focuses on masculine muscle definition rather than thinness; that they often exercise excessively; that they diet in relation to sports; and that they frequently display conflicts regarding sexual orientation.

IV. EPIDEMIOLOGICAL RISK FACTORS
Following the identification of several re-emerging symptom themes that might be related to the vulnerability of males developing an eating disorder, further empirical evidence is reviewed, with particular reference to athleticism, sexual orientation, sociocultural and family factors.

i) Athleticism
Athletes and males with eating disorders share many features regarding values, personality, identity and participation in subgroups of society. Research has shown that disorders of eating behaviour have close ties to athletics, especially in males, who tend to display an over-valued preoccupation with body size and shape
Athletes, like eating-disordered patients, make substantial psychological and physical investments in their body, in order to accomplish important goals. Similarly, the body represents the essential tool for achieving an important personal value and it is the source of glory/dishonour or self-satisfaction/self-rejection. Therefore, it carries a large proportion of the male's sense of self-esteem. Additionally, both groups intensely scrutinise their body appearance and performance by weighing themselves and measuring muscle size or strength. Their personalities share common features due to high commitment, drive, perseverance, compulsivity and perfectionism (Andersen, 1992b), all of which are associated with 'success' in sports as well as eating disorders (especially AN). BN and athleticism share impulsivity, risk-taking and self-dramatising (Andersen, 1992b), all of which are features valued in many sports. Athletes and eating-disordered patients also share many sociocultural subgroup identifications. Therefore, in groups like jockeys, divers, skaters and runners, athletic commitment and eating disorders can overlap and may produce similar medical consequences (MacConnie, 1986).

More males than females are involved in athletics and seek an alteration of body shape rather than weight (Andersen, Woodward, Spalter & Koss, 1993). Their fear of fatness concerns the body as a whole and is not focused on any particular body area (Dally & Gomez, 1979). In this context, Schneider (1991) emphasised the finding that it is more socially acceptable for men to exercise to excess than for women.

However, male athletes with eating disorders are special cases even when compared to other male athletes. Case studies of male athletes with eating disorders (Andersen, 1992b) often present young males who were dissatisfied with their body shape and subsequently dieted to achieve muscular definition rather than low weight. Thus, Andersen concluded that the critical difference between athletes and eating-disordered males is the presence of the defining psychopathology and the inability to restore their eating pattern. However, it can still be difficult at times to distinguish the eating-disordered patient and the committed athlete who displays
dysfunctional eating behaviours (Turner-Depalma, Koszewski, Case, Barile, Depalma & Oliaro, 1993) or starves himself voluntarily by using laxatives, diuretics, appetite-suppressants and saunas (King & Mezey, 1987).

Summary
In sum, research has shown that athletes and eating-disordered males share many common features. Both of these might be difficult to differentiate at times, possibly resulting in an elevated number of ‘subclinical eating disorder’ diagnoses (Thiel, Gottfried & Hesse, 1993). However, the evidence is unclear whether athletics itself increases the risk of developing an eating disorder or whether males with abnormal eating patterns and body-image distortions seek out particular sports. Nevertheless, in terms of preventing the increase of eating disorders amongst males in this area, it has been suggested that sports coaches should be made more aware of the dangers of motivating or demanding unwise degrees of weight loss to increase sports performance (Andersen, 1988; Zerbe, 1992; Turner-Depalma et al., 1993).

ii) Sexual orientation
It has often been suggested that psychosexual factors play an important role in the development of eating disorders in general and that those individuals with eating disorders are psychosexually immature. However, the clinical picture of AN and BN appears to differ for males and females in this area, with more eating-disordered males exhibiting gender dysphoria or homosexual orientations than their female counterparts. Overall, the literature on sexuality in eating-disordered males is scarce and presents a complex issue, which involves information that is difficult to obtain reliably and objectively.

There has been considerable conflict over issues of gender identity and sexual orientation as a precipitating factor for the development of eating disorders in males. Many researchers have reported a high incidence of homosexuality in males with eating disorders (Herzog, Gordon, Norman & Pepose, 1984; Robinson & Holden, 1986; Schneider & Agras, 1987; Carlat & Camargo, 1991), whereas others do not indicate any increase in homosexual orientation amongst eating-
disordered males (Hall, Delahunt & Ellis, 1985; Pope, Hudson & Jonal, 1986; Turnbull et al., 1987).

Support for an association between eating disorders and homosexuality in males

Herzog, Bradburn and Newman (1990) compiled a table containing the percentages of eating-disordered males with a homosexual orientation, identified in various studies. This table is presented here in a modified form, in order to highlight important previous findings:

<table>
<thead>
<tr>
<th>Percentage of Males with Homosexual Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anorexia Nervosa</strong></td>
</tr>
<tr>
<td>Langdon-Brown (1931)</td>
</tr>
<tr>
<td>Dally (1969)</td>
</tr>
<tr>
<td>Hasan &amp; Tibbetts (1977)</td>
</tr>
<tr>
<td>Herzog et al. (1984)</td>
</tr>
<tr>
<td>Fichter &amp; Daser (1987)</td>
</tr>
</tbody>
</table>

| **Bulimia Nervosa**                           |
| Herzog et al. (1984)                          | 50% (n=14) |
| Robinson & Holden (1986)                      | 33% (n=9)  |
| Schneider & Agras (1987)                      | 27% (n=15) |

The above data indicate that eating-disordered males have a suggested tendency towards homosexuality. In contrast, it could be argued that males experiencing difficulties regarding their sexual orientation might have an increased risk for developing an eating disorder, as noted by several authors who have reported a homosexual conflict preceding the onset of eating disorders in up to 50% of male patients (Crisp & Toms, 1972; Scott, 1986). Andersen (1992b) has stated that there is a two-to-five-fold increase in homosexual orientation amongst eating-disordered males compared to the general population, but that these males still represent a minority of patients. However, there is a lack of agreement about the
degree to which homosexuals are over-represented in samples of males with eating disorders and the actual incidence of homosexuality amongst those males in the community not presenting for treatment is not known (Andersen, 1992).

Regarding specific characteristics displayed by homosexual eating-disordered patients, Herzog et al. (1984) remarked upon the significant degree of sexual isolation and sexual inactivity amongst their male bulimic patients displaying a homosexual orientation. Yager et al. (1988) reported more problems revolving around eating-related issues in their homosexual sample than in their heterosexual control group. Schneider, O'Leary and Jenkins (1990) presented similar findings by observing a relationship between gender, sexual object choice and eating attitudes. They also reported that homosexual men have more problems with eating-related issues than heterosexual men. Herzog, Newman and Warshaw (1991) found similar results, with homosexuals being more likely to be underweight and less satisfied with their body build compared to heterosexual men.

Tentative explanations for the association between eating disorders and homosexuality in males

As the causal relationship between eating disorders and homosexuality in males appears unclear, the above findings raise the question concerning the nature of the link between eating disorders and homosexuality in males. Schneider (1991) proposed that many men with eating disorders are homosexual because of the psychodynamic underpinnings of the eating disorder. Hence, both gender identity difficulties and eating disorders represent pathological adaptations to early development. If disturbed during this process of development, the simultaneous evolution of gender identity and self-feeding creates the likelihood that a disturbance in one may catalyse a disturbance in the other. From this point of view, it is not surprising that few men with a typical gender identity become eating-disordered and in fact eating disorders are not found in highly masculine males. Schneider therefore concluded that the issues related to eating disorders are not homosexual object choice but core gender identity.
These parallels between specific family dynamics for homosexual males and those with eating disorders have also been noted by other researchers (Dally (1969) for anorectics; Freund & Blanchard (1983) for homosexuals). Fichter and Daser (1987) reported that their homosexual male patients had poor relationships with their fathers and close relationships with their mothers. However, the connection between family dynamics and males developing an eating disorder as well as a homosexual orientation is still regarded as speculative.

Other researchers suggested that there is a high incidence of eating disorders amongst gay males because they aim to adopt a 'female' role with their physical appearance (Gordon, 1990). Therefore, the cultural pressure within the gay community to be thin and attractive places the homosexual male at a greater risk for developing eating disorders (Schneider & Agras, 1987). Crisp (1970) suggested that the homosexual conflict in the eating-disordered male might play a comparable role to that of the heterosexual threat in the female. Recent studies (Schneider et al., 1995) supported this, by reporting that gay men and heterosexual women were similar in disordered eating patterns and disinhibition, contrasting with lesbians and heterosexual men. Thus, the suggestion that homosexual males feel similar cultural pressures toward slimness as heterosexual females should stimulate future research focusing on both risk groups. In addition, it would be of interest to investigate the relative lack of female homosexuals in the eating disorder population; and to address the question of whether they have been neglected or whether they are protected, for example by investing less in conventional norms of attractiveness (Stein, 1989; Heffernan, 1994).

**Absence of support for an association between eating disorders and homosexuality in males**

In contrast to the above studies, Crisp et al. (1986) found no evidence of homosexual activity in their male patients, but reported a noticeable lack of assertive masculinity or identification with normal interests of the respective male age group. Pope et al. (1986) found only 1 of their 15 bulimic males to be homosexual. These findings led researchers to suggest that a possible conflict in
sexual orientation amongst eating-disordered males is probably not due to some specific sexual inclination but rather to a general lack of sexuality (Scott, 1987). Andersen (1988) further argued that younger male patients were generally sexually immature on the basis of their weight loss, rather than being bisexual or homosexual. This was confirmed by findings of Beaumont et al. (1972) who suggested that food refusal in males was related to fears about sexuality, because patients were sexually immature or lost sexual interest during the course of the illness. Crisp and Toms (1972) reported the absence of sexual activity at either the behavioural or the fantasy level in their male group. Fichter and Daser (1987) and Herzog et al. (1990) noted that male anorectics displayed a degree of anxiety with regard to sexual activities and relationships, and especially those with a teenage onset of the disorder showed 'sex disgust' similar to that found in anorectic girls (King, 1963). It has been suggested that this presence of restricted pre-illness sexual activity among anorectic males was due to the psychological conflicts about sexuality in general and low testosterone levels, rather than homosexual tendencies (Crisp & Burns, 1990).

Summary

It can be concluded from the above evidence that many cases of males with eating disorders exhibit some form of sexual disturbance (sexual isolation, sexual inactivity, conflicted homosexuality) and several studies suggested that homosexual men are over-represented in samples of eating-disordered males. However, not all researchers have found this association and other explanations, not necessarily promoting a link between homosexuality and eating disorders in males, have been suggested. For example, clinical samples may under-represent heterosexual men who might be more reluctant to seek help for this 'female' disorder. Homosexual men in turn might be over-represented in psychiatric populations. Nonetheless, the fact that many samples of eating-disordered males included a high number of homosexuals should stimulate research into the relationship between eating disorders and male homosexuality. Despite individual differences in sampling and diagnostic criteria, this research has so far suggested that psychosexual conflicts, as
well as sociocultural pressures for homosexuals, may contribute to the
development of eating disorders in those males.

iii) Sociocultural factors

Women are generally exposed to greater cultural and societal pressures than men (Garner & Garfinkel, 1980). These are often expressed powerfully through the media. However, recent sociological and cultural phenomena have influenced male attitudes and behaviours concerning their weight and shape, possibly resulting in a greater vulnerability of developing an eating disorder. For example, the media exploits men within this process, as male products are often promoted through the inclusion of 'ideal' and 'successful' role models. Andersen et al. (1993) reported that the media portrayed females as concerned with their weight and males as obsessed with their physical fitness. They concluded from their 'magazine study' that articles targeted at males contained significantly more shape-focused aspects.

The changing role of women in society may also lead the less secure male to question his own identity. For example, Slade (1984) noted the lack of aggression in anorectic males. Their less assertive attitudes made them feel uncomfortable with the social pressures to be dominant. Dieting to the stereotypical V-shape was suggested to make them feel more masculine and respectable.

Additionally, there is a great emphasis on strength and power in the male as displayed in physical terms, for example in films. Even as children, boys do not experience strong pressures to be slim, but rather fit and strong; with fatness symbolising undesirable attributes such as weakness, passivity and ‘babyishness’. This physical fitness can be achieved through exercise and diet. In confirmation of this hypothesis, Cash, Winstead and Janda (1986) found that males were significantly more likely than females to feel good about their bodies if they were fit and exercised regularly.

Furthermore, there is a high emphasis on a successful career and the male is often seen as the financial provider of the family. However, little is mentioned concerning
the male satisfying his own emotional needs. This might create a confusing pressure for some, which might lead to an internal conflict (for example as expressed in an eating disorder) and the more sensitive man as a result might question his role in society, as well as his personal identity.

Summary

In sum, the research examining the influence of sociocultural factors on male eating and dieting behaviours is limited. However, various hypotheses have been explored that emphasise gender-stereotyping and sociocultural pressures on men, that, similarly to those identified for women, might make them more vulnerable to developing an eating disorder.

iv) Family factors

With regard to family factors, Sreenivasan (1978) suggested that men view eating disorders as a rebellion against society's image of the ideal male and the consequent adult responsibilities. He reported that eating-disordered males tended to be immature, overdependent, obsessional and displaying hostility in the father-son relationship (a finding reported by Langdon-Brown (1931); and more recently by Schneider (1991)), as well as displaying overprotection and overdependence in the mother-son relationship. Mothers were described as oversensitive and insecure, whereas fathers typically projected the cultural image of masculinity, including overindulgence in alcohol (Sreenivasan, 1978). Both parents were overweight, especially the fathers. This presence of a distant father and an intrusive mother may have influenced the males' sensitive personality features during critical phases of development. In cases of especially demanding and abusive fathers, sons attempted to change their body size and shape as a way to protect themselves from repeated abuse from the father (Schneider, 1991).

Alternatively, Kearney-Cooke and Steichen-Asch (1990) suggested that during early development some males fail to become more autonomous within the family system, which in turn might have deprived them of experiences needed to develop attitudes that would distinguish them as individuals. Therefore, in a culture
emphasising thinness, having the perfect lean body could provide an opportunity for these males to attain an identity.

Summary

In conclusion, it seems that general sociocultural reinforcements for thinness are especially directed towards women (Garner & Garfinkel, 1980) and that men with eating disorders are often members of subgroups that emphasise weight loss, often promoting dieting or shape-changing behaviour through reinforcement. However, a more in-depth understanding of those sociocultural forces influencing body shape and size in males may help us to understand why eating disorders are less frequent in males, why they occur in those males who experience them and why eating disorders are over-represented in certain subgroups of the male population. Moreover, a better understanding of these sociocultural forces could highlight strategies for the prevention of eating disorders, which might ideally include the modification of societal norms that have such powerful influences on individuals.

V. INTERVENTIONS FOR MALES WITH EATING DISORDERS

The similarities and differences highlighted above illuminate the basic nature of eating disorders in males and provide helpful guidance in specific treatment programmes.

Treatment response and prognosis for males

In general, clinical reporting of eating disorders in males is hampered by the relative rarity of the condition. Follow-up studies of treatment are affected in the same manner, as researchers have been reluctant to include males in common studies because of the problems of assessing outcome in a uniform manner, as the return of menstruation has been relied upon heavily as a measure. Hsu's (1980) review of outcome literature demonstrates this, since only 23 cases were male (2.9%) out of a total of 787 patients.

However, the empirical evidence regarding treatment responses and prognoses for males in the existing literature showed that opinions vary throughout. Three early
attempts have been made to follow up eating-disordered males and assess their outcome. On the basis of case histories and early descriptive studies, the outcome in males has been thought to be better (Dally et al., 1979; Hasan & Tibetts, 1977) and worse than in the female (Crisp & Toms, 1972). More recently, reports of outcome assessments in males with eating disorders have continued to produce conflicting findings, due to small sample sizes with possibly smaller proportions of extremely severe male cases. Some researchers stated that there is no current evidence that males with eating disorders have a worse prognosis than females (Andersen & Mickalide, 1983). Vandereycken and Van den Broucke (1984) even concluded in their review that males had a better prognosis than females. Scott (1986) compiled 59 cases of male patients using exercise and compensatory behaviours to aid weight reduction and found that 55% of patients had a favourable outcome.

Burns and Crisp (1984) presented the outcome of 27 male anorectic patients who were followed up over a period ranging from 2-20 years. The results indicated that the course and outcome of the disorder, as well as those identified factors associated with the outcome in the male, were very similar to those in the female. Predictors of outcome included the severity of the disorder, social adjustment and premorbid psychosexual development. The researchers defined outcome in terms of physical and psychological recovery. This was assessed by weight gain and sexual activity, since it was suggested that decreased potency in the male is the equivalent to amenorrhea in the female as an outer sign of hormonal disturbance. Sexual activity in turn was taken as an indicator of potency in the male. The researchers reported 12 patients (44%) with a good outcome; 7 patients (26%) with an intermediate outcome; and 8 patients (30%) with a poor outcome. They also noted less purgative abuse and vomiting in males, as well as the earlier return of sexual functioning in men than in women. In comparison to the female outcome, this study showed a trend toward a marginally better prognosis in the male, although this was not statistically significant. Overall, it was concluded that menstrual functioning seemed a better indicator of stable weight restoration than is sexual functioning in the male, because information on sexual functioning is less accurate.
In another study, Crisp et al. (1986) compared female to male anorectics matched in terms of clinical characteristics and prognosis and found no significant differences between the two groups in terms of outcome. Similar findings have been reported by Hall et al. (1985) who found a comparable outcome in male anorectics compared to their female patients at a three-year follow-up. Additionally, Woodside and Kaplan (1994) concluded that eating-disordered males can be treated in group therapy settings where most patients are female and that their overall treatment responses were similar. In children, boys with eating disorders were found to show a similar variation in outcome to girls (Bryant-Waugh, 1994).

Generally, it has been noted that the more ill a patient is, the less the patient’s gender makes a difference in treatment. As patients achieve their target weight and their medical complications decrease, their sex and role in society become more important for further treatment. It has been suggested that in particular males needed to accept the social disapproval existing toward the expression of their emotions (Kearney-Cooke et al., 1990), as well as deal with the excessive emphasis on attaining a stereotyped masculine physique (Andersen, 1992). Despite that, however, it might still be speculated that the recovery in the male is generally less complicated due to the absence of the incessant social pressure to be slim to which the recovering female is exposed.

Summary
In conclusion, the treatment of males with eating disorders is a hopeful clinical challenge, but a somewhat neglected area of research. However, some studies provide well-designed attempts to measure outcome, and account for the physiological differences in males and females, thus providing acceptable outcome comparisons. These comparisons have shown that there are certain similarities to the treatment of females with eating disorders (e.g. medical stabilisation, psycho-educational and cognitive-behavioural work), but there are also unique and special aspects of the diagnosis and treatment pertinent to males with eating disorders (e.g. gender-related risk factors such as pre-illness obesity; male vulnerabilities to
specific social pressures like obtaining a masculine physique; and the excessive stigma of suffering from a stereotypical ‘female disorder’). Generally, future research should aim to clarify whether there are also specific indicators of a good response to treatment that are different for male and female patients.

Overall, the research presented seems to provide little consistency in the reported findings on outcome in male eating disorder patients. Hence, the outcome is likely to vary according to the presence or absence of specific background and clinical features similar to both sexes. It does become apparent, however, that for a meaningful comparison of outcome, a male population must be compared with a female population where the severity and duration of the illness is similar and comparisons need to be described fully and reliably, so that the inevitable differences between the groups can be properly accounted for.

VI. OVERVIEW AND CONCLUSION
To conclude, in this review the main characteristics of AN and BN in males have been summarised, with particular reference to their diagnosis, history, prevalence, presentation, epidemiological risk factors and treatment responses. Recent research has revealed more about eating disorders in males, especially regarding the gender-related differential frequency of the development of eating disorders. However, important questions regarding the origin and evolution of eating disorders in males remain to be answered, and the methodological and diagnostic inconsistencies need to be addressed before these answers can be provided in a scientifically valid manner.

It is apparent that culturally, males are less subject to factors which move females toward eating disorders, but they are not immune to the present emphasis on fitness and dieting or to the kind of psychopathology underlying the foundation for the symptoms of eating disorders.

There is a relatively broad consensus that eating disorders in males are clinically similar to those in females. Their basic diagnostic criteria are similar, although the
terms males use to describe their concern for body shape and size, as well as their reasons for dieting, might differ from those used by females. Hence, the underlying reasons for certain male populations to diet tend to be linked particularly to high-risk issues concerning athleticism, sociocultural pressures and stereotypes, as well as difficulties regarding sexual orientation.

One aspect of future research should therefore focus on these predisposing factors, such as sexual orientation in eating-disordered males, because further insights into these sexual conflicts may explain some males' vulnerability and aid their evaluation and treatment. Further empirical research is also needed to identify additionally vulnerable subgroups of males, and the factors which may predispose them to excessive dieting and a pursuit of thinness. Generally, long-term studies are required to understand which treatment strategies are most effective for eating-disordered males.

Thus, AN and BN in males are complex disorders whose prevalence and severity have until recently been underestimated. The challenges of eating disorders in males for psychology lie in the form of a greater understanding of both the character of the disorders and how to deal with them professionally.
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Small Scale Research Project/ Research on Placement - Year II

Evaluation of a Community-based Eating Disorders Service for Adolescents:
A Specific Examination of Parental and Adolescent Satisfaction.

ABSTRACT
This cross-sectional, descriptive study examined the level of general and specific areas of consumer satisfaction within a newly developed, community-based eating disorders service for children and adolescents. The key aims of the study focused on the development of a sensitive and reliable instrument that allows a specific enquiry into parental and adolescent client satisfaction; as well as on the assessment of parental and adolescent client satisfaction levels across different dimensions. Based partly on existing consumer satisfaction measures, a specific service satisfaction questionnaire was constructed to separately assess satisfaction, as well as (intermediate) treatment outcome, as perceived by the parents of the adolescents (N = 37) and the adolescent clients themselves (N = 20). The devised questionnaire was found to be a reasonably reliable measure (Cronbach’s alpha coefficient 0.84) to yield satisfaction indices for parental and adolescent samples within this specific Health Service setting. The overall findings indicated high levels of service satisfaction in both samples of participants, with no differences in trend found between parents and adolescents. No significant differences in satisfaction were reported between parents or adolescents that were self-selected into either a ‘high intensity treatment condition’ (individual therapy for adolescent and family therapy) or a ‘low intensity treatment condition’ (individual therapy for adolescent and parental counselling/ education about eating disorders). In addition, reported satisfaction levels were similar for mothers and fathers, as well as for the adolescent clients across three sampled age groups. Statistically non-significant differences were found in the perceived treatment outcome between different groups of respondents. However, possible suggestive trends on various variables are outlined. The implications for service improvements, further research in this area, and limitations of the present study are discussed in the light of these findings and the existing literature.
I. INTRODUCTION

Previous research

Nearly three decades ago researchers pointed out that the patient and the provider of health care services may differ significantly in their perceptions of what quality care is and to what extent it is present (Donabedian, 1969). More recently, government reports such as the Griffiths Report (DHSS, 1983) and the Working for Patients White Paper (DoH, 1989) identified the need for NHS services to obtain consumer views and to use this information in monitoring performance and formulating policy (Stallard, Hudson & Davis, 1992). Furthermore, the trend towards ‘evidence-based practice’ (PCE, 1996) will lead carers and referrers as well as commissioners to request information about the effectiveness and outcome of proposed interventions (Berger, 1996). Measures of consumer satisfaction in particular were emphasised as an important dimension of health care service evaluation (Fitzpatrick, 1991), which could lead to enhancing the quality of care (Kerruish, Wickings & Tarrant, 1988). They also allow the consumer the opportunity to have a greater voice in the design and delivery of health services (Turner & Matthews, 1991). Additionally, satisfaction with care was reported to influence compliance with advice and treatment (Kincey, Bradshaw & Ley, 1975).

Consumer evaluation is a complex issue and it has been highlighted that underlying assumptions need to be addressed if the information obtained is to be meaningful (Stallard & Chadwick, 1991). For example, the authors stressed that service satisfaction and treatment outcome need to be separate variables for regularly determined consumer satisfaction, both with services received and with therapeutic outcome to be useful. Satisfaction has been demonstrated to be a multi-dimensional concept (Ware, Davies-Avery & Steward, 1978) and its dimensions include factors of humaneness, informativeness, competence, continuity, access and outcome (Fitzpatrick, 1991). Outcome, in turn, can be defined as an ongoing dynamic state, depending on persisting environmental changes (Berger, 1996). Thus, it is emphasised that satisfaction is not a measure of outcome; and different aspects need to be separated when evaluating services, rather than looking for a measure of global satisfaction.
The past few years have seen the publication of a number of consumer satisfaction studies focusing upon mental health services (Stallard, 1995). However, the levels of reported satisfaction are strongly influenced by the lack of attention to methodological aspects (validity, reliability) and the lack of confidentiality (Weinstein, 1979), as well as by low and biased response rates (Sheppard, 1993). Further factors which can influence levels of reported satisfaction are criteria of participant selection, their sociographic and clinical characteristics and their previous interaction with psychiatric services (Ruggeri, 1991).

Duff (1995) noted that some agencies have a clearer idea than others about who their consumers are. Donabedian (1992) defines consumer to mean 'patients as well as those who may legitimately speak on their behalf'. Few studies have examined the satisfaction of individuals who are affected by or are involved in treatment, but who are not recipients of the service. This is despite the fact that research has highlighted that the needs of informal carers, such as parents, are often a neglected area of practice (Nolan & Grant, 1989).

Concerning general child and adolescent mental health services, evaluating consumer opinion is often done piecemeal, resulting in a lack of studies in this area of service provision (Duff, 1995). Furthermore, specific parental evaluation and satisfaction of mental health services for children has received little attention (Kopec-Schrader, Rey, Plapp & Beumont, 1994), and was said to remain a largely neglected (Byalin, 1993) and difficult area, where views frequently differ between children, parents and referrers (Parry-Jones, 1992). Possibly, the users of services may not be fully aware that their suggestions could help to improve service delivery. Furthermore, the lack of standardised procedures for the collection of information and the low response rates are difficulties that have hampered research in this area. Thus, the need for the development of more sensitive and quantifiable measures of consumer satisfaction within child and adolescent mental health services has been highlighted.
Research Section

Parental satisfaction with services

Research usually reveals satisfaction, as measured by a variety of instruments, to be high (approximately 85%) amongst groups studied (Turner & Matthews, 1991). For example, Deisher, Engel, Spielholz and Standfast (1965) reported that 98% of a sample of mothers were satisfied with the paediatric care their children received.

Regarding psychiatric research findings, a study of consumer satisfaction with brief family therapy is noteworthy for its early attention to parental responses and for its focus on consumer satisfaction with psychiatric services for children and adolescents (Woodward, Santa-Barbara, Levin & Epstein, 1978). Furthermore, the studies of Jellinek (1986) and Loff, Trigg and Cassels (1987) were cited as good examples of research in this area (Cookson, 1997). Additional studies focusing on parental satisfaction with services include Plapp and Rey (1989), who found that 70% of parents were satisfied with the received treatment and established that this was largely related to the child's improvement, which in turn was related to the number of sessions.

In a longitudinal study, Stallard, Hudson and Davis (1992) surveyed users of a community child and adolescent mental health service to determine their satisfaction with the service they had received. High levels of overall satisfaction were obtained by general ratings, but the researchers noted that these tended to mask more specific critical comments to open-ended questions, suggesting ways in which the service could be improved. Stallard (1995) also specifically examined parental satisfaction with the received intervention, whereas other researchers (Mason, Watts & Hewison, 1995) examined parental expectations of a child and adolescent psychiatric outpatient service. Kroll, Wesby, Lynch and Jacobs (1995) focused on the satisfaction of professionals, using a district child psychiatric service and found that about 50% of professionals and parents reported treatment outcome to be satisfactory. Most recently, Cookson (1997) examined satisfaction and treatment outcome as appraised by parents with a child and family service, reporting high proportions of satisfaction among parents.
Specifically concerning eating disorders, a study in a private hospital for eating-disordered patients showed that parents were quite satisfied with the inpatient service provided (65%) and the majority reported their child to be better (78%), but a substantial number felt that they were not given enough information and support (Kopec-Schrader, Marden, Rey, Touyz & Beumont, 1993).

Adolescent satisfaction with services
Research examining the level of adolescent satisfaction with services in particular is limited and concerns mainly medical settings. Denholm (1988), for example, collected positive and negative comments from adolescents discharged after medical inpatient treatment and Marcia (1985) studied personal gains, such as successful outcome of surgery or attention received while being a patient, as reported by adolescents following hospital discharge.

Few studies directly address the adolescent’s satisfaction with service provision. These include Rigg and Fisher (1971), who found that adolescents appreciated good staff communication, good recreational facilities and the presence of peers. Furthermore, they found that adolescents on general wards were more dissatisfied with certain facilities than those on adolescent wards. Similarly, Louis and Lovejoy (1975) reported dissatisfied attitudes of hospitalised adolescents in a paediatric hospital, in the absence of a separate adolescent unit. In a self-report study, Tebbi and Koren (1983) evaluated the satisfaction of 24 adolescents, following their transmission from an adult oncology ward to a specialised adolescent unit. They found that satisfaction had increased, complaints and dropouts from cancer therapy had decreased, and there was a 100% preference for this setting. Turner and Matthews (1991) addressed the topic of patient satisfaction with nursing care in a sample of adolescent females who attended family planning clinics, using the Risser Patient Satisfaction with Nursing Care instrument (Risser, 1975), which had been exclusively used with adults. They established that the Risser instrument was highly reliable with the adolescent cohort and that the teenagers were most satisfied with the technical-professional aspect of nursing care and least satisfied with the interpersonal-educational aspect.
Concerning psychiatric settings, Nicholson (1989) evaluated the therapeutic effectiveness of an outpatient counselling service for adolescents, providing individual and family therapy. In this study, clients completing the questionnaire consisted mainly of one parent (39%) or the individual teenager concerned (28.2%), as questionnaires were sent to either party depending on the type of therapeutic involvement. The findings indicated that a large majority of respondents appeared satisfied with their service contact and that therapy was equally successful for clients seen individually, with members of their family, or in a combination of both of these approaches. The researcher concluded that family therapy involved fewer sessions than individual therapy, whilst being equally effective; and it carried the additional advantage of assisting improvements in family relationships. Potthoff (1995) determined satisfaction levels of male and female adolescent patients with the interior environment of in-patient drug and alcohol rehabilitation treatment facilities, using questionnaires and daily record charts. This study highlighted important environmental features for specific adolescent treatment services. Most recently, Boyle, Lindsay and McPherson (1997) reported encouraging results when evaluating service satisfaction of young patients, their families and the Primary Care Team with a clinical child psychology service that was based in General Practices.

Regarding eating disorders, Cockett (1992) used consumer feedback in evaluating an adolescent-specific approach to the in-patient treatment of anorexia nervosa. He proposed that consumer feedback might be particularly relevant to anorectic adolescents, as they are more likely to co-operate with something over which they see themselves as having some control. This in turn might increase the likelihood of the treatment programme being accepted and successful. The findings of this evaluation demonstrated that in the adolescents’ view, the ‘zone’ structure of the programme, together with cognitive therapy, were most effective in their recovery (Harris, 1991), whereas family therapy was not valued particularly highly. Overall, this evaluation increased the acceptability of treatment to patients and helped to develop a more effective programme.
Conclusions and suggestions from past research

Research carried out in clinical settings is not without some special problems and inherent limitations. Some of the limitations from past research, as well as specific attention to the questionnaire design, have influenced the present study. For example, several of the above authors have with hindsight stressed a methodological change to their design, in that they would have encouraged separate opinions from both the adolescent clients and their parents (rather than just either group, mainly parents) on service expectation, satisfaction and treatment outcome (Nicholson, 1989; Kopec-Schrader et al., 1994; Mason et al., 1995). This would have provided a more complete view of this area, irrespective of whether the teenager was seen individually and/ or with members of the family (Nicholson, 1989). Green (1996) also emphasised the importance of the child’s view, as child and adolescent services are distinguished from adult work by the need for alliances with more than one party.

Furthermore, a distinct classification of treatment elements (individual, family, or combination approaches) was suggested to enhance the findings (Nicholson, 1989). Past studies have also highlighted the need to increasingly conduct surveys of this nature in wider multi-disciplinary teams (Mason et al., 1995), to which the specialised service surveyed in this study would be counted. Few studies addressed the issue of age differences in their adolescent sample. The present study therefore aimed to compare satisfaction levels of three different age groups of adolescent respondents, in order to be sensitive to any age-related consumer needs. Overall, an attempt was made to address these issues from past studies in the present study, and resulting implications for the questionnaire design and methodology employed were considered.

Service description

There are widely varying prevalence rate estimates for eating disorders and a continuing controversy over the extent of their increase in modern times (Szmukler & Patton, 1995). However, eating disorders are commonly seen in clinical practice, calling for specialised services at community level. This study focused on a multi-
disciplinary, community-based eating disorder service for children, adolescents and families, which has been set up in 1996. Clients were referred for various eating disorder diagnoses, mainly by GPs; and parents accompanied their children to the initial assessment. Parents were provided with information and education about eating disorders; they learned how to cope with the stresses of eating disorders; and received parental counselling or family therapy. Parents had ongoing contact with the service and it was one of the aims to support parents, as well as their eating-disordered children. Furthermore, the service emphasised the reliance on the parents to work in partnership with the service towards the long-term care of their child.

As discussed above, obtaining separate opinions from both the teenager and the parents has been encouraged, as it provides more complete information on the service. This in turn is of importance for future service implications. Although the adolescent was the identified patient, this evaluation of a community child and adolescent eating disorder service also focused on parental satisfaction, since parental perceptions of change in the behaviour of their children may give service providers information about the effectiveness and quality of treatment. However, as children might be ultimately affected by their parent’s views of treatment (Mason et al., 1995), it was equally important to take their views into account and to assess them independently. For both groups of respondents, however, awareness remained throughout the study that opinions may be influenced to varying degrees by a large number of variables (e.g. diagnosis, age of adolescent, social class and marital status).

Definition of satisfaction, benefits and outcome with regard to the present study

In light of the discussed literature, satisfaction in this study was viewed as a multi-dimensional concept, including factors of humaneness, informativeness, competence, continuity, access and outcome. Reported benefits from parents and adolescents included aspects of personal gains (e.g. in coping and psycho-education). As outlined above, outcomes are multiply determined, being influenced by the condition, the individual, the intervention and the context. This is of
particular importance in child and adolescent work, where parents might be responsible for some aspects of the treatment programme and outcome might depend on their motivation and skill, as well as on events arising between sessions. In this survey, the concept of *outcome* assessed the improvement and normalisation of eating patterns, attitudes and weight, as well as a qualitative change in the overall family situation. The subjective notion of normalisation was specifically defined in the adolescent questionnaire in relation to changes in eating pattern (eating three meals daily with occasional snacks; without bingeing, vomiting, excessive drinking or exercising) and to changes in attitude (being a reduced worry to the adolescent with a decrease in invading thoughts and a more relaxed stance towards eating with an increase in thoughts about other activities). Overall, these outcome criteria were selected because they were assumed to reflect valid changes in psychological and behavioural characteristics as perceived by clients and their parents, and they were considered as clinically important, as they had been the direct or indirect target of interventions.

**The present study**

**Primary aims of the present study:**

- To develop a new, reliable, sensitive, and multi-dimensional instrument that allows a specific and analytical enquiry into parental and adolescent client satisfaction within a specific mental health service. This instrument might be used in similar settings elsewhere, in order to compare and improve specialist services, using independent client and family feedback. The measure was designed to be versatile, being suitable as a tool for distinct activities such as evaluative research and audit, as well as treating service satisfaction and treatment outcome as separate variables.

- To assess general and specific parental and adolescent client levels of satisfaction within a specialised health service, and to use this assessment to improve the treatment provided (audit-related).

- To identify the level of treatment outcome as perceived by parents and adolescent clients (related to evaluative research).
Subsidiary research questions and aims of the present study:

- To explore whether there is a significant statistical difference in the level of satisfaction reported by parents who received two different kinds of treatment ('high intensity' versus 'low intensity' treatment).
- To explore whether there is a significant statistical difference in the level of satisfaction reported by adolescent clients who received two different kinds of treatment ('high intensity' versus 'low intensity' treatment).
- To explore whether there is a significant statistical difference in the level of perceived outcome reported by parents who received two different kinds of treatment ('high intensity' versus 'low intensity' treatment).
- To explore whether there is a significant statistical difference in the level of perceived outcome reported by adolescent clients who received two different kinds of treatment ('high intensity' versus 'low intensity' treatment).
- To compare the reported level of parental satisfaction with that reported by the adolescent clients.
- To identify further needs of parents (e.g. by exploring possible differences in reported service satisfaction between mothers and fathers).
- To identify further needs of adolescent clients (e.g. by exploring possible differences in reported service satisfaction between the three different adolescent client age groups).
- To identify the general benefits resulting from treatment as perceived by parents and adolescent clients.
- To give feedback to clinicians that otherwise is not available (post-study aim).

II. METHOD

Materials

Although research and audit have a great deal to offer each other and thus should be closely linked, it is important to recognise their distinct roles (Black, 1992). The present project aimed to combine these distinct activities, bearing in mind their different goals. Black (1992) defined one purpose of evaluative research as 'establishing the value of health care'. The constructed measure in this study therefore attempted to establish whether the offered interventions were effective
and humane in the consumer’s view (however, due to present limitations, generalisations of this study should be made with caution). In turn, Black (1990) described audit as an essentially local activity, involving the assessment and ‘monitoring of the provision of health care to ensure that it is of as high a quality as research findings suggest can be expected’. Thus, the designed measure also aimed to assess provided health care quality by establishing specific levels of consumer satisfaction with this relatively new service. Additionally, it was intended to improve the service quality by instituting changes in the provision of care, following suggestions and criticisms of consumer respondents, highlighting further needs.

