

Portfolio including Thesis

Volume 1 of 2

MADELEINE JULIA TATHAM

Volume 2 contains confidential information and is not available.

A portfolio submitted in partial fulfilment of the requirements of the
University of Hertfordshire
for the degree of Doctor of Clinical Psychology
including a Thesis entitled:

**Attachment and Perceived Parental Treatment
Reported by Siblings Discordant for Eating Disorder Pathology**

The programme of study was carried out in the Department of Psychology,
University of Hertfordshire
November 2003

ACKNOWLEDGEMENTS

I would like to thank all the participants who took part in the research project; Linda Fields, Stephanie Gale, Sally Burns and Gerry Gingell for agreeing to support the study and help with recruitment; David Winter for his supervision of the writing up of the project and Joerg Schulz, for his statistical and practical advice.

With special thanks to my Mum and Dad for their support and encouragement in undertaking the Doctorate in Clinical Psychology, and Steve for understanding when I had to get on with it. Many thanks also to Heather and Kajal for helping me along with a bottle or two; Maggie for her optimism and generosity; Hamilton for letting me sleep that weekend, and Kathy and her never materialising Aunt Betty's oatcakes.

CONTENTS

Acknowledgements

	Page
1.0 Written Exercise One	1
2.0 Written Exercise Two	21
3.0 Small Scale Research Project	42
3.1 Contents	43
3.2 Abstract	44
3.3 Introduction	46
3.4 Method	52
3.5 Results	58
3.6 Discussion	70
3.6. References	76
3.7 Appendices	78
4.0 Literature Review	92
5.0 Thesis	115
5.1 Contents	116
5.2 Abstract	117
5.3 Introduction	120
5.4 Methodology	151
5.4. Results	169
5.5 Discussion	208
5.6 References	229
5.7 Appendices	240
6.0 Critical review	273
6.1 References	288

WRITTEN EXERCISE 1

**CRITICALLY EVALUATE THE CONCEPT OF DUAL DIAGNOSIS AND ARGUE
ITS DEGREE OF RELEVANCE TO TREATMENT PLANNING**

YEAR 1

OCTOBER 2001

INTRODUCTION

The term dual diagnosis is applied when a range of problems co-exist, for example the concurrence “of addictive behaviours such as drug, alcohol, gambling or eating disorders with mental health problems” (Gafoor & Hussein Rassool, 1998). Studies indicate that compared with other clinical populations, dual diagnoses are associated with a range of more severe and complex health and social needs with poorer prognostic outcomes, suggesting that dual diagnosed patients present additional complications for treatment. Attention has focused on the clinical complexities of treating co-existing disorders, highlighting a need to integrate clinical knowledge and treatment approaches. In addition to significant clinical challenges therefore, the concept has also raised important questions regarding provision, delivery and cost of effective health care services.

This essay is primarily concerned with evaluating the global concept of dual diagnosis and assessing implications for treatment planning. The concept will be addressed in relation to the medical model in terms of the functions and implications of the diagnostic approach. Clinical and management issues arising from the concept will be highlighted, drawing upon the dual diagnosis literature which largely focuses on substance use disorder (SUD) with severe mental illness (SMI) and learning disability and mental disorder. These will subsequently be discussed in terms of their relevance to treatment planning, with reference to alternative models of assessment and implications for service provision.

DUAL DIAGNOSIS: A CONCEPT

The concept of dual diagnosis allows the joint recognition of two separate pathologies within an individual. Each separate disorder is conceived, identified and diagnosed via a major international diagnostic system such as The Diagnostic and Statistical Manual of Mental Disorders (DSM IV) and The International Classification of Disorder (ICD-10). The concept rests therefore on the fundamental presupposition that disorders can be meaningfully classified into separate disorders. The psychiatric classification system - for example the DSM IV - provides an operational framework through which to achieve this and is itself, based within the larger conceptual approach of the medical model.

Despite it's dominance - verified and upheld by the prevailing ideology of empirical science (Bozarth, 2000) - the medical model is inherently shaped by specific

culturally determined ways of viewing the world and is by no means absolute or globally recognized. Cushman (1990) for example, argues that the medical model's conception of mental illness is determined by, and reinforces, the superordinate western cultural concept of the self. In the west, the self is perceived to be an autonomous separate entity with distinctions made between mind and body. This allows differentiation between physical and mental illness, both of which are supposed to have a medical basis (Cushman, 1990). Consequently, pathology is located within the individual, independent of influences in the environment and he / she thus becomes both the agent of responsibility and focus for treatment (Marsella, 1984). This underlying conception of the self lies at the heart of the medical model and determines both the interpretation and treatment of mental disorder. It may not therefore be applicable or logical within cultures where the self is conceived to be more socio-centric (Marsella & White, 1984). Indeed, alternative models provide different understandings of the presence and meaning of symptoms, their origins, causes and treatment (Kirmayer and Young, 1999; Wakefield, 1992; Busfield, 1988). For example, functional analysis acknowledges the impact and role of environmental influences in the onset and maintenance of a disorder.

Thus said, the DSM IV defines a mental disorder as

A clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is typically associated with present distress (a painful symptom) or disability (impairment in one or more areas of functioning) (American Psychiatric Association, (APA) 1994).

A disorder is diagnosed when a number of empirically established symptom criteria are met (see below). A dual diagnosis requires the criteria for two disorders to be met, and thus serves to umbrella a potentially wide range of co-existing problems. The term provides an alternative concept to primary or secondary diagnoses, in which the predominant disorder is defined and prioritized for treatment (Barlow & Turk, 2001). Dual diagnosis therefore implies treatment of both disorders. Based on the supposition that disorders are separate entities which can co-exist, each is perceived to have an independent course, yet able to influence the properties of the other (Carey, 1989: cited in Gafoor & Hussein

Rassool, 1998). This may have subsequent implications for choice and application of treatment approach.

THE DIAGNOSTIC APPROACH: FUNCTIONS AND IMPLICATIONS

The DSM IV aims to “provide clear descriptions of diagnostic categories in order to enable clinicians and investigators to diagnose, communicate about, study and treat people with various mental disorders” (APA 1994 p.ix.).

The diagnostic approach rests upon the assumption that a relationship exists between certain phenomena which cluster to make meaningful constructs (Bozarth, 2000). Diagnoses are then made on the observation of a requisite number of established symptom criteria and reliability therefore depends on both the clarity and validity of the diagnostic criteria and changeability of disorders over time (Nathan & Langenbucher, 1999). This varies across differing diagnostic constructs, with sources of unreliability including the lack of explicit differentiation for the threshold for “caseness” – i.e. when symptoms become an illness (e.g. specific phobias; Chapman, 1997). Based within empirical foundations, the application of diagnoses is considered to be an atheoretical approach, stating the presence of a disease state and does not seek to explain specific individual aetiology (Butler, 1998; Morrison, 1995).

Both the DSMIV and ICD10 use a multi axial system on which to record bio-psychosocial information, thus arriving at a diagnostic assessment. DSM IV for example, has 5 axes. The first three record mental and physical diagnoses and the remaining two specify environmental factors and the patients’ functioning over the past year (Morrison, 1995). Specifically, Axis I records mental disorders (e.g. depression) whereas Axis II indicates the presence of a personality disorder or learning disability. An individual may have several diagnoses on one or more axes but a dual diagnosis specifically involves the presence of one or more disorders on Axis I and Axis II (e.g. learning disability (Axis II) and schizophrenia (Axis I)).

Once a diagnosis has been made, the following indications are given:

- Incidence: Prevalence rates are an important source of information for health and service planning. (Regier & Robins, 1991: cited in Chapman, 1997).
- Course and prognosis .
- Treatment: Evidence based practice identifies effective treatment, including pharmacological and psychological therapies. Many treatment approaches are validated in clinical trials on selected clinical populations. Approaches then become established and reinforced by the current climate of evidence-based practice that increasingly both informs and determines clinical practice (e.g. Department of Health, 2001).
- Access to / exclusion from services: Services have been set up around specific diagnoses e.g. drug and alcohol teams, learning disability and eating disorders. It has been suggested that “specialist” services create arbitrary and artificial boundaries between mental disorders perpetuated by diagnostic labelling (Chaplin & Flynn, 2000).

LITERATURE REVIEW

Prevalence

Studies estimating the extent of dual diagnoses vary widely, irrespective of the nature of the co-morbidity or population (e.g. Dixon, 1999; Moss, 1999). Differing methodologies employed by studies may partly account for the wide variation in epidemiology. However, variation may also be due to the reliability and validity issues highlighted above, particularly where multiple diagnosis are concerned. Diagnosis relies on the identification of two separate but co-existing disorders. Research suggests that dual diagnoses provide a “diagnostic conundrum” affecting the reliability, validity and accuracy of the diagnostic process because each disorder may reciprocally complicate the other (McKenna & Ross, 1994). Indeed, much of the literature suggests that diagnoses tend to be less reliable when co-morbid disorders are present (Carey & Correia, 1998).

Examples of diagnostic difficulties can be illustrated within the dually diagnosed population of learning disability and mental health disorder. A criticism of the

diagnostic approach is its' difficulty in establishing what constitutes a mental disorder independent of the learning disability. Challenging behaviour as a diagnostic entity for example has provoked much controversy. Prosser (1999) questions the validity of the diagnostic label to define and distinguish challenging behaviour as a symptom of an underlying physical or psychiatric disorder or, as demonstrated by other approaches such as functional analysis, a learned behavioural response to environmental setting conditions and / or difficulties in communication and comprehension. It has been argued that as long-term behavioural patterns, challenging behaviour does not fit established criteria for diagnosable psychiatric conditions – i.e. an illness with a predictable time course (Moss, Emerson, Bouras & Holland, 1997). Indeed, the application and use of the general diagnostic criteria has been criticized as being invalid for the learning disabled population (Sturmey, 1995). Reasons include a lack of standardized assessment tools, (Gibbs & Priest, 1999) the more common variation in presentation of symptoms (compared to the general population) and changeable phenomenology over time (Barlow & Turk, 2001). Research has pointed to a wide geographical variation in dual diagnosis within this population, indicating that the process of diagnosis may in fact, rest heavily on a variety of factors (Chaplin & Flynn, 2000). Reiss, Levitan & Szyszko (1982) highlight a tendency toward “diagnostic overshadowing,” which assumes symptoms are attributable to the learning disability rather than underlying psychiatric disturbance. This is more likely where individuals show greater breadth of maladaptive behaviour, lower cognitive and social functioning (Borthwick-Duffy & Eyman, 1990). Further complications arise from difficulties in reporting symptoms. For example, limited communication skills make difficult the elicitation of symptoms of schizophrenia (delusions and hallucinations) and depression (negative triad) (Moss, 1999). Those who receive dual diagnoses may therefore merely represent those who are more “accessible” to the diagnostic procedure.