**Questionnaire design**

The present evaluation study employed a cross-sectional descriptive survey design, by using a postal consumer satisfaction questionnaire. This was cost-effective, easy to administer, enabled parents and adolescents to feed back their views anonymously, and can be used at a later date and compared for quality (Stallard, 1995). However, much care is needed in deciding how surveys are to be integrated into the continuous process of providing and improving care, as well as in considering the scientific issues of survey design (Fitzpatrick, 1991). Consequently, researchers have struggled to construct a psychometrically adequate satisfaction scale (Atkisson & Zwick, 1982). Several studies (e.g. Greenfield & Attkisson, 1989) described the development of self-report service satisfaction scales to measure consumer response, and most published studies of patient satisfaction have used measures that are composed of either a few broad questions about satisfaction or unstandardised single item subscales (Ruggeri, 1991). Furthermore, difficulties were reported from the vagueness of questions or the possible belief that responses may affect the service provided (Lebow, 1982).

The Client Satisfaction Questionnaire (CSQ; Larsen, Attkisson, Hargreaves & Nguyen, 1979) is a standardised measure of global client satisfaction, which was suggested to be an effective tool for assessing parental satisfaction (Byalin, 1993). Ruggeri and Dall'Agnola (1993) developed the Verona Expectations for Care Scale
and the Verona Service Satisfaction Scale which are multi-dimensional instruments that measure expectation and satisfaction with community-based psychiatric services in patients, relatives and professionals. The above as well as adolescent-specific service evaluative measures were taken into consideration when constructing the satisfaction questionnaire for the present project. In addition, considerable advice from clinicians was taken about the design and content of the questionnaire. Thus, the constructed measure was considered to be concise and the avoidance of some methodological bias was considered to be one of the major aims during the planning and implementation of the current study. Furthermore, the items on the present evaluation measure were designed to assess specific service aspects, as general ratings of satisfaction were cited as meaningless, providing no clear information about which aspects of the service are positive and which need to change (Stallard & Chadwick, 1991).

Even though the questionnaire items were not piloted (because of the small sample size), it was aimed to collect responses to the items allowing various psychometric procedures to be used to assess the measure’s reliability and validity, both of which have rarely been considered in previous studies (Stallard & Chadwick, 1991). To ensure a degree of content validity, adequate operational definitions for the satisfaction and outcome variables were set, following a discussion of questionnaire items with the service manager and clinical professionals in the eating disorders field. Overall, question parameters were selected according to quality standards, service characteristics, present diagnoses and treatment elements, nevertheless regarding service satisfaction and treatment outcome as distinct variables. The questionnaire was used to generate exploratory qualitative and quantitative information, as well as to test hypotheses regarding this information.

**Questionnaire structure and content**

The constructed parental satisfaction questionnaire consisted of four overall categories, including 29 fixed-choice and 3 open-ended questions, as the use of both closed and open-ended questions was recommended (Carr-Hill, 1992). It has in fact been stressed as ‘essential’ that consumer surveys provide open-ended
questions, rather than solely relying upon overall ratings (Stallard et al., 1992). Thus, the open-ended questions in particular were designed to allow clients the opportunity to spontaneously raise any other issues, in an attempt to avoid possible content validity problems resulting from a pre-selection of items by clinicians and researchers (Stallard & Chadwick, 1991). Furthermore, it was aimed to minimise the positive bias which may result from acquiescence and it was attempted to create an atmosphere where negative comments on the service were acceptable. However, when constructing the open-ended questions, it was aimed that these would not elicit comments which would fall within the boundaries of the closed questions asked (McAuliffe & MacLachlan, 1992).

Categorical and rating scale response formats were used in addition to some multiple-response items. It was aimed to employ technically correct terminology throughout the questionnaire, however context effects, influencing sensitive issues and effects of social desirability might be difficult to minimise in surveys of this kind (e.g. due to the nature of the present psychopathology in this sample). Therefore, explanatory definitions (see ‘definition’ paragraph) were provided to avoid ambiguous interpretations and to foster respondent motivation. Furthermore, questionnaire length and question density were designed to meet current research guidelines (Fife-Shaw, 1995), whilst question order conformed to conventional research criteria (demographic data were collected at the beginning rather than the end of the questionnaire).

The first questionnaire category focused on formal information (questions 1-8); the second category yielded patient-specific demographic, diagnostic and treatment outcome information (questions 9-18); the third category assessed levels of parental satisfaction (questions 19-25) and personal benefits (questions 26-28); and the fourth category consisted of open-ended questions (questions 29-32), eliciting spontaneous answers regarding criticisms and suggestions to improve the service. These four overall categories were identical in the respective adolescent satisfaction questionnaire, together with three additional questions in the second category regarding outcome information, where an adolescent rating was required.
considering their perceived parental view, as well as their own view of changes following service contact.

Level of satisfaction in particular was measured by a five/ three point rating scale which ranged from ‘very satisfied’ to ‘very dissatisfied’. Items were scored in a positive direction assigning a value of 5 or 3 to the highest level of satisfaction. Therefore, a high score indicated a high degree of satisfaction and a low score was indicative of low satisfaction. [See Appendix I for a full copy of the respective versions of the parental and adolescent service satisfaction questionnaire].

Satisfaction index
As previous authors have noted (Weinstein, 1979), it is of particular importance to attend to methodological aspects, such as reliability and validity, for questionnaire satisfaction data to be meaningful and statistically valid. Reliability can be defined as ‘the extent to which the same results are obtained when responses are measured at different times’, while construct validity refers to ‘the extent to which the abstract construct can be inferred from the operational definition of that construct’ (Christensen, 1988). Reliability estimates can be obtained by a variety of methods, including an assessment of the consistency of a test over time (test-retest reliability), or alternatively by examining the internal consistency of test items (Hammond, 1995). The latter method was employed in this study and the resulting coefficient (Cronbach’s alpha; Cronbach, 1951) was based upon the homogeneity of items comprising the satisfaction index (the higher the alpha-value, the better the correlation of the items). Hence, this reliability evaluation may also be viewed as a kind of construct validation, because the internal structure of items was assumed to reveal inter-item homogeneity (Hammond, 1995).

Especially for multiple-item measures it is important to examine the measure’s internal structure (Hammond, 1995) and thus, for the statistical analysis, a single satisfaction index (consisting of questionnaire items 19;20;22;23;24;25) was constructed for each respondent, in order to assess the structure of responses. However, when the items for this satisfaction index were selected, it was
acknowledged that all satisfaction items must be indicators of a common characteristic and thus each item must have variance in common with all the other variables in this index.

Treatment conditions
The sample was divided into two groups (as determined by the clinical context of treatment they received): parents/adolescents receiving a 'high intensity' treatment condition including individual therapy for the adolescent and family therapy; and parents/adolescents receiving a 'low intensity' treatment condition including individual therapy for the adolescent and parental counselling, incorporating the provision of information and education about eating disorders. In terms of solid selection criteria for both groups, the following was used as a formal ‘working definition’ for family therapy (not considering different theoretical orientations of practitioners). Family therapy constituted that an appointment was attended by more than one person, at a pre-arranged time, at a pre-arranged venue, and with an attendance of agreed parties. It was assumed that by using this definition, families automatically selected themselves into either group by indicating their individual combination of service elements experienced in the relevant section of the consumer questionnaire (questionnaire page 2, question 9: 2 ticks in the top three treatment elements constituted more than one treatment at any one time = high intensity; whereas only 1 tick in the top three treatment elements constituted just one treatment at a time = low intensity). Therefore the independent variable ‘parents’ had four levels (treatment intensity and sex), whereas the independent variable ‘adolescents’ had only two levels (treatment intensity). The reported level of general satisfaction (as satisfaction index or singled-out factors) was treated as the dependent variable.

Procedure
Following the required ethical approval from two different local research ethics committees (due to the overlapping catchment area), names for the respective participant sample were generated on the basis of length of their contact with the service and the nature of their involvement with the service (e.g. assessment and
treatment). Parental questionnaires were sent out to families with a self-addressed, stamped envelope as well as with an explanatory letter to the parents and the adolescent. Approximately ten minutes were required to complete the questionnaire. Questionnaires were not traceable to protect the families’ anonymity and two reminder letters were sent to all families some time after the requested completion date.

Further ethical approval was required from one of the ethics committees to include the adolescents separately in this survey, following which the adolescent questionnaires were sent out in the same manner as before (including a self-addressed, stamped envelope as well as explanatory letters to parents and adolescents). Reminder letters were sent as above. [See Appendix II for copies of the written communication with both local research ethics committees. For examples of explanatory letters and reminder letters sent to parents and adolescents, see Appendix III].

Sample
The consumer sample consisted of 37 parents and their 20 adolescent daughters with eating disorders, who had ongoing contact with the service. The sample consisted of 17 nuclear families and 3 single-parent families. All participants had between 1-12 months of service contact, resulting in an approximate mean of 7 months of service contact. Of the 15 adolescents who returned the questionnaires, five (33.3%) fell into the age group 13-14; three (20.0%) were aged 15-16; and seven (46.7%) were 17-18 years of age during contact with the service.

Analysis
Within classical test theory Cronbach’s alpha (Cronbach, 1951) is one of the most accurate estimates of reliability available (Hammond, 1995). In estimating internal consistency, alpha is related to the average of all inter-item correlations and therefore the higher the correlations between the items, the greater the internal consistency. The internal consistency and reliability of the items comprising the satisfaction index included in this questionnaire, as measured by Cronbach’s alpha,
were determined using the Statistical Package for the Social Sciences (SPSS Inc., 1994). SPSS was also employed to determine descriptive statistics, frequency distributions, Mann-Whitney-U analyses, Fisher Exact Test analyses and crosstabulations. Non-parametric tests were chosen, to allow an effective comparison of the two independent groups of respondents, ranking ordinal scale data and not making any assumptions about the shape of the population distribution.

Following the qualitative approach suggested by Crocker (1989), clients’ comments were arranged according to content and popularity, for both positive and negative comments, thus giving an indication of the main issues raised.

III. RESULTS

Response rate:
The parental response rate was 64.9% (24 out of 37). Of the 14 mothers returning the questionnaire, six (46.2%) rated themselves in the high intensity treatment condition and seven (53.8%) fell in the low intensity treatment condition. For the 10 fathers who returned the questionnaires, four (44.4%) selected themselves in the high intensity treatment condition and five (55.6%) rated themselves as being in the low intensity treatment condition. Two participants (one father/one mother) returned their respective questionnaires without filling them in. The adolescent response rate was 75.0% (15 out of 20). Of all the returned adolescent questionnaires, nine (60%) of the daughters selected themselves into the high intensity treatment condition and six (40%) rated themselves as low intensity treatment participants.
SECTION I
Seven tables containing percentages and frequency distributions of parental and adolescent responses to the main sections of the questionnaire:

TABLE 1. Appointment related data from parents and adolescents:

<table>
<thead>
<tr>
<th></th>
<th>Respondents</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Parents</td>
<td>Adolescents</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>Col %</td>
<td>Count</td>
</tr>
<tr>
<td>APPOINTMENT WAIT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two weeks</td>
<td>10</td>
<td>55.6%</td>
<td>4</td>
</tr>
<tr>
<td>One month</td>
<td>4</td>
<td>22.2%</td>
<td>6</td>
</tr>
<tr>
<td>One to two months</td>
<td>4</td>
<td>22.2%</td>
<td>2</td>
</tr>
<tr>
<td>APPOINTMENT CANCELLED</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>2</td>
<td>9.1%</td>
<td>1</td>
</tr>
<tr>
<td>No</td>
<td>20</td>
<td>90.9%</td>
<td>13</td>
</tr>
<tr>
<td>SEEN ON TIME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On time</td>
<td>8</td>
<td>36.4%</td>
<td>8</td>
</tr>
<tr>
<td>Within 15 mins</td>
<td>13</td>
<td>59.1%</td>
<td>6</td>
</tr>
<tr>
<td>Within 15-20 mins</td>
<td>1</td>
<td>4.5%</td>
<td>1</td>
</tr>
<tr>
<td>APPOINTMENTS CONVENIENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>20</td>
<td>90.9%</td>
<td>13</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>9.1%</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL APPOINTMENT NUMBER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td>3</td>
<td>15.8%</td>
<td>5</td>
</tr>
<tr>
<td>4-7</td>
<td>9</td>
<td>47.4%</td>
<td>3</td>
</tr>
<tr>
<td>8-12</td>
<td>4</td>
<td>21.1%</td>
<td>10</td>
</tr>
<tr>
<td>12+</td>
<td>3</td>
<td>15.8%</td>
<td>7</td>
</tr>
<tr>
<td>APPOINTMENTS SUFFICIENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too many</td>
<td>1</td>
<td>5.6%</td>
<td>3</td>
</tr>
<tr>
<td>Sufficient</td>
<td>14</td>
<td>77.8%</td>
<td>10</td>
</tr>
<tr>
<td>Too few</td>
<td>3</td>
<td>16.7%</td>
<td>1</td>
</tr>
<tr>
<td>SATISFACTION WITH WAIT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>1</td>
<td>5.6%</td>
<td>3</td>
</tr>
<tr>
<td>Neither</td>
<td>4</td>
<td>22.2%</td>
<td>3</td>
</tr>
<tr>
<td>Satisfied</td>
<td>9</td>
<td>50.0%</td>
<td>6</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>4</td>
<td>22.2%</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 1. indicates the length of wait for the first appointment. Most parents (55.6%) reported their first appointment to be 'within two weeks' of the initial referral, whereas smaller proportions (22.2%) of the sample respectively indicated the appointment time to be 'within one month' or 'within one to two months' following referral to the service. Many of their adolescent daughters (50%) in turn indicated the initial appointment wait to be 'within one month', a smaller
proportion (33.3%) reported it to be ‘within two weeks’, and 16.7% of the adolescents rated appointment wait to be ‘between one and two months’.

Table 1. also contains information on appointment cancellations and the majority of parents (90.9%) as well as adolescents (92.9%) did not cancel any appointments provided. Respectively, a small number of parents (9.1%) and adolescents (7.1%) reported cancelling their first appointment.

Regarding appointment punctuality, the majority of parents (59.1%) indicated that they were seen ‘within 15 minutes’ of the arranged appointment time, followed by 36.4% who reported being ‘seen on time’ and only one parent (4.5%) who was seen between ‘15-20 minutes’ later than arranged. The majority of adolescents (53.5%) in contrast, indicated being ‘seen on time’, followed by 40% who were seen ‘within 15 minutes’ and only one (6.7%) who was seen ‘between 15-20 minutes’ later than their appointment time.

The majority of parents (90.9%) and adolescents (86.7%) stated that appointment times were convenient, and only 9.1% of parents and 13.3% of adolescents indicated appointments to be inconvenient.

Regarding the total number of appointments, most parents (47.4%) had attended between four and seven appointments, followed by 21.1% who reported to have had between eight and twelve appointments, and 15.8% of parents respectively, who indicated attending more than twelve or between one and three appointments. Most adolescents (46.7%) had attended more than twelve appointments, 33.3% stated to have had between four and seven appointments, and 20% of the adolescents reported to have attended between eight and twelve appointments with the service.

Most parents (77.8%) and adolescents (71.4%) regarded the total number of appointments offered as ‘sufficient’. From the parental sample, 16.7% indicated the total appointment number as ‘too few’, whereas one parent (5.6%) rated them as ‘too many’. In a reverse fashion, from the adolescent sample 21.4% reported the appointment number as ‘too many’ and one (7.1%) rated them as ‘too few’.

Regarding overall satisfaction with the initial appointment wait, most parents (50%) were ‘satisfied’, followed by 22.2% respectively who were either ‘very satisfied’ or ‘neither’ satisfied or dissatisfied with the wait for an initial
appointment. Only one parent (5.6%) indicated dissatisfaction with the initial appointment wait. None of the adolescent respondents indicated dissatisfaction in this section; 20% stated being 'neither’ satisfied nor dissatisfied, and 40% respectively reported being ‘very satisfied’ or ‘satisfied’ with the wait for the initial appointment.

TABLE 2. Staff related data from parents and adolescents:

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Parents</th>
<th>Adolescents</th>
<th>Count</th>
<th>Col %</th>
<th>Count</th>
<th>Col %</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAFF APPROACHABLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>22</td>
<td>100.0%</td>
<td>13</td>
<td>92.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>7.1%</td>
<td>1</td>
<td>7.1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. indicates that all parents (100%) and the majority of adolescents (92.9%) found the clinic staff ‘approachable’, with only one adolescent client (7.1%) reporting to have found staff ‘not approachable’.

TABLE 3. Treatment related data from parents and adolescents:

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Parents</th>
<th>Adolescents</th>
<th>Count</th>
<th>Col %</th>
<th>Count</th>
<th>Col %</th>
</tr>
</thead>
<tbody>
<tr>
<td>TREATMENT INTENSITY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>12</td>
<td>54.5%</td>
<td>6</td>
<td>40.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>10</td>
<td>45.5%</td>
<td>9</td>
<td>60.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEGREE OF HELPFULNESS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Made worse (unhelpful)</td>
<td></td>
<td></td>
<td>1</td>
<td>7.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No change (unhelpful)</td>
<td></td>
<td></td>
<td>1</td>
<td>7.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To some extent helpful</td>
<td>8</td>
<td>40.0%</td>
<td>6</td>
<td>42.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quite helpful</td>
<td>10</td>
<td>50.0%</td>
<td>4</td>
<td>28.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completely helpful</td>
<td>2</td>
<td>10.0%</td>
<td>2</td>
<td>14.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOST HELPFUL TREATMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family meetings</td>
<td>3</td>
<td>25.0%</td>
<td>2</td>
<td>20.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent meetings</td>
<td>2</td>
<td>16.7%</td>
<td>6</td>
<td>60.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daughter therapy</td>
<td>5</td>
<td>41.7%</td>
<td>1</td>
<td>10.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight monitoring</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dietary counselling</td>
<td>1</td>
<td>8.3%</td>
<td>1</td>
<td>10.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home visits (weighing)</td>
<td>1</td>
<td>8.3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3 indicates that the parental and adolescent samples were relatively equal in number when comparing the two treatment intensity conditions. Of the parental respondents 54.5% had selected themselves into the 'low intensity treatment condition' and 45.5% respectively rated themselves to have received the 'high intensity treatment condition'. The adolescent respondent sample reflected a slight reversal of this finding, as 60% of adolescents fell into the 'high intensity treatment condition' and 40% were classed as being in the 'low intensity treatment condition'. As the data for the two samples was obtained independently and questionnaires were not traced, these slight variations might reflect ratings of unrelated respondents.

Regarding the degree of helpfulness of the overall treatment received, most parents (50%) indicated to have perceived treatment as 'quite helpful', followed by 40% of parents who rated treatment received as 'to some extent helpful', and 10% who viewed treatment as 'completely helpful'. None of the parents regarded the treatment received as unhelpful. The adolescent sample indicated a broader and somewhat cautious response range in this section, as most of the adolescents (42.9%) rated the treatment received as 'to some extent helpful', followed by 28.6% who viewed it as 'quite helpful' and 14.3% who perceived the obtained treatment overall as being 'completely helpful'. One adolescent respectively (7.1%) reported the received treatment as 'producing no change' or having 'made things worse'.

Table 3 also contains the full list of treatment components offered by the eating disorders service. Regarding the most helpful treatment component, most parents (41.7%) indicated individual therapy for their daughter, followed by 25% of parents having reported family therapy meetings, and 16% of parents having stated separate parental meetings as the most helpful treatment component. One parent (8.3%) respectively indicated dietary counselling or home visits for weighing as the most helpful element of treatment received. No parent perceived pure weight monitoring as particularly useful. Similarly to their parents, the majority of adolescents (60%) indicated their individual therapy as the most helpful treatment aspect, followed by 20% who rated the family therapy meetings as most helpful. One adolescent (10%) respectively perceived pure weight monitoring and
dietary counselling as the most helpful treatment element received. No adolescent indicated home visits for weighing or separate parental meetings as especially helpful.

### TABLE 4. Outcome related data from parents and adolescents:

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Parents</th>
<th>Adolescents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Col %</td>
</tr>
<tr>
<td><strong>EXTENT OF CHANGE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Much worse</td>
<td>3</td>
<td>14.3%</td>
</tr>
<tr>
<td>Worse</td>
<td>1</td>
<td>7.1%</td>
</tr>
<tr>
<td>Same</td>
<td>13</td>
<td>61.9%</td>
</tr>
<tr>
<td>Better</td>
<td>5</td>
<td>23.8%</td>
</tr>
<tr>
<td><strong>FEELING UNDERSTOOD</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not understood (worse)</td>
<td>7</td>
<td>35.0%</td>
</tr>
<tr>
<td>To some degree</td>
<td>11</td>
<td>55.0%</td>
</tr>
<tr>
<td>Very much</td>
<td>2</td>
<td>10.0%</td>
</tr>
<tr>
<td>Completely</td>
<td>2</td>
<td>10.0%</td>
</tr>
<tr>
<td><strong>WEIGHT IMPROVED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(parental view)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>19.0%</td>
</tr>
<tr>
<td>Almost</td>
<td>5</td>
<td>23.8%</td>
</tr>
<tr>
<td>Yes</td>
<td>12</td>
<td>57.1%</td>
</tr>
<tr>
<td><strong>EATING PATTERN IMPROVED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(parental view)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>28.6%</td>
</tr>
<tr>
<td>Almost</td>
<td>3</td>
<td>14.3%</td>
</tr>
<tr>
<td>Yes</td>
<td>12</td>
<td>57.1%</td>
</tr>
<tr>
<td><strong>EATING ATTITUDE IMPROVED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(parental view)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>27.3%</td>
</tr>
<tr>
<td>Almost</td>
<td>8</td>
<td>36.4%</td>
</tr>
<tr>
<td>Yes</td>
<td>8</td>
<td>36.4%</td>
</tr>
<tr>
<td><strong>WEIGHT IMPROVED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(adolescent view)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>13.3%</td>
</tr>
<tr>
<td>Almost</td>
<td>2</td>
<td>13.3%</td>
</tr>
<tr>
<td>Yes</td>
<td>11</td>
<td>73.3%</td>
</tr>
<tr>
<td><strong>EATING PATTERN IMPROVED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(adolescent view)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>40.0%</td>
</tr>
<tr>
<td>Almost</td>
<td>2</td>
<td>13.3%</td>
</tr>
<tr>
<td>Yes</td>
<td>7</td>
<td>46.7%</td>
</tr>
<tr>
<td><strong>EATING ATTITUDE IMPROVED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(adolescent view)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>46.7%</td>
</tr>
<tr>
<td>Almost</td>
<td>3</td>
<td>20.0%</td>
</tr>
<tr>
<td>Yes</td>
<td>5</td>
<td>33.3%</td>
</tr>
</tbody>
</table>
Table 4. shows that the majority of parents (61.9%) rated the extent of change following service contact as 'better', 23.8% viewed the occurring changes as 'much better' and 14.3% of the parental sample regarded the change as being 'the same'. No respondents of the parental sample viewed the changes as 'worse' than before contact with the service. Again, the adolescent respondents presented with a more varied response pattern, partly reflecting that of their parents, as most adolescents (57.1%) indicated the extent of change following service contact to be 'better', followed by 21.4% who rated changes to be 'much better'. Contrasting to the parents, one adolescent (7.1%) respectively viewed the nature of the changes to be the 'same'; 'worse'; or even 'much worse'.

When asked whether they 'felt understood' by the service, most parents (55%) responded to have felt 'very much' understood, followed by 35% who felt understood 'to some degree' and 10% who indicated that they felt 'completely understood'. No parent reported to have not felt understood. Again being more critical, as reflected by the varied response pattern, most of the adolescents (46.7%) felt understood 'to some degree'; followed by 26.7% who felt 'very much' understood and 20% who reported feeling 'completely' understood. One adolescent (6.7%) felt 'not understood' resulting in feeling worse.

In terms of improvements in the adolescent's weight, most parents (57.1%) indicated a clear weight improvement; followed by 23.8% who rated weight improvements to be 'almost' better. 19% of parents reported that their daughter's weight had not improved since contact with the service. When the adolescents were asked whether they thought that in their parents' view their weight had increased, most of the adolescent respondents (64.3%) indicated 'yes'. Furthermore, 21.4% rated 'no' weight improvements, and 14.3% reported improvements to be 'almost' better.

Regarding improvements in the adolescent's eating pattern, most parents (57.1%) similarly indicated 'yes', followed by 28.6% of parents who reported 'no' improvements in eating pattern, and 14.3% who rated improvements in eating pattern to be 'almost' normal. When asking the adolescents whether they thought that in their parents' view their eating pattern had improved, interestingly equal
percentages of adolescents (42.9%) indicated 'yes' or 'no'. 14.3% of the adolescents reported their eating pattern to be 'almost' normal.

A further outcome aspect looked at improvements in the adolescent's attitude to eating. Equal percentages of parents (36.4%) reported a clear 'yes' or 'almost' regarding their daughter's improvement in eating attitude. 27.3% rated 'no' improvements in eating attitude since service contact. When the adolescents were asked whether they thought that in their parents' view their attitude to eating had improved, most of the adolescent respondents (42.9%) indicated 'yes', followed by 35.7% who rated 'no', and 21.4% who perceived improvements in eating attitude as 'almost' better.

Regarding the adolescent's own view in terms of these three outcome criteria, the majority of adolescents (73.3%) indicated that in their own view their weight had improved. Equal percentages of adolescent respondents (13.3%) reported that in their own view their weight had 'almost' or not improved since contact with the eating disorders service.

In terms of eating pattern, most adolescents (46.7%) viewed their own eating pattern to be improved, followed by 40% who indicated 'no' improvement and 13.3% who reported their eating pattern to have 'almost' improved to normal.

Regarding the improvements in their own attitude to eating, most of the adolescents (46.7%) indicated no improvements, while 33.3% reported improvements. 20% of adolescents rated their attitude to eating as 'almost' better.
Table 5. contains the questionnaire items comprising the statistical satisfaction index. Regarding the satisfaction with the competence and knowledge of the practitioner involved, most parents (57.1%) reported to be ‘satisfied’, followed by 33.3% of parental respondents who were ‘very satisfied’, and 9.5% who were ‘neither’ satisfied or dissatisfied. In a similar response pattern, most of the adolescents (40%) were ‘satisfied’ with the competence of the practitioner involved, followed by 33.3% who were ‘very satisfied’, and 26.7% who reported to be ‘neither’ satisfied or dissatisfied. In this section no parent or adolescent reported to be dissatisfied to any extent.

In terms of satisfaction with the practitioner’s ability to listen and understand, most parents (52.6%) reported to be ‘satisfied’, followed by 36.8% who indicated that they were ‘very satisfied’, and 10.5% who were ‘neither’ satisfied or dissatisfied. In a different response pattern, most of the adolescent respondents
(46.7%) indicated to be 'very satisfied' with the practitioner's ability to listen and understand, followed by 33.3% who were 'neither' satisfied or dissatisfied, and 20% who were 'satisfied'. Again, no parent or adolescent reported to be dissatisfied to any extent in this section of the questionnaire.

Regarding newly acquired coping abilities since service contact, most parents (47.1%) indicated these to be 'neither' effective or ineffective, followed by 41.2% of parents who rated their new ways of coping as 'effective', and 11.8% of parental respondents who perceived them to be 'ineffective'. In contrast, most of the adolescent respondents (50%) indicated their newly acquired coping skills to be 'effective', followed by 35.7% of adolescents who perceived their acquired coping skills as 'neither' effective or ineffective, and 14.3% who reported their coping skills to be 'ineffective'. No extreme answers were found for parents or adolescents in this section.

Regarding acceptance, support and reassurance received from the service, most parents (61.9%) felt 'well' accepted, supported and reassured by the service, followed by 19% of parents who felt 'very well' supported. Two equal percentages of parents (9.5%) felt 'neither' well or poorly supported by the service, and 9.5% reported the service support to be 'poor'. Most of the adolescents (46.7%) felt 'well supported' by the service, followed by 13.3% who reported to be 'very well' supported. 26.7% of the adolescent respondents reported to be 'neither' well or poorly supported, and two adolescents (13.3%) reported support received to be 'poor'.

In terms of respect, most parents (85.7%) and adolescents (53.3%) similarly indicated to have felt 'respected' by the service. Of the parental respondents 14.3% felt 'very respected', and a noteworthy percentage of 46.7% of adolescent respondents felt 'very respected' by the service. No neutral or negative answers were found for either sample in this section.
TABLE 6. Service related data from parents and adolescents:

<table>
<thead>
<tr>
<th></th>
<th>Respondents</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Parents</td>
<td>Adolescents</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>Col %</td>
<td>Count</td>
</tr>
<tr>
<td><strong>MORE SERVICE INFORMATION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>16</td>
<td>72.7%</td>
<td>5</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>27.3%</td>
<td>10</td>
</tr>
<tr>
<td><strong>MORE ED INFORMATION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>16</td>
<td>72.7%</td>
<td>8</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>27.3%</td>
<td>7</td>
</tr>
<tr>
<td><strong>COMFORTABLE WITH SERVICE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>19</td>
<td>86.4%</td>
<td>8</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>13.6%</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 6 indicates that the majority of parents (72.7%) would have perceived more information about the eating disorders service as helpful, whereas 27.3% of parents would not have liked further service information. On the contrary, most adolescent respondents (66.7%) indicated that more information about the service would not have been helpful, and only 33.3% would have liked more service information.

Regarding more information and education on eating disorders in general, again most parents (72.7%) would have liked to have more information available, compared to 27.3% of parental respondents who would have not wanted such information. Similarly, the majority of adolescents (53.3%) would have welcomed more information on eating disorders, compared to 46.7% who would have not found such information helpful.

In terms of feeling comfortable with the service professionals involved in treatment, most parents (86.4%) responded ‘yes’, compared to 13.6% of parents who responded ‘no’. The majority of adolescents (53.3%) also responded ‘yes’ to feeling comfortable with the service, whilst 46.7% of adolescent respondents replied not feeling comfortable.
Research Section

TABLE 7. Data relating to consultations elsewhere:

<table>
<thead>
<tr>
<th></th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Parents</td>
</tr>
<tr>
<td></td>
<td>Count</td>
</tr>
<tr>
<td>CONSULTATIONS ELSEWHERE</td>
<td></td>
</tr>
<tr>
<td>Before service contact</td>
<td>13</td>
</tr>
<tr>
<td>During service contact</td>
<td>2</td>
</tr>
<tr>
<td>Never</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 7. indicates that most parents (61.9%) reported to have had consultations for their current problems elsewhere before contact with the eating disorders service. 28.6% of parents indicated never to have had consultations elsewhere, and 9.5% report to have consulted other agencies during service contact. Many of the adolescents (40%) reported never to have had any consultations elsewhere, followed by 33.3% who consulted other agencies before contact with the service, and 26.7% who indicated consultations elsewhere during service contact.

SECTION II

Reliability analysis of the questionnaire’s satisfaction index items as measured by Cronbach’s alpha:

In the light of the statistical literature discussed above (see sections on ‘satisfaction index’ and ‘analysis’), the items included in the satisfaction index were the most pertinent questions and appeared to have the highest content validity. This section outlines the reliability analysis undertaken to test whether the items comprising the satisfaction index were statistically reliable and valid.

TABLE 8. Analysis of reliability/ internal consistency of the constructed satisfaction index as comprised by questionnaire items:

• 19. Satisfaction with knowledge and competence of practitioner
• 20. Satisfaction with practitioner’s ability to listen and understand
• 22. Satisfaction with acquired coping strategies
• 23. Satisfaction with support, acceptance and reassurance received by service
• 24. Satisfaction with respect received from service
• 25. Satisfaction with maintenance of confidentiality during treatment
Table 8. indicates the Cronbach’s alpha reliability coefficient to be a total score of 0.84 when the satisfaction index in the devised measure is comprised of the above six items and both parental and adolescent scores are combined. It is assumed that the higher the correlations between the items, the greater the internal consistency of the measure. Thus, this score indicates good inter-item consistency and reliability for the employed satisfaction index, as the obtained value exceeds 0.7, which was cited as a critical value for assuming sufficient reliability (Nunnally, 1978). This analysis indicates that the devised satisfaction measure with a reliability of 0.84 means that only 16% of its variance is made up of error. However, as the reliability analysis suggested to omit questionnaire item 21. (satisfaction with the wait for the initial appointment) from this index, items were revised before the analysis.

SECTION III

Five Mann-Whitney-U analyses determining differences in obtained satisfaction indices between different groups of respondents (these calculations correspond to the research questions on page 168):

TABLE 9. Analysis of differences in general satisfaction with the service between parents and adolescent clients:

<table>
<thead>
<tr>
<th>Cases</th>
<th>Number</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N=31</td>
<td>6</td>
<td>0.84</td>
</tr>
</tbody>
</table>

The test was conducted with the assumption that the variables were independent and normally distributed. The results indicate that there were significant differences in the satisfaction levels between parents and adolescents. Specifically, parents reported a higher level of satisfaction compared to adolescents. Furthermore, the analysis suggests that the devised satisfaction measure with a reliability of 0.84 means that only 16% of its variance is made up of error. However, as the reliability analysis suggested to omit questionnaire item 21. (satisfaction with the wait for the initial appointment) from this index, items were revised before the analysis.
Table 9. reveals no significant differences in the satisfaction indices between adolescent clients and their parents (MWU = 110.0, p = 0.73). However, the parental satisfaction index mean rank is marginally higher, indicating potentially more satisfaction with the service, than that reported by the adolescent clients themselves. This is not statistically significant.

**TABLE 10. Analysis of differences in general satisfaction with the service between parents in the high and low intensity treatment conditions:**

<table>
<thead>
<tr>
<th>Cases</th>
<th>Mean</th>
<th>Sum of Ranks</th>
<th>U</th>
<th>W</th>
<th>p one-tailed</th>
<th>z</th>
<th>p two-tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>N=8</td>
<td>8.69</td>
<td>69.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>N=9</td>
<td>9.28</td>
<td>83.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 10. reveals no significant differences in the satisfaction indices between parents who received high or low intensity treatment elements (MWU = 33.5, p = 0.81). Parents in the high intensity treatment condition, however, have a slightly higher mean rank satisfaction index, indicating a statistically insignificant trend for higher service satisfaction compared to the parents in the low intensity treatment condition.
TABLE 11. Analysis of differences in general satisfaction with the service between adolescent clients in the high and low intensity treatment conditions:

<table>
<thead>
<tr>
<th>Cases</th>
<th>Mean</th>
<th>Sum of Rank</th>
<th>U</th>
<th>W</th>
<th>p one-tailed</th>
<th>z</th>
<th>p two-tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N=5</td>
<td>6.90</td>
<td>34.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19.5</td>
<td>34.5</td>
<td>0.69</td>
<td>-0.40</td>
<td>0.68</td>
</tr>
<tr>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N=9</td>
<td>7.83</td>
<td>70.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 11 reveals no significant differences in the satisfaction indices between eating-disordered adolescent clients who received high or low intensity treatment elements (MWU = 19.5, p = 0.69). Nevertheless, the mean service satisfaction index rank of the adolescent clients in the high intensity treatment condition is slightly higher than that of the adolescent clients in the low intensity treatment condition, possibly indicating higher service satisfaction, though statistically insignificant.

TABLE 12. Analysis of differences in general satisfaction with the service between mothers and fathers of the adolescent clients:

<table>
<thead>
<tr>
<th>Cases</th>
<th>Mean</th>
<th>Sum of Rank</th>
<th>U</th>
<th>W</th>
<th>p one-tailed</th>
<th>z</th>
<th>p two-tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N=10</td>
<td>8.10</td>
<td>81.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>26.0</td>
<td>81.0</td>
<td>0.41</td>
<td>-0.88</td>
<td>0.37</td>
</tr>
<tr>
<td>Fathers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N=7</td>
<td>10.29</td>
<td>72.00</td>
<td></td>
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</tr>
</tbody>
</table>

Table 12 reveals no significant differences in the satisfaction indices between mothers and fathers of the eating-disordered adolescent clients (MWU = 26.0, p =
However, the fathers’ satisfaction index mean rank is marginally higher than that of mothers, indicating potentially more satisfaction with the service. This is not statistically significant.

**TABLE 13. Analysis of differences in general satisfaction with the service between adolescent clients in three different age groups (13-14/ 15-16/ 17-18):**

<table>
<thead>
<tr>
<th>Cases</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>U</th>
<th>W</th>
<th>p one-tailed</th>
<th>z</th>
<th>p two-tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-14</td>
<td>3.90</td>
<td>19.50</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>N=5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.5</td>
<td>19.5</td>
<td>0.85</td>
<td></td>
<td>-0.19</td>
<td>0.84</td>
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<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-16</td>
<td>4.25</td>
<td>8.50</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>N=2</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cases</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>U</th>
<th>W</th>
<th>p one-tailed</th>
<th>z</th>
<th>p two-tailed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-14</td>
<td>6.30</td>
<td>31.50</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>N=5</td>
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</tr>
<tr>
<td></td>
<td>16.5</td>
<td>31.5</td>
<td>0.87</td>
<td></td>
<td>-0.16</td>
<td>0.86</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17-18</td>
<td>6.64</td>
<td>46.50</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>N=7</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cases</td>
<td>Mean Rank</td>
<td>Sum of Ranks</td>
<td>U</td>
<td>W</td>
<td>p one-tailed</td>
<td>z</td>
<td>p two-tailed</td>
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<tr>
<td>-------</td>
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<tr>
<td>Age</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-16</td>
<td>4.50</td>
<td>9.00</td>
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<tr>
<td>N=2</td>
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<td></td>
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</tr>
<tr>
<td>17-18</td>
<td>5.14</td>
<td>36.00</td>
<td></td>
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</tr>
<tr>
<td>N=7</td>
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</tr>
</tbody>
</table>

Table 13. reveals no significant differences in the satisfaction indices between adolescent clients across three different age bands (MWU = 4.5; 16.5; 6.0, p = 0.85; 0.87; 0.88). However, the satisfaction index mean rank is marginally highest for the oldest group of adolescent clients (17-18) compared to the younger age groups, indicating potentially more satisfaction with the service. The satisfaction index mean rank is also slightly higher for the adolescents aged between 15-16 compared to those in the youngest (13-14) age group, possibly reflecting higher satisfaction levels with the service received. However, these trends are weak and not statistically significant.

SECTION IV

Eight crosstabulations and Fisher Exact Tests determining differences in levels of perceived treatment outcome between high/low intensity treatment groups of respondents (these calculations correspond to the research questions on page 168): [It was anticipated to employ a Chi-square test for this section of the analysis, but its use was restricted because the number of recorded responses was not large enough and subsequently some of the expected frequencies were less than 5 in the original two-by-three or two-by-five contingency tables. Therefore, the response categories ‘almost’ and ‘yes’; ‘better’ and ‘much better’; as well as ‘worse’ and ‘much worse’ were combined, resulting in two-by-two contingency tables. The Fisher Exact Test was used for the analysis.]
PARENTS:

**TABLE 14. Has your daughter’s weight improved?**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Low</th>
<th>High</th>
<th>Fisher Exact Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>36.4%</td>
<td>0%</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>(4)</td>
<td>(0)</td>
<td></td>
</tr>
<tr>
<td>Almost</td>
<td>63.6%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>/ Yes</td>
<td>(7)</td>
<td>(10)</td>
<td></td>
</tr>
</tbody>
</table>

Table 14. indicates no significant differences in perceived treatment outcome between parents in the high or low intensity treatment conditions (Fisher Exact Test two-tailed significance value = 0.09). However, there is a positive trend for the parents in the high intensity treatment condition to have indicated positive improvements in their daughter’s weight (100% reported ‘yes’ or ‘almost’; no parent reported ‘no’ weight improvements), compared to their low intensity treatment condition counterparts (only 63.6% reported ‘yes’ or ‘almost’; and 36.4% reported ‘no’ weight gain). This trend is close to statistical significance at the 5% level.

**TABLE 15. Has your daughter’s eating pattern improved?**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Low</th>
<th>High</th>
<th>Fisher Exact Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>27.3%</td>
<td>30.0%</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>(3)</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td>Almost</td>
<td>72.7%</td>
<td>70.0%</td>
<td></td>
</tr>
<tr>
<td>/ Yes</td>
<td>(8)</td>
<td>(7)</td>
<td></td>
</tr>
</tbody>
</table>

Table 15. shows that there are no significant differences in the perceived improvement of their daughter’s eating pattern, as reported by parents in the high
or low intensity treatment conditions (Fisher Exact Test two-tailed significance value = 1.00). In a similar fashion, the majority of parents in the low (72.7%) and high (70%) intensity treatment conditions responded ‘yes’ or ‘almost’, indicating improvements in their daughter’s eating pattern. This is followed by 27.3% of low and 30% of high intensity treatment condition parents who indicated ‘no’ changes in eating pattern.

**TABLE 16. Has your daughter’s attitude to eating improved?**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Low</th>
<th>High</th>
<th>Fisher Exact Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>33.3%</td>
<td>20.0%</td>
<td>(4) (2) 0.64</td>
</tr>
<tr>
<td>Almost</td>
<td>66.7%</td>
<td>80.0%</td>
<td>two-tail</td>
</tr>
<tr>
<td>/ Yes</td>
<td>(8)</td>
<td>(8)</td>
<td></td>
</tr>
</tbody>
</table>

Table 16. shows that there are no significant differences in the perceived improvement in their daughter’s attitude to eating, as reported by parents in the high or low intensity treatment conditions (Fisher Exact Test two-tailed significance value = 0.64). The majority of parents in the low intensity treatment condition (66.7%) reported a ‘yes’ or ‘almost’ improvement in eating attitude, followed by 33.3% who indicated ‘no’ improvements. In a similar pattern, the majority of parents in the high intensity treatment condition (80%) reported positive improvements in their daughter’s attitude to eating (as indicated by ‘almost’ or ‘yes’ ratings), followed by only 20% who indicated ‘no’ improvements.
Table 17. indicates no significant differences in perceived changes following service contact between parents in the high or low intensity treatment conditions (Fisher Exact Test two-tailed significance value = 0.21). The majority of parents in the low intensity treatment condition (72.2%) viewed occurred changes in their situation as 'better' or 'much better' since contact with the service. A minority (27.3%) of parents in this treatment condition reported the situation to be the 'same'. In a slightly more positive percentile trend, parents in the high intensity treatment condition (100%) perceived changes in their situation as 'better' or 'much better'. No parent in this treatment condition reported changes to be the same as before service contact. Furthermore it is notable that parents from neither group reported changes in a negative fashion ('worse' or 'much worse').

**TABLE 18. In your own view, has your weight increased?**

<table>
<thead>
<tr>
<th>Answer</th>
<th>Low</th>
<th>High</th>
<th>Fisher Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>16.7%</td>
<td>11.1%</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td>Almost</td>
<td>83.3%</td>
<td>88.9%</td>
<td>two-tail</td>
</tr>
<tr>
<td>/ Yes</td>
<td>(5)</td>
<td>(8)</td>
<td></td>
</tr>
</tbody>
</table>
Table 18. indicates no significant differences in perceived weight gain following service contact for adolescents in the high or low intensity treatment conditions (Fisher Exact Test two-tailed significance value = 1.00). In a parallel fashion, the majority of low (83.3%) and high (88.9%) intensity treatment condition respondents indicated 'yes' or an 'almost' weight increase after contact with the service, followed by smaller numbers for low (16.7%) and high (11.1%) intensity treatment group adolescents respectively, who reported 'no' weight increase.

TABLE 19. In your own view, has your eating pattern normalised?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Low</th>
<th>High</th>
<th>Fisher Exact Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>50.0%</td>
<td>33.3%</td>
<td>0.62</td>
</tr>
<tr>
<td></td>
<td>(3)</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td>Almost</td>
<td>50%</td>
<td>66.7%</td>
<td>two-tail</td>
</tr>
<tr>
<td>/ Yes</td>
<td>(3)</td>
<td>(6)</td>
<td></td>
</tr>
</tbody>
</table>

Table 19. shows that there are no significant differences in the perceived normalisation of their own eating pattern, as reported by adolescent clients in the high or low intensity treatment conditions (Fisher Exact Test two-tailed significance value = 0.62). However, there is a positive trend for the majority of adolescents in the high intensity treatment condition to have indicated improvements regarding the normalisation of their eating pattern (most respondents (66.7%) reported 'yes' or 'almost'; and 33.3% reported 'no' eating pattern normalisation), compared to their low intensity treatment condition counterparts (only 50% reported 'yes' or 'almost'; and 50% reported 'no' normalisation in their eating pattern).
TABLE 20. In your own view, has your attitude to eating normalised?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Low</th>
<th>High</th>
<th>Fisher Test</th>
<th>Exact Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>66.7%</td>
<td>33.3%</td>
<td></td>
<td>0.31</td>
</tr>
<tr>
<td></td>
<td>(4)</td>
<td>(3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Almost / Yes</td>
<td>33.3%</td>
<td>66.7%</td>
<td>two-tail</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2)</td>
<td>(6)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 20. indicates no significant differences in the perceived normalisation of eating attitude following service contact for adolescents in the high or low intensity treatment conditions (Fisher Exact Test two-tailed significance value = 0.31). The majority of adolescents in the low intensity treatment condition (66.7%) reported 'no' normalisation of their attitude to eating, followed by a smaller percentage of adolescents (33.3%) who indicated either an 'almost' or 'yes' regarding the normalisation of their eating attitude after contact with the service. Reflecting a slightly more positive trend, most adolescents in the high intensity treatment group (66.7%) reported a definite or 'almost' normalisation of their attitude to eating, followed by 33.3% who indicated no eating attitude normalisation.

TABLE 21. In your own view, has there been a change in your situation?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Low</th>
<th>High</th>
<th>Fisher Test</th>
<th>Exact Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Much worse/</td>
<td>0%</td>
<td>22.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0)</td>
<td>(2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worse</td>
<td></td>
<td></td>
<td>0.50</td>
<td>two-tail</td>
</tr>
<tr>
<td>Better/ Much better</td>
<td>100%</td>
<td>77.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(5)</td>
<td>(7)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 21. indicates no significant differences in perceived changes following service contact as indicated by adolescent clients in the high or low intensity treatment conditions (Fisher Exact Test two-tailed significance value = 0.50). All adolescents in the low intensity treatment group (100%) indicated changes to be 'better' or 'much better' after service contact. No respondents in this treatment group reported changes to be worse following service contact. In a similar, though slightly more cautious, response pattern, most adolescents in the high intensity treatment condition (77.8%) indicated changes to be 'better' or 'much better', following service contact. However, some adolescents in this treatment condition (22.2%) indicated that changes in their situation were 'worse' or 'much worse'.

SECTION V

Qualitative data obtained by parents and adolescents:
The final section of the questionnaire asked parents and adolescents about aspects that they liked and disliked about the service and in which way the service could be improved. A large variety of positive and negative aspects about the service were cited and numerous suggestions were made for further service improvements. The main themes in the form of positive comments made by parents and adolescents included the regularity of support and reassurance provided; the availability and flexibility of staff; and the confidentiality and caring attitude of professionals offering specialist advice. Negative themes from parents and adolescents in turn focused on issues around inconsistencies of professionals available; a lack of clarity in therapy aims; a lack of advice for problem management at home; and breaches of confidentiality. Further suggestions for service improvement from parents and adolescents mainly highlighted the need for more specialised services of this nature in general; increased advertising and liaison with local facilities; as well as contacts or support groups for parents, adolescents or families. [Due to limitations of space, see Appendix IV for a full categorisation of positive and negative comments, as well as suggestions for improvement made by parents and adolescents.]
IV. DISCUSSION

Obtained response rates

The high response rate in this study (64.9% for parents and 75.0% for adolescents) compared favourably to other studies involving the use of a mailed questionnaire (e.g. Stallard (1995): parental response rate 55%; Mason et al. (1995): parental response rate 44.6%; Byalin (1993): parental response rate 28%; and Nicholson (1989): mixed response rate 50%). The rates therefore allowed for some conclusions, as Lebow (1983) reviewing the literature, concluded that compliance rates for mailed questionnaires reach an average return rate of only 40% and suggested that this frequent lack of response may itself be an expression of dissatisfaction (Lebow, 1982). The response rates raised interesting questions about the dynamics operating when parents and their children are required to return mailed questionnaires at different points in time. The high adolescent response rate might suggest that despite the nature of eating disorders and their treatment resistance, the adolescents recognised and acknowledged the role of this specialised community service and furthermore valued its existence to some degree. This might be of significance, as studies using mailed questionnaires with adolescent clinical populations are less common than other forms of evaluation surveys (e.g. telephone surveys; questionnaires given in conjunction with treatment). However, the rate might also reflect parental pressures on adolescents to return the questionnaires.

Additionally, the response rate raised the question of how representative the respondents were of the total client population and whether the more 'co-operative' clients (returning questionnaires) were more satisfied with the service contact (Sheppard, 1993). This is of particular importance, as previous research (Stallard, 1995) has reported that questionnaire non-respondents evaluated services more negatively and differed from respondents in their particular areas of dissatisfaction. This possible positive response bias, and alternative accounts for high service satisfaction (e.g. the reluctance of respondents to give negative comments if they anticipated receiving further treatment at a later stage, despite efforts to ensure anonymity and confidentiality; or a general lack of knowledge of
alternative services (Sheppard, 1993)), need to be considered when reflecting on the present results. On the contrary, however, the findings indicated that respondents felt able to express their honest opinion about the service (as reflected by constructive criticism) and thus the response pattern was not marked by non-varied, monotonous responses (Halo-effect). However, the present questionnaire would require modification in order to establish a meaningful correlation between satisfaction ratings and ratings of symptom level, which would confirm that the relationship between perceived symptom reduction and satisfaction was not partly the result of a Halo-effect.

**Questionnaire reliability**

The high Cronbach alpha coefficient (0.84), following specific item selection and revision, indicated a good degree of reliability for the satisfaction index used in this survey, thus emphasising the reliability of the present findings. Furthermore, the designed measure demonstrated versatility, suitability and flexibility for different groups of respondents, thus allowing for individual circumstances (e.g. single parents; adolescent hospitalisations). As a high degree of reliability is present in both parental and adolescent samples, the future use of this measure with both groups of respondents might be appropriate and might even be extended to comparable specialised services or even more generalised Health Service settings.

**Obtained service satisfaction and treatment outcome ratings**

Overall, the present results (quantitative and qualitative) provided encouraging, separately assessed findings on service satisfaction as well as perceived therapy outcome, as indicated by separate opinions from both adolescent clients and their parents. This general trend is partly similar to other findings, indicating that the majority (70-80%) of parents report service satisfaction and an improvement in the problem for which treatment had been sought (Kopec-Schrader et al., 1993). However, it appeared noteworthy that parents and eating-disordered adolescents independently showed equally high levels of service satisfaction. This is of relevance, because consumer surveys were cited as difficult to interpret, especially
when assessing a treatment approach for a condition characterised by erroneous beliefs and cognitive errors (Lemberg & May, 1991).

More specifically, both groups of respondents showed high levels of satisfaction regarding appointment arrangements; staff attitudes, competence and empathy; as well as treatment effectiveness. Concerning separate treatment elements, parents and adolescents mostly valued individual therapy, followed by family therapy sessions, which is in contrast to Cockett's (1992) survey, in which family therapy was not particularly valued by the adolescent client group. Treatment aspects such as parental meetings, dietary counselling, weight monitoring and home visits, though viewed as less helpful overall, were nevertheless indicated as useful in their respective settings. This provided meaningful feedback for the treatment composition devised and budgeted for by the service.

A general problem of treatment outcome research is the question of how to measure therapy effectiveness and on what basis to decide that therapy is effective. Concerning this study, the intermediate success of treatment (as measured by perceived treatment outcome and viewed separately from service satisfaction), interestingly revealed that the majority of parents and adolescents indicated positive changes in weight gain, followed by more hesitant reports of improvements in the normalisation in eating pattern, and a most cautious or even stagnant report of shifts in eating attitude. Overall, these trends were more evident in the adolescent self-ratings, whereas parents' ratings were of a slightly more positive nature. However, none of these trends regarding perceived treatment outcome were statistically significant for parents or adolescents in either the high or low treatment condition. Nevertheless, the trends with regard to the aspects and stages of improvements are similar to those described by other researchers in this field (Fairburn & Cooper, 1989). Furthermore, in conjunction with the length of service contact, they might reflect the severity and chronicity of the conditions treated by this specialised service. In sum, these perceived outcomes are complex and are influenced by an array of factors (time, focus, setting, instrument, judge) (Berger,
1996), which are dependent on non-standardised individual circumstances, and thus to be viewed with some caution.

The survey asked a variety of service-specific questions to different groupings of respondents, but because the findings obtained were not statistically significant, only trends can be discussed and generalisations are made with caution. However it appeared that the therapeutic intensity self-selection procedure was successful in differentiating high and low intensity client groups, who showed similar levels of satisfaction. Similar satisfaction levels were shown by mothers and fathers, as well as adolescents across different age bands, and an indication was therefore provided that the services offered were suitable and adaptable to various individual circumstances. Independently regarding the perceived treatment outcome, the results also tentatively suggested that the high intensity treatment condition, involving family therapy, might carry additional outcome advantages of assisting improvements in family relationships, as well as indicating better weight improvements (rated by parents), compared to the low intensity treatment condition. Overall though, it appeared that therapy was equally successful for clients seen individually, with members of their family, or in combination of both of these approaches, which is similar in trend to previous reports (Nicholson, 1989).

Obtained dissatisfaction ratings

Dissatisfaction in the case of parents was largely related to problems of confidentiality, communication and perceived lack of support for the parents themselves. Adolescent criticisms also addressed issues of confidentiality, as well as aspects regarding treatment reluctance and treatment continuity. Past research (Kopec-Schrader et al., 1993) revealed that the majority of critical issues in public health service settings appeared to be related to the therapists themselves, in contrast to this study where criticisms mainly related to general aspects of the programme and to the perceived lack of support for it and involvement of parents in it. This manifestation might be related to treatment modalities or the specific service, but could also be a function of the specific stresses suffered by the parents of children with eating disorders. Overall, the identified areas of dissatisfaction and
Research Section

unmet needs are similar to other trends in public psychiatric services; and as resources within the mental health system have decreased relative to demand, staff might have become less responsive to consumer needs that lie outside the specific domain of psychiatry (Byalin, 1993).

Limitations of the present study

The potential application of this study is limited by the descriptive nature of its design, its setting, the nature of the disorders, the relatively small sample size, as well as the use of a mailed questionnaire, which relies on clients' willingness to reply. However, the main criticism in the methodology of this study lies in the fact that the parental and adolescent questionnaires were not traced. This was partly due to service restrictions to maintain anonymity, and differences in timing, as questionnaires were sent out to parents earlier than to adolescents. Due to this lack of association between parents and adolescents, it was not appropriate to consider more robust statistical procedures. Furthermore, it must be highlighted that the need to combine some of the response categories for the perceived treatment outcome section (in order to apply the correct statistical analysis) might have narrowed the overall response variation. However, as no significant differences in perceived treatment outcome between parents and adolescents in either treatment condition were evident before or after this data modification, this has only a marginal influence on the interpretation of the findings.

An additional limitation of this study might be that all types of eating-disorder diagnoses were grouped together and it might be speculated that different specific diagnoses would result in different outcomes and satisfaction. However, the variety of conditions treated, overlapping eating-disorder symptoms, frequent comorbidity and a possible unreliability of clinical diagnoses, made the estimation of the effect of specific disorders difficult in this study. Furthermore, it might be highlighted that the language in the questionnaire was not reviewed by an editor for the level of readability to the targeted adolescent group, as has been done in previous research (e.g. Potthoff, 1995).
Nevertheless, the results of this study have helped to highlight some specific methodological problems as well as suggestions for some questionnaire changes, which would include the different wording of some questions (e.g. treatment outcome question ratings (14-16) using ‘yes’; 'somewhat’; and ‘no’, rather than ‘almost’/ service satisfaction questions (22; 24) using ‘how’ questions).

Overall, it has been stressed that the development of more sensitive and quantifiable measures of consumer satisfaction with mental health services is required (Kopec-Schrader et al., 1994) and that it is the researcher’s role to ensure that the satisfaction levels reported reflect the actual views of the consumers, rather than just being an artefact of survey techniques (Stallard & Chadwick, 1991). Following this survey it might be suggested that the questionnaire could be modified to include a list of common complaints that are readily interpreted and compared, perhaps following more specific groupings such as ‘treatment programme’ and ‘therapist’s style’. A further weakness of this measure is its validity, and in order to ensure a greater degree of content validity in future settings, consumers themselves could also be involved in its item revision (Stallard & Chadwick, 1991). Furthermore, the employed open-ended comments were useful, but might result in a variety of responses difficult to analyse and compare in future surveys.

**Service implications and suggestions for future research**

Discussions of client feedback with relevant staff is a valuable tool for service improvements (Kopec-Schrader et al., 1993). This study aimed to be employed for staff feedback, in providing positive feedback on the quality of their work and professional competence. It is hoped that the feedback of the present results reinforced the staff team’s awareness of the depth of their knowledge, skills and the overall value of their work, and thus increased their confidence in their ability and motivation to work in this specialised service. Furthermore, the survey highlighted some family issues and attitudes, which when matched with the involved professional’s attitude could result in greater service satisfaction (Jones & Graybill, 1984).
Furthermore, the above results suggest that parental education, involvement and support are important elements to increase client satisfaction, as it has been highlighted previously that parents of adolescent patients with eating disorders often feel overwhelmed by their child’s condition and need a great deal of support and information about the disorder and its management (Kopec-Schrader et al., 1993). As in comparable surveys (Kopec-Schrader et al., 1993), this need is reflected in the presented parental criticisms and suggestions for improvement of the service. One way of providing support in this direction could be in the form of regular (i.e. monthly) groups for parents or adolescents, which could be a potentially useful tool in this specialised service, both for support and as a focus for observation and exploration of relationships (Draucker, 1992). Furthermore, group work might be employed to control growing waiting lists, and future research could explore how these groups are perceived by parental and adolescent participants, as well as evaluate their overall effectiveness.

The current results (as obtained from the qualitative data) also highlight an increasing demand for improved service liaison with schools, youth clubs and local libraries, as well as with primary care agencies. In addition, devising a leaflet which combines some general information about the nature and effects of eating disorders in adolescence; as well as outlining guidelines regarding the structure of this service and the treatment variety offered, might be beneficial, both for advertisement, additional information/education and support for relatives of eating-disordered adolescents. It would also be of interest to obtain more specific information as to how the service could provide improved individualised support, for example to single parents or for families in crises.

Another important service aspect that was highlighted as problematic in this survey was the issue of confidentiality between adolescents, parents and professionals. Unsatisfactory, restricted feedback to parents due to confidentiality or even a breach of confidentiality might be prevented by devising a set of policy guidelines for therapists on how to deal with particularly difficult clinical situations and
confidential aspects of therapy. Thus, evaluation can serve to focus both service providers and policy makers on quality care.

Overall, further monitoring activity needs to address whether the reported symptom improvement, as well as the separately assessed satisfaction level, is maintained at times of individual discharge and follow-up. A true comparison of the different treatment approaches, including control groups, might also be suggested, as this was currently much beyond the available resources. Additionally, future surveys of this service could look at relating satisfaction to different diagnoses, as well as establishing whether the diagnosis is related to a specific suitability for the high intensity or low intensity treatment condition. Furthermore, an examination of whether respondent satisfaction is more strongly related to family interactions rather than to symptom reduction might also be applicable.

The devised satisfaction questionnaire (in appropriately modified form) could also be employed to obtain views of referrers and clinic staff on satisfaction and outcome, and resulting criticisms and suggestions regarding the service could be utilised towards ‘evidence-based practice’ (PCE, 1996). Additionally, in avoiding positively skewed results, identifying the sources of dissatisfaction specific to non-respondents (clients and staff) might be achieved by using the questionnaire and follow-up interviews targeted at non-respondents (Stallard, 1995).

V. CONCLUSION

Overall, the most encouraging aspects of this survey were the magnitude of favourable responses to the treatment programme, as well as the suitability and reliability of the designed satisfaction measure. Using the constructed questionnaire highlighted that the independent and anonymous consumer judgement of services (from identified clients as well as related service users) is a vital tool in service improvement, rather than solely relying on the judgement of service suppliers. Furthermore, the designed client satisfaction measure was useful in assessing satisfaction with different types of consultations and patterns of communication; it served as an important, independent measure of perceived treatment outcome; and
by using the feedback systematically, it will enable choice between alternatives in 
organising or providing health care, thereby leading to change. However, this 
evaluative study also raised several issues that need to be considered in order to 
obtain meaningful information upon which mental health services can develop and 
service managers are able to act.

Bearing in mind the previously discussed reservations of this study, the results 
separately indicated positive levels of service satisfaction as well as perceived 
treatment outcome, as expressed by most parents and adolescents independently. 
This provided a relatively complete and reliable view of service users in this area 
and both qualitative and quantitative data were considered to be useful in this 
process. The trend of the obtained findings was anticipated and proved to be 
reasonably similar to that obtained by other workers in this field.


Ruggeri, M., & Dall'Agnola, R. (1993). The development and use of the Verona Expectations for Care Scale (VECS) and the Verona Service Satisfaction Scale (VSSS) for measuring expectation and satisfaction with community-based psychiatric services in patients, relatives and professionals. *Psychological Medicine, 23*, 511-523.


Appendix I

1. Parental service evaluation questionnaire
2. Adolescent service evaluation questionnaire
Evaluation Questionnaire

Introduction: Please help us to evaluate the Eating Disorders Service by answering the following questions. All questions pertain to service contact after January 1996. Please indicate below whether you are (please circle):

<table>
<thead>
<tr>
<th></th>
<th>Mother</th>
<th>Father</th>
</tr>
</thead>
</table>

1) How long did you have to wait for your first appointment, after receiving our initial contact letter? (please circle)

|                | 2 weeks or less | 1 month | 1-2 months | 3 months or more |

2) Did you cancel any appointment times given prior to attending your first appointment? (please circle)

|                | yes | no |

3) When you attended appointments were you seen on time? (please circle)

|                | early | on time | within 15 mins | within 15-20 mins | longer |

4) Have you been late for any appointment times? (please circle)

|                | yes | no | if yes: | within 15 mins | after 15 mins |

5) Were the appointment times convenient? (please circle)

|                | yes | no |

6) Have you found the staff approachable? (please circle)

|                | yes | no |

7) In which clinic did you usually meet? (please circle)

|                | Guildford | Farnham | Frimley | other (please specify) |

8) Age of person referred to the service? (please circle)

|                | 12 and under | 13-14 yrs | 15-16 yrs | 17-18 yrs | over 18 yrs |

|
9) Which of the following service elements were you or members of your family involved in (may be several)? (please tick)
   - regular family meetings (more than one appointment with one or two clinicians)
   - meetings with parents only
   - regular individual counselling for daughter
   - weight monitoring
   - dietary counselling (more than one appointment with dietician)
   - home visits for weighing

10) Of the interventions you experienced, how helpful in your view did you find them? (please circle)
   completely helpful  quite helpful  to some extent helpful
   unhelpful (no change)  unhelpful (made worse)

11) Of these interventions, which in your view was most helpful (please specify).

12) Approximately how many appointments in total did you or other family members attend? (please circle)
   1-3 sessions  4-7 sessions  8-12 sessions  more than 12 sessions

13) How did you feel about the total number of appointments? (please circle)
   too many  sufficient  too few

14) Has your daughter’s weight improved? (please circle)
   yes  almost  no

15) Has your daughter’s eating pattern improved? (please circle)
   yes  almost  no

16) Has your daughter’s attitude to eating improved? (please circle)
   yes  almost  no  if yes: more helpful  less helpful

17) Has there been a change in your daughter’s situation? (please circle)
   much better  better  same  worse  much worse

18) How well did you feel your family was understood? (please circle)
   completely  very much  to some degree  not at all  not listened to (made worse)
19) How satisfied were you with the knowledge and competence of the professionals involved? (please circle)

- very satisfied
- satisfied
- neither
- dissatisfied
- very dissatisfied

20) How satisfied were you with the ability of the practitioner to listen and understand? (please circle)

- very satisfied
- satisfied
- neither
- dissatisfied
- very dissatisfied

21) How satisfied were you with the length of wait for your first appointment? (please circle)

- very satisfied
- satisfied
- neither
- dissatisfied
- very dissatisfied

22) Do you feel you have learnt effective, new ways of coping with recently experienced problems? (please circle)

- very effective
- effective
- neither
- ineffective
- very ineffective

23) How well did you as parents feel accepted, supported and reassured by the service? (please circle)

- very well
- well
- neither
- poorly
- very poorly

24) Did you feel you were treated with respect? (please circle)

- very respectful
- respected
- neither
- disrespected
- very disrespectful

25) How confident were you that confidentiality was maintained throughout treatment? (please circle)

- very confident
- confident
- neither
- uncertain
- very uncertain

26) Would more information about the service have been helpful? (please circle)

- yes
- no

27) Would more information/education about eating disorders have been helpful? (please circle)

- yes
- no

28) Did you feel comfortable talking with the professionals involved? (please circle)

- yes
- no
29) Can you please identify 3 aspects that you liked about the service?

30) Can you please identify 3 aspects that you disliked about the service?

31) Please add any further comments, criticisms or suggestions to improve the service:

32) Have you sought help elsewhere for the same problem? (please circle)

before contact with this service during contact after contact

never

Thank you for your help!
Evaluation Questionnaire

Introduction: Please help us to evaluate the Eating Disorders Service by answering the following questions. All questions pertain to service contact after January 1996.

1) How long did you have to wait for your first appointment, after receiving our initial contact letter? (please circle)

- 2 weeks or less
- 1 month
- 1-2 months
- 3 months or more

2) Did you cancel any appointment times given prior to attending your first appointment? (please circle)

- yes
- no

3) When you attended appointments were you seen on time? (please circle)

- early
- on time
- within 15 mins
- within 15-20 mins
- longer

4) Have you been late for any appointment times? (please circle)

- yes
- no
- if yes: within 15 mins
- after 15 mins

5) Were the appointment times convenient? (please circle)

- yes
- no

6) Have you found the staff approachable? (please circle)

- yes
- no

7) In which clinic did you usually meet? (please circle)

- Guildford
- Farnham
- Frimley
- other (please specify)

8) What was your age when you were referred to the service? (please circle)

- 12 and under
- 13-14 yrs
- 15-16 yrs
- 17-18 yrs
- over 18 yrs
9) Which of the following service elements were you or members of your family involved in (may be several)? (please tick)

- regular family meetings (more than one appointment with one or two clinicians)
- meetings with parents only
- regular individual counselling for daughter
- weight monitoring
- dietary counselling (more than one appointment with dietician)
- home visits for weighing

10) Of the interventions you experienced, how helpful in your view did you find them? (please circle)

completely helpful    quite helpful    to some extent helpful
unhelpful (no change) unhelpful (made worse)

11) Of these interventions, which in your view was most helpful (please specify):

12) Approximately how many appointments in total did you or other family members attend? (please circle)

1-3 sessions 4-7 sessions 8-12 sessions more than 12 sessions

13) How did you feel about the total number of appointments? (please circle)

too many sufficient too few
14a) In your parent’s view, has your weight increased? (please circle)

yes  almost  no

14b) In your own view, has your weight increased? (please circle)

yes  almost  no

15a) In your parent’s view, has your eating pattern normalised (e.g. eating 3 meals daily with occasional snacks; without bingeing, vomiting, excessive drinking or exercising)? (please circle)

yes  almost  no

15b) In your own view, has your eating pattern normalised (e.g. please see 15a)? (please circle)

yes  almost  no

16a) In your parent’s view, has your attitude to eating normalised (e.g. being a reduced worry to you, with less invading thoughts; and being more relaxed whilst eating, with an increase in thoughts about other activities)? (please circle)

yes  almost  no  if yes: more helpful  less helpful

16b) In your own view, has your attitude to eating normalised (e.g. please see 16a)? (please circle)

yes  almost  no  if yes: more helpful  less helpful

17) Has there been a change in your situation? (please circle)

much better  better  same  worse  much worse

18) How well did you feel you and your family were understood? (please circle)

completely  very much  to some degree  not at all  not listened to (made worse)
19) How satisfied were you with the knowledge and competence of the professionals involved? (please circle)

| very satisfied | satisfied | neither | dissatisfied | very dissatisfied |

20) How satisfied were you with the ability of the practitioner to listen and understand? (please circle)

| very satisfied | satisfied | neither | dissatisfied | very dissatisfied |

21) How satisfied were you with the length of wait for your first appointment? (please circle)

| very satisfied | satisfied | neither | dissatisfied | very dissatisfied |

22) Do you feel you have learnt effective, new ways of coping with recently experienced problems? (please circle)

| very effective | effective | neither | ineffective | very ineffective |

23) How well did you feel accepted, supported and reassured by the service? (please circle)

| very well | well | neither | poorly | very poorly |

24) Did you feel you were treated with respect? (please circle)

| very respectful | respected | neither | disrespected | very disrespectful |

25) How confident were you that confidentiality was maintained throughout treatment? (please circle)

| very confident | confident | neither | uncertain | very uncertain |

26) Would more information about the service have been helpful? (please circle)

| yes | no |

27) Would more information/education about eating disorders have been helpful? (please circle)

| yes | no |

28) Did you feel comfortable talking with the professionals involved? (please circle)

| yes | no |
29) Can you please identify 3 aspects that you liked about the service?

•
•
•

30) Can you please identify 3 aspects that you disliked about the service?

•
•

31) Please add any further comments, criticisms or suggestions to improve the service:

32) Have you sought help elsewhere for the same problem? (please circle)

before contact with this service during contact after contact

never

Thank you for your help!
Appendix II

1. Written communication with the North West Surrey Local Research Ethics Committee and the South West Surrey Local Research Ethics Committee
Dear Sir/Madam of the North West Surrey Local Research and Ethics Committee

Re: Application for the ethical consideration of a research project

Please find enclosed the required information for the ethical consideration of a research project. The project will aim to evaluate an outpatient eating disorders service for adolescents by examining parental satisfaction. The service is based at the Frimley Children’s Centre and receives referrals from the Frimley, Guildford and Farnham area. Together with your colleagues from the South West Surrey Local Research Ethics Committee who will also consider this proposal, the patient catchment area should be sufficiently covered.

The following are included for your information:

- A research proposal (approx. 1500 words)
- The devised consumer satisfaction questionnaire.
- Two explanatory letters to parents and adolescents (an additional letter for single-parents is included)

This project is intended to obtain consumer views of a newly developed NHS service, in order to use this information in monitoring performance and formulating policy. Furthermore it will be used as a Second Year Placement Research Project for the PsychD in Clinical Psychology at the University of Surrey.

We hope that you will have a chance to discuss this proposal in your meeting on 31st January 1997 and we look forward to hearing from you soon (please send all correspondence to D. Kerley at the above address).

Yours faithfully,

Alexia Fernholz
(Psychologist in Clinical Training, University of Surrey)

David Kerley
(Eating Disorders Service Co-ordinator)
Our Ref: JWW/GR  
5th February 1997

Dr. A. Femholz  
Psychologist in Clinical Training,  
University of Surrey,  
Frimley Children's Centre  
Church Road,  
Frimley, Camberley,  
Surrey GU16 5AD

Dear Dr. Femholz,

Re: Evaluation of a community-based eating disorders service for adolescents:  
An examination of parental satisfaction

Thank you for your letter dated 15th January 1997 with the enclosed research proposal. I am happy to take Chairman's Action to approve this study and this should be ratified at the next full Committee meeting on 11th March 1997.

Yours sincerely,

[Signature]

Dr. J. W. Wright  
Chairman, Ethics Committee
Dear Miss Femholz and Mr Kerley

Evaluation of a Community-based Eating Disorders Service for Adolescents: An Examination of Parental Satisfaction

Following receipt of your letter dated 15 January 1997, your application for ethical approval of the above research was formally considered by the committee at the meeting held on 31 January 1997. After carefully perusing the documents you submitted, members of the committee were of the opinion that the protocol was an audit project rather than a research project and in this case it did not appear to require ethical approval. No decision was taken therefore as far as ethical approval was concerned in respect of your study and, if there are particular reasons why you require ethical approval, perhaps you would let me know.

Yours sincerely

Patricia Wilkie PhD
Chairman
North West Surrey Local Research Ethics Committee
Dear Dr Wright,

26 February 1997

Evaluation of a Community-based Eating Disorders Service for Adolescents: An Examination of Parental Satisfaction

Thank you for your letter of 5 February 1997, informing us that you took Chairman's Action to approve the above audit project. I am writing to you again just to let you know that we are planning to slightly extend the basis on which this project will be carried out. Instead of solely focusing on the level of parental satisfaction, as originally proposed, we are now intending to additionally assess the level of satisfaction perceived by the adolescent patients attending the service. Our aim is to employ a similar version of the constructed satisfaction questionnaire for parents. It appeared sensible to combine both consumer views of the service at this point in time.

We do anticipate that this addition to the original proposal will not be of great significance to the Ethics Committee. However, we thought it was appropriate to inform you of the above changes and would be grateful if you could consider this information if necessary at the next full Committee meeting on 11th March 1997.

Please do not hesitate to contact us at the Frimley Children's Centre (Tel: 01483-782900) should you require any further information regarding this project.

Yours sincerely,

Alexia Femholz
Clinical Psychologist in Training

David Kerley
Eating Disorders Service Co-ordinator
Dear Dr Wilkie,

26 February 1997

**Evaluation of a Community-based Eating Disorders Service for Adolescents: An Examination of Parental Satisfaction**

Thank you for your letter of 12 February 1997, informing us that the Committee had formally considered the above audit project. I am writing to you again just to let you know that we are planning to slightly extend the basis on which this project will be carried out. Instead of solely focusing on the level of parental satisfaction, as originally proposed, we are now intending to additionally assess the level of satisfaction perceived by the adolescent patients attending the service. Our aim is to employ a similar version of the constructed satisfaction questionnaire for parents. It appeared sensible to combine both consumer views of the service at this point in time.

We do assume that this addition to the original proposal will not be of significance to the Ethics Committee as you seemed to agree that this was an audit project rather than a research project and in this case did not require ethical approval. However, we thought it was appropriate to inform you of the above changes.

Please do not hesitate to contact us at the Frimley Children's Centre (Tel: 01483-782900) should you require any further information regarding this project.

Yours sincerely,

Alexia Fernholz
Clinical Psychologist in Training

David Kerley
Eating Disorders Service Co-ordinator
Dear Dr. Femholz,

Re: Evaluation of a community-based eating disorders service for adolescents: An examination of parental satisfaction

I am pleased to confirm that Chairman's Action taken to approve the above study was ratified at the meeting of the Ethics Committee on 11th March 1997. This approval includes the amendment to assess the level of satisfaction perceived by adolescent patients.

Yours sincerely,

[Signature]
Dr. J. W. Wright
Chairman, Ethics Committee
Dear Miss Femholz and Mr Kerley

Evaluation of a Community-based Eating Disorders Service for Adolescents: An Examination of Parental and Adolescent Satisfaction

Further to our correspondence on the above study, your protocol was formally considered by the Ethics Committee at the meeting held on 4 April 1997. I am pleased to inform you that the decision of the committee was to grant the study ethical approval.