Similar difficulties may be found in the diagnosis of co-existing SUD and SMI. Clinical symptoms caused by substance use may mimic symptoms of other disorders – e.g. depressive episodes caused by cocaine withdrawal or alcoholism and amphetamine-induced psychosis (Carey & Correia, 1998). Accurate diagnosis may also be confounded by clinical presentations such as neurological impairments, lack of insight between drinking and symptoms and unreliable self-

reports (Carey & Correia, 1998). Drake, Osher & Wallach (1991) note the difficulties caused by a lack of reliable screening tools in differentiating between substance use and dependence and non-problematic drinking with alcoholism.

Difficulties in accurate diagnosis have obvious implications for treatment planning. Inaccurate or missed diagnoses may result in inappropriate or absence of treatment. Furthermore, varying epidemiological estimates have limited value for planning adequate services. Prevalence estimates ranging from 10-71% within the learning disability population (Borthwick-Duffy, 1994), and 32% (alcohol dependence) and 16% (drug dependence) among individuals with SMI (Menezes, Johnson & Thornicroft, 1996) may be underestimations. Some argue they are possibly inflated due to sampling biases and differing diagnostic criteria (Mueser, Drake & Wallach, 1998). Even so, studies suggest that dual diagnoses represent a considerably significant clinical phenomenon.

Aetiology, Course and Prognosis

Dual diagnoses are associated with a wide range of poorer outcomes compared to the general clinical population. For example, co-morbid SUD and SMI has been shown to result in increased psychotic symptoms and relapse (Negrete, 1986: cited in Dixon, 1999), violence including suicide and self-harm (Drake & Cotton, 1986) and treatment non-compliance (Drake & Mueser, 2000). Similarly, studies have indicated that co-morbid learning disability and psychiatric disorder results both in a wider presentation of symptoms of longer duration (Gilbert, 1998) and a range of poorer prognostic outcomes (Gibbs & Priest, 1999). A wide range of associated complex social problems has further complicated investigations into the course and prognosis of dually diagnosed disorders. For example, co-morbid SUD and SMI is associated with increased homelessness, financial difficulty and criminal justice involvement (Marshall, 1998). Considerable attempts have been made to understand the relationship of associated factors and impact of co morbidity on the course and outcome of illness in order to inform the development of effective treatment approaches (Dixon, 1999). However, research suggests that relationships are complex (Dudley et al., 1999; Mueser et al., 1998).

Identification of causal links between dually diagnosed disorders is problematic due to a variety of clinical and methodological factors. The gradual onset of many

disorders with no clear demarcation has resulted in a lack of consistent evidence of demographic or clinical differences related to order of onset (Mueser et al., 1998; Johnson, 1997). Indeed, research has highlighted the heterogeneity of dually diagnosed populations in terms of aetiology, course and prognosis. Cross-sectional studies have identified certain associations and vulnerability factors. For example, people with schizophrenia are reported to have a three-fold risk of developing alcohol dependence compared with individuals without a mental illness (Crawford, 1996; cited in Gafoor, Hussein & Rassool, 1998). Similarly, associations between learning disability and certain psychiatric disorders have been made (e.g. Alzheimer's and Down's syndrome; Holland and Oliver, 1995). However, understanding of aetiology and relationships between co-morbid disorders and their impact upon outcome remain largely unclear. Moss (1999) for example, argues that the relationship between learning disability, mental health and challenging behaviour is poorly understood, as are understandings of the different distributions of mental health disorders compared with the general population - e.g. high prevalence of psychoses as opposed to affective disorders (Caine & Hatton, 1998).

A number of psychosocial and biological models and theories have been proposed as hypotheses for understanding and accounting for prevalence and increased risk of co-morbidity. These include the self-medication theory, explaining the increased risk of substance abuse amongst psychiatric populations. It proposes that drugs may be taken to relieve positive or negative symptoms, gain access to a social group or help cope with stressful situations (Dixon, 1999). Other models emphasize shared biological vulnerabilities to both SUD and SMI, such as the common factor model and secondary substance use disorder model (see Mueser et al., 1998). The "increased risk" hypothesis proposes that many of the psychological, biological and social risk factors contributing to mental health problems appear more frequently in people with learning disabilities (e.g. inappropriate living conditions, poor cognitive and social functioning and lower levels of social support). Research has indicated however, that given the heterogeneous nature of dually diagnosed populations, a variety of different models account for the aetiology of SUD and SMI, learning disability and mental health disorder (Dudley et al., 1999; Mueser et al., 1998). Studies also suggest that prognostic outcome may be attributable to a number of co-existing problems

indicating caution in making assumptions about aetiology and impact of co-morbidity on prognostic outcome (e.g. Keene, 1999; Johnson, 1997).

Research findings suggest therefore that generic dual diagnoses treatments may not be appropriate, and emphasis has subsequently been placed on the need for individually tailored assessment identifying specific aetiological factors in order to inform the development of effective treatment plans (Mueser et al., 1998; Moss et al., 1997). The necessity for more longitudinal research and further clarification of subtypes of dual diagnosed populations has been noted, and attention has focused on the integration of clinical knowledge and treatment approaches in order to effectively target and treat the clinically diverse needs of dually diagnosed populations.

Treatment

Research investigating the efficacy of integrated treatment approaches highlights a number of clinical considerations in the treatment of dual diagnoses. For example, current research in the U.S.A. indicates that effective treatment of SUD and SMI requires simultaneous treatment of both disorders, tailored to meet specific individual clinical needs (Drake & Mueser, 2000; Jerrell & Ridgeley, 1997). This implies the integration of traditional mental health and drug and alcohol approaches, thereby raising a number of treatment considerations. Treatment approaches may clash or be inappropriate: a 12-step treatment model for addiction may be too confrontational for a person with SMI and whose therapeutic emphasis on group treatment may be inappropriate (McCrone et al., 2000; Johnson, 1997). Combined pharmacological treatments may result in a weakened effect of medication, worsening of psychiatric symptoms and adverse side effects leading to non-compliance, poorer treatment efficacy and increased hospital readmissions (Owen, 1996: cited in Johnson, 1999).

Treatment of mental health disorders in the learning disabled population raises different considerations. The predominant pharmacological approach has been criticized as indiscriminately achieving overall symptom reduction or behavioural control, (Barlow & Turk, 2001) with ill-researched diagnostic indications for prescription (Emerson, 1995). With the growing recognition that behavioural symptoms may be a result of an underlying mental health disorder, alternative

approaches have aimed to specifically target and treat the disorder. For example, cognitive behavioural therapies (CBT) have been adapted and applied for disorders such as depression and anxiety. Its application requires consideration of the learning disability (i.e. cognitive ability) but both disorders may not necessarily be targeted for intervention. Doody (2001) notes that additional clinical complications associated with learning disability also frequently need to be considered. For example, epilepsy presents an additional complication in the treatment of schizophrenia, as most anti-psychotic drugs are epileptogenic.

The literature highlights some considerations raised in the treatment of dually diagnosed disorders; either in the integration or adaptation of treatment approaches to meet the specific clinical needs of dually diagnosed patients. Studies suggest that this may result in less effective or complicated treatment outcome. Further research is necessary to investigate the efficacy of various treatments, which currently may be hindered by the lack of standardized measures and assessment tools (Prosser, 1999).

Access to / exclusion from services

Organizational, financial and professional issues at a service level may further complicate the treatment of dually diagnosed patients. Studies suggest that current service structure (i.e. separate services built around broad diagnostic categories such as learning disability) result in less effective treatment or indeed, treatment at all (Chaplin & Flynn, 2000; Holland, 1998). This is particularly true when dual diagnoses include a “specialist” disorder, in effect leaving the patient “between two stools” (Doody, 2001). Services may lack the clinical skills and experience to treat co-existing disorders, or a patient’s additional difficulties may exclude them from an appropriate service’s eligibility criteria (Hassiotis, Barron & O’Hara, 2000). For example, treatment provision for mental health problems within the learning disabled population has been found to be “patchy.” Difficulties include access to and rigid organization of services, as well as shortcomings in generic psychiatric services to detect and accommodate the particular needs of this client group (Chaplin & Flynn, 2000). Consequently, two or more services in differing locations may have to be accessed, potentially leading to fragmented or incompatible treatment approaches, clashes in service philosophy and poorer treatment compliance and outcome (Doody, 2001; Barlow, 1999). This may further

result in increased use of in-patient and emergency care and higher service costs, particularly for dually diagnosed patients with SUD and SMI (McCrone et al., 2000).

Similar outcomes in the USA have led to creation of specialist services specifically for SUD and SMI patients (Drake & Mueser, 2000). Integrated treatment approaches are delivered via specialist in-patient and assertive outreach community teams and initial outcome studies suggest improved treatment efficacy (see Sacks 2000; Jerrell & Ridgeley 1997).

IMPLICATIONS FOR TREATMENT PLANNING

A review of the literature suggests dual diagnosis to be a considerable clinical phenomenon presenting complications to the health care system in terms of assessment, treatment and management. The remainder of the essay shall consider the difficulties in terms of their relevance for treatment planning. It is worth noting again that the literature has predominantly focused upon dual diagnosis within two broad populations. However, dual diagnosis can apply to a much wider range of co-morbid disorders. Indeed, Butler (1998) argues that patients rarely come for treatment with “discrete” single disorders, instead fulfilling the criteria for “an average of 2.3 diagnoses” (Butler, 1998 p.4). The following points are therefore likely to have wider clinical relevance. Treatment planning is interpreted as incorporating assessment, treatment approach, management and service provision.

Assessment

Assessment is the cornerstone of effective treatment planning. A comprehensive assessment identifies problematic areas for intervention with consideration of specific individual needs, thereby informing choice and application of strategy (Carey & Correia, 1998). The literature suggests however, that co-morbid pathology poses complications for an adequate assessment using solely a diagnostic approach, itself therefore acting as a potential barrier to effective treatment planning (Drake & Mueser, 2000). This may be particularly true if, as research indicates, diagnoses may go undetected.