Would you please notify the committee in advance of any significant proposed deviation from the original protocol. Would you also please report if there are any unusual or unexpected results which raise questions about the safety of the research, once the study is under way. The committee would be interested in the final results of your study and wish you every success in carrying it out.

Yours sincerely

Patricia Wilkie PhD
Chairman
North West Surrey Local Research Ethics Committee
Appendix III

1. Example of parental explanatory letter (similar in parental and adolescent trial)
2. Example of adolescent explanatory letter (similar in parental and adolescent trial)
3. Example of reminder letter sent to parents and adolescents
Dear Frimley Children's Centre

As you may be aware the Eating Disorders Service is a relatively new service having started in January 1996. We are now at a stage where we would like to reflect on the development of the service and would be grateful for your participation in this process. On behalf of the North Downs Community Health Trust, David Kerley (Eating Disorders Service Co-ordinator) and Alexia Fernholz (Psychologist in Clinical Training at the University of Surrey) are conducting this evaluation project, which will mainly look at the level of parental satisfaction with the service. For your child's information we have included an explanatory letter and would be grateful if you could pass it on. However, for the purpose of this study we are just interested in your views as parents.

Please find enclosed two copies of the same questionnaire regarding your experiences with the service, which we would like each of you to fill out individually (please tick mother/ father box on top of the questionnaire). Completing the questionnaire will take approximately 10 minutes. We would be grateful if you could return the completed questionnaires in the enclosed self addressed, stamped envelope within the next two weeks. Your answers and comments will be highly valued and treated confidentially to ensure that your family's anonymity is maintained.

The feedback you provide us with will be used to further develop the Eating Disorders Service. More specific aims of this evaluation include:

- Assessing general parental satisfaction with a specific Health Service and using this information to improve the treatment provided to patients.
- Identifying general benefits resulting from treatment as perceived by parents of patients.
- Identifying further needs of parents.
- Giving feedback to clinicians that is otherwise not available.

We would like to thank you for your time and effort. Should you have any queries or would like to obtain further information regarding this project, please contact David Kerley at the above address. If you would like feedback on the results of this evaluation please leave your name with David Kerley again at the above address so that we can forward this to you.

With best wishes,

Alexia Fernholz

David Kerley

Alexia Fernholz

An NHS Trust
Dear [Parent's Name]

As you may be aware the Eating Disorders Service is a relatively new service having started in January 1996. We are now at a stage where we would like to reflect on the development of the service and would be grateful for your parent's participation in this process. On behalf of the North Downs Community Health Trust, David Kerley (Eating Disorders Service Co-ordinator) and Alexia Fernholz (Psychologist in Clinical Training at the University of Surrey) are conducting this evaluation project which will mainly look at the level of parental satisfaction with the service. Even though at this stage in the project we are just looking at parental satisfaction, in the future we anticipate an evaluation looking at your views of this service.

We would like your parents to complete the attached questionnaires regarding their experiences of the service. Your parent's answers and comments will be treated confidentially to ensure that your family's anonymity is maintained.

The feedback provided will be used to further develop the Eating Disorders Service. More specific aims of this evaluation include:

- Assessing general parental satisfaction with a specific Health Service and using this information to improve the treatment provided to patients.
- Identifying general benefits resulting from treatment as perceived by parents of patients.
- Identifying further needs of parents.
- Giving feedback to clinicians that is otherwise not available.

Should you have any queries or would like to obtain further information regarding this project, please contact David Kerley at the above address. If you would like feedback on the results of this evaluation please leave your name with David Kerley again at the above address so that we can forward this to you.

With best wishes.

Alexia Fernholz

[Signature]

Alexia Fernholz

[Signature]

David Kerley

An NHS Trust
Dear

Re: Reminder of Eating Disorders Service Evaluation Questionnaire

Having sent you our evaluation package in April 1997, we hope that you have had a chance to think about your experiences with the service by filling in the included questionnaire.

However, we appreciate that filling in questionnaires can be easily forgotten with busy lifestyles and we would therefore like to remind you to return the questionnaires in the stamped, self-addressed envelopes to the Frimley Children's Centre as soon as you can. As the evaluations were anonymous, we apologise for contacting you again if you have already returned your questionnaire.

Either way, we would like to thank you very much for your time and effort in providing us with useful and constructive information.

Yours sincerely

Alexia Fernholz

David Kerley
Appendix IV

1. Complete categorisation of qualitative data obtained by parents and adolescents
Qualitative data obtained by parents and adolescents:

The final section of the questionnaire asked parents and adolescents about aspects that they liked and disliked about the service and in which way the service could be improved. A large variety of positive and negative aspects about the service were cited and numerous suggestions were made for further service improvements.

Parents:

Only 6 out of the 24 parental respondents made no comments.

Amongst the positive aspects of the received service, nine parents made comments to the effect that they liked the continuity and regularity of the support, reassurance and advice given from a professional with specialist knowledge during consultations either at the clinic, at home or over the telephone. Furthermore, four parents commented favourably on the friendly and caring attitude of staff at the eating disorders service. Two parents commented that they liked the amount of time provided in consultations and the flexibility of appointments, as well as the confidentiality maintained between the adolescent daughter and the professionals involved. The following positive aspects about the service occurred only once: parents felt supported; service continued to provide support for client during/after hospital admission; service liaised with school; and clinic environment was perceived as pleasant.

As criticisms were requested, amongst the negative aspects of the received service, four parents made comments to the effect that they disliked the uncertainty/lack of information of their daughter’s treatment progress due to the confidentiality involved. Three parents commented unfavourably on professional staff leaving the service after a short time, the resulting discontinuity of therapy, as well as inconvenient or infrequent appointments. There were two comments to the effect that it was difficult to combine aspects of the daughter’s individual counselling and separate parental consultations during the family therapy sessions, due to confidentiality. Furthermore, two comments addressed the vagueness of the advice given for the management of occurring problems in the home, as well as the lack of stated aims provided for therapy sessions. The following negative
comments occurred only once: not having a set target weight to work towards to; and the need for more support for single parents.

Requested suggestions and comments for service improvements highlighted an increased demand for more adolescent eating disorder clinics in general and their improved advertising in local papers, schools, libraries as well as the provision of educational leaflets, as commented on by four parents. Furthermore, there were two comments addressing the importance of matching appropriate characteristics/personality of the patient with that of the therapist (e.g. sex). The following suggestions occurred only once: the need for self-help/support groups for parents (especially fathers) to counteract feelings of inadequacy; the need for more separate parental meetings; the need for adolescent client group discussions; as well as the encouragement and facilitation of communication between eating-disordered adolescents and their parents.

Adolescents:

Only 1 out of the 15 adolescent respondents made no comments.

Amongst the positive aspects of the received service, four adolescent clients made comments to the effect that they liked the prompt availability, regularity and convenience of appointments. Furthermore, three adolescents commented favourably on the provided privacy and confidentiality from parents; as well as the friendly and genuinely empathic attitude of the professionals providing reassurance and advice. Two adolescents commented that they liked the availability of therapists in-between appointments (e.g. telephone conversations); the professionals' interest, helpfulness, insight and knowledge; as well as the facilitation of communication between themselves and their parents (family therapy sessions). The following positive aspects about the service occurred only once: adolescents received support from the service during hospital admissions; therapists did not take notes during sessions; and the clinic had a pleasant interior environment.
Amongst the negative aspects of the received service, three adolescents made comments to the effect that they disliked attending the clinic in general, as well as being weighed and having their weight monitored. Two adolescents commented unfavourably on the breach of confidentiality to parents and the subsequent difficulty in re-gaining trust with the therapist; as well as on inconvenient appointment times (interfering with school/ college); too many different appointments and the inconsistency of professionals involved. The following negative comments occurred only once: appointments being too short and infrequent; and threats about hospitalisation.

Requested suggestions and comments for service improvements highlighted an increased demand for contacts or support groups for parents, families or adolescents to counteract feelings of isolation, as indicated by two comments. Furthermore, single suggestions included the more frequent availability of the dietician; more help in regulating eating patterns; as well as more information about the eating disorders service.
An Investigation into the Association of Eating Disorders and Personality Characteristics in a Female Special Hospital Population.
Nowhere

Nowhere to hide,
nowhere to run,
nowhere to seek the help I most need.
Nowhere to go and have a talk with someone,
because I have no trust left in me.
Because my trust towards others has been broken.
It’s just me left with four walls,
no escape.
Just me banging my head repeatedly
against the four brick walls.
I shout,
scream at the top of my voice,
but all I hear is my own voice echoing,
echoing in the distance.
Nowhere.
Nowhere to run.

Poem written by a female
patient in a Special
Hospital.
ABSTRACT

Background: Previous research suggests a high prevalence of eating disorders and personality disorders amongst women in secure care.

Objectives: The present study sought to extend this research by establishing a prevalence estimate of anorexia nervosa and bulimia nervosa (using DSM-IV criteria), as well as subclinical disordered eating styles amongst all women patients in a maximum security hospital. A further purpose of the study was to investigate the relationship between personality characteristics such as self-esteem and perfectionism with eating disorder symptomatology and to examine the overlap of obsessive-compulsive personality disorder and borderline personality disorder with eating disorder symptomatology, as both of these links were suggested in the literature.

Design: A correlational design was used.

Method: From the total of 83 women patients in the Special Hospital, 50 (60%) were screened for anorexia nervosa, bulimia nervosa, borderline personality disorder and obsessive-compulsive disorder, using the Structured Clinical Interview for DSM-IV (SCID). Ratings of self-esteem and perfectionism were obtained using the Culture-Free Self-Esteem Inventory (CFSEI) and the Setting Conditions for Anorexia Nervosa Scale (SCANS). Information on the presence of eating disorder symptomatology and personality disorder symptomatology was obtained from the clinical files for those women (N = 33) who were unable to participate in the interview.

Results: The results provided a conservative overall prevalence estimate of 18.1% of diagnosable eating disorders currently present amongst women in the maximum security hospital (combined data from interviewed women and case note information). However, specific data on currently diagnosable eating disorders from the interviewed sample (24%) and data on currently subclinical disordered eating styles (33.7%) from the combined sample provided estimates which are similar to those obtained in other forensic settings for women patients. Bulimia nervosa was significantly more common than anorexia nervosa. Regarding the examined personality characteristics, significant negative correlations were found between self-esteem and bulimia nervosa, as well as between perfectionism and...
bulimia nervosa. No significant correlations were obtained for anorexia nervosa. With respect to the examined personality disorders, a significant positive correlation was found between borderline personality disorder and bulimia nervosa, but none was found between anorexia nervosa and obsessive-compulsive personality disorder. The obtained correlation between borderline personality disorder and bulimia nervosa resulted partly from an overlap of diagnostic symptoms and thus highlighted an association between the two conditions with regard to symptoms including affective instability and general impulsivity.

Conclusions: The results suggested that eating disorders (past, present and at subclinical level) are under-detected in women in this setting, confirming clinical impressions and previous research. This highlighted an important area of pathology that characterises some of the problems experienced by women in maximum security care. The nature and degree of personality characteristics associated with the presenting eating disorders was partly different to that obtained from community studies, emphasising that general findings are not simply transferable to extraordinary populations, such as women in conditions of maximum security. Thus, the functional analysis of eating disorders, suggesting these personality characteristics to constitute the setting conditions for eating disorders, received only limited support when applied in this setting. The observed comorbidity of bulimia nervosa and borderline personality disorder, independent of its theoretical interpretation, highlighted the shared variance between symptoms relating to affective instability, often underlying the impulsive behaviours seen in both conditions. Thus, within the context of previous research, it appears that once triggered, these impulsive behaviours characterising bulimia nervosa as well as borderline personality disorder might serve as a maladaptive psychological coping mechanism. This mechanism often occurs in relation to trauma and might facilitate an escape from conscious awareness when an individual is confronted with negative emotional states.
I. INTRODUCTION

The aim of this section is to briefly introduce the rationale of the present study, and within the context of the current literature, cover the relevant aspects relating to eating disorders, their prevalence and aetiology, as well as the personality characteristics and personality disorders associated with this pathology. However, as the literature on eating disorders as well as personality disorders is extensive and complex, this account is not definitive and is largely restricted by limitations of space.

The Special Hospitals

This study was conducted at Broadmoor Special Hospital, which is the oldest of the three Special Hospitals in England and provides for patients who require treatment in conditions of maximum security. Patients are admitted, usually under a section of the Mental Health Act (1983)\(^2\), when their behaviour or mental state poses a significant danger to themselves or the general public. The majority of admissions to Broadmoor Special Hospital result from criminal behaviour, but some patients are admitted when their behaviour has become unmanageable in facilities of lesser security.

Women in secure care

Women at medium and maximum levels of security present a minority population and with such small numbers, it has been difficult to create an environment which is sensitive to their needs (King, 1995). Hence, there is a need for studies that give some indications of the problems of women in secure care. Kaye (1995) reported findings which have identified a set of characteristics commonly associated with women in Special Hospitals. These include the experience of physical, sexual and psychological abuse; a high prevalence of eating disorders; a high prevalence of suicidal thought, depression and self-harm; as well as a high prevalence of feelings of worthlessness, low self-esteem, guilt and anger. He also observed that their problems are often misdiagnosed.

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\(^2\) This applies to approximately 75% of the population in Broadmoor Hospital.
A clinical review (Iles, 1995), based on ICD-10 diagnoses and indirectly rated by consultant psychiatrists, provided a minimum estimate of the distribution of diagnoses and mental health needs amongst the women in Broadmoor Special Hospital. The results highlighted a large group of women suffering from psychotic disorders (58%), a smaller group suffering from affective disorders (29%); a large group of personality disorder diagnoses (61%); many eating-disordered women (23%); a high prevalence of previous sexual abuse (50%), self-harm (28%), substance abuse (alcohol 13%; drugs 14%); and pathological fire-setting (38%). This review suggested that personality disorders often manifested themselves in behaviours such as self-harm, substance abuse and fire-setting, and were often accompanied by eating disorders. The indication of a large group of eating-disordered women in this specialised setting was similar to other findings in forensic services (Dolan & Mitchell, 1994), indicating that a substantial number of the 500 women in Holloway Prison (32%) and of those women (N=100) in the Henderson Therapeutic Community (34%) had a DSM-III-R (American Psychiatric Association [APA], 1987) diagnosable eating disorder. These findings therefore highlighted the need to examine the precise rate and nature of eating disorders in these populations, and thus increase the understanding of the epidemiology and aetiology of these disorders in secure settings, thereby informing the choice of assessment and treatment likely to be most successful (Iles, 1995).

Furthermore, in a women’s services seminar of the Special Hospitals Service Authority (SHSA, 1995), a variety of professions highlighted specific clinical issues, including the development of treatment programmes for women with eating disorders in Special Hospitals, as well as the focus of targeted research into emotional and behavioural disorders, which informs and improves clinical practice.

Eating disorders
Eating disorders are characterised by severe disturbances in eating behaviour. The current Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition) (DSM-IV; APA, 1994) includes in its eating disorder section the two specific diagnoses of anorexia nervosa and bulimia nervosa only. Thus, this study will
mainly focus on these 'major eating disorders'. However, a section of 'eating disorders not otherwise specified' is also provided in the DSM-IV (APA, 1994), for coding those disorders that do not meet the criteria for a specific eating disorder. The requirements for a diagnosis of anorexia nervosa per the DSM-IV (APA, 1994) are:

1) a refusal to maintain body weight at or above a minimally normal weight for age and height; 2) an intense fear of gaining weight or becoming fat, even though underweight; 3) a disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of seriousness of current low body weight; 4) the absence of at least three consecutive menstrual cycles (amenorrhea). A restricting or binge-eating/ purging subtype can be specified accordingly.3 The presence of all these symptoms is required for a full diagnosis.

According to the DSM-IV (APA, 1994) the criteria for a diagnosis of bulimia nervosa are:

1) recurrent episodes of binge-eating; 2) recurrent, inappropriate compensatory behaviour in order to prevent weight gain, such as self-induced vomiting, misuse of laxatives, diuretics, enemas, medications, fasting, or excessive exercise; 3) both of the above behaviours occur at least twice a week for 3 months; 4) self-evaluation is unduly influenced by body shape and weight; 5) the disturbance does not occur exclusively during episodes of anorexia nervosa. A purging or non-purging subtype can be specified accordingly.4 All of these symptoms need to be present to establish a full diagnosis.

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3 Restricting type: During the current episode of anorexia nervosa, the person loses weight through strict food restriction, often combined with physical hyperactivity, but does not engage in binge-eating or purging behaviour (e.g. self-induced vomiting, misuse of laxatives, diuretics or enemas). Binge-eating/ purging type or 'mixed' anorexia nervosa: During the current episode of anorexia nervosa the person regularly engages in binge-eating or purging behaviour, but presents with such low body weight that the diagnosis of anorexia nervosa is given priority over that of bulimia nervosa.

4 Purging type: During the current episode of bulimia nervosa, the person has regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics or enemas. Non-purging type: During the current episode of bulimia nervosa, the person has used other inappropriate compensatory behaviours, such as fasting or excessive exercise, but has not regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics or enemas.
The DSM-IV (APA, 1994) section of 'eating disorders not otherwise specified' includes, amongst others, cases of anorexia nervosa where all diagnostic criteria are met apart from that of amenorrhea; or cases where despite significant weight loss, the individual's current weight is in the normal range. Additionally, it includes cases of bulimia nervosa where all diagnostic criteria are met, but do not occur at the specified frequency. In the present study, individuals not fully meeting the diagnostic criteria for either of these disorders were classified in anorexia nervosa and bulimia nervosa subthreshold groups, as this provided more specific information on the nature of disordered eating in the sample, rather than categorising them as 'not otherwise specified'. This DSM-IV (APA, 1994) section also includes binge-eating disorder, which is defined as recurrent episodes of binge-eating in the absence of the regular use of inappropriate compensatory behaviours that are characteristic of bulimia nervosa. It is noteworthy that this compulsive overeating in mainly overweight individuals differs from obesity per se, by the presence of psychological problems. The DSM-IV (APA, 1994) provides further specified research criteria for binge-eating disorder in a section on criteria sets provided for further study. Thus, the current study did not use binge-eating disorder as a separate diagnostic entity, but symptoms associated with this pathology were recorded as binge-eating disorder trends, which again provided more specific information on the style of disordered eating in the sample, rather than classifying them as 'not otherwise specified'.

Eating disorder prevalence
The exact prevalence of eating disorders is unknown (Fairburn & Cooper, 1989). Furthermore, establishing the general prevalence rates of eating disorders has proven to be a difficult area, even though it has been the focus of much epidemiological work (Szmukler & Patton, 1995). Notable discrepancies have arisen in reported estimates for anorexia nervosa (Szmukler, 1985; Rastam, Gillberg & Garton, 1989) and bulimia nervosa (Schotte & Stunkard, 1987; Fairburn & Beglin, 1990). This might be due to the transient nature of the disorders; their position on a continuous spectrum that is difficult to categorise; methodologically compounding variables (e.g. estimates of prevalence are sensitive
to the way in which information from subjects and observations are combined); as well as unresolved cross-cultural differences (e.g. estimates obtained in the USA and in the UK). However, screening surveys have successfully been adopted in numerous settings, including adolescent schoolgirls (Szmukler, 1985); university students (Schotte & Stunkard, 1987); and general practice (King, 1986). Despite the difficulty of maintaining validity in comparing studies (due to the differences in populations under consideration and differing diagnostic criteria), the findings are in broad agreement that 3-5% of Western women⁵ suffer with significant symptoms of eating disorders (Szmukler & Patton, 1995).

Anorexia Nervosa prevalence

Generally, this condition was suggested to be so rare that large populations are needed to achieve reliable prevalence estimates; and because of its transient nature, point prevalence estimates may not accurately reflect the proportion of an affected population (Szmukler & Patton, 1995). Furthermore, the reluctance of anorectic subjects to participate in a population survey might additionally distort the findings. However, the DSM-IV (APA, 1994) quotes that studies amongst women in late adolescence and early adulthood have found current prevalence rates of 0.5%-1% for presentations that meet the full diagnostic criteria for anorexia nervosa, with individuals who present with subthreshold symptomatology being more commonly encountered.

Bulimia Nervosa prevalence

Generally, the inconsistencies in the definition of bulimia nervosa have interfered with the interpretation of earlier prevalence estimates, because bulimic symptoms exist on a spectrum, with individual symptoms being quite common in the general population (Szmukler & Patton, 1995). As no clear points of discontinuity in this spectrum have yet been established, different definitions might be possible. Thus, it appears most relevant to quote prevalence estimates which employed the

⁵ Cross-cultural studies have found bulimia nervosa-like syndromes in a variety of cultures and a range of conditions could be subsumed under this comparatively non-specific category, some perhaps having little in common with eating disorders as one understands them in the West (Szmukler & Patton, 1995). Thus, the prevalence estimates provided in this review are representative of Western societies.
diagnostic classifications used in this study. The DSM-IV (APA, 1994) suggests the life-time prevalence of bulimia nervosa amongst young adult women to be approximately 1%-3%. Regarding the current prevalence rates it has been suggested that around 1% of Western women fulfil this clinical definition at any one time. Thus, bulimia nervosa appears to be the most common formally diagnosable eating disorder (Szmukler & Patton, 1995).

Binge-eating disorder prevalence
Little is known about prevalence rates of binge-eating disorder at this point, but some experts suggest that binge-eating disorder might be as common as twice the prevalence rates for anorexia and bulimia nervosa taken together (Freeman, 1996). Thus, based on the above figures, binge-eating disorder prevalence estimates might be approximately 3%-4% amongst Western women. However, these figures are not scientifically validated and provide provisional estimates only. The DSM-IV (APA, 1994) provides binge-eating disorder prevalence rates varying from 15%-50% (with a mean of 30%) in female samples drawn from weight-control programmes. The manual also quotes a prevalence rate of 0.7%-4% in non-patient community samples, which is in line with the above estimate based on Freeman’s (1996) calculation.

Aetiological models of eating disorders
The precise aetiology of eating disorders is yet unknown (Srinivasagam, Kaye, Plotnicov, Greeno, Weltzin, & Rao, 1995), but it is evident that they are heterogeneous in presentation and that substantial differences in predisposing and maintaining factors are responsible for observed differences in presentation. Different socio-cultural and psychological models have attempted to conceptualise the disorders in question. As it is beyond the scope of this introduction to provide a detailed overview, a short paragraph is aimed to present a succinct summary of the major elements featuring in different models of eating disorders.

Cognitive models of eating disorders (e.g. Garner & Bemis, 1982) emphasise the role of cognitions in influencing behaviours, mood states and physiological
processes (e.g. sensations of satiety and hunger), and thereby focus on the relationship between maladaptive thinking patterns, disordered eating and disturbances in body image, all of which are maintained by cognitive self-reinforcement (sense of control and mastery) (Garner & Bemis, 1985). Behavioural models of eating disorders (e.g. Szmukler & Tantam, 1984; Gilbert, 1986) suggest that maladaptive eating patterns are acquired through inappropriate learning and are maintained by positive and negative environmental factors and reinforcements. Family systems accounts (e.g. Selvini-Palazzoli, 1974; Minuchin, Rosman & Baker, 1978) define the cause and maintenance of eating disorders within the inter-relationship between family members and postulate that the disorder is a symptom of an underlying family disturbance (‘enmeshment’, disturbed communication or conflict avoidance). Psychodynamic approaches to eating disorders in turn view the symptoms as symbolically meaningful (e.g. thinness has a symbolic significance representing a theoretical or actual fear, including the rejection of any possible pregnancy) and suggest that these symptoms are produced by mental mechanisms that manage intense affects (Dare & Crowther, 1995). Finally, socio-cultural models suggest social processes to be the cause of eating disorders. They hypothesise that the emphasis placed by fashion and the media on slimness (Bruch, 1973), as well as culturally sanctioned contemporary practices (e.g. fitness) (Yates, 1991) provided the means for the dissemination of the societal ideals which underlay the eating disorders.

Overall, each of these approaches (and their variations) has contributed elements to the understanding of eating disorders, although the claim of any one of these models to constitute an ultimate, aetiological theory is unrealistic. Thus, it has been suggested that aetiological models of eating disorders might best be seen as complementing each other (deSilva, 1995). Therefore multi-factorial models, representing a summary of the interplay of the above models, have received attention.
A functional analysis of anorexia nervosa and bulimia nervosa

One of the most comprehensive models, based on research evidence and clinical observation, is the functional analysis of anorexia nervosa and one form of bulimia nervosa produced by Slade (1982). Although the model is rooted in an overall cognitive-behavioural framework, it comprises various elements from other approaches, thus constituting a multi-factorial model. It attempts to explain the development of eating disorders in terms of a set of antecedent events (e.g. setting conditions) and its maintenance in terms of both positive and negative reinforcers. This approach assumes that behaviour is not static, but reflects a dynamic interchange between the individual and their environment. It takes into account psychological, biological and social factors.

The core of the model focuses on the suggestion that the person with an eating disorder gains satisfaction from weight control, which may lead to severe dietary restriction, if the setting conditions and the consequences are appropriate. Slade (1982) proposed that two psychological characteristics, dissatisfaction with life and the self (low self-esteem) and perfectionism are likely setting conditions for eating disorders, which are triggered by psychosocial stimuli within the context of these setting conditions. For example, if a person has the perception that he/ she does not achieve anything or feels unsuccessful, then weight control may be seen as the best way to reduce their sense of general dissatisfaction. Dieting is therefore reinforced by its consequences (e.g. positive reinforcement due to weight loss and feelings of success, control and satisfaction; and negative reinforcement due to fear of weight gain and avoidance of other problems), leading to intensified dietary behaviours and anorexia nervosa. Bulimia nervosa, being viewed as developing from prior anorexia nervosa, can be conceptualised as an extreme method of weight control, with the craving for food causing a loss of 'anorectic' control and a subsequent binge, which is then counteracted by compensatory behaviours. The bulimic purging behaviours therefore provide an attempt to regain a feeling of control. Thus, the positive reinforcer for these behaviours is the 'feeling of satisfaction' stemming from 're-established control over bodily functioning', and similar to anorexia nervosa, the negative reinforcers are the 'specific avoidance of
weight gain' and a more 'general avoidance of other problems'. However, these positive reinforcers are not simply a consequence of dietary restriction as such, but rather that of perceived success in the context of perceived failure in all other areas of functioning.

'Setting conditions' for eating disorders
The personality characteristics of perfectionism and low self-esteem, forming the setting conditions for the development of eating disorders, can evolve through a number of developmental (e.g. family conflicts in adolescence) and environmental (e.g. interpersonal failure experiences) factors (Slade, 1982). More specifically, dissatisfaction with life and self can be the result of unresolved autonomy issues, interpersonal and family conflicts, as well as stress experiences. Additionally, perfectionist tendencies and obsessive-compulsive traits are the most commonly encountered premorbid characteristics and predisposing factors in anorexia nervosa (Slade, 1982). Perfectionism is a multi-dimensional concept (e.g. self-orientated, other-orientated and socially-prescribed; Hewitt & Flett, 1991), but can generally be defined as 'the practice of demanding of oneself or others a higher quality of performance than is required by the situation' (English & English, 1958). Clinically, these patients tend to see their own achievements in dichotomous, overly critical terms, often setting unrealistic standards; so that anything less than idealised, perfect success and attainment represents failure or lack of success (Slade, 1982). Thus, it is speculated that in combination, general dissatisfaction and perfectionist tendencies generate a need to control some aspect of the life situation and attain certain success in some area. These setting conditions and associated traits, as measured by the 'Setting Conditions for Anorexia Nervosa Scale' (SCANS; Slade & Dewey, 1986), significantly discriminated between anorectic and bulimic patients and controls in the predicted direction (higher mean scores for eating-disordered individuals on dissatisfaction and perfectionism scales). However, the researchers concluded that the dissatisfaction scale was a better discriminator than the perfectionism scale, between the eating-disordered and the non-eating-disordered sample. Furthermore, it needs to be acknowledged that this measure was mainly developed for the early recognition of anorectic tendencies and the majority of
patients in the bulimic sample had a history of anorexia nervosa (60%). Nevertheless, the proposed setting conditions were shown to play a significant role in other studies examining the development of eating disorders (Kiemle, Slade & Dewey, 1987; Slade, Dewey, Kiemle & Newton, 1990).

Eating disorders and personality characteristics

It has been suggested that temperament (Bulik, 1995) and certain personality characteristics (McClelland, Mynors-Wallis, Fahy & Treasure, 1991) are associated with eating disorders. For example, characteristics such as obsessionality, hostility, social maladjustment, poor self-esteem, poor locus of control, substance abuse and general impulse control problems have been observed repeatedly in eating disorder patients (Casper, 1990; Williamson, 1990). Several studies have reported differences in personality characteristics between anorectic restricters and patients with symptoms of bulimia or purging.

Characteristics associated with anorexia nervosa

Patients with anorexia nervosa have been described as introvert, neurotic, obsessional, over-controlled, dependent perfectionists with poor self-image (Strober, 1985). The behavioural characteristics of perfectionism and stereotypic rigidity, ritualism, meticulousness and obsessionality in particular have been repeatedly reported in patients presenting with anorexia nervosa (e.g. calorie-counting, relentless pursuit of thinness and rumination about food) (Bastiani, Rao, Weltzin, & Kaye, 1995; Srinivasagam et al., 1995). Furthermore, it was established that these enduring characteristics (as examined by standardised instruments, measuring multiple aspects of perfectionism) were present one year after sustained recovery (Srinivasagam et al., 1995). Thus, the need for perfectionism, symmetry and exactness did not appear to be significantly reduced in intensity by weight restoration, whereas improved nutrition was associated with a reduction in other core eating disorder symptoms (Bastiani, Altemus, Pigott, Rubenstein, Weltzin, & Kaye, 1996). Such findings provide support for Slade’s model, by suggesting that these characteristics are risk factors that contribute to the pathogenesis of anorexia nervosa, because the perfectionistic behaviour appears to be independent of the
state of the disorder and thus reflects underlying psychological and biological vulnerabilities and personality characteristics (Bastiani et al., 1995). Furthermore, these results are of relevance within the context of treatment programmes, which need to emphasise that certain characteristics of anorexia nervosa, such as perfectionism, rigidity and obsessionality, appear to be an enduring dimension of the psychopathology, which may need to be addressed in treatment or may even contribute to the resistance to treatment and relapse in anorexia nervosa (Bastiani et al., 1995).

**Characteristics associated with bulimia nervosa**

Patients with bulimia nervosa in contrast have been described as more impulsive and extrovert, less isolated, as well as with more conspicuous emotional disturbance (e.g. Garfinkel, Moldofsky & Garner, 1980). Bulimic patients displaying more impulsive behavioural characteristics might also be dependent on alcohol and drugs, engage in deliberate self-harm and promiscuous sexual activity, as well as present with some difficulty in controlling impulses in general (e.g. stealing) (Garfinkel et al., 1980). These patients have been suggested to be a distinct diagnostic subgroup (which however is heterogeneous in itself (Welch & Fairburn, 1996)) and are referred to as ‘multi-impulsive’ bulimics (Lacey & Evans, 1986; Lacey, 1993). It has been suggested that the co-existence of these multiple behaviours represents ‘a common mechanism of failure to control impulsive behaviour, as defined by a failure to consider risks and consequences’ (Lacey, 1993), leading to various forms of impulse dyscontrol. Furthermore, it has been proposed that in some individuals binge-eating and purging behaviours, as well as deliberate self-harm and substance misuse are self-abusive behaviours, motivated by internally directed anger and frustration (Kent, Goddard, van den Berk, Raphael, McCluskey & Lacey, 1997). These feelings in turn are fostered by low self-esteem, which leads to increased levels of internally directed irritability (Silverstone, 1990). These findings are similar to Heatherton and Baumeister’s (1991) evidence, suggesting that bulimics have unrealistically high standards (similar to perfectionistic tendencies) that are frequently not achieved and thus cause them to feel like a failure. This negative self-evaluation is thought to result in
aversive self-awareness and negative affect, which is escaped by ‘the cognitive response of narrowing attention to the immediate stimulus environment’ (e.g. a shift from high levels to low levels of thinking). Thus, it might also allow temporary relief from aversive self-awareness by reducing the comparison of the self against perfectionistic standards (McManus, Waller & Chadwick, 1996). In support of Lacey’s (1993) suggestion, a consequence of cognitive narrowing is the loss of high-level cognitive functions, including reasoning and inhibition, leading to a failure to consider risks and consequences. Thus, the breakdown of anorectic restraint (a form of inhibition) might lead to bingeing that in turn is motivated by the desire to escape aversive self-awareness and negative evaluations of the self (Heatherton & Baumeister, 1991). Therefore, in light of the above evidence, bulimic as well as other impulsive behaviours might serve as a psychological escape mechanism that would explain the comorbidity of these specific multi-impulsive characteristics. Research examining these multiple presentations is of particular clinical importance, as these patients might have special treatment needs and treatment outcome might be influenced by these comorbidities. Furthermore, effective treatments for these patients may need to reduce an individual’s sensitivity to ‘internal threats’ (negative self-evaluation) (McManus et al., 1996).

Eating disorders and personality disorders

A very high proportion of those with eating disorders receive a personality disorder diagnosis (Piran, Lerner, Garfinkel, Kennedy & Brouilette, 1988) and borderline personality disorder seems to be particularly common (Swift & Wonderlich, 1988; Johnson, Tobin & Enright, 1989; Vanderlinden & Vandereycken, 1993). It has been suggested that the nature and degree of comorbid personality disorders can have major effects on the prognosis of eating disorders and should be an important factor in deciding on a treatment strategy (Dowson, 1992). As with the associated personality characteristics, differences in personality disorder pathology have been reported for patients presenting with either anorectic or bulimic symptoms.

In an early study, Beumont, George and Smart (1976) found obsessional traits and social withdrawal to be more common amongst dieters, whereas more histrionic
traits were found in vomiters and purgers. These differences were confirmed by other studies, including Piran, Lerner and Garfinkel (1988) who reported that 55.3% of bulimic anorectics showed borderline personality disorder symptomatology (mainly characterised by great instability in mood, behaviour and relationships), compared to only 6.6% of the restricters showing these personality features. More recently, Dowson (1992) concluded from an investigation into the relationships between eating disorder subtypes and personality disorder diagnoses that there is an association between anorectic restricting and obsessive-compulsive personality disorder traits, whereas bulimic vomiting is associated with impulsive behavioural features of borderline personality disorder. Thus, the psychopathology characteristic of obsessive-compulsive personality disorder might influence a patient who develops an eating disorder to display an anorectic restricter subtype, as these patient may be less prone to the loss of self-control that can be associated with bingeing and vomiting; whereas borderline personality disorder traits, involving impulsivity, may predispose to impulsive bingeing with subsequent purging behaviours. Hence, it might be suggested that in obsessive-compulsive personality disorder emotionality might be expressed through extreme self-control (e.g. anorexia nervosa), whilst in borderline personality disorder, emotionality might be expressed through 'acting-out' behaviours (e.g. bulimia nervosa).

However, it appears from the literature that the association between borderline personality disorder and bulimia nervosa symptomatologies is more common than that for restricting anorectics and obsessive-compulsive personality disorder. In particular, the association between borderline personality disorder and bulimic symptomatologies has received substantial scientific attention within the context of research focusing on trauma/sexual abuse (e.g. Waller, 1993a; Waller, 1994) and it has been suggested that borderline personality disorder, being associated with the report of sexual abuse, might be a psychological factor that partly explains the causal link between sexual abuse and bulimic behaviour, especially the frequency of bingeing (Waller, 1994). Thus, in eating disorders, the seriousness of trauma seems to be related to a greater bulimic symptomatology, as well as to a greater
comorbidity with respect to borderline personality features and problems with impulsivity (Vanderlinden & Vandereycken, 1997a).

Nevertheless, one study failed to find an association between borderline personality disorder and bulimia nervosa and the researchers concluded that some shared symptoms between the two disorders might account for the high prevalence of co-existing personality disorders in some reports (Pope & Hudson, 1989). As binge-eating behaviour is included in the impulsive behaviour criterion that is part of the definition of borderline personality disorder in the DSM-IV (APA, 1994), this suggestion might be plausible, although it requires closer scientific attention. However, the DSM-IV (APA, 1994) stresses that if the full criteria for both diagnoses are met, both diagnoses can be given.

Explanations for the interaction between personality disorders and eating disorders
Overall there are only tentative explanations for possible interactions between eating disorders and personality disorders (McClelland, Mynors-Wallis, Fahy & Treasure, 1991) and the nature of their causal relationship remains somewhat unclear. Generally, the comorbidity of personality disorders may increase the vulnerability of patients who have a predisposition to develop an eating disorder, by lowering their stress-tolerance threshold. Furthermore, personality structure may exert a characteristic effect on the features of eating disorders. Alternatively, features of personality disorders might become more pronounced due to the presence of eating disorders. Another explanation, as discussed previously, is that the relationship between certain eating disorders and some personality disorders is simply an artefact due to their overlap in diagnostic criteria.

Summary and integration of findings
Overall, on the grounds of these findings and Slade’s (1982) multi-factorial model, it could be suggested that an eating-disordered individual’s perception of control appears to be linked to successful or unsuccessful dietary restraint and moreover is reflected in their personality characteristics and possible present personality disorder symptomatology. Subsequently, successful anorectic restraint is achieved
by and associated with obsessional rigidity and perfectionistic discipline, as expressed by internal representations such as ‘I am no good, therefore I need to be perfect and in control’. This is in contrast to more variable levels of perfectionism and control (Krause, 1995), as well as a breakdown of rigid restraint, resulting in binges and bulimic compensatory behaviours that could also lead to more impulsive and extrovert compensatory actions, in order to overcome the sensation of lost control, negative self-evaluation and associated tensions. However, both of these pathways of disordered eating appear to be related to Slade’s broad setting conditions of dissatisfaction with life and self and the need for perfectionism. Thus, each specific eating disorder symptomatology, possibly accompanied by certain underlying personality characteristics and specific personality disorder symptomatologies, serves as a displacement activity that diverts the focus from aversive emotional states which the individual wishes to avoid.

Aims and hypotheses of the present study
The aims of this study are essentially exploratory, since the focus is upon an under-researched group of high security, mentally-disordered women. However, the aims stated derive from the literature and theory on more general populations.

1. To establish a prevalence estimate of the major diagnosable eating disorders amongst all women patients (N = 83 in 6 wards; Broadmoor Special Hospital Medical Records Department, March, 1998) in a secure hospital setting, using anorexia nervosa and bulimia nervosa diagnostic criteria (DSM-IV; APA, 1994). A prevalence estimate of subclinical disordered eating styles will also be established within this sample. Due to the known specific characteristics and associated comorbidities of this sample (e.g. sexual abuse history, deliberate self-harm), it is hypothesised that there will be a higher rate of bulimia nervosa than anorexia nervosa.

2. Based on Slade’s (1982) model and its predictions outlined previously, the relationship between personality characteristics such as self-esteem and perfectionism with eating disorder symptomatologies in this forensic population will be investigated. Generally, it is expected that there will be a significant correlation between personality characteristics such as low self-esteem and
perfectionism and eating disorder symptomatology. More specifically, it is hypothesised that anorexia nervosa and bulimia nervosa symptomatologies will be significantly associated with high levels of dissatisfaction (low self-esteem) and perfectionism.

3. Based on some literature findings outlined previously, the association of obsessive-compulsive personality disorder and borderline personality disorder symptoms with eating disorder symptomatologies in this forensic population will be investigated. It is anticipated that there will be a significant correlation between obsessive-compulsive and borderline personality disorder symptomatology and eating disorder symptomatology. More specifically, it is hypothesised that there will be differences in personality disorder symptomatology between anorexia nervosa and bulimia nervosa amongst the eating-disordered women, in that anorexia nervosa will be significantly associated with obsessive-compulsive personality disorder and bulimia nervosa will be significantly associated with borderline personality disorder.

4. To explore the possibility of an artefact in the comorbidity estimates between eating disorders and personality disorders due to an overlap in the diagnostic categories.

II. METHOD

Participants
It was intended to conduct the study using all eligible women patients at Broadmoor Special Hospital (N=83). This sample did not include five patients who were on a six months’ trial leave period in various Regional Secure Units and three patients who were seriously ill in the hospital infirmary during the time the study was conducted. Due to the time limitations of the study, these patients could not be included, even at a later date. Exclusion criteria for this study included:

1. An adverse clinical team opinion (e.g. the interview content posing a potential hazard to the patient’s mental status).
2. Current florid psychosis.
3. Acute suicidal ideation.
4. Refusal on the part of the patient.
It was estimated that approximately 20-30 patients would not be included in the sample for one of the above reasons. Consent was given by the clinical teams to approach a total of 79 patients (those excluded by their clinical teams comprised one patient presenting with food-related paranoid ideation; two patients classed as too chronically ill, confused and institutionalised; and one patient refusing any treatment-related intervention with the clinical team, thus being unsuitable to be approached for the interview). An additional five patients were excluded due to the above exclusion criteria they were presenting with at the time of data collection (one patient was severely suicidal and four patients were actively psychotic). Furthermore, a total of 24 patients refused to participate in the study (e.g. due to reasons related to motivational and affective states or due to suspicion and unfamiliarity with the researcher). However, the relevant demographic and diagnostic information for those patients excluded or refusing to participate was obtained from their case notes and current Care Programme Approach (CPA) documentation, in order to provide an accurate account of all women currently staying in the hospital. Thus, a total number of 50 patients (60% of all eligible women patients) on six different wards was interviewed.

### TABLE 1. Overall percentage and relative proportional distribution of interviewed women across different ward environments:

<table>
<thead>
<tr>
<th>Ward</th>
<th>Total percentage of the interviewed sample per ward (N=50)</th>
<th>Relative proportion of the interviewed sample within each ward (N=50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission</td>
<td>24% (N=12)</td>
<td>75% (N=12)</td>
</tr>
<tr>
<td>Special Care I (crisis-intervention)</td>
<td>8% (N=4)</td>
<td>66.6% (N=4)</td>
</tr>
<tr>
<td>Special Care II (long-term)</td>
<td>8% (N=4)</td>
<td>50% (N=4)</td>
</tr>
<tr>
<td>Parole</td>
<td>8% (N=4)</td>
<td>25% (N=4)</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>28% (N=14)</td>
<td>63.6% (N=14)</td>
</tr>
<tr>
<td>Personality Disorder Unit</td>
<td>24% (N=12)</td>
<td>79.9% (N=12)</td>
</tr>
</tbody>
</table>
Table 1. shows the total percentage and the relative proportion of participants from each female ward in Broadmoor Special Hospital. It is noteworthy that the rate of participation was at least 50% in all ward environments except the parole ward. Participation on this ward might have been low for a variety of reasons which are discussed in the result section (see demographic details of participants). Patients did not receive any payment for their participation in this study.

Procedure
The DSM-IV (APA, 1994) diagnostic criteria were used in this study, as their diagnostic subclassifications (restricting or binge/purge anorexia nervosa; purging or non-purging bulimia nervosa) were cited as helpful advances in the ongoing diagnostic problem in the classification of disorders whose symptoms are dimensionally arranged rather than categorically distinguished (Andersen, 1995).

Following the approval of the hospital’s Research and Ethics Committee (including an external review of the project proposal) (see Appendix I), the study involved several stages of preparation. Before data collection commenced, extensive links were established with the multi-disciplinary Broadmoor Special Hospital Eating Disorders Group and nursing staff (e.g. through a 60-minute presentation of the study given during a staff training event on eating disorders and the establishment of a ‘link person’ for each ward, to facilitate the organisation of the data collection in a way that was least disruptive to the ward routine). Subsequently, explanatory letters outlining the purpose of the study were written to each clinical team (see Appendix II) and based on team opinion, a list of patients not meeting the exclusion criteria was generated for each ward. Subsequently, an information letter was written to all identified primary nurses of included patients (see Appendix II) and the patients themselves were given a letter by the researcher briefly outlining the nature of the study and the research interview (see Appendix II). Arrangements were then made to approach patients in person for their consent, using the Broadmoor Special Hospital research consent form (see Appendix II) and to conduct the interview. Overall, patients were approached for their participation on
up to three different occasions before being regarded as refusals, to allow for changes in their motivation.

During the semi-structured interview, participants were diagnostically screened for eating disorders, obsessive-compulsive personality disorder, and borderline personality disorder using the relevant sections from the Structured Clinical Interview for DSM-IV (SCID). Participants were asked at the interview to complete the Culture-Free Self-Esteem Inventory and the Setting Conditions for Anorexia Nervosa Scale. The interview process, questionnaire completion and patient debriefing (allowing for questions and thanking for their participation) took between 30 and 45 minutes. Following the interview, the demographic and diagnostic details were recorded for each participant from their current CPA documentation. These details included the participants’ hospital number, ward, Responsible Medical Officer (RMO), date of birth/age, date of admission/length of time in Broadmoor, reason for admission/index offence, Mental Health Act classification/CPA diagnoses, type of section, marital status, ethnic background, IQ range/cognitive status, as well as height and current weight.

Diagnostic prevalence estimates of patients with eating disorders (anorexia and bulimia nervosa); patients with subthreshold disordered eating styles (anorectic and bulimic tendencies, binge-eating disorder trends); and non-eating-disordered patients were established by examining the SCID interview schedules. The subthreshold group consisted of patients showing the presence of any subthreshold eating disorder pathology which was not sufficient to make a diagnosis. The classification in this group was determined by a minimum of two ‘subthreshold’ ratings\(^6\) or one ‘threshold’ rating\(^7\) amongst the diagnostic criteria. As the overall number of DSM-IV diagnostic criteria for anorexia nervosa (four criteria) and

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\(^6\) For example, two ‘subthreshold’ ratings would be applied if a participant reported to binge moderately on only specific foods (not necessarily high calorie foods) and reported feeling that her eating was only partly out of control [bulimia nervosa criterion A], in addition to moderate exercise which however appeared to be associated with a previous binge [bulimia nervosa criterion B].

\(^7\) For example, one ‘threshold’ rating would be applied if a participant reported to regularly engage in exaggerated purging behaviours to prevent weight gain following meals within a normal, non-restrictive eating pattern [bulimia nervosa criterion B].
bulimia nervosa (five criteria) is relatively small, the above ratings were adopted, and provided a valid indication of some degree of eating disorder pathology. However, most participants in the subthreshold category met more diagnostic criteria at various levels than the above specified minimum ratings. Furthermore, careful questioning during the diagnostic interview determined to what extent some of the rated ‘subthreshold’ behaviours would constitute subjective distress to the participant. Binge-eating disorder trends were recorded in cases where the diagnostic criteria for bulimia nervosa were met but occurred without any recurrent inappropriate compensatory behaviours to prevent weight gain.

Relevant demographic information and diagnostic details on the presence of eating disorders, obsessive-compulsive personality disorder and borderline personality disorder was obtained from the current care plan documentation for those patients who were not interviewed (N=33) (see Appendix III for demographics collection sheet). A detailed CPA section containing all recently diagnosed conditions present in a patient was the main source to indirectly establish the presence of any of the above disorders.

Apparatus
A SONY Dictaphone (TCM-313 Cassette-Corder) was used to record 13 diagnostic interviews to obtain the inter-rater reliability ratings (see materials section).

Materials
Structured Clinical Interview for DSM-IV Axis I Disorders (Research Version) (SCID-I; First, Spitzer, Gibbon & Williams, 1997) (see Appendix III). The SCID-I Research Version allows researchers to select the diagnostic sections relevant to their research; it is very detailed, including subtypes, severity and specifiers for disorders; and it can be used to characterise a study population in terms of current and past psychiatric diagnoses. The semi-structured interview sections for anorexia nervosa and bulimia nervosa were employed (approximately 15 questions), covering the DSM-IV (APA, 1994) diagnostic criteria for either disorder, and
yielding scores for the diagnostic criteria ranging from ‘1’ (absent), ‘2’ (subthreshold), or ‘3’ (threshold). The presence of either eating disorder was determined as the interview progressed and a dimensional score was computed for each eating disorder by summing up the number of diagnostic items rated as positive (a possible range of scores from 0-12 for anorexia nervosa and from 0-18 for bulimia nervosa). These were compared to the categorical threshold indicating the specific items required to make a diagnosis (diagnostic cut-off point of 12 for anorexia nervosa and 15 for bulimia nervosa). Specifiers to the presented diagnoses were added, leading to restricting/ binge-purging types for anorexia nervosa, and purging/ non-purging types for bulimia nervosa. If present, a chronology for each disorder was obtained, indicating the degree of current severity (mild, moderate, severe) or classifying the degree of past history of the disorder (in partial remission, in full remission, prior history).

Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II; First, Gibbon, Spitzer, Williams, & Benjamin, 1997) (see Appendix III). The SCID-II allows researchers to select those sections relating to personality disorders that are relevant to their research. The semi-structured interview sections for obsessive-compulsive personality disorder (approximately 15 questions including follow-up questions) and borderline personality disorder (approximately 24 questions including follow-up questions) were employed, covering the DSM-IV (APA, 1994) diagnostic criteria for either disorder, yielding scores for the diagnostic criteria ranging from ‘?’ (inadequate information); ‘1’ (absent); ‘2’ (subthreshold); or ‘3’ (threshold). The presence of either personality disorder was determined as the interview progressed and a dimensional score was computed for each personality disorder by summing up the number of items rated as positive (a possible range of scores from 0-24 for obsessive-compulsive personality disorder and from 0-27 for borderline personality disorder). These were compared to the categorical threshold indicating the number of items required to make a diagnosis (diagnostic cut-off point of 12 for obsessive-compulsive personality disorder and 15 for borderline personality disorder).
Overall, the respective SCID questionnaires are well researched, contemporary and standardised measures (First, Gibbon, Spitzer & Williams, 1997). The relevant training in conducting the SCID interviews was accomplished in line with the SCID-manual recommendations. For practice purposes, prior to the study, a pilot inter-rater reliability trial was conducted and three patients not included in the sample (from the male hospital population) were screened with the relevant SCID sections. These interviews were taped and subsequently rated by the research supervisor/clinical advisor (a Principal Clinical Psychologist at Broadmoor Special Hospital). The overall diagnostic ratings and the individual criterion ratings were compared and discrepancies were discussed. The conducted inter-rater reliability analysis of these trial ratings employed the Cohen’s Kappa index of agreement (Cohen, 1960), which appears to be the most commonly used index of inter-rater reliability (Wilkinson, 1995). The analysis revealed satisfactory scores of reliability, both on an overall diagnostic agreement level (Cohen’s Kappa 0.91) and on an individual criterion agreement level (Cohen’s Kappa 0.80). As these figures presented an acceptable proportion of agreement (greater than 0.7; Nunnally, 1978), no further practice ratings were initiated. During the study, additional diagnostic inter-rater reliability was established by the clinical advisor, using a subsample of ten random participants from all female wards (by audiotaping the initial interview, followed by a second rating by the clinical advisor with a subsequent discussion of sources of disagreement). Similarly to the trial ratings, the inter-rater reliability analysis of the main study coding scheme revealed satisfactory scores of reliability, both on an overall diagnostic agreement level (Cohen’s Kappa 0.86) and on an individual criterion agreement level (Cohen’s Kappa 0.73). However, the slight reduction in the overall scores from the main study compared to the trial ratings (reflecting marginally more clinical disagreement between the raters), might have been influenced by the poor acoustic quality of some of the taped interviews (e.g. as a result of unavoidable background noise, such as the sound of ward alarm bells outside the interview room). Nevertheless, as both values of inter-rater reliability from the main study exceeded 0.7 (Nunnally, 1978), the overall reliability of diagnostic ratings obtained can be regarded as satisfactory.
Setting Conditions for Anorexia Nervosa Scale (SCANS; Slade & Dewey, 1986) (see Appendix III). The SCANS is a 22-item self-report questionnaire that comprises two major components (General Dissatisfaction/Loss of Control and Perfectionism), for screening individuals at risk of developing an eating disorder. Each subscale has a five point rating response format, which is either scored in a positive or negative direction. The measure is regarded as reliable and valid, as well as discriminating significantly between control samples and eating disorder patients (Slade & Dewey, 1986).

Culture-Free Self-Esteem Inventory (Second Edition) (CFSEI; Battle, 1992) (see Appendix III). This 40-item self-report questionnaire requires a yes-no response to statements concerning self-esteem, including components such as general (16 items), social (8 items), and personal self-esteem (8 items). The measure includes a lie subtest (8 items) indicating defensiveness. General self-esteem is the aspect of self-esteem that refers to individuals' overall perceptions of their worth. Social self-esteem is the aspect of self-esteem that refers to individuals' perceptions of the quality of their relationships with peers. Personal self-esteem is the aspect of self-esteem that refers to individuals' most intimate perceptions of self-worth. The specific stimulus items are regarded by its author as reliable and valid indicators of self-esteem and the measure was standardised on an adult population.

Body weight and height. These data were collected from the monthly weight chart for each ward, and were used to calculate the Body Mass Index (BMI; kg/m squared) for each participant in order to determine their weight range (extremely overweight [scores 40+]; significantly overweight [scores 30-40]; overweight [scores 27-30]; healthy weight [20-25]; significantly underweight [scores 16-18]; and extremely underweight [scores below 16]). The ranges 18 to 20 and 25 to 27 are grey areas that represent being slightly underweight and slightly overweight respectively (Fairburn, 1995).
Design
The study involved a number of research strategies, and was essentially a correlational design. It firstly involved an exploratory and descriptive evaluation of current and life-time prevalence estimates for eating disorders. Secondly, multivariate correlation procedures were applied to examine the overlap between diagnostic symptomatologies. These procedures utilised all interval level information obtained from the measures, whilst exploring the relationship between the examined components. The independent variable constituted the degree of eating disorder symptomatology (diagnosable eating disorder, subthreshold disordered eating styles, no disordered eating). The dependent variable included the presence of the personality disorders (obsessive-compulsive personality disorder diagnosis and borderline personality disorder diagnosis), as well as the degree of personality characteristics (self-esteem and perfectionism).

Analysis
The data analysis was carried out using the Statistical Package for the Social Sciences (SPSS for Windows Version 6.0; SPSS Inc., 1993), and a range of procedures, including descriptive, bi-variate and multi-variate statistics were used. Descriptive and frequency data were presented in crosstabulations, and Chi-square tests were used to establish significant differences between different subsamples (e.g. on demographic variables). The psychometric properties of the measures used were examined and reliability coefficients were presented. Correlations of personality traits and personality disorder symptomatologies were established between women with different eating disorder symptomatologies. They were compared in terms of present personality characteristics (self-esteem, perfectionism), as well as comorbid diagnoses of borderline personality disorder and obsessive-compulsive personality disorder. A principle component analysis (similar to a factor analysis) was employed to investigate the potential overlap of diagnostic criteria for the eating disorder and personality disorder symptomatologies. The more complex of these analyses are explained in further detail in the relevant result sections.
III. RESULTS

SECTION I. Demographic details of participants

Age:
Within the sample of women patients interviewed (N=50), the median age was 32 years (ranging from 18 years to 61 years of age), with a mean of 33.26 years (standard deviation SD = 9.56).

Duration of hospital stay:
The median time spent in Broadmoor Special Hospital was 3 years (ranging from 1 month to 33 years), with a mean of 4.70 years (standard deviation SD = 5.98).

Reason for admission/ index offence:
A large group of participants (30%; N=15) were not convicted of any offences; followed by 28% (N=14) who were convicted of arson; and 18% (N=9) who had committed violence against a person (including assaults, threats to kill and attempted murder). Within the interviewed sample, 10% (N=5) were convicted of manslaughter and 6% were convicted of murder (N=3), whilst 4% (N=2) had committed other offences, including criminal damage, handling stolen goods and possession of a weapon. One participant (2%) was convicted respectively for kidnapping and offences against children.

Mental Health Act classification:
Within the interviewed sample, 42% (N=21) had a Mental Health Act classification of Psychopathic Disorder, followed by 34% (N=17) with the classification of Mental Illness, and 24% (N=12) presenting with a dual classification of Mental Illness/ Psychopathic Disorder.

Section:
Regarding the legal status, most women (48%; N=24) were detained under Section 37/41 of the Mental Health Act (hospital order with restrictions); followed by 32% (N=16) admitted under Section 3 (civil section for treatment); and 12% (N=6) who were detained under Section 37 (hospital order without restrictions). A smaller group of participants (6%; N=3) were contained under Section 47/49 (applying to prisoners already serving a sentence) and one patient (2%) was admitted under Section 38 (unrestricted interim hospital order for assessment whilst convicted but not sentenced).
Marital status:
Of the interviewed women, 74% (N=37) were single, whilst 6% (N=3) were married and 20% (N=10) were divorced.

Ethnic background:
Most of participants were of white ethnic origin (86%; N=43), followed by 12% (N=6) who were from a black ethnic background (including black African, black Caribbean and black other) and 2% (N=1) who fell into an ‘other’ category (including those women from Indian, Pakistani, Bangladeshi or Chinese ethnic origins).

Intellectual ability:
Scores of the Wechsler Adult Intelligence Scale revised (WAIS-R; Wechsler, 1981) yielded an overall range from 69 to 138 (median 88), with a mean score of 88.13 (standard deviation SD = 15.29). Scores of the National Adult Reading Test (NART; Nelson, 1982) produced a range from 70 to 124 (median 94), with a mean score of 92.91 (standard deviation SD = 13.34), amongst the interviewed women. Regarding their established overall level of cognitive functioning, many of the women (36%; N=13) presented with a moderate cognitive disturbance with a focus on memory deficit; followed by 30.6% (N=11) who had a definite mild disturbance, often focusing on speed functions and accompanying a diagnosis of schizophrenia. Seven of the interviewed women (19.4%) showed no identifiable cognitive disturbance, followed by 5.6% (N=2) respectively, who presented with either equivocal cognitive disturbances (possibly due to medication side effects), or a severe definite cognitive disturbance, including all of the above features and a disinhibitory component. One participant (2.8%) presented with an unidentifiable disturbance. Data on the level of cognitive disturbance was only available for 36 of the interviewed women.

Clinical CPA diagnoses:
Regarding the range of clinical diagnoses as specified in the participants’ current CPA documentation, 52% (N=26) of the women presented with borderline personality disorder or other personality disorders (26%; N=13). The latter, where specified, included women with antisocial (8%; N=4), histrionic (6%; N=3), dependent (4%; N=2), schizotypal (2%; N=1) or mixed traits (4%; N=2). Only one
participant (2%) was classed as presenting with obsessive-compulsive personality disorder. Half of the sample (50%; N=25) were diagnosed with difficulties related to depression (including depressive episodes, manic depression, psychotic moodswings and schizoaffective disorder), whilst 28% (N=14) had a diagnosis of chronic paranoid schizophrenia. Regarding substance misuse disorders, 22% (N=11) of women presented with a history of alcohol dependency and 20% (N=10) had a history of drug use. Six patients (12%) were classed as having learning difficulties (including borderline IQ or pervasive developmental disorders). With respect to eating disorders, only 16% (N=8) of participants had an identified diagnosis of this nature in their current care plan documentation. This included a non-specified eating disorder diagnosis in three cases (6%); a diagnosis of anorexia nervosa in three cases (6%); a diagnosis of bulimia nervosa in one case (2%); and a mixed eating disorder diagnosis in one case (2%).

**Body mass index:**

Measures of Body Mass Index (BMI) obtained for those women interviewed, yielded a range from 17 (significantly underweight) to 52 (extremely overweight), with a median of 29 (overweight). The mean score was 30 (overweight) with a standard deviation of 9.20. More specifically, only one woman (2.2%) was significantly underweight (BMI 17), whilst four (8.7%) were slightly underweight (BMI 19), and ten (21.7%) were of a healthy weight (BMI 20-22). One woman (2.2%) was slightly overweight (BMI 26), eleven women (23.9%) fell into the overweight range (BMI 28-30), thirteen women (28.2%) were significantly overweight (BMI 31-39) and six women (13%) were extremely overweight (BMI 45-52). This data was only available for 46 of the 50 interviewed women.

As the demographic description above only concerns the interviewed sample of women patients, the table of complete demographic details below incorporates the screened sample, the non-interviewed subjects, as well as the overall percentages for the combined samples. Table 2. therefore shows that the interviewed and non-interviewed were broadly similar on most variables. However, a Chi-square test was applied to determine whether there are any significant differences between the samples (* = p<0.05; ** = p<0.01).
TABLE 2. Demographic details for interviewed participants, non-interviewed patients and the overall combined sample:

<table>
<thead>
<tr>
<th></th>
<th>Interviewed cases (N=50)</th>
<th>Non-interviewed cases (N=33)</th>
<th>Combined sample (N=83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>Median: 32</td>
<td>Median: 36</td>
<td>Median: 33</td>
</tr>
<tr>
<td></td>
<td>Range: 18-61</td>
<td>Range: 21-77</td>
<td>Range: 18-77</td>
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<tr>
<td></td>
<td>Mean: 33.26</td>
<td>Mean: 38.09</td>
<td>Mean: 35.18</td>
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<tr>
<td></td>
<td>SD: 9.56</td>
<td>SD: 12.92</td>
<td>SD: 11.20</td>
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<tr>
<td>Length of time in</td>
<td>Median: 3</td>
<td>Median: 5</td>
<td>Median: 4</td>
</tr>
<tr>
<td>Broadmoor (years)</td>
<td>Range: 0-33</td>
<td>Range: 0-38</td>
<td>Range: 0-38</td>
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<tr>
<td></td>
<td>Mean: 4.70</td>
<td>Mean: 8.58</td>
<td>Mean: 6.24</td>
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<tr>
<td></td>
<td>SD: 5.98</td>
<td>SD: 8.58</td>
<td>SD: 7.33</td>
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<tr>
<td>Ward</td>
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<tr>
<td>Admission</td>
<td>24% (N=12)</td>
<td>15.2% (N=5)</td>
<td>20.5% (N=17)</td>
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<tr>
<td>Special care</td>
<td>8% (N=4)</td>
<td>12.1% (N=4)</td>
<td>9.6% (N=8)</td>
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<tr>
<td>Special care</td>
<td>8% (N=4)</td>
<td>6.1% (N=2)</td>
<td>7.2% (N=6)</td>
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<tr>
<td>Parole</td>
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<td>24.2% (N=8)</td>
<td>14.5% (N=12)</td>
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<tr>
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<td>24% (N=12)</td>
<td>18.2% (N=6)</td>
<td>21.7% (N=18)</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>28% (N=14)</td>
<td>24.2% (N=8)</td>
<td>26.5% (N=22)</td>
</tr>
<tr>
<td>Index offence</td>
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</tr>
<tr>
<td>None</td>
<td>30% (N=15)</td>
<td>15.2% (N=5)</td>
<td>24.1% (N=20)</td>
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<tr>
<td>Murder</td>
<td>6% (N=3)</td>
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<td>7.2% (N=6)</td>
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<tr>
<td>Manslaughter</td>
<td>10% (N=5)</td>
<td>12.1% (N=4)</td>
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<tr>
<td>Kidnapping</td>
<td>2% (N=1)</td>
<td>0% (N=0)</td>
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<tr>
<td>Personal violence</td>
<td>18% (N=9)</td>
<td>27.3% (N=9)</td>
<td>21.7% (N=18)</td>
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<tr>
<td>Arson</td>
<td>28% (N=14)</td>
<td>18.2% (N=6)</td>
<td>24.1% (N=20)</td>
</tr>
<tr>
<td>Child offence</td>
<td>2% (N=1)</td>
<td>3% (N=1)</td>
<td>2.4% (N=2)</td>
</tr>
<tr>
<td>Others</td>
<td>4% (N=2)</td>
<td>15.2% (N=5)</td>
<td>8.4% (N=7)</td>
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<tr>
<td>Mental Health Act</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Illness</td>
<td>34% (N=17)**</td>
<td>72.7% (N=24)</td>
<td>49.4% (N=41)</td>
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<tr>
<td>Psychopathic Disorder</td>
<td>42% (N=21)**</td>
<td>15.2% (N=5)</td>
<td>31.3% (N=26)</td>
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<tr>
<td>Dual MI/ PD</td>
<td>24% (N=12)</td>
<td>12.1% (N=4)</td>
<td>19.3% (N=16)</td>
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<tr>
<td>Section</td>
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<tr>
<td>37</td>
<td>12% (N=6)*</td>
<td>0% (N=0)</td>
<td>7.2% (N=6)</td>
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<tr>
<td>37/ 41</td>
<td>48% (N=24)</td>
<td>54.4% (N=18)</td>
<td>50.6% (N=42)</td>
</tr>
<tr>
<td>3</td>
<td>32% (N=16)</td>
<td>24.2% (N=8)</td>
<td>28.9% (N=24)</td>
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<tr>
<td>38</td>
<td>2% (N=1)</td>
<td>0% (N=0)</td>
<td>1.2% (N=1)</td>
</tr>
<tr>
<td>47/ 49</td>
<td>6% (N=3)</td>
<td>3% (N=1)</td>
<td>4.8% (N=4)</td>
</tr>
<tr>
<td>48/ 49</td>
<td>0% (N=0)</td>
<td>3% (N=1)</td>
<td>1.2% (N=1)</td>
</tr>
<tr>
<td>CPIA</td>
<td>0% (N=0)*</td>
<td>12.1% (N=4)</td>
<td>4.8% (N=4)</td>
</tr>
<tr>
<td>Informal</td>
<td>0% (N=0)</td>
<td>3% (N=1)</td>
<td>1.2% (N=1)</td>
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<td>Research Section</td>
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<tr>
<td>------------------</td>
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<tr>
<td>Interviewed cases (N=50)</td>
<td>Non-interviewed cases (N=33)</td>
<td>Combined sample (N=83)</td>
<td></td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
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<tr>
<td>Single</td>
<td>74% (N=37)</td>
<td>72.2% (N=24)</td>
<td>73.5% (N=61)</td>
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<tr>
<td>Married</td>
<td>6% (N=3)</td>
<td>12.1% (N=4)</td>
<td>8.4% (N=7)</td>
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<tr>
<td>Divorced</td>
<td>20% (N=10)</td>
<td>15.2% (N=5)</td>
<td>18.1% (N=15)</td>
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<td><strong>Ethnic background</strong></td>
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<tr>
<td>White</td>
<td>86% (N=43)</td>
<td>78.8% (N=26)</td>
<td>83.1% (N=69)</td>
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<tr>
<td>Black African/Carib.</td>
<td>12% (N=6)</td>
<td>21.2% (N=7)</td>
<td>15.7% (N=13)</td>
</tr>
<tr>
<td>Other</td>
<td>2% (N=1)</td>
<td>0% (N=0)</td>
<td>1.2% (N=1)</td>
</tr>
<tr>
<td><strong>IQ</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WAIS-R</td>
<td>Median: 88</td>
<td>Median: 80</td>
<td>Median: 84</td>
</tr>
<tr>
<td>Mean: 88.13</td>
<td>Mean: 83.65</td>
<td>Mean: 86.39</td>
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<tr>
<td>SD: 15.29</td>
<td>SD: 11.26</td>
<td>SD: 13.93</td>
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<td>NART</td>
<td>Median: 94</td>
<td>Median: 89</td>
<td>Median: 92</td>
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<td>Mean: 92.91</td>
<td>Mean: 91.68</td>
<td>Mean: 92.45</td>
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<tr>
<td>SD: 13.34</td>
<td>SD: 14.24</td>
<td>SD: 13.57</td>
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<tr>
<td><strong>Cogn. disturbance</strong></td>
<td></td>
<td></td>
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<tr>
<td>None</td>
<td>19.4% (N=7)*</td>
<td>0% (N=0)</td>
<td>11.9% (N=7)</td>
</tr>
<tr>
<td>Equivocal</td>
<td>5.6% (N=2)</td>
<td>13% (N=3)</td>
<td>8.5% (N=5)</td>
</tr>
<tr>
<td>Mild</td>
<td>30.6% (N=11)</td>
<td>43.5% (N=10)</td>
<td>35.6% (N=21)</td>
</tr>
<tr>
<td>Moderate</td>
<td>36% (N=13)</td>
<td>21.7% (N=5)</td>
<td>30.5% (N=18)</td>
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<tr>
<td>Severe</td>
<td>5.6% (N=2)</td>
<td>21.7% (N=5)</td>
<td>11.9% (N=7)</td>
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<tr>
<td>Unidentifiable</td>
<td>2.8% (N=1)</td>
<td>0% (N=0)</td>
<td>1.7% (N=1)</td>
</tr>
<tr>
<td><strong>BMI</strong></td>
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<tr>
<td>Median: 29</td>
<td>Median: 27</td>
<td>Median: 29</td>
<td></td>
</tr>
<tr>
<td>Mean: 30</td>
<td>Mean: 29.12</td>
<td>Mean: 29.71</td>
<td></td>
</tr>
<tr>
<td>SD: 9.20</td>
<td>SD: 8.01</td>
<td>SD: 8.69</td>
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<td><strong>CPA Diagnoses</strong></td>
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<tr>
<td>Borderline PD</td>
<td>52% (N=26)</td>
<td>36.4% (N=12)</td>
<td>45.8% (N=38)</td>
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<tr>
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<td>0% (N=0)</td>
<td>1.2% (N=1)</td>
</tr>
<tr>
<td>Other PD</td>
<td>26% (N=13)</td>
<td>9.1% (N=3)</td>
<td>19.3% (N=16)</td>
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<tr>
<td>Depressive illness</td>
<td>50% (N=25)</td>
<td>36.4% (N=12)</td>
<td>44.6% (N=37)</td>
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<tr>
<td>Alcohol abuse (hx)</td>
<td>22% (N=11)</td>
<td>21.2% (N=7)</td>
<td>21.7% (N=18)</td>
</tr>
<tr>
<td>Drug abuse (hx)</td>
<td>20% (N=10)</td>
<td>18.2% (N=6)</td>
<td>19.3% (N=16)</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>28% (N=14)**</td>
<td>63.3% (N=21)</td>
<td>42.2% (N=35)</td>
</tr>
<tr>
<td>Learning disability</td>
<td>12% (N=6)</td>
<td>9.1% (N=3)</td>
<td>10.8% (N=9)</td>
</tr>
<tr>
<td>Eating disorder</td>
<td>16% (N=8)</td>
<td>9.1% (N=3)</td>
<td>13.3% (N=11)</td>
</tr>
</tbody>
</table>

Note: Data on the level of cognitive disturbance was not available for all patients (for 36 patients in the interviewed sample, 23 patients in the non-interviewed sample, and 59 patients in the combined sample).
Table 2. shows the distribution of demographic details for the interviewed sample, the non-interviewed sample and the combined sample. On most demographic variables there were no significant differences between the interviewed and the non-interviewed sample. However, some significant differences were present on various demographic variables.

Ward:
On the parole ward, significantly more women were in the non-interviewed sample (N=8; 24.2%) than in the interviewed sample (N=4; 8%) ($x^2 = 4.24; p<0.05$), as determined by the Chi-square analysis. This difference in participation on the parole ward might be due to several reasons, including the fact that the ward had recently been the subject of several research projects, some of which have offered participants a small payment for their interview participation. Furthermore, as parole ward patients, the women approached might have been more suspicious that their participation in a clinical study might highlight specific pathological features that might influence their release status in a negative manner.

Mental Health Act classification:
A significantly higher proportion of patients with a Mental Health Act classification of Psychopathic Disorder was present in the interviewed group (N=21; 42%) compared to the non-interviewed group (N=5; 15.2%) ($x^2 = 6.66; p<0.01$). Subsequently, a significantly higher proportion of patients with a Mental Illness classification (mainly schizophrenia) was present in the non-interviewed group (N=24; 72.7%) compared to those in the interviewed group (N=17; 34%) ($x^2 = 11.92; p<0.01$). These differences would be expected from the fact that acute florid psychosis was one of the exclusion criteria in this study.

Section:
Significantly more women in the interviewed sample (N=6; 12%) were detained under section 37 (hospital order without restrictions) than in the non-interviewed sample (N=0; 0%) ($x^2 = 4.26; p<0.05$). It might be postulated that these women, being admitted to hospital for treatment without being restricted, present a less disturbed and dangerous proportion of the sample and thus might have been more willing to participate in the research interview. Furthermore, significantly more
women held under the Criminal Procedure Insanity Act (1964) (CPIA; which is similar to a restricted hospital order, but applied to patients whose degree of disturbance classifies them as unfit to plead, although allowing a conviction) (N=4; 12.1%) were in the non-interviewed sample than in the interviewed sample (N=0; 0%) (x^2 = 6.36; p<0.05). Thus, it could be expected that this proportion of women was unlikely to participate in the interview.

Level of cognitive disturbance:
Significantly more women with no cognitive disturbance were in the interviewed sample (N= 7; 19.4%) compared to the non-interviewed sample (N=0; 0%) (x^2 = 5.04; p<0.05). It is noteworthy that all non-interviewed women had some level of cognitive disturbance and presented with marginally lower IQ scores (which in turn might be related to the level of cognitive disturbance) compared to the interviewed women. Thus, it might be speculated that the degree of cognitive disturbance present in the non-interviewed women influenced their initial referral to the research interview or affected their motivation to volunteer for participation in the research project.

Additional CPA diagnoses:
Significantly more women with a diagnosis of schizophrenia were in the non-interviewed group (N=21; 63.3%) compared to the interviewed group (N=14; 28%) (x^2 = 10.35; p<0.01). This ratio of participants was partly expected because of the study’s exclusion criteria, but as only acutely psychotic patients were excluded, it is notable that 14 women were well enough to be interviewed.
**SECTION II. Prevalence estimation**

**TABLE 3. Crosstabulations of subsamples and eating disorder prevalence estimate distributions amongst women patients in Broadmoor Special Hospital:**

<table>
<thead>
<tr>
<th>Women Patients in Broadmoor Special Hospital</th>
<th>Interviewed sample (N=50)</th>
<th>Non-interviewed sample (N=33)</th>
<th>Combined sample (N=83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Eating Disorders(^8)</td>
<td>24% (N=12)</td>
<td>9.1% (N=3)</td>
<td>18.1% (N=15)</td>
</tr>
<tr>
<td>Current Eating Disorder without previous History</td>
<td>8% (N=4)</td>
<td>9.1% (N=3)</td>
<td>8.4% (N=7)</td>
</tr>
<tr>
<td>Current Eating Disorder and previous History</td>
<td>16% (N=8)*</td>
<td>0% (N=0)</td>
<td>9.6% (N=8)</td>
</tr>
<tr>
<td>Non-current Eating Disorder History</td>
<td>28% (N=14)**</td>
<td>0% (N=0)</td>
<td>16.8% (N=14)</td>
</tr>
<tr>
<td>Current subclinical Eating Disorders(^9)</td>
<td>60% (N=30)**</td>
<td>0% (N=0)</td>
<td>33.7% (N=30)</td>
</tr>
<tr>
<td>Current Anorexia Nervosa cases</td>
<td>4% (N=2)</td>
<td>3% (N=1)</td>
<td>3.6% (N=3)</td>
</tr>
<tr>
<td>Anorexia Nervosa History (including subclinical)</td>
<td>44% (N=22)**</td>
<td>0% (N=0)</td>
<td>26.5% (N=22)</td>
</tr>
<tr>
<td>Current subclinical Anorexia Nervosa cases</td>
<td>4% (N=2)</td>
<td>0% (N=0)</td>
<td>2.4% (N=2)</td>
</tr>
<tr>
<td>Current Bulimia Nervosa cases</td>
<td>20% (N=10)</td>
<td>6.1% (N=2)</td>
<td>14.5% (N=12)</td>
</tr>
<tr>
<td>Bulimia Nervosa History</td>
<td>2% (N=1)</td>
<td>0% (N=0)</td>
<td>1.2% (N=1)</td>
</tr>
<tr>
<td>Current subclinical Bulimia Nervosa cases</td>
<td>56% (N=28)**</td>
<td>0% (N=0)</td>
<td>33.7% (N=28)</td>
</tr>
<tr>
<td>Binge-eating Disorder cases within the Bulimia Nervosa subclinical group</td>
<td>36% (N=18)**</td>
<td>0% (N=0)</td>
<td>21.7% (N=18)</td>
</tr>
</tbody>
</table>

\(^*\)=p<0.05; \(^**\)=p<0.01

\(^8\) Including current anorexia and bulimia nervosa cases, both with and without a previous history of the disorder.