It has been argued that co-morbidity challenges the diagnostic approach in a variety of ways. Firstly, the lack of reliable assessment tools to distinguish or reliably identify co-morbid disorders. Secondly, specific clinical features of co-morbidity may complicate the psychiatric classification procedure. A review of the literature suggests in fact, that disorders often do not have clear-cut definitions and diagnosis and prognosis depends on an interaction of a variety of factors (e.g. Moss, 1999). Thirdly, as a diagnostic label, the term subsumes heterogeneous populations with differing co-morbidity, aetiology and prognosis. It subsequently has limited value, or even inaccurate indications, for treatment (Moss, 1999). Particularly within the learning disabled population, assessment based on symptoms may lead to a string of different and inaccurate diagnoses due to changing phenomenology. This may result in the prescription of various inappropriate treatments (including pharmacological and psychological therapies) with the aim of short-term symptom reduction (e.g. behavioural control) instead of targeting the underlying causes of the problematic behaviour (e.g. psychiatric disturbance; Barlow and Turk, 2001).

The diagnostic approach does provide indication that two disorders co-exist, thus serving to inform treatment planning at a higher level of generality. The research literature however, highlights the need for individually tailored assessment and treatment programmes which account for and target specific aetiological, clinical and social needs (Moss, 1999; Drake et al., 1997). Other approaches, such as multi-dimensional models of assessment are better able to accommodate psychological, social and emotional problems that do not fit into discrete diagnostic categories in terms of linking assessment information to treatment planning (Prosser, 1999). For example, psychological approaches such as clinical formulation may be informed by the higher generality of the diagnostic approach, but differ from atheoretical descriptions by bringing together

products of theoretical knowledge and clinical judgment. Their theoretical basis reflects ideas about the factors that cause and maintain problems, and that precipitate or prolong particular episodes of distress. This theoretical basis provides a framework for the type of personal, individual formulation on which precise decisions about treatment can be based" (Butler, 1998 p.4).

An additional strength of the formulation approach is that it is applicable to sub clinical groups. It incorporates information beyond the inclusion and exclusion criteria that determine whether or not someone qualifies for a diagnosis, which may appear arbitrary both to the clinician and the individual who feels in need of professional help.

Clinical treatment

Dual diagnoses make redundant the question of which disorder is primary or secondary thereby turning clinical attention to the question of treating co-existing disorders. As a result, the focus for intervention may become less clear (Barlow & Turk, 2001). Evidence based treatment approaches may not be appropriate due to many having been researched and validated on “pure” clinical populations as defined by psychiatric classification. Questions then arise regarding the nature of the co-morbidity and whether in fact both disorders can be treated simultaneously, how and at what cost to treatment outcome. As indicated earlier, research suggesting that simultaneous treatment of SUD and SMI increases treatment efficacy highlights both pharmacological complications and difficulties in integrating treatment models as well as the potential impact on treatment outcome. Direct targeting of both disorders may not always be necessary. For example, where one disorder or disability is considered either “untreatable,” of longer duration or more resistant to direct treatment such as a learning disability or personality disorder. Consideration of its’ clinical impact on the other disorder may be necessary, but simultaneous improvement in both conditions may not be a desired or realistic goal. Specific clinical features of dual diagnoses may therefore complicate treatment options leading to the adoption of alternative, adapted or less effective treatments.

It has been argued that assessment information provides an important basis for developing effective intervention strategies for dual diagnosed disorders. Carey and Correia (1998) cite an example of linking assessment to treatment planning for co-morbid SUD and SMI using functional analysis and motivational assessment strategies. In drawing on behavioural theories and the trans-theoretical model of change, they argue that effective interventions can be devised and staged appropriately according to the functional role of substance use and an individual’s motivation or readiness for change (Stasiewicz, Carey, Bradizza & Maisto, 1996).

Similarly, treatment implications of co-morbid social phobia and depression highlight the complexity and necessity of linking assessment information to treatment planning.

Clinical features of social phobia and depression may compound and perpetuate aspects of each other. For example, negative self-appraisal and restricted social activity characteristic of social phobia may interact and perpetuate depressive features including low self-esteem and negative thoughts about others and the future. In terms of treatment planning, a strictly descriptive account does little to inform intervention, as clinical characteristics may appear similar in terms of negative self-concept, negative bias in appraising current experiences and future predictions (Beck & Emery, 1985). However, a theoretically informed understanding raises significant differences in cognitive-motivational-behavioural factors, thereby distinguishing the two. For example, negative self-concept may be a shared indicator of both social phobia and depression. However, informed by a CBT model, whereas a depressed patient engages in global negative self-generalizations, the social phobia patient focuses on specific areas of vulnerability. Similarly, avoidance may be a result of a loss of motivation symptomatic of depression, whereas social phobia is characterized by active avoidance of specifically feared situations (Beck & Emery, 1985). These differences have specific implications for treatment. Distinction between the two helps inform the clinician about priority of problems for treatment and anticipate potential difficulties caused by co-morbid interaction. For example, it may be anticipated that depressive symptoms (negative global views of self) may decrease motivation and optimism for change and make more difficult the realistic reappraisal of social performance as part of a CBT treatment approach for social phobia. Furthermore, treatment planning based on individual information provides specific hypotheses regarding onset, and allows the utilization of individual strengths and awareness of vulnerabilities pertinent to treatment outcome.

Dual diagnoses potentially raise many unique implications for treatment, influencing the choice, application, course and efficacy of treatment approach. In the absence of specific evidence-based approaches, this necessitates clinical judgment and flexibility in drawing upon higher models of understanding in order to inform treatment practice. Indeed, the complexities of treating dual diagnosed

disorders highlights the schisms created by diagnostic classification, both in treatment approach and service provision.

Case management

Dual diagnoses are associated with complex social and clinical needs, various associated risk factors and poorer prognostic outcomes. Furthermore, dually diagnosed patients are less likely to receive or comply with treatment and / or receive treatment from different services. This strongly suggests the need for integrated case management with emphasis on contingency planning, multidisciplinary support and advice (Moss, 1999). Moss (1999) argues that mental health services are increasingly reforming service philosophies in the recognition that a strictly medical model approach is limited in its' predominant focus on symptoms and illness. Indeed, current models of multidisciplinary community teams, in addition to legislation such as the Care Programme Approach - which emphasizes the integration and coordination of health and social care services - are beginning to address mental health disorders within a long-term framework, with emphasis on prevention of re-occurrence and maximization of quality of life as opposed to simply symptom reduction (Moss et al., 1997). It can be argued that the literature indicates this to be of particular relevance to dual diagnosed populations, especially those whose disability or disorder is of a more durable or chronic nature (e.g. learning disability or personality disorder).

Services

Implications for treatment of dual diagnoses - particularly those whose diagnoses umbrella traditionally separate services - present a challenge to organizational structure and professional areas of expertise upon which many services are based. This raises questions regarding the organizational, philosophical and financial ability of services, as well as the training and skills of health and social care professionals to address the clinical complexities of dual diagnoses. Debate continues as to whether dual diagnosed patients require specialist integrated treatment or whether needs can be met as services are currently structured (e.g. Allen & Kerr, 1996: cited in Barlow, 1999). Arguments have been made for integrated specialist services for SUD and SMI based on the higher service use and costs posed by this population (McCrone et al., 2000). Other suggestions include the attachment of specialist key workers within established multi-

disciplinary teams, increased training and awareness of dual diagnosis within specific populations and increased communication between and / or de-fragmentation of specialist services (Manley, 1998). The literature suggests that investigation assessing the efficacy of the above and services' flexibility and ability to provide comprehensive and integrated treatment is urgently required.

CONCLUSION

The dual diagnosis concept has led to a recognition of the potentially wide-ranging complexity and co-morbidity of pathology within individuals, such as the growing awareness that the learning disabled population are susceptible to the same range of mental health disorders as the general population. This alone is of extreme clinical significance, leading to a more holistic awareness of the complexities of mental health and illness, indicating in some instances the necessity for treatment and opening up debate about appropriate interventions and their application.

In doing so, many issues relevant to the planning and delivery of treatment have been highlighted. It has been argued that dual diagnoses present many challenges to the current dominant model, which shapes understanding, clinical practice and approaches to mental health generally. These include difficulties in assessment, treatment, organizational practices and philosophies and health care training agendas, all of which have largely been shaped by underlying conceptions and classifications of mental disorder and empirical research findings based on "pure" clinical samples. The issues raised within the dual diagnosis literature suggest that greater understanding of the role of social and environmental factors and their interaction with biological features on the course of mental health complaints is needed for effective treatment interventions and management. It has been argued that this requires an integrated approach in contributing to the comprehensive assessment, treatment and management of complex mental health disorders.

REFERENCES

- American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.), American Psychiatric Association: Washington DC.
- Barlow, C. (1999). Issues in the management of clients with the dual diagnosis of learning disability and mental illness. Journal of Learning Disabilities for Nursing, Health and Social Care, 3(3), 159-162.
- Barlow, F. & Turk, J. (2001). Adolescents with Learning Disability and Psychiatric Illness: Two Case Reports. Clinical Child Psychology and Psychiatry, 6(1), 125-135.
- Beck, A. & Emery, G. (1985). Anxiety Disorders and Phobias. A Cognitive Perspective. New York: Basic Books Inc. Publishers.
- Borthwick-Duffy, S.A. (1994). Epidemiology and prevalence of psychopathology in people with mental retardation. Journal of Consulting and Clinical Psychology, 62, 17-27.
- Borthwick-Duffy, S.A. & Eyman, R. (1990). Who are the Dually Diagnosed? American Journal of Mental Retardation, 94 (6), 586-595.
- Bozarth, J. (2000). The Specificity Myth: The Fallacious Premise of Mental Health Treatment. Manuscript submitted for publication.
- Busfield, J. (1988). Mental illness as social product of social construct: A contradiction in feminists' arguments? Sociology of Health and Illness, 10(4), 521-542.
- Butler, G. (1998). Clinical Formulation. In A.G. Bellack & M. Hersen (Eds.) Comprehensive Clinical Psychology. Elsevier.
- Caine, A. & Hatton, C. (1998). Working with people with mental health problems. In E. Emerson, C. Hatton, J. Bromely & A. Caine (Eds.), Clinical Psychology and People with Intellectual Disabilities (pp.210-230) Chichester: Wiley.
- Carey, K.B. & Correia, C.J. (1998). Severe mental illness and addiction: Assessment considerations. Addictive Behaviour, 23(6), 735-48.
- Chaplin, R. & Flynn, A. (2000). Adults with learning disability admitted to psychiatric wards. Advances in Psychiatric Treatment, 6, 128-134.
- Chapman, T.F. (1997). The Epidemiology of Fears and Phobias. In C.L.Davey (Ed.), Phobias: A Handbook of Theory, Research and Treatment (pp.415-435). Chichester: Wiley.
- Cushman, P. (1990). Why the self is empty. American Psychologist, May 599-610.
- Department of Health. (2001). Treatment Choice in Psychological Therapies and Counseling. Evidence Based Clinical Practice Guideline London: HMSO.

- Dixon, L. (1999). Dual diagnosis of substance abuse in schizophrenia: prevalence and impact on outcomes Schizophrenia Research, 35, 93-100.
- Doody, G. (2001). People with co-morbidity can fall between two stools British Medical Journal, 32, 301.
- Doody, G. (2001). Mental health services for people with learning disabilities. British Medical Journal, 32, 322.
- Drake, R.E., Essock, S.M., Shaner, A., Carey, K.B., Minkoff, K., Kola, L., Lynde, D. Osher, F. Clark, R. Rickards, L. (2001). Implementing dual diagnosis services for clients with severe mental illness. Psychiatric Services, 52(4), 469-476.
- Drake R.E., & Mueser, K.T. (2000). Psychosocial approaches to dual diagnosis. Schizophrenia Bulletin, 26 (1), 105-118.
- Drake, R.E., Osher, F., & Wallach, M.A. (1991). Homelessness and dual diagnosis. American Psychologist, 46, 1149-1158.
- Drake, R.E., Osher, F.C., & Wallach, M.A. (1989). Alcohol use and abuse in schizophrenia: A prospective study. Journal of Nervous and Mental Disease, 177, 408-414.
- Drake, R.E. & Wallach M.A. (1989). Substance abuse among the chronically mentally ill. Hospital and Community Psychiatry, 40, 1041-1046.
- Drake, R.E., & Cotton, P.G. (1986). Depression, hopelessness and suicide in chronic schizophrenia. British Journal of Psychiatry, 148, 554-559.
- Dudley, J.R., Ahlgrim-Dezell & Calhoun, M.L. (1999). Diverse diagnostic and behavioural patterns amongst people with a dual diagnosis. Journal of Intellectual Disability Research 43,(2), 70-79.
- Emerson, E. (1995). Challenging Behaviour: Analysis and Intervention in People with Learning Difficulties. Cambridge: Cambridge University Press.
- Gafoor, M. & Hussein Rassool, G. (1998). The co-existence of psychiatric disorders and substance misuse; Working with dual diagnosis patients. Journal of Advanced Nursing, 27(3), 497-502.
- Gibbs, M. & Priest, H. (1999). Designing and implementing a "dual diagnosis" module: a review of the literature and some preliminary findings. Nurse Education Today, 19, 357-363.
- Gilbert, T., Todd, M., Jackson, N. (1998). People with learning disabilities who also have mental health problems: practice issues and directions for learning disability nursing. Journal of Advanced Nursing, 27, 1151-1157.
- Hassiotis, A., Barron, P., O'Hara, J. (2000). Mental Health Services for people with learning disabilities British Medical Journal, 321, 583-584.

- Holland, M. (1998) Substance use and mental health problems: meeting the challenge. British Journal of Nursing, 7(15), 896-900.
- Jerrell, J.M. & Ridgeley, M.S. (1999). Impact of robustness of program implementation on outcomes of clients in dual diagnosis programs. Psychiatric Services, 50 (3), 109-112.
- Johnson, S. (1997). Dual Diagnosis of severe mental illness and substance misuse: a case for specialist services? British Journal of Psychiatry, 17(1), 205-208.
- Keene, J., Willner P., Love A. (1999). The relevance of problems and models to treatment outcomes: a comparative study of two agencies. Substance Use Misuse, 34 (10), 1347-69.
- Kirmayer, L. & Young, A. (1999). Culture and context in the evolutionary concept of mental disorder. Journal of Abnormal Psychology, 108(3), 446-452.
- Manley, D. (1998). Dual diagnosis: approaches to the treatment of people with dual mental health and drug abuse problems. Mental Health Care, 1(6), 190-192.
- Marsella, A. (1984). Culture and mental health: an overview. In A. Marsella & G. White (Eds.), Cultural Conceptions of mental health. (pp. 359-389) New York: Reidel.
- Marsella, A. & White, G. (1984). Cultural conceptions in mental health research. In A. Marsella & G. White (Eds.), Cultural Conceptions of mental health. (pp. 3-39) New York: Reidel.
- Marshall, J. (1998). Dual Diagnosis; co-morbidity of severe mental illness and substance misuse. Journal of Forensic Psychiatry, 9(1), 9-15.
- McCrone, P., Menezes, P.R., Johnson, S., Scott, H., Thornicroft, G., Marshall, J., Bebbington, P., Kuipers, E. (2000). Service use and cost of people with dual diagnosis in South London. Acta Psychiatrica Scandinavia, 101, 464-472.
- McKenna, C. & Ross, C. (1994). Diagnostic conundrums in substance abusers with psychiatric symptoms: variables suggestive of dual diagnosis. American Journal of Drug Alcohol Abuse, 20(4), 397-412.
- Menezes, P.R., Johnson, S., Thornicroft, G. (1996). Drug and alcohol problems among individuals with severe mental illness in South London. British Journal of Psychiatry, 169, 334-337.
- Morrison, J. (1995). DSM-IV Made easy: The Clinicians guide to Diagnosis. New York: Guilford.
- Moss, S. (1999). Assessment of Mental Health Problems. Tizard Learning Disability Review, 4 (2), Brighton: Pavilion.

- Moss, S., Emerson, E., Bouras, N., & Holland, A. (1997). Mental disorders and problematic behaviours in people with intellectual disability; future directions for research. Journal of Intellectual Disability Research, 41 (6), 440-447.
- Mueser, K., Drake, R.E., & Wallach, M.A. (1998). Dual Diagnosis: A Review of etiological theories. Addictive Behaviours, 23 (6), 717-727.
- Nathan, P.E., Langenbucher, J.W. (1999). Psychopathology: description and classification. Annual Review of Psychology, 50, 79-107.
- Prosser, H. (1999). An invisible morbidity? The Psychologist, 12 (5), 23-37.
- Sacks, S. (2000). Co-occurring mental and substance use disorders: promising approaches and research issues. Substance Use Misuse, 35 (12), 2061-93.
- Stasiewicz, P.R., Carey, K.B., Bradizza, C.M., and Maisto, S.A. (1996). Behavioural assessment of substance abuse with co-occurring psychiatric disorder. Cognitive and Behavioural Practice, 3, 91-105.
- Sturmey, P. (1995). DSM-III-R and persons with dual diagnoses: conceptual issues and strategies for future research. Journal of Intellectual Disability Research, 39 (5), 357-64.
- Wakefield, J. (1992). The concept of mental disorder: On the boundary between biological fact and social values American Psychologist, 47(3), 373-388.
- World Health Organization. (1992) The ICD-10 Classification of Mental and Behavioural Disorders. Clinical Descriptions and diagnostic guidelines. World Health Organization: Geneva.

WRITTEN EXERCISE 2

THERE ARE SHARPLY DEFINED DIAGNOSTIC CRITERIA IN ADULT MENTAL HEALTH. WHEN CHILDREN ACT OUT, HOWEVER, DOES THIS STEM FROM MENTAL HEALTH ISSUES (“PSYCHOPATHOLOGY”) OR ENVIRONMENTAL FACTORS? CRITICALLY DISCUSS THE ISSUES OF PROBLEMATIC CHILD BEHAVIOUR AND WHETHER IT MAY EMANATE FROM “WITHIN CHILD” OR ENVIRONMENTAL FORCES. USE CLINICAL EXAMPLES TO ILLUSTRATE YOUR ARGUMENT

YEAR 2

OCTOBER 2002

INTRODUCTION

The American Psychological Association (APA) recently raised concerns regarding the increasing rise and widespread use of medication such as methylphenidate (Ritalin) to treat childhood behavioural problems – in particular Attention Deficit Hyperactivity Disorder (ADHD) (e.g. Levant, Tolan & Dodgen, 2002). The APA argues instead for the implementation of behavioural, family and school interventions as the primary treatment approach for ADHD. These interventions they add, should be continued in conjunction with the introduction of pharmacological interventions if also required (Levant et al., 2002).

The APA's concerns highlight the various controversies and disagreements surrounding the very diagnosis of ADHD, raising questions not only about appropriate treatments, but aetiology and the very nature of childhood disorder generally. For example, the promotion of behavioural and systemic interventions suggests that possible avenues of treatment lie elsewhere “outside” the child. This clearly has potential implications, not only for clinicians and how they may approach the assessment and treatment of children with ADHD, but also for other agencies such as schools and families.

This essay is primarily concerned with the conceptualisation of childhood disorder and the underlying assumptions about the nature of “disorder” and personhood upon which they are founded. Current aetiological theories of ADHD and relevant research will be reviewed in order to highlight, illustrate and critically evaluate more general conceptualisations of childhood disorder as residing “within child” or emanating from environmental forces. These will be discussed in relation to the current dominant models of childhood disorder, before considering implications for practice, treatment and the field of child and adolescent mental health generally.

CHILDHOOD DISORDER – AN EMERGING CONCEPT

The very notion of “childhood disorder” has emerged through political and social changes in the western family unit, developing mental health fields and the evolution of a psychiatric nosological system (Silk, Nath, Siegel & Kendall, 2000). For example, socio-cultural changes during the nineteenth century led to the recognition of childhood as a qualitatively distinct life-stage from adulthood. This, coupled with an increasingly individualised western concept of the self vs. society

and the emergence of the medical model as the predominant ideology led to a shift onto, and the current notion of, disorder residing “within child.”

The DSM-IV defines mental disorder as

A clinically significant behavioural or psychological syndrome or pattern that occurs in an individual and that is typically associated with present distress (a painful symptom) or disability (impairment in one or more areas of functioning). (American Psychiatric Association, 1994).