\(^9\) Including current anorexia and bulimia nervosa subclinical presentations.
Table 3 shows the general and specific eating disorder prevalence estimate distributions amongst the subsamples (interviewed, non-interviewed and a combination of both) of women patients in Broadmoor Special Hospital. The table displays a general trend across all subsections, reflecting higher percentages of general, specific and subclinical eating disorder symptomatology (past and present) in the interviewed sample compared to the non-interviewed sample, which in turn affects the percentages presented for the combined sample. In some cases these differences in the detection of eating disorder symptomatology were statistically significant. A Chi-square analysis revealed that the proportion of women presenting currently with an eating disorder, as well as with a previous history, is significantly greater in the interviewed sample (N=8; 16%) than in the non-interviewed sample (N=0; 0%) ($\chi^2 = 5.84; p<0.05$). Along this trend, the number of women currently not suffering from an eating disorder but presenting with an eating disorder history is significantly greater in the interviewed sample (N=14; 28%) than in the non-interviewed sample (N=0; 0%) ($\chi^2 = 11.11; p<0.01$). With regard to current subclinical eating disorders, significantly more women (N=30; 60%) were identified for this group in the interviewed sample than in the non-interviewed sample (N=0; 0%) ($\chi^2 = 31; p<0.01$). Regarding the specific eating disorders under investigation, a significantly larger proportion of interviewed women had a history of anorexia nervosa (N=22; 44%) than those who were not interviewed (N=0; 0%) ($\chi^2 = 19.75; p<0.01$). Furthermore, the proportion of women with subclinical bulimia nervosa was greater in the interviewed sample (N=28; 56%) than in the non-interviewed sample (N=0; 0%) ($\chi^2 = 27.88; p<0.01$). Similarly, the number of women presenting with binge-eating disorder tendencies was significantly greater in the interviewed sample (N=18; 36%) compared to the non-interviewed sample (N=0; 0%) ($\chi^2 = 15.16; p<0.01$).

Overall, the observed differences between the CPA documentation and the SCID interview with respect to solely the current proportion of general and specific diagnosable eating disorders are not statistically significant, although they are of clinical relevance. Furthermore, the statistically significant differences obtained between the interviewed and the non-interviewed group might indicate that the in-
depth eating disorder screening interview reveals higher percentages of eating disorder pathology for those women interviewed than is specifically documented for the non-interviewed women in their current CPA documentation. This is particularly significant for the more subtle presentations of eating disorder symptomatology (e.g. subthreshold and binge-eating disorder trends) or a past history of an eating disorder, which is not documented in the CPA but might still be present to some degree. Furthermore, this under-detection of disordered eating in the non-interviewed sample might reflect some of the characteristics associated with eating disorder pathology (e.g. transient nature and secrecy), which are difficult to establish from case note documentation, unless they are specifically screened for using a standardised interview schedule. This explanation may be confirmed by the fact that there is no significant difference in the proportion of women currently presenting with anorexia nervosa between the interviewed and the non-interviewed sample. As anorexia nervosa can be a more obvious condition and severe malnutrition is easier to detect, these cases might be more readily identified in the CPA documentation than those involving more subtle compensatory behaviours. Another explanation might be that there is a real difference between the two samples, which might be based on differences in the patients' history. Furthermore, the difference might be a result of both of the above reasons. Thus, due to this tendency towards an under-detection of eating disorders in the non-interviewed sample, the overall eating disorder prevalence estimate of 18.1% (N=15) can be viewed as a conservative one.
FIGURE 1. Percentage distribution of Anorexia Nervosa (AN), Bulimia Nervosa (BN) and Binge-Eating Disorder tendencies (BED) (as specified in the DSM-IV criteria) across the interviewed sample of women patients in Broadmoor Special Hospital (N=50):

Figure 1. illustrates the percentage distribution of current anorexia and bulimia nervosa diagnoses, as well as of cases with a history of either disorder and those who fall into the subclinical category, not meeting the diagnostic criteria fully. Regarding current eating disorder diagnoses, it is evident that more participants presented with the full diagnostic criteria for bulimia nervosa (20%) than for anorexia nervosa (4%). This trend is repeated with regard to the subclinical category of participants who do not meet the full criteria for a diagnosis of either disorder. Thus, the bulimia nervosa subclinical category (56%) exceeds the anorexia nervosa subclinical category (4%). It is noteworthy that within the bulimia nervosa subclinical category, a large proportion of symptomatic tendencies (36%) reflects those of binge-eating disorder. In terms of a life-time history of a present eating disorder, however, the figure shows that a history (including one participant with a subthreshold history) of anorexia nervosa (44%) appeared to be more frequent than a previous history of bulimia nervosa (2%). A significance test between these proportions is presented later in this section, as this constitutes the first hypothesis of this study.
TABLE 4. Crosstabulation of the relative proportions of specific clinical information on the eating disorders present in the interviewed sample (N=50):

<table>
<thead>
<tr>
<th>Current Anorexia Nervosa cases (N=2)</th>
<th>History of Anorexia Nervosa (N=22)</th>
<th>Current Bulimia Nervosa cases (N=10)</th>
<th>History of Bulimia Nervosa (N=1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subtype specifiers</td>
<td>restricting:</td>
<td>non-purging:</td>
<td>no data available</td>
</tr>
<tr>
<td></td>
<td>100% (N=2)</td>
<td>10% (N=1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>restricting:</td>
<td>purging:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>54% (N=12)</td>
<td>90% (N=9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>bingeing/ purging:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>36% (N=8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current severity</td>
<td>in partial remission:</td>
<td>mild:</td>
<td>no data available</td>
</tr>
<tr>
<td></td>
<td>100% (N=2)</td>
<td>30% (N=3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>remission:</td>
<td>moderate:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>59% (N=13)</td>
<td>50% (N=5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in full remission:</td>
<td>severe:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9% (N=2)</td>
<td>20% (N=2)</td>
<td></td>
</tr>
</tbody>
</table>

Note: It was not possible to obtain information regarding the history of anorexia nervosa in all cases.

Table 4 presents the relative proportions of specific clinical information on the eating disorder pathology present in the interviewed sample of women. Regarding the subtype specifications for current anorexia nervosa cases, the table indicates that both participants engaged in pure dietary restriction (100%). Regarding the degree of current severity, both presently diagnosed anorectics (100%) presented with moderate symptoms or levels of functional impairment. Concerning the subtype specifiers for those women presenting with a history of anorexia nervosa, a higher percentage of 54% (N=12) engaged in pure dietary restriction, compared to those past anorectics (36%; N=8) who engaged in binge and purging behaviours. Of those participants presenting with a history of anorexia nervosa, many (59%; N=13) were diagnosed as being in partial remission (the full criteria were previously met, but only some symptoms remain that do not specify for a classification for the subclinical group), whilst 9% (N=2) were described as being in full remission (there are no longer any symptoms of the disorder, but it is still a clinically relevant vulnerability to note).
Concerning patients currently presenting with bulimia nervosa, the majority (90%; N=9) engaged in purging behaviours to compensate for weight gain, compared to only 10% (N=1) who specified as a non-purging presentation. Regarding the degree of current severity, half the number of bulimic participants (50%; N=5) presented with moderate symptoms, followed by 30% (N=3), who were classified as mild severity, with symptoms meeting the diagnostic criteria but resulting in no more than minor impairments in social or occupational functioning. Two diagnosed bulimics (20%) presented with severe symptoms, resulting in a marked impairment in social or occupational functioning.
TABLE 5. Crosstabulation of the relative proportions of the distribution of CPA diagnoses amongst eating-disordered and non-eating-disordered patients in the interviewed sample (N=50):

<table>
<thead>
<tr>
<th></th>
<th>Non-ED</th>
<th>Current Eating Disorders</th>
<th>Current Anorexia Nervosa</th>
<th>Current Bulimia Nervosa</th>
<th>Current Binge-Eating Disorder Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(N=9)</td>
<td>(N=12)</td>
<td>(N=2)</td>
<td>(N=10)</td>
<td>(N=18)</td>
</tr>
<tr>
<td>Borderline PD</td>
<td>11% (N=1)</td>
<td>75% (N=9)**</td>
<td>50% (N=1)</td>
<td>80% (N=8)**</td>
<td>61% (N=11)*</td>
</tr>
<tr>
<td>Non-borderline PD</td>
<td></td>
<td>89% (N=8)</td>
<td>25% (N=3)</td>
<td>20% (N=2)</td>
<td>39% (N=7)</td>
</tr>
<tr>
<td>Other PD</td>
<td>67% (N=6)</td>
<td>25% (N=3)</td>
<td>50% (N=1)</td>
<td>20% (N=2)*</td>
<td>17% (N=3)*</td>
</tr>
<tr>
<td>Non-other PD</td>
<td>33% (N=3)</td>
<td>75% (N=9)</td>
<td>50% (N=1)</td>
<td>80% (N=8)</td>
<td>83% (N=15)</td>
</tr>
<tr>
<td>Obs-comp PD</td>
<td>0% (N=0)</td>
<td>8% (N=1)</td>
<td>0% (N=0)</td>
<td>10% (N=1)</td>
<td>0% (N=0)</td>
</tr>
<tr>
<td>Non-obs-comp PD</td>
<td>100% (N=9)</td>
<td>92% (N=11)</td>
<td>100% (N=2)</td>
<td>90% (N=9)</td>
<td>100% (N=18)</td>
</tr>
<tr>
<td>Depression</td>
<td>44% (N=4)</td>
<td>50% (N=6)</td>
<td>50% (N=1)</td>
<td>50% (N=5)</td>
<td>33% (N=6)</td>
</tr>
<tr>
<td>Non-depression</td>
<td>56% (N=5)</td>
<td>50% (N=6)</td>
<td>50% (N=1)</td>
<td>50% (N=5)</td>
<td>67% (N=12)</td>
</tr>
<tr>
<td>Alcohol abuse</td>
<td>11% (N=1)</td>
<td>25% (N=3)</td>
<td>0% (N=0)</td>
<td>30% (N=3)</td>
<td>28% (N=5)</td>
</tr>
<tr>
<td>Non-alcohol abuse</td>
<td>89% (N=8)</td>
<td>75% (N=9)</td>
<td>100% (N=2)</td>
<td>70% (N=7)</td>
<td>72% (N=13)</td>
</tr>
<tr>
<td>Drug abuse</td>
<td>11% (N=1)</td>
<td>16% (N=2)</td>
<td>0% (N=0)</td>
<td>20% (N=2)</td>
<td>28% (N=5)</td>
</tr>
<tr>
<td>Non-drug abuse</td>
<td>89% (N=8)</td>
<td>84% (N=10)</td>
<td>100% (N=2)</td>
<td>80% (N=8)</td>
<td>72% (N=13)</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>33% (N=3)</td>
<td>8% (N=1)</td>
<td>0% (N=0)</td>
<td>10% (N=1)</td>
<td>39% (N=7)</td>
</tr>
<tr>
<td>Non-schizophrenia</td>
<td>67% (N=6)</td>
<td>92% (N=11)</td>
<td>100% (N=2)</td>
<td>90% (N=9)</td>
<td>61% (N=11)</td>
</tr>
<tr>
<td>Eating Disorder</td>
<td>0% (N=0)</td>
<td>25% (N=3)</td>
<td>0% (N=0)</td>
<td>30% (N=3)</td>
<td>6% (N=1)</td>
</tr>
<tr>
<td>Non-eating Disorder</td>
<td>100% (N=9)</td>
<td>75% (N=9)</td>
<td>100% (N=2)</td>
<td>70% (N=7)</td>
<td>94% (N=17)</td>
</tr>
<tr>
<td>Learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disability</td>
<td>11% (N=1)</td>
<td>17% (N=2)</td>
<td>0% (N=0)</td>
<td>20% (N=2)</td>
<td>11% (N=2)</td>
</tr>
<tr>
<td>Non-LD</td>
<td>89% (N=8)</td>
<td>83% (N=10)</td>
<td>100% (N=2)</td>
<td>80% (N=8)</td>
<td>89% (N=16)</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01

Table 5. shows the proportional distribution of additional psychiatric diagnoses as specified in the current CPA documentation for general and specific eating disorders and non-eating disordered patients in the interviewed sample. In comparing the women with no eating disorder symptomatology to those with eating disorders, it is of interest that significantly more eating-disordered (75%; N=9), bulimic (80%; N=8) and binge-eating women (61%; N=11) had a CPA diagnosis of borderline personality disorder, compared to those without eating disorders (11%; N=1). Significantly more non-eating-disordered
women had a diagnosis of another personality disorder (67%; N=6), compared to current bulimics (20%; N=2) and binge-eaters (17%; N=3). Thus, these findings indicate a tentative link between eating disorders, particularly bulimia nervosa and binge-eating disorder tendencies, and a CPA diagnosis of borderline personality disorder, when compared to women who do not have an eating disorder diagnosis.

Focusing solely on the eating-disordered participants, is noteworthy that the majority of women with a current eating disorder diagnosis present with a CPA diagnosis of borderline personality disorder (75%; N=9) compared to those eating-disordered women with no CPA diagnosis of borderline personality disorder (25%; N=3), although this trend is not statistically significant. Similar tendencies are present for women with current bulimia nervosa (80%; N=8) and current binge-eating disorder trends (61%; N=11), because the majority of women in these categories present with a CPA diagnosis of borderline personality disorder. However, these tendencies are not statistically significant. Regarding other personality disorder diagnoses (including histronic, antisocial and avoidant), it is evident that the majority of currently eating-disordered women (75%; 4N=9), as well as those with bulimia nervosa (80%; N=8) and binge-eating disorder trends (83%; N=15) do not have such a diagnosis. With respect to a CPA diagnosis of obsessive-compulsive personality disorder, the table shows that most women with an eating disorder diagnosis (92%; N=11) do not have a CPA diagnosis of this kind. Regarding the clinical diagnosis of depression, half of the general (50%; N=6), as well as the specific eating disorder presentations (50%; N=1; N=5) are coinciding with this diagnosis, with only a majority of binge-eaters (67%; N=12) not presenting with a depressive illness. With respect to previous alcohol and drug abuse histories, the majority of currently eating-disordered women (75%; N=9; 84%; N=10) do not have a prior history of this kind. A similar trend is shown with regard to a CPA diagnosis of schizophrenia, indicating that the majority of identified eating-disordered individuals (92%; N=11) do not suffer from a schizophrenic illness. In a similar fashion, the majority of patients diagnosed with eating disorders (83%; N=10) do not present with a learning disability. Regarding a CPA diagnosis of eating disorders, it is of interest that a greater proportion of women currently presenting with diagnosable eating disorders (75%; N=9), as well as binge-eating disorder tendencies (94%; N=17) do not have a CPA eating disorder diagnosis. Only three out of the twelve (25%) SCID-diagnosed eating-disordered women had a CPA eating disorder diagnosis. In addition, neither of the two anorectics (0%) diagnosed in the SCID interview had a CPA eating disorder diagnosis and only three out of the ten (30%) women diagnosed with
bulimia nervosa had a CPA eating disorder diagnosis. With respect to binge-eating disorder trends, only one out of eighteen (6%) interviewed women presenting with this form of disordered eating had an identified eating disorder in her CPA documentation. Thus, a total of 26 out of 30 interviewed women (86.6%) who presented with a diagnosable eating disorder or a binge-eating trend in the SCID interview did not have a CPA diagnosis of an eating disorder. This trend appears to confirm previous clinical and statistical observations of a substantial under-detection of some disordered eating styles, which appears to be particularly marked in more subtle symptomatologies such as binge-eating disorder. Interestingly, only two out of eight participants (25%) of CPA-identified eating disorder patients did not meet the full SCID diagnostic criteria in the interview, but fell in the subthreshold category (one presented with a binge-eating disorder trend and the other one fell into the bulimia nervosa subthreshold group). Thus, six out of eight participants (75%) of CPA-identified eating disorders were also fully diagnosed in the SCID interview. However, it is not possible to compare the obtained SCID eating disorder diagnoses with the exact nature of the eating disorders specified in the CPA (see page 269), due to the CPA’s sometimes ‘outdated’ documentation, changes in the patient’s presentation and the non-specific information given in the CPA documents (e.g. non-specified eating disorder or eating disorder with mixed features).

TABLE 6. Crosstabulation of the relative proportions of non-diagnosed and diagnosed eating disorders and reason for admission/ index offence in the interviewed sample (N=50):

<table>
<thead>
<tr>
<th>Index offence</th>
<th>Non-diagnosed Eating Disorder (N=38)</th>
<th>Diagnosed Eating Disorders (N=12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>23.7% (N=9)**</td>
<td>50% (N=6)</td>
</tr>
<tr>
<td>Manslaughter</td>
<td>10.5% (N=4)</td>
<td>8.3% (N=1)</td>
</tr>
<tr>
<td>Arson</td>
<td>28.9% (N=11)</td>
<td>25% (N=3)</td>
</tr>
<tr>
<td>Other</td>
<td>0% (N=0)</td>
<td>16.7% (N=2)</td>
</tr>
</tbody>
</table>

** = p<0.01
Table 6. indicates that a significantly larger proportion of identified eating-disordered participants had committed no index offence, compared to the participants not diagnosed with an eating disorder ($\chi^2 = 9.18; p<0.01$). As a tentative explanation it might be speculated that this difference reflects the co-existence of borderline personality disorder and diagnosed eating disorders. Although these are statistically insignificant trends, it is notable that four women (66.6%) out of the six identified in the eating disorder category presented with a diagnosis of borderline personality disorder, whilst two (33.3%) had no diagnosis of borderline personality disorder. Furthermore, those with a borderline personality disorder diagnosis all presented with bulimia nervosa. Thus, the finding that significantly more women diagnosed with eating disorders had committed no index offence might be related to their impulsivity (as expressed in borderline and bulimic symptomatologies), rendering them unmanageable in psychiatric settings other than those of maximum security, despite not having committed a crime. However, this explanation is speculative and not statistically significant, although clinically relevant. The table also shows that smaller proportions of non-diagnosed and diagnosed eating disorder patients were convicted for manslaughter, arson and other offences.

**TABLE 7. Crosstabulation of diagnosed eating disorders, eating disorder histories and subclinical eating disorders in relation to ethnic background in the interviewed sample (N=50):**

<table>
<thead>
<tr>
<th>Ethnic background</th>
<th>Diagnosed Eating Disorder (N=12)</th>
<th>Eating Disorder History (N=23)</th>
<th>Subclinical Eating Disorder (N=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White (N=43)</td>
<td>100% (N=12)</td>
<td>78% (N=18)</td>
<td>80% (N=24)</td>
</tr>
<tr>
<td>Black (African/ Caribbean) (N=6)</td>
<td>0% (N=0)</td>
<td>17% (N=4)</td>
<td>17% (N=5)</td>
</tr>
<tr>
<td>Other (N=1)</td>
<td>0% (N=0)</td>
<td>4% (N=1)</td>
<td>3% (N=1)</td>
</tr>
</tbody>
</table>

Table 7. shows that fully diagnosable eating disorders were only present amongst white participants, whilst smaller proportions of patients from different ethnic
backgrounds were only represented in terms of having a previous history of eating disorders or currently presenting with a subclinical disordered eating style.

TABLE 8. Crosstabulation of relative proportions of general eating disorders and specific eating disorders within the interviewed sample across different wards (N=50):

<table>
<thead>
<tr>
<th>Ward</th>
<th>Diagnosed Eating Disorders (N=12)</th>
<th>Anorexia Nervosa (N=2)</th>
<th>Bulimia Nervosa (N=10)</th>
<th>Binge-eating Tendencies (N=18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission</td>
<td>25% (N=3)</td>
<td>50% (N=1)</td>
<td>20% (N=2)</td>
<td>22% (N=4)</td>
</tr>
<tr>
<td>Special Care (Long-term)</td>
<td>0% (N=0)</td>
<td>0% (N=0)</td>
<td>0% (N=0)</td>
<td>11% (N=2)</td>
</tr>
<tr>
<td>Special Care (Crisis interv.)</td>
<td>17% (N=2)</td>
<td>50% (N=1)</td>
<td>10% (N=1)</td>
<td>6% (N=1)</td>
</tr>
<tr>
<td>Parole</td>
<td>0% (N=0)</td>
<td>0% (N=0)</td>
<td>0% (N=0)</td>
<td>11% (N=2)</td>
</tr>
<tr>
<td>Personality Disorder Unit</td>
<td>33% (N=4)</td>
<td>0% (N=0)</td>
<td>40% (N=4)</td>
<td>17% (N=3)</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>25% (N=3)</td>
<td>0% (N=0)</td>
<td>30% (N=3)</td>
<td>33% (N=6)</td>
</tr>
</tbody>
</table>

Table 8. indicates that the relative proportions of general, specific and subclinical eating disorders (binge-eating tendencies) were distributed in a similar fashion across the six different ward environments of the female services in Broadmoor Special Hospital. The lowest percentages with regard to identified eating disorder symptomatology are present in one of the special care units (long-term) and on the parole ward. Higher percentages of general and specific eating disorders are present on the admissions ward, one special care unit (crisis intervention), the personality disorder unit and the rehabilitation ward. It is interesting to note that the highest proportions of women with diagnosable eating disorders (33%)/ bulimia nervosa (40%) are present on the personality disorder unit and that three out of the four women (75%) with this diagnosis also present with borderline personality...
disorder. However, these differences are not statistically significant and provide a speculative link between these types of symptomatology only. Subclinical binge-eating symptomatologies are present in all ward environments.

**TABLE 9. Comparison of Broadmoor Special Hospital diagnosed eating disorder prevalence estimates and other settings:**

<table>
<thead>
<tr>
<th>Eating Disorder Prevalence Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadmoor Special Hospital interviewed sample (N=50) using DSM-IV criteria</td>
</tr>
<tr>
<td>Broadmoor Special Hospital non-interviewed sample (N=33) derived from DSM-IV and ICD-10 criteria in CPA documentation</td>
</tr>
<tr>
<td>Broadmoor Special Hospital combined sample (N=83) using DSM-IV and ICD-10 criteria</td>
</tr>
<tr>
<td>Broadmoor Special Hospital Clinical Review Study using ICD-10 criteria (Iles, 1995)</td>
</tr>
<tr>
<td>Holloway Prison (N=500) using DSM-III-R criteria (Dolan &amp; Mitchell, 1994)</td>
</tr>
<tr>
<td>Henderson Therapeutic Community (N=100) using DSM-III-R criteria (Dolan &amp; Mitchell, 1994)</td>
</tr>
<tr>
<td>Combined community prevalence estimates using a variety of diagnostic criteria (Szmukler &amp; Patton, 1995)</td>
</tr>
</tbody>
</table>

Table 9. presents a comparison of the obtained eating disorder prevalence estimates in Broadmoor Special Hospital amongst the interviewed, the non-interviewed and the combined sample with those prevalence rates obtained previously or in other settings. The table indicates that the overall eating disorder prevalence estimate obtained from the interviewed population (24%), is similar to that quoted in a Broadmoor Special Hospital clinical review (23%; Iles, 1995). Furthermore, the
obtained rate is largely comparable to the rate established in similar settings such as Holloway Prison (32%) or the Hendersen Therapeutic Community (34%). As suggested above, the differences in established eating disorder symptomatologies between the interviewed and non-interviewed sample might result in a conservative overall estimate (18.1%), that is lower than those obtained in comparable forensic and psychiatric settings for women. Nevertheless, it is evident from the table that the combined prevalence estimates for eating disorders amongst Western women in the community are substantially lower than those obtained for women in forensic and psychiatric settings. However, these findings need to be viewed under the consideration that different diagnostic classification systems were used and as these figures represent estimates only, no comparative conclusions can be drawn.

Unfortunately, it is not possible to specifically compare the prevalence estimates for anorexia and bulimia nervosa across the above settings, as no specific details on eating disorder type was given for different forensic environments.

Diagnostic differentials

Hypothesis 1. There will be a higher rate of bulimia nervosa than anorexia nervosa in this population.

The difference between the two rates of eating disorders was estimated, using a z-test on proportions (McNemar, 1969), as these groupings of disorders were classed as proportions rather than statistical differences. The analysis revealed a significant difference in proportion between the presence of bulimia nervosa and anorexia nervosa \( z = 2.31; p<0.05 \) in the interviewed cases of this population. Thus, within the interviewed sample, currently diagnosed cases of bulimia nervosa (20%; \( N=10 \)) present a significantly higher proportion than currently diagnosed cases of anorexia nervosa (4%; \( N=2 \)).

The same analysis was conducted for the subclinical eating disorders group and for the life-time history of either disorder. Similarly to the above findings, the results showed a significant difference in proportion between the group of current
subclinical bulimia nervosa cases and the group of current subclinical anorexia nervosa cases (z = 4.45; p<0.01). Thus, within the interviewed sample, current subclinical cases of bulimia nervosa present a significantly higher proportion (56%; N=28) than current subclinical cases of anorexia nervosa (4%; N=2). Regarding the life-time history, the results showed a significant difference in proportion between the history of anorexia nervosa and bulimia nervosa (z = 4.01; p<0.01) in the interviewed sample. Thus, within the interviewed group of women, the life-time history of anorexia nervosa (44%; N=22) presents a significantly higher proportion than the life-time history of bulimia nervosa (2%; N=1). It is likely that these results are due to the different natural progression of these illnesses, in that bulimia nervosa is likely to arise out of anorexia nervosa.

SECTION III. Correlates of eating disorder symptomatology

TABLE 10. Psychometric properties of the SCANS scales (dissatisfaction and perfectionism):  

<table>
<thead>
<tr>
<th>Scale</th>
<th>Cronbach's Alpha</th>
<th>Number of items</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissatisfaction</td>
<td>0.83</td>
<td>14</td>
<td>50</td>
</tr>
<tr>
<td>Perfectionism</td>
<td>0.94</td>
<td>8</td>
<td>50</td>
</tr>
</tbody>
</table>

Table 10. presents the psychometric evaluation of the two SCANS scales. The respective dissatisfaction and perfectionism scales on the SCANS measure have sufficient reliability coefficients for a research tool (greater than 0.7; Nunnally, 1978), as measured by Cronbach's alpha (Cronbach, 1951). Cronbach's alpha is a measure of reliability which is based on a homogeneity model. The model assumes that the higher the correlation between the items, the greater the internal consistency of the measure. Thus, the obtained scores indicate good inter-item consistency and reliability for the employed scales.
TABLE 11. Obtained means on the SCANS scales for the interviewed sample:

<table>
<thead>
<tr>
<th>Scale</th>
<th>Population Mean</th>
<th>Standard Deviation</th>
<th>Cut-off point</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissatisfaction</td>
<td>52.36</td>
<td>21.08</td>
<td>42+</td>
<td>50</td>
</tr>
<tr>
<td>Perfectionism</td>
<td>29.30</td>
<td>13.16</td>
<td>22+</td>
<td>50</td>
</tr>
</tbody>
</table>

Note: The higher the scores, the higher the levels of dissatisfaction and perfectionism.

Table 11. shows that the means obtained for the interviewed sample (Dissatisfaction = 52.36; Perfectionism = 29.30) are above Slade and Dewey's (1986) cut-off points for either scale (Dissatisfaction cut-off = 42+; Perfectionism cut-off = 22+). This indicates that the average participant in the sample (independent of the presence of eating disorder symptomatology) showed higher levels of dissatisfaction with life and self/loss of control and perfectionism, than was observed in Slade and Dewey's (1986) non-eating-disordered control groups.

The overall means obtained for the dissatisfaction scale in this study are similar to those obtained by Slade and Dewey (1986) for their eating-disordered sample (anorexia and bulimia combined: 51.3; standard deviation SD = 12.72). Similarly, the means obtained for the perfectionism scale in this study are approximating to those cited by the researchers for their eating-disordered group (anorexia and bulimia combined: 27.85; standard deviation SD = 5.33).
TABLE 12. Psychometric properties of the CFSEI scales (general, social, personal and lie scale):

<table>
<thead>
<tr>
<th>Scale</th>
<th>Cronbach’s Alpha</th>
<th>Number of items</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lie</td>
<td>0.61</td>
<td>8</td>
<td>31</td>
</tr>
<tr>
<td>General</td>
<td>0.74</td>
<td>16</td>
<td>31</td>
</tr>
<tr>
<td>Social</td>
<td>0.72</td>
<td>8</td>
<td>31</td>
</tr>
<tr>
<td>Personal</td>
<td>0.70</td>
<td>8</td>
<td>31</td>
</tr>
</tbody>
</table>

Note: The number of cases is slightly reduced from the overall total of 50 for the analysed self-esteem scales, because not all participants completed all questions of this assessment and as the scores are cumulative, cases were automatically eliminated from the analysis if any items were omitted.

Table 12. shows that the general, social and personal self-esteem scales on the CFSEI have sufficient reliability coefficients for a research tool (> 0.7), as measured by Cronbach’s alpha. Thus, the obtained scores indicate good inter-item consistency and reliability for the employed scales.

TABLE 13. Obtained means on the CFSEI scales for the interviewed sample:

<table>
<thead>
<tr>
<th>Scale</th>
<th>Population Mean</th>
<th>Standard Deviation</th>
<th>Self-esteem Range</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lie</td>
<td>6.38</td>
<td>1.64</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>General</td>
<td>7.41</td>
<td>4.87</td>
<td>intermediate</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(7-12)</td>
<td></td>
</tr>
<tr>
<td>Social</td>
<td>4.70</td>
<td>2.25</td>
<td>intermediate</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(4-5)</td>
<td></td>
</tr>
<tr>
<td>Personal</td>
<td>2.32</td>
<td>2.02</td>
<td>low</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(2-3)</td>
<td></td>
</tr>
</tbody>
</table>

Table 13. shows that the means obtained on these scales in the interviewed sample indicate that the average value for general self-esteem (7.41) falls in Battle’s (1992) intermediate self-esteem range (7-12); the average value for social self-esteem
(4.70) falls in the intermediate self-esteem range (4-5); and the average value for personal self-esteem (2.32) falls in the low self-esteem range (2-3).

TABLE 14. Psychometric properties of the SCID symptom scales (obsessive-compulsive personality disorder [OCPD], borderline personality disorder [BPD], anorexia nervosa [AN] and bulimia nervosa [BN]):

<table>
<thead>
<tr>
<th>Scale</th>
<th>Cronbach's Alpha</th>
<th>Number of items</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCPD</td>
<td>0.40</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td>BPD</td>
<td>0.88</td>
<td>9</td>
<td>50</td>
</tr>
<tr>
<td>AN</td>
<td>0.56</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td>BN</td>
<td>0.89</td>
<td>6</td>
<td>50</td>
</tr>
</tbody>
</table>

Table 14. presents the psychometric properties of the four SCID symptom scales. The scales assessing the symptomatology for borderline personality disorder and bulimia nervosa have a reliability coefficient that approximates to the value suggested for sufficient reliability for a diagnostic tool (0.9; Hammond, 1995a), as measured by Cronbach’s alpha. Thus, the obtained coefficients indicate good inter-item consistency and reliability for these two diagnostic scales from the SCID interview. However, the scales assessing the symptomatology for obsessive-compulsive personality disorder and anorexia nervosa have lower reliability coefficients (below those suggested for a research tool [>0.7] or a diagnostic tool [>0.9]), suggesting a poor correlation amongst items on each scale. This in turn reflects a low level of inter-item consistency and poor reliability for these two diagnostic scales from the SCID interview. In particular, the consistency of the obsessive-compulsive personality disorder scale has to be viewed with caution, as the item reliability is less than 50% of that recommended for a diagnostic tool and the symptoms within this category are not homogenous. Thus, this scale would benefit from an item revision, which would improve the homogeneity of included criteria and would be expressed in a higher alpha coefficient.
TABLE 15. Obtained means on the SCID scales for the interviewed sample:

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Diagnostic cut-off</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCPD</td>
<td>12.94</td>
<td>4.02</td>
<td>12</td>
<td>50</td>
</tr>
<tr>
<td>BPD</td>
<td>21.52</td>
<td>10.91</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>AN</td>
<td>8.34</td>
<td>3.83</td>
<td>12</td>
<td>50</td>
</tr>
<tr>
<td>BN</td>
<td>11.70</td>
<td>4.32</td>
<td>15</td>
<td>50</td>
</tr>
</tbody>
</table>

Table 15. shows that the means obtained for the different scales reveal the average symptom count for each disorder in the interviewed sample. The obsessive-compulsive personality disorder scale revealed a mean of 12.94, with a maximum possible score of 24 (all symptoms rated ‘3’ or present) and a diagnostic cut-off of 12 (at least four symptoms rated ‘3’). Larger numbers of individual symptoms rated ‘2’ (subthreshold) might have contributed to this mean value, as only four participants (8%) met the full diagnostic criteria for this disorder. The borderline personality disorder scale revealed a mean of 21.52, with a maximum possible score of 27 (all symptoms rated ‘3’ or present) and a diagnostic cut-off of 15 (at least five items rated ‘3’). This mean value reflects the large amount of individual symptoms related to borderline personality disorder on average to be present in this sample (on a subclinical or clinical level), which is confirmed by the fact that 20 participants (40%) of the interviewed sample met the full diagnostic criteria for this disorder. The anorexia nervosa scale revealed a mean of 8.34, with a maximum possible score of 12 (all symptoms rated ‘3’ or present), which is also the diagnostic cut-off point. This mean value reflects a substantial amount of symptomatology related to anorexia nervosa on average to be present in the interviewed sample. Although only two participants (4%) currently met the full diagnostic criteria, this mean value also includes symptom counts of the subclinical anorexia nervosa cases (N=2; 4%) and the large group of individuals presenting with a history of the disorder (N=22; 44%). The bulimia nervosa scale revealed a mean of 11.70, with a maximum possible score of 18 (all symptoms rated ‘3’ or present) and a diagnostic cut-off point of 15. Similarly to the above, this value reflects the large number of symptoms related to bulimia nervosa on average to be
present in the interviewed sample, which is confirmed by the finding that ten participants (20%) currently met the full diagnostic criteria and 28 participants (56%) fell into the subclinical bulimia nervosa category.

**Hypothesis 2.** There will be a significant positive correlation between anorexia nervosa and bulimia nervosa symptomatologies and personality characteristics such as low self-esteem and perfectionism.

**Hypothesis 3.** There will be differences in personality disorder symptomatology between anorexia nervosa and bulimia nervosa amongst the eating-disordered women, in that anorexia nervosa will be significantly associated with obsessive-compulsive personality disorder and bulimia nervosa will be significantly associated with borderline personality disorder.

Note: The analysed variables are of a correlational nature and are based on individual scores rather than categorical classifications. Thus, they provide a symptom count, which is correlated to the relevant personality characteristics and personality disorders.

**TABLE 16.** Personality characteristic and personality disorder correlates to eating disorder symptomatology:

<table>
<thead>
<tr>
<th></th>
<th>Current Anorexia Nervosa</th>
<th>Current Bulimia Nervosa</th>
<th>Anorexia History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissatisfaction</td>
<td>0.10</td>
<td>0.29*</td>
<td>0.05</td>
</tr>
<tr>
<td>Perfectionism</td>
<td>-0.11</td>
<td>-0.28#</td>
<td>0.00</td>
</tr>
<tr>
<td>General self-esteem</td>
<td>-0.04</td>
<td>-0.36*</td>
<td>-0.00</td>
</tr>
<tr>
<td>Social self-esteem</td>
<td>-0.05</td>
<td>-0.24</td>
<td>0.06</td>
</tr>
<tr>
<td>Personal self-esteem</td>
<td>-0.15</td>
<td>-0.31*</td>
<td>-0.06</td>
</tr>
<tr>
<td>Obsessive-compulsive PD</td>
<td>0.01</td>
<td>0.02</td>
<td>-0.08</td>
</tr>
<tr>
<td>Borderline PD</td>
<td>-0.08</td>
<td>0.42**</td>
<td>-0.09</td>
</tr>
</tbody>
</table>

\* = p < 0.05 \*\* = p < 0.01 \# = p < 0.10
In the test report, a significant positive correlation ($r = 0.49; p < 0.01$) emerged between anorexia nervosa and bulimia nervosa, suggesting that higher symptom ratings on bulimia nervosa scales follow high ratings on the anorexia nervosa scales. This correlation might be partly due to similar variables used (e.g. regarding the history and symptomatology of these eating disorders), and therefore this correlation is not unexpected.