The notion of childhood disorder thus extended from conceptualisations of adult mental disorder, reflected in the growth of the number of categorised childhood disorders since the first Diagnostic and Statistical Manual of Mental Disorders (DSM). (Silk et al., 2000). Indeed, many currently recognised childhood disorders such as depression, share the same diagnostic criteria as applied to adults.

Similar to conceptualisations of adult mental disorder therefore, childhood disorders are assumed to be a discrete entities (categorical in nature as opposed to dimensional), located within the individual, independent of influences within the environment, (i.e. biological) thus implying the individual is both the agent of responsibility and focus for treatment (i.e. endogenous). (Krueger & Piasecki, 2002; Sonuga-Barke, 1998).

Definitions of mental illness therefore – both children and adults - are bound by cultural and social concepts of the self and conventions of what constitutes healthy and unhealthy development. They are clearly therefore not absolute (Silk et al., 2000).

ADHD AND THE MEDICAL MODEL

Emerging from the conceptual framework derived from the particular view of mental health above, ADHD is the diagnostic label given to the constellation of symptoms: inattention, hyperactivity and impulsivity. ADHD is the most common childhood disorder with a prevalence of 3-5%, but is not limited specifically to childhood as it can continue into adolescence and adulthood (Hazelwood, Bovingdon & Tiemens, 2002). It is associated with a wide range of negative

outcomes, including poor academic, occupational, social and interpersonal functioning (Carr, 1999).

In order to meet the DSM-IV criteria for ADHD, a child must present with at least six symptoms of inattention, impulsivity and hyperactivity, which has persisted for at least six months. These symptoms must be deemed maladaptive and inconsistent with the child's developmental level. Some symptomology must have been present before the age of seven, and impairment (developmentally, socially, academically or occupationally) must be evident in at least two settings – e.g. home and school. There are a number of ADHD subtypes classified by the predominant symptom pattern (E.g. hyperactive-impulsive subtype).

The underlying assumptions about the nature of childhood disorder can be seen to reinforce and perpetuate the notion that a cross sectional assessment of symptoms provides the basis for, and the backbone of, a diagnosis (Cantwell, 1996). However, aetiological theories of ADHD and relevant research will now be reviewed in order to evaluate the notion that childhood problematic behaviour resides within child or whether in fact, it may emanate from environmental forces.

AETIOLOGICAL FACTORS ASSOCIATED WITH ADHD

A review of the research literature strongly suggests that the aetiology of ADHD is complex, implicating a combination of biological, social and psychological factors. From the outset therefore, it is acknowledged that it appears unlikely that that single factor theories are able to adequately explain the complex and heterogeneous population diagnosed with ADHD (Carr, 1999).

However, differing conceptualisations of personhood and their relation with the wider environment lend different weighting of aetiological factors in the development of ADHD. Subsequently, theories differ as to whether disorder is conceived as emanating from within child or environmental forces. Some of these will now be briefly reviewed.

CONCEPTUAL MODELS AND AETIOLOGICAL THEORIES

Disorder “from within”

Current prevailing western concepts of disorder (residing within) and personhood (mental and physical selves) have shaped the nature and direction of a wealth of theories and research - namely those seeking the origin of disorder within the individual (Sonuga-Barke, 1998).

Specific to ADHD, a wealth of research has been conducted for “within” aetiological factors. Findings support the role of biological theories, including hypotheses about the role of genetic factors, organic brain abnormalities, neurotransmitter deregulation, and nutritional factors amongst others. For example, irregular metabolism of monoamines (e.g. dopamine, norepinephrine and serotonin) has been implicated in the causation of the ADHD (Sutton, 2000). Twin studies have indicated a genetic component in the aetiology of ADHD. Although little data exists on the heritability of DSM-IV ADHD subtypes, studies have looked independently at the heritability of inattentive, impulsive and hyperactive symptoms - monozygotic (MZ) twins for example have been found to have a higher concordance rate for hyperactivity than dizygotic (DZ) twins (Todd, 2001; Gillis et al., 1992: cited in Essau, 1997). Whilst no consistent evidence exists for underlying structural brain damage, a number of factors which potentially lead to brain damage during prenatal or perinatal periods have been identified in the aetiology of ADHD including maternal smoking and alcohol use through pregnancy (Carr, 1999).

Child characteristics including temperament have also been implicated in the aetiology of ADHD. There is some consensus in the literature that negative emotionality in the form of “fussiness” and “irritability” is at the core of a difficult temperament during infancy and associated with ADHD (Sutton, 2000). However whether temperament is conceived as innate (e.g. Thomas et al., 1982: cited in Hackett & Hackett, 1999) or a product of early interactions remains debateable (see later).

Other “within” aetiological theories include intrapsychic models which attempt to show how the overall syndrome of inattention, overactivity and impulsivity may be accounted for by a single underlying core deficit. Rapport (2001) for example,

presents a model based on the hypothesis of a neurobiological substrate for ADHD, suggesting that biological influences (e.g. genetics, prenatal insults) result in individual differences in neurobiological functioning. These are hypothesized as being aetiologically responsible for the core cognitive and behavioural features of ADHD (e.g. inattention, hyperactivity and impulsivity) and secondary / peripheral features including inadequate social skills, low frustration tolerance and strained family relationships (Rapport, Chung & Isaacs, 2001).

Such models not only provide a theory of the processes hypothesized to be involved in ADHD, but also provide the rationale for first line choice of treatment - pharmacology. Pharmacological interventions are hypothesized as targeting the core (neurobiological) substrate and are thought to produce the greatest therapeutic change compared to other interventions such as environmental adaptations or skills training (Pelham et al., 1998: cited in Rapport, 2001).

Despite the compelling evidence for biological and intrapsychic theories however, they alone are unable to fully account for the aetiology of ADHD. For example, neurotransmitter deregulation theories are based on the findings that stimulant drugs such as methylphenidate produce improvement in the behaviour and academic and social functioning of children with ADHD (McClure, Kubiszyn & Kaslow, 2002). However, the efficacy of central nervous system (CNS) stimulants appears to be short-term and not effective in all cases, raising questions about the specificity of the treatment and hypothesized relations (Hazelwood et al., 2002). Thus changes in behaviour in response to medication do not allow aetiological interpretation as models of aetiology and models of treatment do not necessarily bear any relation to each other (e.g. Cichetti & Tucker, 1998).

Other research findings also cast doubt on the ability of “within” factor theories to adequately account for aetiology. For example, adoption studies suggest an interplay between genetic and environmental factors (e.g. Essau, McGee & Feehan, 1997). Models attempting to explore the interaction of genetic and environmental factors - particularly familial factors – highlight the role and importance of shared and non-shared environmental experiences (e.g. the behavioural genetic approach). These studies suggest that personality differences between siblings are environmentally and genetically mediated via differential

experience (E.g. Daniels, 1986). Such research therefore highlights the importance of environmental experiences as well as genetic disposition.

Disorder and environmental factors

The role of environmental factors in the aetiology of childhood disorder has attracted great interest, particularly in terms of familial and contextual factors. Environmental models tend to conceive behaviour, or disorder as a function of the environmental forces that act upon the individual (Essau & Petermann, 1997).

The research literature highlights a number of familial risk factors associated with ADHD. For example, marital dissatisfaction (Jarnalies et al, 1991: cited in Shaw, Owens, Vondra, Keenan & Winslow, 1996), parental conflict (Emery, 1988: cited in Shaw et al., 1996), parental psychopathology such as depression and alcohol use (Shaw et al., 1996) and inconsistent parenting (Essau, McGee & Feehan, 1997). Contextual or socio-demographic factors include low social economic status, single parent status, peer-relationship problems and interpersonal difficulties with school staff amongst others (Sutton, 2000; Taylor et al., 1991: cited in Carr, 1999). Some environmental models take account of normative development, and highlight the role of critical periods wherein certain environmental influences are thought to have greater effect than at other periods. For example, the impact of maternal psychopathology and child rearing disagreements has been shown to have greater negative consequences between infancy and preschool years (e.g. Essau & Petermann, 1997; Shaw et al., 1996).

However, the environmental and psychosocial factors implicated in the aetiology of ADHD have also been shown to be risk factors for many other types of childhood disorder. It may be therefore, that familial and socio-demographic characteristics serve to sustain or intensify ADHD behaviours, but are perhaps not aetiologically unique to ADHD (Kazdin, 1995). Indeed, the numerous factors associated with ADHD have been described as a “laundry list” that merely increases the likelihood for psychiatric disorders generally (Jensen et al., 1997). The concurrence, interaction and accumulative effects of identified risk factors make it difficult to identify each factors specific role in the aetiology of ADHD and/or whether they are a cause or an effect of ADHD (Kazdin, 1995).

Whilst the research literature strongly indicates the role of environmental factors in the aetiology of ADHD, - particularly the role of parenting and family factors – their specific role is unclear. The research has been criticised for a lack of and inadequate conceptualisation of the “environmental context,” seemingly focussing on one or two aspects of the social context as opposed to acknowledging the multi-dimensionality of contextual influences (e.g. Boyce et al., 1998). Furthermore, conceptualisations of disorder as a function of the environmental forces acting upon the individual take little account of individual characteristics and differences. They also do not account for the role of the child, in interpreting and constructing their own social reality and context (Sameroff, 1995). They are therefore unable to adequately explain individual variations in the aetiology of ADHD (as opposed to other disorders) amongst children who share similar environments or are exposed to the same risk factors, or further understanding in how the environment exerts effect on children’s mental health (Boyce et al., 1998).

Disorder as a “mismatch” between within and environmental factors

Other aetiological theories of childhood disorder acknowledge and incorporate both “within child” (e.g. biological) and environmental factors. However, aetiology is considered from a different theoretical position – seeking neither to locate disorder within child nor within the environment, but rather conceptualising disorder as the result of a “mismatch” between the child’s characteristics and the environmental demand.

For example, evolutionary theories emphasize the importance of early environmental experiences and their impact upon the development of the brain and CNS. These are seen as moulding and shaping functioning, which may or may not be adaptive, depending on the quality and nature of the early environment. Thus emotional and behavioural symptoms are reframed as representing responses to particular environments (e.g. Wakefield, 1997).

Specific to the aetiology of ADHD, the early environment is hypothesized as shaping the child’s tendency to express responses such as increased scanning behaviours. This may be due to difficult early environments such as those characterized by familial factors (e.g. coercive parenting) highlighted in the research. Abusive or threatening early environments (externally driven stimuli) are

thought to be responsible for “up-regulating” attentional regularity systems, which are conceived as malleable - particularly so during times of “plasticity.” ADHD symptoms (inattention, hyperactivity and impulsivity) are thus seen as adaptive and reinterpreted and considered within the developmental context (E.g. Jensen et al., 1997). For example, hyperactivity is reframed as increased motor activity, attentional processes as hypervigilance – “response-ready” attributes that are adaptive during the first few years of life in terms of exploration away from the caregiver and learning (Jensen et al., 1997). Indeed, higher incidence rates of ADHD have been found amongst children compared to adolescents and adults (E.g. Kazarian & Evans, 1998).

Functioning becomes “non-adaptive” or problematic when “symptoms” do not fit with expectations and demands of the environment and / or clash with wider societal conventions. For example, current educational environments have been criticised for being a “bad fit” for the “response-ready” child, as they are organised around abilities that demand attentional focus and “motoric passivity” in a confined, ordered space with competing distractions (Jensen et al., 1997).

As a theoretical framework, “goodness of fit” or evolutionary models do not attempt to account for all cases of childhood disorder, including ADHD, acknowledging the clear role of biological and neurological factors in some cases and the multitude of pathways that may lead to the same disorder (Jensen et al., 1997). However, reframing ADHD symptomology as the result of adaptation to environmental demands places offers an alternative conceptual understanding of the child, symptoms and the relationship and interaction with environmental demands.

Disorder as a transaction between child and environmental factors

Developmental theories of childhood disorder conceive behavioural and emotional disturbance to be the product of a continuous dynamic interaction between the child and the experiences provided by the family and wider social contexts (e.g. Sameroff, 1995). The child is construed as being an active participant in adapting to their wider world – interpreting and creating experience as well as responding to external and internal changes (Sroufe, 1997). In this way, the child and context are conceptually inseparable - social and psychological factors cannot be separated or independent from developing biological substrates (Todd, 2001). This

conceptualisation of disorder clearly moves away from the notion of the “afflicted individual” to the conception of disorder, located not within the child but within the series of co-actions of the child’s biological disposition, life contexts and previous adaptation (Sroufe, 1997).

Specific to ADHD, factors that impinge upon the normal development of capacities to modulate arousal, regulate emotion, control impulses and direct attention are considered in terms of aetiology. These include familial and contextual factors as highlighted earlier. However, from a transactional / developmental perspective, risk factors such as temperament and disorganised, insecure attachments are conceived as dyadic processes as opposed to factors located either within or outside the child. For example, research suggests relational influences are important in the development of emotion regulation and temperament, particularly parental reactions toward the child and patterns of regulating and stimulation, maternal depression, inconsistent parenting and over-protectiveness (Southam-Gerow & Kendall, 2002). Similarly, attachment is conceived as a relational construct not an individual endogenous trait, with attachment status changing as a function of the parent’s changing life stress (Sroufe, 1997). From a developmental / transactional perspective therefore, these risk factors identified in the aetiology of ADHD are contextual and interactional and cannot be attributed solely to the child (Jensen et al., 1997).

From a developmental perspective, longitudinal research has highlighted the interaction of child characteristics (e.g. premature birth, infant activity level), and contextual factors. Evidence has been found for the interaction of child characteristics and distal contextual factors such as maternal marital status at birth to be a predictor of attentional difficulties later on (Jensen et al., 1997). However, the research has also highlighted the role of a combination of early and later contextual factors (immediate contextual factors including parenting, to broader contextual factors such as levels of parental stress) in the aetiology of ADHD, suggesting that there are multiple pathways to the same disorder (Jensen et al., 1997). This is supported by conduct disorder research, which indicates a variation in the age of onset, leading to hypotheses that early onset (childhood) has a different aetiology to those who go on to develop conduct disorder later (adolescence) (Moffit, 1993: cited in Essau & Petermann, 1997). Furthermore,

contextual variables such as changing support for caregivers or changing the caregiver status have been found to produce a change in the problematic behaviour, suggesting that some children who were on the ADHD pathway at an earlier age were no longer so at a later stage (Jensen et al, 1997).

The research seems to support the notion of ADHD and childhood disorder in general as the outcome of a complex myriad of risk and protective factors operating over time and not the expression of an “endogenous pathogen” (Sroufe, 1997). This suggests that the study of disorder needs to be considered within the context of normal development, with the recognition that change is possible at many points. From this perspective, it is argued that prior adaptation and experience plays an important role as well as commonly recognised protective factors and resilience (Sroufe, 1997).

Disorder as symptomatic

Toward the other end of the conceptual continuum of disorder and personhood, lies the interpretation of “disorders” as the expression of social ills and / or cultural difficulties. Persons and their socio-cultural environment are conceptualised as interdependent systems which reflect the attributes of each other (Geertz, 1973). “Mental disorder” therefore is not conceived as an individual matter but instead dependent upon the structure and “health” of a society (E.g. Fromm, 1956) raising questions about wider cultural goals and societal expectations (E.g. Silk et al., 2000).

In terms of childhood disorder, cross-cultural research does suggest that prevalence of childhood disorder is linked to expectations of appropriate behaviour across cultures. In addition, expression of disorder appears to be culturally determined, thus reflecting the exaggeration of frequent adaptive behaviours that are socially shared (E.g. Weisz, 1989). Such research reinforces the importance of environmental and cultural factors in the development and expression of disorder, illustrating the need to view the child’s behaviour within the cultural context and with an awareness of the cultural relativity of what constitutes “deviant,” “disordered” or “dysfunctional” behaviour (Cartledge, Kea & Simmons-Reed, 2002).

In summary, the research literature indicates the interaction of a myriad of factors involved in the aetiology of ADHD. However, it has been argued that differing aetiological theories which place the location or origin of disorder as either “within child” or within the environment are heavily shaped by their more fundamental conceptualisation of personhood and their relationship with wider environmental influences. As such, questions arise about the very concept and nature of disorder itself. More specific to the current discussion however, are the practical implications of these underlying conceptualisations for understanding, assessing and treating childhood disorder. Some of these will now be briefly discussed.

ADHD, THE MEDICAL MODEL AND CHILDHOOD DISORDER REVIEWED

Different theoretical and aetiological models of ADHD and childhood disorder illustrate how differences in conceptualisation lead to different notions of what constitutes a “disorder.” Some of these have been evaluated in terms of their relative strengths and weaknesses to provide an account of childhood disorder.

The medical model however, has taken on the status as the description of reality rather than as merely one point of view. Despite its predominance however, aetiological theories and related ADHD research present many challenges to the DSM-IV concept of disorder (Krueger & Piasecki, 2002). ADHD rarely presents as a discrete disorder and often presents as a continuum of problems with inattentive and hyperactive/impulsive symptoms (Todd, 2001). Comorbidity is common, particularly with learning disabilities, oppositional defiant (ODD) and conduct disorder (CD) with an overlap of 50-75% reported with ODD and CD (Hazelwood et al., 2002). Indeed, some argue that ADHD is not a discrete entity at all, but an exaggeration of normal childhood behaviour (E.g. Hackett & Hackett, 1999). ADHD may also continue into adulthood indicating great heterogeneity in terms of age of onset, range of symptoms and subtypes and course and prognoses (E.g. Krueger & Piasecki, 2002; Sroufe, 1997).

One might further question the reliability, validity and applicability of the diagnostic approach in the field of child mental health at all. For example, children’s limited ability to describe their internal world and emotional experience reduces the reliability of the diagnostic procedure, increasing reliance on others reports and

observations (Cantwell, 1996). How reliable or valid is the application of a diagnostic label to a child who is rapidly developing and changing over a short period of time (McClure et al., 2002)? The major psychiatric classification systems have been severely criticised for atheoretical and non-contextual accounts of childhood disorder (e.g. Cantwell, 1996; Sonuga-Barke, 1998). With little or no acknowledgement of normative development, the diagnostic criteria for ADHD appears to be arbitrary - the same number of criterion symptoms are required regardless of age and no rationale is given for why the age of seven represents the specified age of onset (Jensen & Hoagwood, 1997).

It has been argued here that the medical model conceptualisation of disorder and personhood has difficulties in adequately classifying and defining childhood disorders. Developmental theories and research strongly suggests “abnormal” behaviour is dynamic and changes across the lifespan and attempt to account for the full complexity of disorder causation (Wakefield, 1997). Longitudinal studies of childhood disorder such as ADHD suggests “heterotypic” continuity from childhood through to adulthood (i.e. different symptoms overtime of same underlying disorder) as opposed to “homotypic” continuity (i.e. identical symptoms over time). Research also indicates multiple pathways leading to the same disorder (equifinality) and similar pathways leading to different disorders (multifinality) (Sroufe, 1997) which may account for the heterogeneity and variations in age of onset. These conceptualisations represent a fundamental challenge to the conceptualisation of childhood disorder as a discrete entity, and to the system that seeks to classify symptoms by applying static, atheoretical and uni-dimensional diagnostic labels (Hoagwood & Jensen, 1997).

IMPLICATIONS FOR PRACTICE

Labelling and Language

Different uses of terminology reflect the differences in conceptualisations of childhood disorder and carry different connotations about the nature and location of disorder. Diagnostic labels such as ADHD infer a concrete “mental illness” which is endogenous and biological, thereby placing the focus of interest and treatment within the individual. In addition to perpetuating the notion of disorder as residing within child, diagnoses also carry many economic, political and social secondary gains, which potentially increase pressure on child and family services

to use and apply diagnostic labels. For example, diagnoses of ADHD are strongly linked to additional health and educational support services and funding (E.g. Jensen et al., 1997). McClure et al. (2002) suggest that new technologies such as the internet have served to reify the use and demand for diagnostic labels. Indeed, the very medium of the internet itself reflects, reinforces and perpetuates de-contextualised information on children's health obtained by parents.

However, it might also be argued that diagnostic labels provide a common language and are more easily understood. Diagnoses and biological or medical theories of ADHD decrease social stigma and refocus any responsibility for the disorder away from the family or, alternatively, provide an alternative "explanation" for difficult family issues (Kiesler, 1999). However, the lack of research investigating the potential long-term implications and consequences of applying a diagnostic label to a child highlights a grossly neglected area in the child and adolescent mental health field and the need for a considered approach (McClure et al., 2002).