Table 16. presents the correlations between eating disorder symptomatology (anorexia nervosa, bulimia nervosa) and personality characteristics (dissatisfaction, perfectionism, general, social and personal self-esteem), as well as personality disorders (obsessive-compulsive personality disorder, borderline personality disorder). The table shows that there is no significant correlation between anorexia nervosa symptomatology or a history of anorexia nervosa and any of the personality characteristics or personality disorders in question. The bulimia nervosa symptomatology in contrast is correlated to some personality characteristics and personality disorders at varying degrees of statistical significance. There is a significant positive correlation ($r= 0.29; p < 0.05$) between bulimia nervosa and the personality characteristic of dissatisfaction/ loss of control, suggesting that a high level of bulimia nervosa symptomatology is significantly associated with high levels of dissatisfaction/ loss of control. The personality trait of perfectionism and bulimia nervosa in contrast show a significant negative correlation ($r=-0.28; p < 0.10$), indicating that high levels of perfectionism are significantly correlated with low levels of bulimic symptomatology. Similarly, personality characteristics such as general and personal self-esteem show a significant negative correlation with bulimia nervosa symptomatology ($r=-0.36; r=-0.31; p < 0.05$), suggesting that high levels of general and personal self-esteem are significantly correlated with low levels of bulimia nervosa symptomatology. With regard to personality disorder symptomatology, there is a significant positive correlation between borderline personality disorder and bulimia nervosa ($r=0.42; p < 0.01$), indicating that high levels of bulimic symptomatology are significantly associated with high levels of borderline personality disorder symptomatology. This finding might support
previous speculations (see table 5., table 6. and table 8.) regarding a general association between these symptomatologies.

As no formal diagnosis of binge-eating disorder was made and only binge-eating disorder trends were recorded, this specific pathology and its association with the above personality characteristics and personality disorders was not subject of the main hypotheses of the study. However, with regard to the eating disorder setting conditions, a correlational analysis revealed a significant negative correlation between binge-eating disorder tendencies and levels of perfectionism ($r=-0.28; p < 0.05$), indicating that high levels of perfectionism are significantly correlated with low levels of binge-eating disorder tendencies. No significant correlations were found between binge-eating disorder tendencies and dissatisfaction with life and self/ loss of control variables or personality disorder symptomatologies.
SECTION IV. Comorbidity and symptom overlap

Hypothesis 4. Exploration of the possibility of an artefact in the comorbidity estimates between eating disorders and personality disorders due to an overlap in the diagnostic categories.

Table 17. Rotated principal component structure matrix for eating disorder symptoms (AN; BN) and personality disorder symptoms (OCPD; BPD) [variable description pto.]:

<table>
<thead>
<tr>
<th></th>
<th>Component 1-BN</th>
<th>Component 2-AN</th>
<th>Component 3-OCPD</th>
<th>Component 4-BPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCPD 1</td>
<td>0.09</td>
<td>0.07</td>
<td>0.59</td>
<td>-0.25</td>
</tr>
<tr>
<td>OCPD 2</td>
<td>0.16</td>
<td>0.19</td>
<td>0.54</td>
<td>-0.47</td>
</tr>
<tr>
<td>OCPD 3</td>
<td>-0.29</td>
<td>0.14</td>
<td>0.50</td>
<td>0.02</td>
</tr>
<tr>
<td>OCPD 4</td>
<td>-0.20</td>
<td>-0.18</td>
<td>0.57</td>
<td>-0.21</td>
</tr>
<tr>
<td>OCPD 5</td>
<td>0.18</td>
<td>0.05</td>
<td>0.75</td>
<td>0.05</td>
</tr>
<tr>
<td>OCPD 6</td>
<td>-0.04</td>
<td>-0.14</td>
<td>0.64</td>
<td>0.53</td>
</tr>
<tr>
<td>OCPD 7</td>
<td>0.37</td>
<td>0.34</td>
<td>0.24</td>
<td>-0.22</td>
</tr>
<tr>
<td>OCPD 8</td>
<td>0.01</td>
<td>-0.46</td>
<td>0.26</td>
<td>0.33</td>
</tr>
<tr>
<td>BPD 1</td>
<td>-0.02</td>
<td>-0.02</td>
<td>0.22</td>
<td>-0.71</td>
</tr>
<tr>
<td>BPD 2</td>
<td>0.50</td>
<td>0.16</td>
<td>0.23</td>
<td>0.63</td>
</tr>
<tr>
<td>BPD 3</td>
<td>0.25</td>
<td>0.20</td>
<td>0.71</td>
<td>0.13</td>
</tr>
<tr>
<td>BPD 4</td>
<td>0.07</td>
<td>0.20</td>
<td>0.18</td>
<td>0.63</td>
</tr>
<tr>
<td>BPD 5</td>
<td>0.17</td>
<td>-0.26</td>
<td>0.05</td>
<td>-0.35</td>
</tr>
<tr>
<td>BPD 6</td>
<td>0.42</td>
<td>-0.08</td>
<td>0.48</td>
<td>0.22</td>
</tr>
<tr>
<td>BPD 7</td>
<td>0.07</td>
<td>-0.01</td>
<td>0.39</td>
<td>0.04</td>
</tr>
<tr>
<td>BPD 8</td>
<td>0.57</td>
<td>-0.16</td>
<td>0.25</td>
<td>0.14</td>
</tr>
<tr>
<td>BPD 9</td>
<td>0.38</td>
<td>0.35</td>
<td>0.22</td>
<td>0.30</td>
</tr>
<tr>
<td>AN 1</td>
<td>0.10</td>
<td>-0.80</td>
<td>-0.01</td>
<td>-0.14</td>
</tr>
<tr>
<td>AN 2</td>
<td>0.24</td>
<td>-0.93</td>
<td>-0.11</td>
<td>-0.18</td>
</tr>
<tr>
<td>AN 3</td>
<td>0.26</td>
<td>-0.86</td>
<td>-0.01</td>
<td>-0.10</td>
</tr>
<tr>
<td>AN 4</td>
<td>0.35</td>
<td>-0.89</td>
<td>-0.05</td>
<td>-0.13</td>
</tr>
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Explanation of variable labels:

OCPD 1 = preoccupation with details, rules, lists, order and organisation
OCPD 2 = perfectionism interfering with task completion
OCPD 3 = excessive devotion to work and productivity
OCPD 4 = overconscientious, scrupulous and inflexible about matters of morality, ethics and values
OCPD 5 = inability to discard worthless objects
OCPD 6 = reluctance to work with others
OCPD 7 = financial hoarding
OCPD 8 = rigidity and stubbornness

BPD 1 = avoidance of real or imagined abandonment
BPD 2 = unstable and intense interpersonal relationships
BPD 3 = identity disturbance
BPD 4 = impulsivity including spending, sex, substance abuse, reckless driving, binge-eating
BPD 5 = recurrent suicidal behaviour and self-mutilating behaviour
BPD 6 = affective instability
BPD 7 = chronic feelings of emptiness
BPD 8 = anger control
BPD 9 = transient paranoid ideation

AN 1 = refusal to maintain body weight at or above minimally normal weight for age and height
AN 2 = intense fear of gaining weight, even though underweight
AN 3 = disturbance in body image
AN 4 = amenorrhea

BN 1 = lack of control over eating
BN 2 = recurrent binge-eating
BN 3 = recurrent inappropriate compensatory behaviours
BN 4 = frequency of binge-eating and compensatory behaviours (twice per week for three months)
BN 5 = undue influence of body shape and weight on self-evaluation
BN 6 = not occurring during anorexia nervosa

The conducted principal component analysis is a descriptive method and is used to explore the underlying structure of a set of variables and to find a common, optimal set of components for several factors. Items considered to have large loadings
(0.35 or above; Hammond, 1995b) on certain factors are printed in bold. In this analysis each critical symptom for each personality disorder (OCPD, BPD) and each eating disorder (AN, BN) from the SCID interview schedule was taken and four components were extracted, in keeping with the four classifications under investigation. The oblique rotation of this analysis is provided in table 17. The structure from the above table reflects that the symptom criteria for eating disorders are quite distinct (component 1 being bulimia nervosa and component 2 being anorexia nervosa). Only two items respectively (AN4 [amenorrhea] and BN3 [compensatory behaviours]) load on the other eating disorder in question. The matrix structure also reveals that the obsessive-compulsive personality disorder symptom criteria (component 3) differ from the eating disorder criteria sufficiently, with only two factors (OCPD7 [financial hoarding] and OCPD8 [rigidity and stubbornness]) loading on bulimia nervosa (OCPD7) and anorexia nervosa (OCPD8). Two further factors (OCPD2 [perfectionism interfering with task completion] and OCPD6 [reluctance to work with others]) load on borderline personality disorder. Regarding the borderline personality disorder symptom criteria (component 4), the matrix structure reveals that the items do not form a discrete cluster, as there are high item loadings across the remaining three diagnostic categories. One item from the borderline personality disorder criteria loads on the anorexia nervosa symptomatology (BPD9 [paranoid ideation]) and three items load on the obsessive-compulsive personality disorder symptomatology (BPD3 [identity disturbance]; BPD6 [affective instability] and BPD7 [chronic feelings of emptiness]). Furthermore, four items from the borderline criteria load on the bulimia nervosa symptomatology (BPD2 [unstable and intense interpersonal relationships]; BPD6 [affective instability]; BPD8 [anger control] and BPD9 [transient paranoid ideation]), suggesting that these specific symptoms are related to bulimia nervosa. Interestingly, item BPD 4 [impulsivity including binge-eating] did not load on bulimia nervosa symptomatology.

Overall, it appears that once analysed, three out of four diagnostic clusters from the SCID interview schedule (anorexia nervosa, bulimia nervosa, obsessive-compulsive personality disorder) emerge clearly in the principle component analysis matrix, and
thus these symptom summaries can be regarded as valid (although some of them appear to overlap). Therefore, a correlation between them (especially the eating disorders) is unlikely to be an artefact. However, the matrix also reveals that the diagnostic cluster for borderline personality disorder is not consistent and many of its symptoms overlap with other disorders, in particular bulimia nervosa and obsessive-compulsive personality disorder. Thus, this symptom summary can be regarded as unclear and a correlation between borderline personality disorder and bulimia nervosa in particular might be regarded as somewhat of an artefact of the symptom checklist.

IV. DISCUSSION

1. Prevalence estimation
The present study provided a thorough estimate of eating disorder prevalence rates in a female Special Hospital population, using standardised diagnostic criteria. The overall prevalence estimate obtained for this special population confirmed previous findings, suggesting that the rate of eating disorders is particularly high amongst women in secure care, who present with a multitude of difficulties (Kaye, 1995). This confirmation and the emphasis of a significant under-detection of eating disorder symptomatology (past, present and especially at the subclinical level) will be of significant clinical relevance in designing care plans and prioritising treatment programmes for the female services in secure psychiatric settings. However, firm comparative conclusions in relation to other settings cannot be drawn, due to the use of different diagnostic classification systems and different ways of obtaining the clinically relevant information (e.g. in direct interviews with the patient or indirect ways by examining case notes or obtaining behavioural ratings from RMO's or nursing staff).

An under-detection of past and present diagnosable eating disorders (anorexia nervosa and bulimia nervosa)
The overall, combined eating disorder prevalence estimate for the population of women in Broadmoor Special Hospital (18.1%; N=15) should be viewed as a conservative one. Although there is no statistically significant difference in the
detection of current eating disorders in general between the CPA documentation and the SCID interview, it is notable that eight women in the interviewed sample had a CPA diagnosis of eating disorders, whilst twelve were diagnosed with an eating disorder in the SCID interview. Given this discrepancy, representing one third of the diagnosed eating disorders that were missed by the CPA, it could be suggested that even regarding current eating disorder diagnoses there is a trend towards an under-detection and it might be inferred that had the non-interviewed 33 patients been screened, the overall prevalence rate would have been substantially higher than 18.1%. Furthermore, significant differences (statistically and clinically) are present regarding the history of these disorders. The significant under-detection of a previous history of eating disorders and a similar trend for currently diagnosable eating disorders might be explained by the fact that the in-depth screening interview for eating disorders reveals higher percentages of eating disorder symptomatology (past and present), whilst the CPA rarely documents the history of a psychiatric disorder. Furthermore, the obtained overall estimate might be potentially low because of the strict diagnostic criteria required to make a valid DSM-IV (APA, 1994) eating disorder diagnosis (e.g. the presence of amenorrhea for at least three months for a current diagnosis of anorexia nervosa). Additionally, the measure’s emphasis on the frequency of behaviours (e.g. food binges at least twice a week for at least three months for a current diagnosis of bulimia nervosa), rather than the clinical significance and personal distress caused by the behaviour could be regarded as over-restrictive, thus suggesting an under-estimation of the degree of currently diagnosable eating disorder symptomatology present in this sample.

An under-detection of subclinical eating disorders (anorexia nervosa and bulimia nervosa)
The overall, combined group of current subclinical eating disorders (including individuals just falling outside the current diagnostic criteria, as well as those who present with a milder subthreshold symptomatology) reflects an estimate (33.7%) that is similar to those eating disorder prevalence rates reported in other forensic settings for women (32% Holloway Prison; 34% Hendersen Therapeutic
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Community; Dolan & Mitchell, 1994). Again, the results revealed a significant under-detection of disordered eating styles in this sample, which might be due to the same reasons discussed in the previous section. However, in case of hypothetically combining the obtained estimates of the present study, it could be concluded that 51.8% (N=45) of the directly and indirectly investigated cases in this population (N=83) currently present with clinically disordered eating styles, including fully diagnosable eating disorders. Moreover, focusing solely on the interviewed sample, 42 (84%) of the 50 interviewed women currently presented with a diagnosable eating disorder or some disordered eating style, even if this was not within the strict diagnostic range. These figures confirm clinical impressions that disordered eating styles and eating disorders present a significant problem in the forensic population of women in Broadmoor Special Hospital.

An under-detection of subclinical eating disorders (binge-eating disorder tendencies)

Regarding the large number of binge-eating disorder tendencies (N=18; 36% for the interviewed sample) which was significantly under-detected, another specific area is highlighted which would require substantial clinical attention, although it is noteworthy that the course of binge-eating disorder appears to be chronic (DSM-IV; APA, 1994). The large number of binge-eating-disordered women might also be reflected in the large proportion of women (65.21%; N=30) in the interviewed sample (N=50) whose body mass index is above 27 (overweight range). Furthermore, the figures revealed by this study are of relevance to Freeman’s (1996) initial suggestion that the prevalence of binge-eating disorder might be twice the prevalence of anorexia and bulimia nervosa taken together. Thus, using the obtained figures for this population, the prevalence estimate of binge-eating disorder tendencies in the interviewed sample (N=18; 36%) marginally approximates to the expected figures obtained, using the above calculation (N=24; 48%). Additionally, the obtained prevalence estimate of binge-eating disorder trends in this population (36%) is similar to the average prevalence rate (30%) reported in weight-control samples (DSM-IV; APA, 1994), but is substantially higher than that reported in the community (DSM-IV; APA, 1994). However, as
only binge-eating disorder tendencies were recorded and no formal diagnoses were made, this is not scientifically valid and presents a hypothetical and preliminary estimate for this population only.

2. Clinical characteristics of eating-disordered patients in this forensic setting

With regard to the specific clinical information on current eating disorder symptomatology in the interviewed sample, it is of relevance to note that eating disorders and disordered eating styles were distributed across all wards, with most diagnosed eating disorders present on the personality disorder unit, although this was not statistically significant. Furthermore, there was a wider range of severity (mild, moderate, severe) for bulimia nervosa than anorexia nervosa (moderate), although the clinical treatment focus tends to lie with anorectic patients, due to the less transient symptoms (e.g. emaciation).

Ethnicity is a further characteristic of the identified eating disorder sample which is of interest in the light of cross-cultural studies, as the individuals from black ethnic backgrounds appear to be under-represented amongst fully diagnosable eating disorders. However, they appear to be over-represented within the eating disorder history and subclinical eating disorder categories, which might be a reflection of the general tendency for black Africans to be over-represented in Special Hospital populations (14%) (Madden, 1993).

Eating disorders and additional psychiatric diagnoses

Regarding the distribution of other CPA diagnoses amongst interviewed and currently diagnosed eating disorder patients, the presence of borderline personality disorder, depression and previous alcohol abuse are statistically insignificant, but nevertheless of clinical relevance. It might be hypothesised that no significant differences between eating-disordered individuals with (75%) and without (25%) borderline symptomatologies were found, as the CPA documentation might not be stringent in the assessment criteria for either disorder. The above prevalence findings have already indicated that the reliability of CPA diagnoses might be limited, as there is a lack in identifying eating disorders, subtypes of eating
disorders are often not specified, and it is unclear which diagnostic classification system (DSM-IV; ICD-10) was used to categorise presenting symptoms. Furthermore, information for the CPA documentation is often obtained from a case note analysis, rather than specific psychiatric interviews. Thus, it is doubtful whether a statistically significant symptomatic overlap between borderline personality disorder and eating disorders could have been expected within this specific diagnostic comparison, as the sources of clinical information are not compatible and the CPA information is likely to be from multiple sources, which present a higher degree of unreliability than the SCID interview. In addition, the highlighted limitations regarding the reliability of CPA diagnoses emphasise the importance of psychological formulations in conceptualising a patient’s presentation, rather than solely relying on strict diagnoses.

However, the established trends observed in this population need to be acknowledged (75% of women with eating disorders and borderline personality disorder; 80% of women with current bulimia nervosa and borderline personality disorder) and partially support previous findings, reporting a high prevalence (33%) of borderline personality disorder amongst bulimics as established by the SCID interview (Braun, Sunday & Halmi, 1994). Furthermore, the high prevalence of depression (50%) (CPA diagnosis) coinciding with diagnosed eating disorders (SCID) is of clinical significance in the light of previous findings emphasising the influence of affective disorders on eating disorders (Sunday, Levey & Halmi, 1993). Previous research has highlighted higher rates of substance abuse for bulimic women (Bulic, 1987; Wilson, 1995), which is not confirmed in this sample, as the majority of eating-disordered women had no documented previous drug or alcohol abuse history. It might be speculated that this result was obtained for two reasons. Firstly, bulimic symptomatologies (binge-eating in particular) and alcohol/substance abuse often occur simultaneously (Vanderlinden & Vandereycken, 1997a), which for obvious reasons is less likely in a setting of maximum security. Secondly, the CPA indication of a significant history of substance abuse (where indicated) might be subject to the same methodological limitations discussed previously. It furthermore appears that individuals currently presenting with binge-
eating disorder tendencies are ‘healthier’ with regards to some other comorbid pathologies (e.g. depression), than those with anorexia nervosa or bulimia nervosa. Within the context of previous research, it might be speculated that these binge-eaters report less severe trauma experiences and show lower levels of dissociative symptoms (Dalle-Grave, Rigamonti & Todisco, 1995), which in turn is reflected in lower proportions of psychiatric comorbidity.

3. Hypothesis 1. There will be a higher rate of bulimia nervosa than anorexia nervosa in this population.

Current presentation
Focusing specifically on different eating disorder symptomatologies, the initial hypothesis was confirmed, in that a significantly larger proportion of women currently presents with bulimia nervosa compared to anorexia nervosa. This trend is also mirrored with regard to current subclinical presentations of both disorders. This was not surprising, given the context of a female forensic population, presenting with the known vulnerabilities and a high degree of unwanted sexual experiences (50%; Iles, 1995), as research has suggested a relationship between sexual abuse and bulimic subtype behaviours (Vanderlinden & Vandereycken, 1993; Wonderlich, Donaldson, Carson, Staton, Gertz, Leach & Johnson, 1996). Furthermore, studies reported a higher frequency of traumatic experiences in bulimia nervosa than in patients with anorexia nervosa (e.g. Kearney-Cooke, 1988). Thus, the findings confirm previous suggestions that traumatised individuals in particular are more likely than others to develop maladaptive bulimic behaviours (e.g. bingeing, purging), designed to reduce tension (Briere, 1992) and escape from conscious awareness when confronted with negative emotional states or intrusive negative thoughts (Heatherton & Baumeister, 1991; Vanderlinden & Vandereycken, 1997b). Furthermore, ritualistic behaviours associated with sexual abuse (e.g. cleansing) might also be expressed by maladaptive behaviours that are associated with bulimic symptomatologies (e.g. purging), as these might symbolise cleaning processes that are connected to the feeling of being dirty following sexual abuse (Levin & Spauster, 1994). Although this study did not incorporate sexual
abuse specifically, the results are of relevance to suggestions that the intensity of eating disorders might be determined by the presence of sexual abuse (DeGroot, Kennedy, Rodin & McVey, 1992) and that aspects of sexual abuse (e.g. low self-esteem, guilt, poor family functioning) could be linked to the development and maintenance of eating disorders (Slade, 1982). Thus, a combination of vulnerabilities associated with bulimic behaviours might account for the large proportion of women presenting with this particular pathology.

However, these findings are speculative and need to be considered in the knowledge that some well-controlled studies suggest that whilst sexually abusive experiences may be related to psychological distress, they do not serve to increase eating disorder symptomatology (Folsom, Krahn, Nairn, Gold, Demitrack & Silk, 1993). This finding is similar to Welch and Fairburn’s (1994) conclusion that sexual abuse does increase the risk of psychiatric disorders (including bulimia nervosa) but that the increased risk is not specific to the eating disorder. However, it is beyond the scope of this study to further elaborate on this subject and the existing research does not allow the consideration of a direct and causal link between the two phenomena. Nevertheless, some factors accounting for these conflicting findings might include the heterogeneity of eating disorders (sample differences with respect to clinical features and additional diagnoses), the definition and assessment of trauma/sexual abuse (e.g. childhood sexual abuse versus peer sexual abuse), as well as the conceptualisation of the severity and duration of the abuse. Thus, whilst a direct connection between sexual abuse and the subsequent development of an eating disorder remains unclear, and a history of sexual abuse may not be a specific risk factor for the development of an eating disorder, follow-up research has demonstrated that the presence of sexual abuse might be related to a poor prognosis in eating disorders (Gleaves & Eberenz, 1994), which is of relevance when considering and prioritising the treatment options for the population under investigation.

Apart from a previous history of sexual abuse, the high prevalence of bulimia symptomatology in this specific sample might also confirm more general findings,
reflecting trends that bulimia nervosa is associated with more childhood adversity (negative life events and family experiences not necessarily including sexual abuse, but characterised by a lack of care and neglectful parenting) than restricting anorexia nervosa (Vanderlinden & Vandereycken, 1997b).

It might also be proposed that a higher proportion of bulimic symptomatologies occur amongst the women in forensic services, because of the restricted lifestyle in an environment of maximum security. In the absence of recreational or illicit drug use, which the multi-impulsive bulimic individual might have regularly engaged in prior to admission to a maximum security hospital, bulimia nervosa can be conceptualised as a ‘food addiction’ (Vanderlinden & Vandereycken, 1997a) with regular bingeing becoming a form of conditioned addictive behaviour (that is ‘allowed’), which in itself can be regarded as an expression of a disturbed self-control. Furthermore, it can be speculated that in the Special Hospitals (possibly more so than in other settings) particular circumstances (loneliness, tension, sadness) or situations (ward conflicts, visits, tribunals) pose triggers which lead the patient to reach for food as a comfort mechanism.

Past presentation
Regarding a previous history of both disorders, a history of anorexia nervosa (fully diagnosable, as well as subthreshold) is significantly more common than a history of bulimia nervosa. This finding is in line with suggestions that eating disorders are points along a single continuous spectrum of disorders and develop out of each other, with anorectic tendencies often preceding bulimic ones (Russell, 1979). Thus, the large proportion of individuals with a history of anorexia nervosa might now form the core of the large proportion of individuals presenting with diagnosable or subclinical bulimia nervosa. This is confirmed by the fact that in the examined sample, 80% (N=8) of currently diagnosed bulimics reported a history of anorexia nervosa. This result confirms previous estimates, suggesting that between 30%-80% of bulimia nervosa sufferers have a history of anorexia nervosa (Mitchell, Pyle, & Eckert, 1985). Furthermore, these findings are to be expected when investigating the ages of onset for each disorder. The mean age of onset for
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anorexia nervosa is 17 years (DSM-IV; APA, 1994), whilst bulimia nervosa usually begins in late adolescence or early adult life (DSM-IV; APA, 1994), an age range which is approximating the mean age of the interviewed sample (33.26).

Moreover, as the individuals with a history of anorexia nervosa and a current presentation of bulimia nervosa are not mutually exclusive groups, it can be assumed that there is an overlap in past and current purging behaviours (present in 90% of current bulimics and in 36% of anorexia nervosa histories), which is of particular clinical significance, as these behaviours might represent particular attempts of these women to gain control over their body and their life. Additionally, within the context of the vulnerabilities of this sample, these findings confirm previous results indicating that there is a strong association between sexual abuse and particular purging behaviours (vomiting, laxative abuse) (Waller, 1993b).

4. Correlates of eating disorders

Hypothesis 2. There will be a significant positive correlation between anorexia nervosa and bulimia nervosa symptomatologies and personality characteristics such as low self-esteem and perfectionism.

Hypothesis 3. There will be differences in personality disorder symptomatology between anorexia nervosa and bulimia nervosa amongst the eating-disordered women, in that anorexia nervosa will be significantly associated with obsessive-compulsive personality disorder and bulimia nervosa will be significantly associated with borderline personality disorder.

Correlates of anorexia nervosa

The results revealed no significant correlations between anorexia nervosa or a history of this disorder and the examined personality characteristics, as well as personality disorders. This is in contrast to other studies indicating a link between anorexia nervosa and ‘neurotic perfectionism’ (Hamachek, 1978; Kiemle, Slade & Dewey, 1987), as well as between anorexia nervosa and obsessive-compulsive personality disorder (Braun et al., 1994). However, the sample of individuals
meeting the complete diagnostic criteria for anorexia nervosa was very small and was probably inadequate to properly evaluate this hypothesis. Furthermore, other findings emphasising the persistence of high levels of perfectionism in individuals with a history of anorexia nervosa (Srinivasagam et al., 1995) were not confirmed, as a previous anorexia symptomatology was not significantly correlated with this personality characteristic or in fact any of the other personality characteristics or personality disorders in question.

Correlates of bulimia nervosa
Bulimia nervosa in contrast showed a significant positive correlation with the personality characteristic of dissatisfaction/loss of control, and a significant negative correlation with the personality trait of perfectionism, both of which have been identified as important, associated ‘setting conditions’ for eating disorders (Slade, 1982). It was hypothesised that both of these personality characteristics would show significant positive correlations with both eating disorders. Thus, it was in contrast to the expectations to find that high levels of perfectionism are significantly associated with low levels of bulimic symptomatology. Although the measure of these setting conditions was initially developed for the use with anorectic patients, many bulimic patients in this sample had a history of anorexia nervosa and the associated levels of perfectionism remained negatively correlated. Thus, the results on only one of the setting conditions (dissatisfaction) point in the direction of findings obtained in the community.

Furthermore, bulimia nervosa symptomatology was significantly correlated with low levels of general and personal self-esteem, which would support previous findings and associated theories, such as the cognitive-behavioural model of eating disorders (Fairburn & Cooper, 1989), which emphasises low self-esteem as a crucial factor in the genesis and maintenance of eating disorders. Furthermore, it is notable that the average level of personal self-esteem in the sample was low, compared to the average level of general and social self-esteem, which fell in the moderate range. These findings might suggest that high rates of poor personal self-esteem and self-worth are reflected in the large number of disordered eating styles
and eating disorders, as they might constitute the more central and intimate components of eating disorder symptomatology than levels of general and social self-esteem. Although research shows divergent findings about the importance of a patient’s self-image, the above suggestion would be confirmed by findings that self-esteem in eating disorders is strongly related to the patient’s intimate perception of their own body (Vanderlinden & Vandereycken, 1997b). These findings might also be of relevance regarding the clinical implications for different types of interventions that are most appropriate for different subgroups of women in maximum security (e.g. targeting different aspects of self-esteem).

Bulimia nervosa also showed a significant positive correlation to borderline personality disorder, thus confirming the findings obtained by other researchers, as discussed in the introduction. This overlap between bulimia nervosa and borderline personality disorder might be related to some similar symptom levels, including those that reflect impulse control and mood liability. Thus, the obtained findings would support suggestions that features such as impulsivity and mood liability are central to the symptomatology of bulimia nervosa, whilst also being closely related to the lack of stability (in mood, behaviour and relationships) in borderline cases and to the maladaptive behavioural repertoire of victims of childhood trauma (Boon & Draijer, 1993).

Integration of correlates into the functional analysis of eating disorders

The above results show that there is only limited support (only concerning bulimia nervosa) for Slade’s (1982) model of eating disorder setting conditions as applied to this specific population. However, the significant negative correlations obtained for levels of perfectionism with regard to bulimic symptomatologies and binge-eating disorder tendencies are noteworthy in relation to a theoretical extension of Slade’s model provided by Krause (1995). In a proposed aetiological model of eating disorders, which describes separate but inter-related pathways for anorexia nervosa, bulimia nervosa and binge-eating disorder, Krause (1995) suggests that the bulimia nervosa pathway is characterised by low self-esteem and variable levels of perfectionism/ control of self and food (e.g. as expressed in impulsive...
tendencies, dieting, bingeing and compensatory behaviours), in contrast to the anorexia nervosa pathway which is associated with striving for perfectionism and extreme control of the self and food (e.g. as expressed in pure dieting). Krause furthermore extends her model by including a binge-eating disorder pathway, which is associated with impulsive and defeatist characteristics, leading the individual to have no desire to be perfect and in control (e.g. as expressed in pure binge-eating). Within the context of this model, the obtained negative correlations between perfectionist tendencies and bulimia nervosa and binge-eating disorder tendencies could be explained, as the presence of both pathologies was associated with low levels of perfectionism. Furthermore, the correlation between this characteristic and binge-eating disorder tendencies appeared to be even more distinct (significant at the 5% level) than that obtained for bulimia nervosa (significant at the 10% level), which would possibly confirm Krause's proposed deterioration in perfectionist tendencies as an individual progresses from bulimia nervosa to binge-eating disorder. Overall, it appears that this contemporary and elaborate conceptualisation of different eating disorder subtypes provides a better explanation of some of the correlations between personality characteristics and eating disorders obtained in this study than does Slade’s model.

More specifically, Slade’s functional analysis was focused and based mainly on early findings regarding the anorectic pathology, whereas in this particular forensic sample the presence of bulimia nervosa was significantly higher. Whilst the proposed setting conditions were largely present in the entire sample (high levels of dissatisfaction with life and self/ loss of control, as well as perfectionism), independent of eating disorder pathology, it could be assumed that the presence and development of these characteristics was rooted in the specific histories of this largely traumatised population, which appears to be qualitatively different to those of community subjects presenting with eating disorders. Thus, they might portray a more general characteristic of this population, in that levels of dissatisfaction with life and self are high amongst women in forensic settings (due to their history), which might be compensated for in the present by overall high levels of perfectionism. These high levels of overall perfectionism in this population might
be related to life in general, rather than eating disorder pathology. This would explain the fact that these setting conditions did not differentiate between eating-disordered and non-eating-disordered patients in this female forensic population. In addition, this explanation would be confirmed by the fact that the SCANS norms were developed on schoolgirls, students and eating-disordered patients, but not on psychiatric patients. Thus, it can be concluded that the women in Broadmoor Special Hospital provide an extremely traumatised population with a cluster of psychiatric diagnoses compared to control subjects in any other setting, and that findings from the community, especially on complex conditions such as eating disorders, cannot be readily transferred to this environment.

5. Comorbidity and symptom overlap

Hypothesis 4. Exploration of the possibility of an artefact in the comorbidity estimates between eating disorders and personality disorders due to an overlap in the diagnostic categories.

The conducted analysis revealed valid symptom summaries for three out of the four diagnostic categories (anorexia nervosa, bulimia nervosa and obsessive-compulsive personality disorder) of the employed SCID interview schedule. However, one diagnostic category, borderline personality disorder, showed substantial overlaps with the other diagnostic categories, especially with bulimia nervosa. Thus, it might be speculated that the above correlation between these two disorders is of debatable value, because of the likelihood that this association is an artefact. However, the DSM-IV (APA, 1994) acknowledges that binge-eating behaviour is included in the impulsive behaviour criterion that is part of the definition of borderline personality disorder, but stresses that if the full criteria for both disorders are met, both diagnoses can be given.

On closer examination of the principle component analysis, it appears that there are various characteristics associated with borderline personality disorder that overlap with eating disorders, bulimia nervosa in particular. These include unstable interpersonal relationships, affective instability, anger control and transient
paranoid ideation when under stress. Interestingly, the impulsivity item that includes binge-eating on the SCID borderline personality disorder diagnostic section does not overlap with eating disorders. Thus, it appears that the elements combining borderline personality disorder and bulimia nervosa are not binge-eating behaviours per se, but aspects of mood liability, affective instability and general impulsivity (e.g. anger). These findings are similar to the characteristics that Vanderlinden and Vandereycken (1997a) reported to be present in their bulimic patients, including impulsivity, mood instability, dissociative experiences, increased suggestibility and a history of psychotrauma. Therefore, the lack of control regarding emotional regulation in borderline personality disorder might be parallel to the lack of control over eating in disordered eating styles, as present particularly in bulimia nervosa. This suggestion would be confirmed by Vanderlinden and Vandereycken’s (1997b) multi-factorial model of trauma and dissociation, which conceptualises bulimia as a form of impulse dyscontrol in a dissociated state, designed to cope with sensations related to trauma, including a negative self-image and negative body experiences (often resulting from abusive experiences). This ‘direct abreaction’ can also be expressed in other self-destructive acts that characterise borderline personality disorder and serves as a discharge (almost a purging) of negative sensations or affects.

It is noteworthy that despite its overlap in the principle component analysis, the borderline personality disorder scales show a good inter-item reliability compared to the obsessive-compulsive personality disorder scales, which showed poor item homogeneity and thus are of questionable use. This high reliability for the borderline personality disorder scales, however, could be due to some degree of variance that is shared with the bulimia nervosa scales, which also has a high reliability coefficient. However, alternative diagnostic criteria such as the ICD-10 classification system might show a different association between the two disorders.

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10 A sense of lack of control over eating is one of the DSM-IV (APA, 1994) diagnostic aspects for bulimia nervosa.

11 Impulse dyscontrol in this context is defined as a maladaptive struggle with controlling the impulse or temptation to perform acts that are harmful to the self or others. The DSM-IV (APA, 1994) category of ‘impulse-control disorder’ is seen as one variation on the spectrum of impulse dyscontrol problems.
6. Methodological considerations

A major limitation of the present study lies in the fact that it was impossible to interview the complete population of women in Broadmoor Special Hospital. Thus, the obtained eating disorder prevalence figures constitute an estimate rather than a precise prevalence rate, which in turn influences the generalisation of the findings. Furthermore, the differences between the presence of eating disorder symptomatology in the interviewed and non-interviewed sample might have been reduced if more indirect information about disordered eating in individual non-interviewed patients had been obtained by questioning staff or primary nurses, or by examining the recent case notes more thoroughly, rather than just relying on one source, such as the current CPA documentation. On a more general note it is noteworthy that studies with eating disorder patients (particularly with a self-report element) always face the bias of expectancy (‘social desirability’), which might be of particular importance in an environment of maximum security, as patients might fear that any obtained information will be passed on to the clinical teams. On the contrary, because of their often long-standing contact with services, patients might be more willing to admit to problematic and socially unacceptable behaviours (e.g. interpersonal violence) than would a community sample.

Whilst the obtained findings can be generalised to female populations of other Special Hospitals, the generalisation to other forensic settings (e.g. prisons for women) might be limited, due to the different nature of Special Hospital patients with regard to their Mental Health Act classification and medication, both of which might affect the patient’s motivation, openness and ability to discuss sensitive issues.

7. Clinical implications

Previous research on women with eating disorders has very much focused on outpatient or general hospital settings and little scientific attention has so far been given to eating disorders amongst women in maximum security. This study has solely focused on eating disorders in this very specific population and has highlighted a large proportion of patients with a history of, as well as currently
presenting with clinical and subclinical disordered eating styles (particularly of the bulimic subtype). The finding that there is a substantial under-detection of these conditions amongst the women in Broadmoor Special Hospital has supported clinical impressions and might give weight to requests for additional resources and training to manage such conditions. Furthermore, it might help to implement specific planning, monitoring and evaluating of direct interventions targeting these specific problems and would reveal which treatment (e.g. psycho-educational groups, therapeutic groups or individual therapy) might most suitably address these pathologies in this specific and complex sample. Although it is generally acknowledged that eating disorders constitute the outward expression of deep psychological and emotional turmoil (Eating Disorders Association, 1989), it needs to be expected that this sample of traumatised, multi-impulsive patients with a greater general psychopathology, might have an overall less favourable course of eating disorder illness than that found in non-specialised treatment centres and the community (Fichter, Quadflieg & Rief, 1994).

In order to maintain an increased clinical awareness of these conditions and to prevent an ongoing under-detection of eating disorders in this sample, it might be suggested that women patients should be routinely screened for these conditions during the admission assessment process, by using widely known and well-established measures, such as the Eating Disorder Inventory (EDI) (Garner, Olmstead & Polivy, 1983). This would highlight individual attitudes and psychological features relevant to anorexia and bulimia nervosa. Furthermore, the substantial number of women identified in the subclinical eating disorder range (especially those with binge-eating disorder trends), suggests the need to include specific features of disordered eating (even if no full diagnosis can be made) in the CPA documentation, in order to avoid an ongoing under-detection of these conditions. In addition, the significant under-reporting of an eating disorder history in the CPA documentation might alert clinicians to particularly screen for past signs of this symptomatology, in order to increase an awareness of the possibly continuing vulnerabilities an individual might present with. Regarding the substantial amount of bulimic symptomatology found in the present sample, a
systematic screening for dissociative symptoms in those patients might be proposed, as several studies suggest a relationship between trauma-related dissociative experiences and bulimic symptomatologies (Chandarana & Malla, 1989; Torem, 1990), in particular for bulimic women with a history of child sexual abuse (Miller & McCluskey-Fawcett, 1993). This could be accomplished by using measures that quantify different types and frequencies of dissociative experiences, including the Dissociative Experiences Scale (DES), a brief self-reporting scale developed by Bernstein and Putnam (1986) or the Dissociation Questionnaire (DIS-Q) (Vanderlinden, Van Dyck, Vandereycken, Vertommen & Verkes, 1993). This might be of clinical importance, as dissociative experiences, possibly expressed by bingeing, are strongly conditioned and may become therapy-resistant (Nijenhuis & Vanderlinden, 1995).