Other conceptualisations of disorder emphasize developmental deviation which is adaptive and dyadic, placing equal focus on the interaction of the child's characteristics, their context and the meaning ascribed to their experiences. This provokes the question not only about what exactly is "disorder," but also, at what point should developmental deviations be considered and labelled a disorder? These questions and differences in conceptualisation have implications, not only for assessment and treatment, but research agendas also.

Assessment

The predominance of the medical model and secondary gains attached to certain diagnoses, may shape parental expectations and service delivery when assessing of childhood disorder. The pressure for a diagnosis of ADHD may be great and assessment protocols and processes may therefore be dictated by the diagnostic criteria set by the major classification systems (see page two). Assessment may focus on obtaining reliable and valid measures of symptomology (e.g. behaviour, attention and hyperactivity ratings) using assessment tools such as the Child Behaviour Checklist, (Achenbach, 1991) and The Conners Parent and Teacher Rating Scale (Conners, 1996).

However, different conceptualisations of childhood disorder lead to alternative “diagnostic indicators” (McClure et al., 2002). Other aetiological theories of ADHD strongly indicate the need for a comprehensive assessment of a wide range of other factors including biological, familial, environmental and cultural. Furthermore, a more fundamental change in the focus of assessment is indicated. For example, theories conceptualising disorder as the result of a mismatch of the child’s their environment’s characteristics suggest comprehensive assessment of environmental demands in relation to that child, their developmental level, skills and abilities. Developmental theories draw attention to the importance of assessing the child within a variety of contexts such as within relationships, family, schools, communities, and wider cultural conditions over a substantially longer period of time (E.g. Sroufe, 1997).

Treatment

In terms of treatment, the APA highlights the widespread practice of prescribing medication for ADHD, which both supports and perpetuates the notion of “within” child aetiology. Other treatments for ADHD flow from other aetiological theories and target those factors conceptualised as having a central role in aetiology. These have been shown to have some effect. For example, family interventions, including behavioural parent training (Anastopoulos et al., 1996 cited in Carr, 1999), environmental interventions including classroom behavioural management and sensory stimulation (Hazelwood et al., 2002) and individual therapy such as cognitive training programmes (Rapport, 2001). However, these are often considered as “additional” or targeting peripheral symptoms (E.g. Rapport, 2001).

The research literature indicates that no one intervention is singularly effective, suggesting the need for a combined treatment approach (Hazelwood et al., 2002). A number of studies have shown mixed results regarding the effectiveness of combined treatments, although medication in conjunction with psychological interventions has been found to be superior to either intervention alone and more cost effective (E.g. Carlson, et al 1992). This is perhaps not surprising, given the high rates of comorbidity and the general consensus that single factor theories (i.e. biological) are unable to account for the heterogeneity of the ADHD population (Hazelwood et al., 2002).

Other conceptual models emphasizing the notion of multiple pathways to the same disorder also indicate the need for a combination of interventions (E.g. Sroufe, 1997). However, observations made whilst on clinical placement with a Child and Family Service suggest that this may not be as straightforward in practice as it may appear. For example, parents who firmly adopted a medical perspective (i.e. the problem resides within the child) seemingly appeared less likely to engage or adhere to behavioural management or parenting interventions. Similarly, initial improvement in the child's functioning following the prescription of medication appeared to confirm the parents' belief that the problem was "solved." Hence they were more likely to disengage with additional interventions as part of a combined treatment approach.

Multidisciplinary working

Different conceptual understanding about the nature and origins of a disorder such as ADHD may lead to tensions within and between health care professionals and multidisciplinary teams. Discrepancies have been highlighted between clinicians' own theoretical understanding of ADHD and their therapeutic practice (Hazelwood et al., 2002). Furthermore, different trainings and understandings potentially lead to tensions and disagreements between team members regarding the best way to treatment children - particularly perhaps between medical vs. non-medical professionals. This may be magnified by research which suggests that a multimodal treatment approach is best, implying a number of different professionals involved in the treatment of the child. This places more emphasis and urgency on the need for good treatment planning, communication and shared understanding between professionals. Potential disagreements were minimized at the Child and Family Service mentioned above by implementing a policy stipulating the combined treatment approach – medication and behavioural / parenting interventions - for all children and families who were referred for treatment of ADHD.

Parental expectations may also create tensions between health professionals and families who attend a service in order to seek help and support for their child. For example, tensions were observed whilst on clinical placement between parents wanting a diagnosis and medication for their child whom they understood as fitting

the criteria for ADHD, and psychodynamic health professionals who chose not to use medical or diagnostic terminology. Frustrations and conflicts were observed to mount until the parents dropped out from the assessment process, consequently alienating themselves from potential avenues of treatment or support.

Research and future directions

The pervasiveness of the medical model and the belief that disorder is located within the individual restricts research agendas which might otherwise seek to explore factors outside the child, thus perpetuating its' dominance. These biases in many research methodologies (E.g. Cichetti & Aber, 1998) result in a preponderance of cross sectional, correlational designs as opposed to longitudinal research designs exploring the lifetime course and outcome of disorders.

However, alternative conceptual models suggest the need to consider the evolutionary and wider context in order to advance understanding of the aetiology and significance of individual and group symptoms in order to determine the underlying structure of child psychopathology (E.g. Todd, 2001). This involves focussing on the complex interactions between children and their environments, not "single pathogens" or linear causes. Research methodologies therefore need to be capable of empirically measuring the multi-dimensionality nature of contexts and environments, thus providing an integrative understanding of interactions as opposed to a "laundry list" of risk factors (Boyce et al., 1998). This requires the funding opportunities and an openness to review the current dominant models in order to proceed.

CONCLUSION

In attempting to evaluate the evidence of whether childhood problematic behaviour emanates from "within child" or environmental forces, the number of aetiological models and theories highlight the complexity and diversity of childhood mental health. Underlying these are often implicit assumptions and conceptualisations of disorder, the child and their relation / interaction with the wider society. These can be best understood as lying along a conceptual continuum, ranging from notions of the child as secular biological beings to conceptions of children as intrinsically influenced by contextual factors.

The research literature suggests evidence can be found to support all conceptualisations. However, new theories, such as developmental psychological perspectives are furthering understanding by providing a fuller explanation for the complexity of childhood – and adulthood – disorder, by moving beyond the position of individual constructivism and social determinism to highlight the dynamic and interactional nature of individuals' relationship with and within their environmental contexts. The endless possibilities and complexities evoked by this particular conceptualisation create a highly untenable position for a system that seeks to categorise and classify people, thereby raising many implications for practice.

It is likely that the field of child and adolescent mental health will remain controversial and exciting, as new research continues to challenge current dominant understandings and classification systems. What these debates do emphasize and highlight ultimately, is the importance of recognising the limitations and strengths of each approach, and how they may inform or restrict ways of thinking about, assessing and treating the child who is referred for problematic emotional or behavioural difficulties.

REFERENCES

- American Psychiatric Association (1994). Diagnostic and Statistical Manual of Mental Disorders (4th ed.) American Psychiatric Association: Washington DC.
- Boyce, T., Frank, E., Jensen, P., Kessler, R., Nelson, C., Steinberg, L. (1998). Social context in developmental psychopathology: recommendations for future research from the MacArthur Network on Psychopathology and development. Development and Psychopathology, 10, 143-164.
- Cantwell, D. (1996). Classification of child and adolescent psychopathology. Journal of Child Psychology and Psychiatry, 37, 3-12.
- Carr, A. (1999) The Handbook of Child and Adolescent Clinical Psychology. A Contextual Approach. Routledge: London.
- Cartledge, G., Kea, C. & Simmons-Reed, E. (2002). Serving Culturally Diverse Children with serious emotional disturbance and their families. Journal of Child and Family Studies, 11, 113-126.
- Cicchetti, D. & Aber, L. (1998). Contextualism and developmental psychopathology. Development and Psychopathology, 10, 137-141.
- Daniels, D. (1986). Differential Experiences of Siblings in the Same Family as Predictors of Adolescent Sibling Personality Differences. Journal of Personality and Social Psychology, 51, (2) 339-346.
- Essau, C. & Petermann, F. (1997). Introduction and general issues. In C. Essau (Ed.), Developmental Psychopathology, (pp. 1-18).
- Essau, C., McGee, R. & Feehan, M. (1997). Attention Deficit/Hyperactivity Disorder. In C. Essau (Ed.), Developmental Psychopathology. (pp. 141-176).
- Evans, B. & Lee, B. (1998). Culture and child psychopathology. In S. Kazarian & D. Evans (Eds.) Cultural clinical psychology theory research and practice. (pp. 289-316). Oxford University Press: Oxford.
- Fromm, E. (1956). The Sane Society. Routledge: London.
- Geertz, T. (1973). Interpretations of Cultures. Basic Books: London.
- Hackett, R. & Hackett, L. (1999). Child Psychiatry across cultures. International Review of Psychiatry, 11, (2) 225-235.
- Hazelwood, E., Bovingdon, T. & Tiemens, K. (2002). The meaning of a multimodal approach for children with ADHD: experiences of service professionals. Child Care Health and Development: the Multidisciplinary Journal, 28, (4) 301-307.
- Hoagwood, K. & Jensen, P. (1997). Developmental Psychopathology and the notion of culture: introduction to the special section on the "fusion of cultural Horizons: Cultural Influences on the assessment of psychopathology in children and adolescents. Applied Developmental Sciences, 1, (3) 108-112.

Jensen, P. & Hoagwood, K. (1997). The book of names: DSM-IV in context. Development and Psychopathology, 9, 231-249.

Jensen, P., Mrazek, D., Knapp, P., Steinberg, L., Pfeffer, C., Schowalter, J. & Shapiro, T. (1997). Evolution and revolution in child psychiatry: ADHD as a disorder of adaptation. Journal of American Academy of Child and Adolescent Psychiatry, 36, (12), 1672-1681.

Kazdin, A. (1996). Conduct Disorders in Childhood and Adolescence, 2nd edition, London: Sage.

Krueger, R. & Piasecki, T. (2002). Toward a dimensional and psychometrically informed approach to conceptualising psychopathology. Behaviour Research and Therapy, 40, 485-499.