The shared symptomatologies between borderline personality disorder and bulimia nervosa are of interest to the clinical management of patients presenting with these difficulties. The shared variance between symptoms relating to affective instability might be different to those symptoms of impulsivity that have usually been associated with both bulimia nervosa and borderline personality disorder (‘multi-impulsive bulimics’). Thus, rather than solely focusing on the behavioural component (impulsivity), more emphasis in treatment could be given to the affective component (instability) that might underlie these impulsive behaviours. One relatively recent approach, Dialectical Behaviour Therapy (Linehan, 1993) addresses mood and emotional dysregulation in patients with borderline personality disorder, rather than solely focusing on their impulsive behaviours. The current application and subsequent evaluation of this approach might reveal its effectiveness amongst the women in Broadmoor Special Hospital, as Linehan (1993) has shown that this intervention can be effective in reducing suicide attempts and self-injurious behaviour.

8. Future research

Future research focusing on problems of this particular population might investigate the possibly causal relationship between a history of child sexual abuse
and disordered eating. More specifically, an in-depth exploration of previous suggestions regarding the association between trauma-related dissociative experiences and eating disorder symptomatologies, particularly regarding patients with a bulimic component, might be of interest, as well as an examination of whether obese binge-eaters report less severe trauma experiences and show lower levels of dissociative symptoms (Dalle-Grave et al., 1995). An exploration of these areas within this population might yield further specific findings that could be compared to recent research investigating the prevalence and relationship between post-traumatic stress disorder (PTSD) and eating disorders in non-forensic patients (e.g. Turnbull, Troop & Treasure, 1997).

As the average level of self-esteem in this population was within the moderate to low range, studies focusing on its liability, as well as its interaction with other psychiatric diagnoses other than eating disorders (e.g. depression), might provide useful results on the regulation and restoration of this core concept. Particularly within the social context of a forensic population (e.g. comprising qualitatively different life-course influences on self-esteem), research on self-esteem liability could become a new important area of research (Andrews, 1998), providing relevant clinical and scientific information on more affective aspects of the difficulties encountered by women in secure care.

**V. CONCLUSION**

In conclusion, the present study provided a reliable and thorough estimate of eating disorder prevalence rates and disordered eating styles in a female Special Hospital population, using standardised diagnostic criteria. The majority of women patients were interviewed and the results highlighted a tendency towards an under-detection of past and present eating disorders (anorexia nervosa and bulimia nervosa) and disordered eating styles (subclinical anorexia and bulimia nervosa and binge-eating disorder tendencies). The obtained prevalence rates confirmed clinical impressions and proved to be similar to those obtained by other workers in this field.
Regarding the specific nature of present eating disorders, a significantly greater proportion of current bulimic symptoms than current anorectic symptoms was found in this sample, which appeared to be related to the accumulation of vulnerabilities and comorbidities present in this complex population. The specific characteristics explored (e.g. binge/ purging behaviours) are parallel to findings in the contemporary literature, examining the nature and function of bulimic behaviours in samples of traumatised individuals.

An examination of the correlates of the present eating disorder symptomatology revealed little support for a functional analysis of eating disorders as proposed by Slade (1982), because the suggested eating disorder setting conditions (dissatisfaction/low self-esteem, high levels of perfectionism) were only associated in parts with disordered eating styles in this sample. However, a contemporary extension of Slade’s model, provided by Krause (1995), accounted for some of the obtained results regarding these personality characteristics, suggesting that the nature and degree of these setting conditions might vary for different types of eating disorders (anorexia nervosa, bulimia nervosa, binge-eating disorder). Nevertheless, these findings emphasised that models and measures developed for community samples are not simply transferable to an extraordinary population, such as the women in a maximum security setting.

Contrary to the expected, no correlation between obsessive-compulsive personality disorder and anorexia nervosa was obtained, which might have been influenced by the fact that only a small proportion of women presented with either condition. However, a significant positive correlation between borderline personality disorder and bulimia nervosa was found, which resulted partly from an overlap in diagnostic symptomatologies. Although no causal inferences could be drawn, this overlap points in the direction of an association between bulimic behaviours and affective instability/ impulsivity, which was suggested by previous research (Vanderlinden & Vandereycken, 1997a). The established symptom overlaps between bulimia nervosa and borderline personality disorder (e.g. impulsivity and mood liability as expressed by self-destructive behaviours and dissociative features) within the
context of a population with a high rate of childhood sexual abuse would fit within the view that they constitute a variant of post-traumatic stress disorder (Kroll, 1993), or mediate between childhood abusive experiences and psychological problems during adulthood (Waller, 1994). Overall, the findings tentatively relate to previous suggestions that bulimic as well as other impulsive behaviours might serve as a maladaptive psychological escape mechanism, often occurring in relation to trauma. Whatever the theoretical interpretation of these symptoms, the association between them will as such have important practical implications for the therapeutic management of these women, especially with regard to enhancing their self-control within a structured daily life in and outside conditions of maximum security. Thus, the recognition of the importance of these affective instabilities and impulsive behaviours might allow for the further development of treatments that acknowledge the interchangeable nature of these symptoms, and thereby address the underlying pathology.
References


Appendix I

1. Research and Ethics Committee correspondence
2. External review of the project proposal
Dear members of the Special Hospital Research and Ethics Committee,

Re: Application for the ethical consideration of a research project

Please find enclosed the required information for the ethical consideration of a research project. The project will aim to investigate the association between eating disorders and personality characteristics in the female population of Broadmoor Special Hospital.

The following are included for your information:
- A completed Special Hospitals’ Application Form for the Approval of Research by Research and Ethics Committees
- A detailed research proposal protocol (approximately 3000 words)
- Explanatory letters outlining the nature of the study to be given to clinical teams, identified keynurses and identified patients/participants
- A Special Hospital Consent Form

The project is intending to clarify the prevalence and nature of eating disorders, as well as associated personality traits and personality disorders in this special hospital population. It is hoped that the findings will aid in understanding the aetiology and associated comorbidities of eating disorders in female special hospital populations, and furthermore highlight specific issues relevant for the treatment of women in secure care. In addition, the study will be used as a Third Year Research Project for the Doctorate in Clinical Psychology at the University of Surrey.

I hope that you will have a chance to discuss this proposal in your meeting on 16th of December 1997 and I look forward to hearing from you.

Yours faithfully,

Alexia Femholz
Psychologist in Clinical Training
(Principal Researcher)
Dear Alexia

The Broadmoor Ethics Committee considered your proposal at their meeting on 16 December but were unable to give approval for the research as described to begin for the following reasons:-

The members felt that the size of your sample would be terribly limited once the exclusion criteria had been applied and questioned whether it was realistic to take a sample from just one hospital. It was suggested, therefore, that you ascertain the likely size of your sample and whether other psychiatric facilities should be approached before proceeding further.

As with all research projects, an independent reviewer has been asked to give an opinion on the scientific merit of the project. This has not yet been received but will be passed to you in due course.

On a more positive note, the committee were impressed with the clarity of the explanatory letters and consent form that you included with the application and felt that they should be used as models for other researchers.

The committee suggest that you reconsider the proposal in the light of these and any further comments.

Yours sincerely

Jackie Hayward
Ethics Committee Secretary
Dear Mrs Hayward,

7 January, 1998

Re: The ethical consideration of a research project investigating the association between eating disorders and personality characteristics in a female Special Hospital population

Thank you for your letter of 31 December 1997 regarding the Ethics Committee's views on this research proposal, and for the positive comments made in the letter about aspects of the application.

The only concern about the study expressed in the letter was that 'the size of the sample would be terribly limited once the exclusion criteria had been applied' and I was advised to ascertain the likely size of my sample within the hospital. My proposal has been reconsidered in the light of this instructive feedback.

1) The comment raised concerning the limited sample size once the exclusion criteria had been applied was very important. On re-reading my application, I feel that the way the exclusion criteria were described may have been over-inclusive and subsequently may have misled the Committee into thinking that a high proportion of the approximately 100 women in Broadmoor would be likely to be excluded. In the application form (section 4) the exclusion criteria were stated as 'adverse clinical team opinion, actively psychotic, acutely suicidal, acutely violent, and those not willing to participate'. A broad interpretation of those criteria might easily lead to the conclusion that the majority of patients would immediately be excluded. For example, if around 58% of female Broadmoor patients suffer from a psychotic illness (Iles, 1995), one could interpret the exclusion criteria as implying that all of these patients would be excluded (similarly for violence).

In fact, it was intended (but perhaps not conveyed as clearly as it could be), that all patients would be included, unless their responsible clinical team considered it to be clinically inadvisable or inappropriate for them to participate in the one-hour interview required for the study, due to the potential reasons cited above.

2) It may also be that the diagrammatic picture of the study included in my application material overly emphasised that patients would be allocated to three groups which are compared (therefore requiring sufficient numbers in each group). However, the existence of clearly defined groups of patients is an empirical question that I may be able to explore within this investigation. As stated in the third area of focus in my proposal, one aim is to test the association between eating disorders symptomatology and certain personality disorders in this sample. As I share your concerns about sample size, I had planned to adopt a correlational approach to the data rather than a specific group comparison approach. I was advised by my statistical supervisor that these analyses are less dependent on large sample sizes and thus group size would not be a statistical problem, even if the number of exclusions exceeded our estimates. Thus, the
correlational strategy ensures meaningful analyses and maximises the information I will obtain from the small sample of Broadmoor patients.

3) In planning the study, I had already become aware of the issue of sample size, because I had consulted closely with my clinical advisor, who has experience in working with the female population in Broadmoor Special Hospital and is of the view that this study as outlined is viable and credible. In addition, I had obtained numbers from a recent hospital survey using the Body Mass Index (BMI), which indicated a high percentage of women patients to be classified as having an eating difficulty. However, following the suggestion in your letter, I have also approached psychology link clinicians and members of the Broadmoor eating disorders special interest group to ascertain the likely size of the sample of women in the hospital presenting with eating disorder symptomatology. The estimate provided by these clinicians confirmed the view that a high proportion (around 30%) of women in Broadmoor suffer from eating difficulties. This estimate is close to that reported in Iles' (1995) clinical review at Broadmoor (23%).

Furthermore, I aim to obtain prevalence estimates as one aspect of this study, which are hoped to be reasonably representative of the entire female hospital population and not be significantly distorted by the exclusion criteria. Obtaining these estimates (diagnosable and at sub-clinical level) is assumed to be particularly helpful information for aspects of service provision.

Given the above sample estimates and the limitations of time available, it seems appropriate to carry out this study on one site initially and if the results prove to be promising, other psychiatric facilities might be approached.

I hope that these clarifications might be helpful to the Committee, and that the Committee will have a chance to reconsider the application in the light of this letter in the meeting on 12 January 1998.

I look forward to hearing from you.

Yours sincerely,

Alexia Fernholz
(Clinical Psychologist in Training,
Principal Researcher)

cc Dr Derek Perkins (Head of Psychological Services)
Dr Sean Hammond (Head of CDMSS R & D Unit)
Dr Nashater Deu (Principal Clinical Psychologist)
Alexia Fernholz
Psychology Department
Broadmoor Hospital

20 January 1998

Dear Alexia

At their meeting on 12 January 1998, the Broadmoor Ethics Committee approved your proposal entitled:

An Investigation into the Association of Eating Disorders and Personality Characteristics in a Female Special Hospital Population.

You should inform us of any changes to the protocol or any ethical problems which arise during the course of the study. You may also be asked to provide us with further progress reports.

The committee wish you well with the project and look forward to hearing from you in due course.

Yours sincerely

Jackie Hayward
Ethics Committee Secretary
AN INVESTIGATION INTO THE ASSOCIATION OF EATING DISORDERS AND PERSONALITY CHARACTERISTICS IN A FEMALE SPECIAL HOSPITAL POPULATION BY ALEXIA FERNHOLZ

This would be a useful piece of research, and as such, would have scientific merits. We do need to know more precisely the exact prevalence of eating disorders in women in special hospitals, both as diagnosed by a standard system such as the DSM(IV) and at a sub-clinical level. Such information would support clinical impressions, and give weight to requests for additional resources and training to manage such conditions. This work would also go some way to help us understand better the links between features of the severe personality disorders which we see in women in special hospitals and eating disorders. Previous research on women with eating disorders has very much focussed on out-patient or general hospital populations, and many doctors with expertise in managing these disorders in such settings have little knowledge of these disorders or their management in women needing treatment in secure conditions (though there are exceptions). It may well turn out that the relationships between certain personality disorders or personality traits and eating disorders is totally different in the population of women which we see at Broadmoor Hospital from the larger population in the community with eating disorders. This research would throw light on this matter, and thus help ascertain whether treatments used for eating disorders in the community and general hospitals are applicable to the population of women we see in the special hospitals, and if not, how they might best be modified to meet the needs of women in special hospitals.

The rationale and aims of the proposed project thus have scientific merit, and the underlying hypothesis is a reasonable starting point. The proposed study is methodologically sound, using as it does well-accepted standardised diagnostic interviews and self-report measures. Care has been taken in planning the approach to patients, including giving them the option to take a break in the interviews or, indeed, to opt out of the research. Care has also been taken to check on the reliability of the standardised interview (via a rating of audio tapes by the clinical supervisor), and in identifying a statistical advisor for the analysis from the outset.

Researchers are always going to run into problems when they use the DSM(IV) diagnostic system for borderline personality disorder (as opposed to ICD10) and then go on to attempt to explore the links between borderline personality disorder and bulimia nervosa: this is because the DSM(IV) includes behaviours such as binge eating in the diagnostic criteria for borderline personality disorder. However, from the full research proposal, it does appear that the researcher is aware of this pitfall.
Appendix II

1. Clinical Team explanatory letter
2. Primary nurse explanatory letter
3. Patient explanatory letter
4. Broadmoor Special Hospital research consent form
Dear Dr

Re: Research into the association of eating disorders and personality characteristics in a female special hospital population.

I am a Clinical psychologist in Training currently working at Broadmoor on a specialist placement. As part of my Clinical Doctorate I am carrying out research into eating disorders and associated personality characteristics, as well as associated personality disorders. The three areas to be investigated are:

1. The prevalence estimate of diagnosable eating disorders (anorexia nervosa and bulimia nervosa) and sub-clinical eating disorders/ disordered eating styles in the female population of Broadmoor Hospital.

2. Testing specific personality characteristics (self-esteem, perfectionism) proposed by a multi-modal model of eating disorders (Slade, 1982), to be of significance in the development of these disorders, in this special population.

3. Testing the association between eating disorders and specific personality disorders (obsessive-compulsive personality disorder, borderline personality disorder) in this special population.

In order to look at these areas, each female patient will be required to be screened for eating disorders (anorexia nervosa and bulimia nervosa), obsessive-compulsive personality disorder, and borderline personality disorder, using the relevant sections of the Structured Clinical Interview for DSM-IV diagnoses. This process will approximately take between 45 and 60 minutes. Furthermore, each participant will be asked to complete a self-report measure on self-esteem and perfectionism. This will take approximately 10 to 15 minutes.

I would therefore be most grateful if you could generate a list of patients under your care who meet the exclusion criteria for this study (florid psychosis, acutely suicidal, acutely violent or aggressive), and return it to me as soon as possible. Following the subsequent identification of the remaining and therefore suitable participants for this project, the relevant keynurses will be contacted and arrangements will be made to approach each patient in person for their consent, using the Broadmoor Hospital consent form.

Please do not hesitate to contact myself (ext. 4137) or the Clinical Supervisor, Dr. Deu, if you require further details or clarification. I am more than happy to meet with clinical teams to explain the nature of the study if this will be more helpful.

Thank you in advance for your co-operation.

Yours sincerely,

Alexia Fernholz
(Clinical Psychologist in Training)

Dr. Nashater Deu
(Principal Clinical Psychologist/ Project Supervisor)
PRIMARY NURSE EXPLANATORY LETTER

Dear

Re: Research into the association of eating disorders and personality characteristics in a female special hospital population.

I am a Clinical psychologist in Training currently working at Broadmoor on a specialist placement. As part of my Clinical Doctorate I am carrying out research into eating disorders and associated personality characteristics, as well as associated personality disorders. Some time ago, I approached your clinical team outlining the nature of this study and requesting a list of suitable patients to be included in this project.

You might be aware that the following patients under your care as primary nurse have been proposed as suitable participants.

LIST OF PATIENTS TO BE INCLUDED

I have contacted the Consultant Psychiatrist for permission to approach your patients. I would therefore like to inform you that I will contact these patients shortly, in order to make arrangements for their consent and for scheduling a suitable time to conduct the necessary interview.

Please do not hesitate to contact myself (ext. 4137) or the Clinical Supervisor, Dr. Deu, if you require further details or clarification. I am more than happy to explain the nature of the study if this will be more helpful.

Thank you in advance for your co-operation,
Yours sincerely,

Alexia Fernholz
(Clinical Psychologist in Training)

Dr. Nashater Deu
(Principal Clinical Psychologist/Project Supervisor)
PATIENT EXPLANATORY LETTER

RESEARCH INTO PATTERNS AND TRENDS IN EATING STYLES

You have been invited to participate in the above research project. The study aims to investigate patterns and trends in eating habits and styles in women patients in Broadmoor Hospital.

The interview will last for approximately 45 minutes and questions in this interview will be around your views about food and eating. Your responses will be written down by the researcher. You will also be asked to complete two questionnaires, which will take about 10 minutes in total.

No names are needed on any of the sheets and therefore your anonymity is assured. Your involvement in the study and all information relating to your involvement will be confidential and will not effect your treatment or detention directly.

Your participation in this study is appreciated. Furthermore, you are reminded that you are free to terminate your involvement at any stage in the study. You will be asked to sign an official form as a record of your consent. This must be signed in the presence of another witness, and the researcher.

Thanking you for your assistance in this study,
I look forward to meeting with you,

Alexia Fernholz
(Clinical Psychologist in Training)

Dr. Nashater Deu
(Principal Clinical Psychologist/Project Supervisor)
**RESEARCH CONSENT FORM**

<table>
<thead>
<tr>
<th>Surname</th>
<th>Forename</th>
<th>Hospital Number</th>
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<tr>
<th>Date of Birth</th>
<th>House &amp; Ward</th>
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</table>

(a) I ......................................................... HEREBY CONSENT to take part in a clinical research investigation, the nature and purpose of which has been explained to me by ......................................................... and that I have received a written outline of the proposed project.

Date ......................................................... Patient’s Signature ...................................

(b) I ......................................................... CONFIRM that I have explained to ......................................................... the nature and purpose of the proposed clinical research investigation and have handed him/her a written outline of the proposed project.

Date ......................................................... Researcher’s Signature ......................................

(c) I ......................................................... CONFIRM that ......................................................... has explained the nature and purpose of the clinical research investigation to ......................................................... and that he/she has received a written outline of the proposed project.

Date ......................................................... Witness’s Signature ......................................

**Top Copy:** To Medical Records
**Second Copy:** To Case Notes: attach to Consent Form Mount Sheet
**Third Copy:** For Researcher
Appendix III

1. Demographic data sheet
2. SCID-II (Personality Disorders)
3. SCID-I, Research Version (Eating Disorders)
4. SCANS
5. CFSEI
COVERSHEET

Study ID number:

Hospital number:

Ward:

RMO:

Age:

Length of time in Broadmoor (months): 

Reason for admission/ Index offence: 

MHA category/ Diagnosis where available:

Section:

Marital status:

Ethnic background:

IQ range:

Current height:

Current weight:

BMI [kg/ m squared]:

OBSESSIVE-COMPULSIVE PERSONALITY DISORDER

A pervasive pattern of preoccupation with orderliness, perfectionism, and mental and interpersonal control, at the expense of flexibility, openness, and efficiency, beginning by early adulthood and present in a variety of contexts, as indicated by four (or more) of the following:

(1) is preoccupied with details, rules, lists, order, organization, or schedules to the extent that the major point of the activity is lost

3 = acknowledges trait and at least one example

? = inadequate information 1 = absent or false 2 = subthreshold 3 = threshold or true
[Do you] have trouble finishing jobs because you spend so much time trying to get things exactly right.

Give me some examples.

(How often does this happen?)

[Do you or other people feel that you] are so devoted to work (or school) that you have no time left for anyone else or for just having fun.

Tell me about it.

[Note: Also not accounted for by temporary job requirements.]

[Do you] have very high standards about what is right and what is wrong.

Give me some examples of your high standards.

(Do you follow rules to the letter of the law, no matter what?)

IF GIVES RELIGIOUS EXAMPLE: Do even people who share your religious views say you're too strict about right and wrong?

(2) shows perfectionism that interferes with task completion (e.g., is unable to complete a project because his or her own overly strict standards are not met)

3 = several examples of tasks not completed or significantly delayed because of perfectionism

(3) is excessively devoted to work and productivity to the exclusion of leisure activities and friendships (not accounted for by obvious economic necessity)

3 = acknowledges trait or has been told by other people

(4) is overconscientious, scrupulous, and inflexible about matters of morality, ethics, or values (not accounted for by cultural or religious identification)

3 = several examples of holding self or others to rigidly high moral standards

?=inadequate information  1=absent or false  2=subthreshold  3=threshold or true
Do you have trouble throwing things out because they might come in handy some day.

Give me some examples of things that you're unable to throw out.

(How cluttered does your place get because you don't throw things out?)

Is it hard for you to let other people help you if they don't agree to do things exactly the way you want.

Tell me about that. (Does this happen often?)

(Do you often end up doing things yourself to make sure they are done right?)

Is it hard for you to spend money on yourself and other people even when you have enough.

Why? (Is this because you're worried about not having enough in the future when you really need it?)

Tell me about some things you haven't spent money on because you have to save for the future.

(5) is unable to discard worn out or worthless objects even when they have no sentimental value

3 = results in a cluttered environment

(6) is reluctant to delegate tasks or to work with others unless they submit to exactly his or her way of doing things

3 = acknowledges trait and at least one example

(7) adopts a miserly spending style toward both self and others; money is viewed as something to be hoarded for future catastrophes

3 = acknowledges trait and at least one example
(8) shows rigidity and stubbornness

3 = acknowledges trait or has been told by other people

AT LEAST FOUR ITEMS ARE CODED "3"

OBSESSIVE-COMPULSIVE PERSONALITY DISORDER

? = inadequate information  1 = absent or false  2 = subthreshold  3 = threshold or true
BORDERLINE PERSONALITY DISORDER

A pervasive pattern of instability of interpersonal relationships, self-image, and affects and marked impulsivity beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

(1) frantic efforts to avoid real or imagined abandonment [DO NOT INCLUDE SUICIDAL OR SELF-MUTILATING BEHAVIOR COVERED IN (5).]

3 = several examples

(2) a pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation

3 = either one prolonged relationship or several briefer relationships in which the alternating pattern occurs at least twice

[Have you] often become frantic when you thought that someone you really cared about was going to leave you.

What have you done?

(Have you threatened or pleaded with him/her?)

[Do] your relationships with people you really care about have lots of extreme ups and downs.

Tell me about them.

(Were there times when you thought they were everything you wanted and then other times when you thought they were terrible? How many relationships were like this?)

? = inadequate information 1 = absent or false 2 = subthreshold 3 = threshold or true
Have you all of a sudden changed your sense of who you are and where you are headed.

Give me some examples of this.

Does your sense of who you are often changes dramatically.

Tell me more about that.

Are you different with different people or in different situations so that you sometimes don't know who you really are.

Give me some examples of this. (Do you feel this way a lot?)

Have been lots of sudden changes in your goals, career plans, religious beliefs, and so on.

Tell me more about that.

(3) identity disturbance: markedly and persistently unstable self-image or sense of self

[Note: Do not include normal adolescent uncertainty]

3 = acknowledges trait

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or true
Have you often done things impulsively.

What kinds of things?

(How about ... 
... buying things you really couldn't afford? 
... having sex with people you hardly knew, or "unsafe sex"? 
... drinking too much or taking drugs? 
... driving recklessly? 
... uncontrollable eating?)

If yes to any of above: Tell me about that. How often does it happen? What kinds of problems has it caused?

(4) impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating).

[Do not include suicidal or self-mutilating behavior covered in (5).]

3 = several examples indicating a pattern of impulsive behavior (not necessarily limited to examples above)

Have you tried to hurt or kill yourself or threatened to do so.

(5) recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior

3 = two or more events (when not in a Major Depressive Episode)

Have you ever cut, burned, or scratched yourself on purpose.

Tell me about that.

?=inadequate information  1=absent or false  2=subthreshold  3=threshold or true
(6) affective instability due to a marked reactivity of mood (e.g., intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days)

3 = acknowledges trait

(7) chronic feelings of emptiness

3 = acknowledges trait

(8) inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights)

3 = acknowledges trait and at least one example OR several examples

? = inadequate information 1 = absent or false 2 = subthreshold 3 = threshold or true
When you are under a lot of stress, do you get suspicious of other people or feel especially spaced out. Tell me about that.

(9) transient, stress-related paranoid ideation or severe dissociative symptoms

3 = several examples that do not occur exclusively during a Psychotic Disorder or a Mood Disorder with Psychotic Features

AT LEAST FIVE ITEMS ARE CODED "3"

BORDERLINE PERSONALITY DISORDER

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or true
Now I would like to ask you some questions about your eating habits and your weight. Have you ever had a time when you weighed much less than other people thought you ought to weigh?

IF YES: Why was that? How much did you weigh? How old were you then? How tall were you?

At that time, were you very afraid that you could become fat?

At your lowest weight, did you still feel too fat or that part of your body was too fat?

IF NO: Did you need to be very thin in order to feel good about yourself?

IF NO AND LOW WEIGHT IS MEDICALLY SERIOUS: When you were that thin, did anybody tell you it could be dangerous to your health to be that thin? (What did you think?)
D. In postmenarchal females, amenorrhea, i.e., the absence of at least three consecutive menstrual cycles. (A woman is still considered to have amenorrhea if her periods occur only following hormone, e.g., estrogen, administration)

ANOREXIA NERVOSA CRITERIA
A, B, C, AND D ARE CODED "3"

(Do you have eating binges in which you eat a lot of food in a short period of time and feel that your eating is out of control? (How often?)

IF NO: What kinds of things have you done to keep weight off? (Ever made yourself vomit or take laxatives, enemas, or water pills?) (How often?)

? = inadequate information 1 = absent or false 2 = subthreshold 3 = threshold or true
### ANOREXIA NERVOSA CHRONOLOGY*

**IF UNCLEAR:** During the past month, have you had (SXS OF ANOREXIA NERVOSA)?

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>?</td>
<td>Has met symptomatic criteria for Anorexia Nervosa during past month (criteria A, B, and C)</td>
</tr>
</tbody>
</table>

#### INDICATE CURRENT SEVERITY:

1. **Mild:** Few, if any, symptoms in excess of those required to make the diagnosis are present, and symptoms result in no more than minor impairments in social or occupational functioning.
2. **Moderate:** Symptoms or functional impairment between "mild" and "severe" are present.
3. **Severe:** Many symptoms in excess of those required to make the diagnosis, or several symptoms that are particularly severe, are present, or the symptoms result in marked impairment in social or occupational functioning.

**CONTINUE WITH *AGE AT ONSET*, BELOW.**

#### IF CURRENT CRITERIA NOT FULLY MET (OR NOT AT ALL):

4. **In Partial Remission:** The full criteria for the disorder were previously met but currently only some of the symptoms or signs of the disorder remain.
5. **In Full Remission:** There are no longer any symptoms or signs of the disorder but it is still clinically relevant to note the disorder—for example, in an individual with previous episodes of Anorexia Nervosa who has been symptom free while receiving weekly psychotherapy for past year.
6. **Prior History:** There is a history of the criteria having been met for the disorder but the individual is considered to have recovered from it.

<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>When did you last have (ANY SXS OF ANOREXIA NERVOSA)?</td>
<td>Number of months prior to interview when last had a symptom of Anorexia Nervosa</td>
</tr>
</tbody>
</table>

#### *AGE AT ONSET*

**IF UNKNOWN:** How old were you when you first started having (SXS OF ANOREXIA NERVOSA)?

<table>
<thead>
<tr>
<th>Age at onset of Anorexia Nervosa</th>
</tr>
</thead>
<tbody>
<tr>
<td>? = inadequate information</td>
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</tbody>
</table>
BULIMIA NERVOSA CRITERIA

A. Recurrent episodes of binge eating. An episode of binge eating is characterized by BOTH of the following:

(2) a sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating)

B. Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as: self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medications; fasting; or excessive exercise.

C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least twice a week for three months.

IF UNCLEAR: During these times, do you often eat within any two hour period what most people would regard as an unusual amount of food? Tell me about that.

Did you do anything to counteract the effects of eating that much? (Like making yourself vomit, taking laxatives, enemas, or water pills, strict dieting or fasting, or exercising a lot?)

How often were you eating that much (AND COMPENSATORY BEHAVIOR)? (At least twice a week for at least three months?)

? = inadequate information 1 = absent or false 2 = subthreshold 3 = threshold or ti
Were your body shape and weight among the most important things that affected how you felt about yourself?

D. Self-evaluation is unduly influenced by body shape and weight.

E. The disturbance does not occur exclusively during episodes of Anorexia Nervosa.

BULIMIA NERVOSA CRITERIA A, B, C, D AND E ARE CODED "3"

SPECIFY TYPE:
During the current episode of Bulimia Nervosa, the person has regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas.

? = inadequate information  1 = absent or false  2 = subthreshold  3 = threshold or true
SCID Version 2.0 (for DSM-IV)

*BULIMIA NERVOSA CHRONOLOGY*

IF UNCLEAR: During the past month, have you had (SXS OF BULIMIA NERVOSA)?

Has met symptomatic criteria for Bulimia Nervosa during past month (criteria A, B, C, D, and E)

INDICATE CURRENT SEVERITY:
1 - Mild: Few, if any, symptoms in excess of those required to make the diagnosis are present, and symptoms result in no more than minor impairments in social or occupational functioning.
2 - Moderate: Symptoms or functional impairment between "mild" and "severe" are present.
3 - Severe: Many symptoms in excess of those required to make the diagnosis, or several symptoms that are particularly severe, are present, or the symptoms result in marked impairment in social or occupational functioning.

CONTINUE WITH *AGE AT ONSET*, BELOW.

IF CURRENT CRITERIA NOT FULLY MET (OR NOT AT ALL):
4 - In Partial Remission: The full criteria for the disorder were previously met but currently only some of the symptoms or signs of the disorder remain.
5 - In Full Remission: There are no longer any symptoms or signs of the disorder but it is still clinically relevant to note the disorder--for example, in an individual with previous episodes of Bulimia Nervosa has been symptom free on a medication for the past three years.
6 - Prior History: There is a history of the criteria having been met for the disorder but the individual is considered to have recovered from it.

When did you last have (ANY SXS OF BULIMIA NERVOSA)?

Number of months prior to interview when last had a symptom of Bulimia Nervosa

*AGE AT ONSET*

IF UNKNOWN: How old were you when you first started having (SXS OF BULIMIA NERVOSA)?

Age at onset of Bulimia Nervosa

?=inadequate information 1=absent or false 2=subthreshold 3=threshold or tr
SCANS QUESTIONNAIRE

INSTRUCTIONS:

Please read each of the following questions carefully and then record your response by circling one of the five answers listed below.

1. (D5) In general how satisfied do you feel with your attainments to date (i.e. school, college, work, etc.)?

very satisfied somewhat satisfied about average somewhat dissatisfied very dissatisfied

2. (D4) Over the last couple of years how often have you felt generally fed-up.

very often fairly often sometimes almost never never

3. (D6) In general how satisfied do you feel with yourself?

very satisfied somewhat satisfied about average somewhat dissatisfied very dissatisfied

4. (D2) Over the last couple of years how often have you felt useless?

very often fairly often sometimes almost never never

5. (D8) In general how satisfied do you feel with your life at the moment?

very satisfied somewhat satisfied about average somewhat dissatisfied very dissatisfied
6. (C1) Over the last couple of years how often have you wished you were really good at something or other?

<table>
<thead>
<tr>
<th></th>
<th>very often</th>
<th>fairly often</th>
<th>sometimes</th>
<th>almost never</th>
<th>never</th>
</tr>
</thead>
</table>

7. (P1) Think of a person who is a perfectionist. Is this person:

<table>
<thead>
<tr>
<th></th>
<th>very much like you</th>
<th>much like you</th>
<th>somewhat like you</th>
<th>very little like you</th>
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</table>

8. (C2) Over the last couple of years how often have you felt in control of your life?

<table>
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<tr>
<th></th>
<th>very often</th>
<th>fairly often</th>
<th>sometimes</th>
<th>almost never</th>
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</table>

9. (P9) Over the last couple of years how often have you felt able to accept a below-par performance from yourself?

<table>
<thead>
<tr>
<th></th>
<th>very often</th>
<th>fairly often</th>
<th>sometimes</th>
<th>almost never</th>
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</table>

10. (C3) Over the last couple of years how often have you wanted to have more control over some area of your life?

<table>
<thead>
<tr>
<th></th>
<th>very often</th>
<th>fairly often</th>
<th>sometimes</th>
<th>almost never</th>
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</table>

11. (P5) Think of a person who tries to be perfect in their work. Is this person:

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</table>
12. (C4) Over the last couple of years how often have you felt in total control of yourself?

very often fairly often sometimes almost never

13. (P6) Think of a person who is not particularly concerned with standards. Is this person:

very much much somewhat very little not at all
like you like you like you like you like you

14. (D9) Think of a person who feels a failure in life. Is this person:

very much much somewhat very little not at all
like you like you like you like you like you

15. (P8) Think of a person who is generally not concerned about doing their best. Is this person:

very much much somewhat very little not at all
like you like you like you like you like you

16. (D3) Over the last couple of years how often have you felt happy with life?

very often fairly often sometimes almost never

17. (P7) Think of a person who can (could) never do enough to please one or both of their parents? Is this person:

very much much somewhat very little not at all
like you like you like you like you like you
18. (C5) **Think of a person** who would like to have more control over their body. Is this person:

<table>
<thead>
<tr>
<th>very much</th>
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<tr>
<td>like you</td>
<td>like you</td>
<td>like you</td>
<td>like you</td>
<td>like you</td>
</tr>
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19. (P4) **Think of a person** who is **not** usually concerned about their performance. Is this person:

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</tbody>
</table>

20. (D10) **Think of a person** who feels they have much to be proud of. Is this person:

<table>
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<th>very much</th>
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</table>

21. (P2) **Think of a person** who sets high standards for himself/herself. Is this person:

<table>
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<tr>
<th>very much</th>
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22. (C6) **Think of a person** who would like to have more self-control. Is this person:

<table>
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<th>very much</th>
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**CULTURE - FREE SKI**

Name…………………………………..Age……………… Date of Birth……………………………..

Date…………………………..Total………….G………………..S………………..P………………… I………………

**DIRECTIONS**

Please mark each question in the following way:

If the question describes how you usually feel, make a check mark (✓) in the "YES" column.
If the question does not describe how you usually feel, make a check mark (✓) in the "NO" column.

Please check only one column (either "YES" or "NO") for each of the forty questions. This is not a test. There are no right or wrong answers.

| 1. Do you have only a few friends? | YES | NO |
| 2. Are you happy most of the time? | YES | NO |
| 3. Can you do most things as well as others? | YES | NO |
| 4. Do you like everyone you know? | YES | NO |
| 5. Do you spend most of your free time alone? | YES | NO |
| 6. Do you like being a male?/Do you like being a female? | YES | NO |
| 7. Do most people you know like you? | YES | NO |
| 8. Are you usually successful when you attempt important tasks? | YES | NO |
| 9. Have you ever taken anything that did not belong to you? | YES | NO |
| 10. Are you as intelligent as most people? | YES | NO |
| 11. Do you feel you are as important as most people? | YES | NO |
| 12. Are you easily depressed? | YES | NO |
| 13. Would you change many things about yourself if you could? | YES | NO |
| 14. Do you always tell the truth? | YES | NO |
| 15. Are you as nice looking as most people? | YES | NO |
| 16. Do many people dislike you? | YES | NO |
| 17. Are you usually tense or anxious? | YES | NO |
| 18. Are you lacking in self confidence? | YES | NO |
| 19. Do you gossip at times? | YES | NO |
| 20. Do you often feel that you are no good at all? | YES | NO |
| 21. Are you as strong and healthy as most people? | YES | NO |
| 22. Are your feelings easily hurt? | YES | NO |
| 23. Is it difficult to express your views and feelings? | YES | NO |
| 24. Do you ever get angry? | YES | NO |
| 25. Do you often feel ashamed of yourself? | YES | NO |
| 26. Are other people generally more successful than you are? | YES | NO |
| 27. Do you feel uneasy much of the time without knowing why? | YES | NO |
| 28. Would you like to be as happy as other people appear to be? | YES | NO |
| 29. Are you ever shy? | YES | NO |
| 30. Are you a failure? | YES | NO |
| 31. Do people like your ideas? | YES | NO |
| 32. Is it hard for you to meet new people? | YES | NO |
| 33. Do you ever lie? | YES | NO |
| 34. Are you often upset about something? | YES | NO |
| 35. Do most people respect your views? | YES | NO |
| 36. Are you more sensitive than most people? | YES | NO |
| 37. Are you as happy as most people? | YES | NO |
| 38. Are you ever sad? | YES | NO |
| 39. Are you definitely lacking in initiative? | YES | NO |
| 40. Do you worry a lot? | YES | NO |