Levant, R., Tolan, P. & Dodgen, D. (2002). New Directions in Children's Mental Health Policy: Psychology's Role. Professional Psychology : Research and Practice, 33, (2) 115-124.

Marsella, A. (1984). Culture and mental health: an overview. In A. Marsella & G. White (Eds.) Cultural Conceptions of Mental Health, (pp.359-389) New York:Reidel.

McClure, E., Kubiszyn, T. & Kaslow, N. (2002). Advances in the diagnosis and treatment of childhood mood disorders. Professional Psychology: Research and Practice, 33,(2) 125-134.

Mellins, C., Gatz, M. & Baker, L. (1996). Children's Methods of coping with stress: A twin study of genetic and environmental influences. Journal of Child Psychology and Psychiatry, 37, (6) 721-730.

Rappaport, M. (2001). Bridging Theory and Practice: Conceptual Understanding of Treatments for Children with Attention Deficit Hyperactivity Disorder (ADHD), Obsessive-Compulsive Disorder (OCD), Autism and Depression. Journal of Clinical Child Psychology, 30 (1), 3-7.

Rappaport, M., Chung, K-Mee & Isaacs P. (2001). A conceptual model of child psychopathology: implications for understanding attention deficit hyperactivity disorder and treatment efficacy. Journal of Clinical Child Psychology, 30, (1) 48-58.

Shaw, D., Owens, E., Vondra, J., Keenan, K & Winslow, E. (1996). Early risk factors and pathways in the development of early disruptive behaviour problems. Development and Psychopathology, 8, 679-699.

Silk, J., Nath, S., Siegel, L. & Kendall, P. (2000). Conceptualising mental disorders in children: Where have we been and where are we going? Development and Psychopathology, 12, 713-735.

Sonuga-Barke, E. (1998). Categorical Models of Childhood Disorder: A conceptual and empirical analysis. Journal of Child Psychology and Psychiatry, 39,(1) 115-133.

Sonuga-Barke, E. (1994). Annotation: On Dysfunction and function in psychological theories of childhood disorder. Journal of Child Psychology and Psychiatry, 35,(5) 801-815.

Southam-Gerow, M. & Kendall, P. (2002). Emotion regulation and understanding. Implications fro child psychotherapy and therapy. Clinical Psychology Review, 22, 189-222.

Sroufe, A. (1997). Psychopathology as an outcome of development. Development and psychopathology, 9, 251-268.

Sutton, C. (2000). Child and Adolescent behaviour problems – a multidisciplinary approach to assessment and intervention. BPS.

Todd, R. (2001). Probing the nature of child psychopathology. Child and Adolescent Psychiatric Clinics of North America, 10, (2) 209-224.

Wakefield, J. (1997). When is development disordered? Developmental psychopathology and the harmful dysfunction analysis of mental disorder. Development and Psychopathology, 9, 269-290.

Zeitlin, H. & Refaat, R. (1999). Cultural Issues in child and adolescent psychiatry. In P. Cooper (Ed.) Understanding and supporting children with emotional and behavioural difficulties. (pp. 141-168). London: Jessica Kingsley.

SMALL SCALE RESEARCH PROJECT

**A PILOT INVESTIGATION OF USER SATISFACTION
AND PREFERRED WAYS OF FEEDING BACK
VIEWS TO A CHILD AND FAMILY CLINIC**

YEAR 3

MAY 2003

CONTENTS

1.0 Abstract	44
2.0 Introduction	46
2.1 Background to the project	46
2.2 NHS policy and user involvement	46
2.3 User satisfaction – problems and issues	48
2.4 Empirical literature	49
2.5 Aims of the study and rationale for choice of methodology	50
3.0 Method	52
3.1 Participants	52
3.2 Design	52
3.3 Procedure	53
3.4 Measures	55
3.5 Ethical issues	57
4.0 Results	58
5.0 Discussion	70
5.1 Summary of findings	70
5.2 Clinical implications	72
5.3 Service implications	73
5.4 Limitations and future recommendations	74
5.5 Conclusions	75
6.0 References	76
7.0 Appendices	78

ABSTRACT

Objectives

A pilot project was undertaken to address the lack of a user-involvement initiative at a local multidisciplinary Child and Family Clinic (C&FC). The study aimed to investigate parents' preferred models or method of involving families (including children) in the monitoring and evaluation of the service. Further aims included gaining feedback from parents about what aspects of a C&FC are of most importance to them and how satisfied they were with these aspects of the service when they attended.

Design

A pilot retrospective postal questionnaire survey was used to achieve the aims of the study.

Method

20 recently discharged families were randomly selected from a convenience sample of 90 families to participate in a semi-structured telephone interview. Results were then incorporated into a custom-made questionnaire and sent with a covering letter to the remaining 67 recently discharged families.

Results

A response rate of 44% was obtained from the combined semi-structured telephone interviews and questionnaire methods. The majority of parents (58%) preferred to feedback their views using a questionnaire and 74% were in favour of their child / children also being consulted by the service. Parents rated the most important aspects of a C&FC to include the therapeutic relationship, receiving advice and waiting time for first appointment. Although overall satisfaction with the service was 77%, satisfaction ratings varied across the service. Facilities received the highest satisfaction ratings, with greater dissatisfaction with receiving information / knowing what to expect prior to the first appointment, and outcome.

Conclusions

The study provided initial data and feedback to inform the development of a comprehensive user involvement strategy. More specifically, the study

highlighted discrepancies between ratings of importance and satisfaction with a number of service factors, suggesting actions to be taken for improvement. Finally, measures of satisfaction may serve as a baseline for future audit using an adapted version of the custom-made questionnaire.

INTRODUCTION

a) Background to the project

The ***** Child and Family Clinic (C&FC) is a multidisciplinary tertiary service for children, adolescents and their families with mental health / emotional and behavioural problems. The team is comprised of a number of professionals of differing medical and therapeutic approaches including psychiatry, clinical psychology, family therapy and psychodynamic psychotherapy.

The C&FC is currently beginning to address the good practice and service requirements outlined by Clinical Governance and other National Health Service (NHS) reforms – e.g. clinical audit of service delivery and standards and the emphasis on involving “consumers” in the monitoring and evaluation of services and their outcome. However prior to the project being undertaken, there were no existing mechanisms in place for local users to formally feedback their experiences and / or satisfaction with the service they had received. Before developing and implementing a suitable mechanism, the service manager suggested a consultation process take place with service users about preferred models or methods of user involvement.

b) NHS policy and user involvement

Since the early 1990's, Governmental policies and guidance documents have explicitly emphasised the need to involve service-users in auditing the development and definition of NHS standards, particularly the appropriateness and effectiveness of services (e.g. “Local Voices”; NHSE, 1992; DOH, 1994; Patient Partnership Strategy, NHSE, 1996; Priorities and Planning Guidance, NHSE, 1997; The New NHS, DOH, 1997).

There are many reasons why inclusion of service-users views is encouraged. In addition to issues of “good practice” (Potel, Henderson & Berger, 2001), NHS users' views are thought to aid the more effective targeting of services to meet users' needs (Moules, 2002). Indeed, perceptions of care and quality of life have been shown to significantly differ between users and professionals, therefore contributing an important additional dimension to health care evaluation (Lelliot et al., 2001). The acknowledgement of, and enactment upon, users' views is

therefore thought to lead to increased satisfaction, adherence to treatments and engagement with services (Lelliot et al., 2001).

Despite governmental directives however, many obstacles interfere with the effective involvement of users and integration of their views. These include professional barriers (e.g. users' preferences may conflict with evidence-based practices leading to professional invalidation of users' opinions) organisational barriers (e.g. bureaucracy, use of jargon) and numerous methodological difficulties in involving users in the auditing process – see later (Kelson, 1996). Conceptual barriers may also prevent consultation with specific groups of services users. Current cultural conceptions of children as extensions of the family unit for example, may lead to the belief that children's views can be reliably represented by their parents (Moules, 2002). Indeed, involvement of children and young people in the evaluation of Child and Family services is limited - despite evidence to suggest that children and their parents report significant differences in terms of satisfaction with service delivery and treatment outcome (e.g. Hennesey, 1999).

Furthermore, whilst user involvement initiatives have been set up by services, many projects have been criticised for resembling “one-off” “token” exercises, constituting a poor substitute for the intended active involvement of users on a regular and systematic basis (e.g. Kelson, 1996). Despite the recent practical guidance from the DoH to actively involve service-users in NHS research processes over and above service evaluation, the empirical literature suggests that this is still in its infancy (e.g. Telford, Beverley, Cooper & Boote, 2002). Nevertheless, the strong and continuing emphasis on user involvement in service evaluation requires NHS services to review local policies and procedures for consulting and obtaining feedback from their users.

c) User satisfaction – problems and issues

The most frequently cited method for “involving” service users in clinical audit is satisfaction surveys, which are widely used as indicators of service quality, treatment acceptability and outcome (Helinger, Sonnichsen & Brannan, 1996). However, numerous limitations and difficulties exist, raising doubts about their value as a predominant method of involving users in the evaluation of health care and service delivery.

Firstly, a number of conceptual issues complicate the meaningful and useful application of “satisfaction” with NHS services. Satisfaction surveys for example, are based upon assumptions of NHS users as “customers” or “consumers,” thereby inferring a somewhat false relationship with the NHS with an over-emphasis of personal choice (Telford et al., 2002). Underlying assumptions and associations between effective treatment, outcome and user satisfaction are also questionable, given that some (e.g. psychological) treatments may involve addressing difficult or painful emotions and patterns of behaviour (Gowers & Kushlick, 1992). Indeed, the relationship between satisfaction and outcome has been shown to be weak, with satisfaction being influenced by a range of factors including the type of service, the setting, prior expectations, and age (e.g. Rey, Plapp & Simpson, 1999; Hutchings & Pope, 1998; Lambert, Salzer & Bickman, 1998).

Consequently, many measures of “user satisfaction” have been criticised for low reliability and validity, relying solely on face validity and reflecting different assumptions about the concept of satisfaction (Firth & Bucknall, 2002). Global rating scales of satisfaction for example, provide little valuable or specific information about those aspects of service delivery which are valued, and those viewed as needing improvement (Gowers & Kushlick, 1992). Instruments designed by researchers / services may also not be representative of the views or interests of the user (Shapiro, Welker, & Jacobson, 1997). NHS service-users for example, have been shown to value different aspects of health and social functioning than professionals – placing less emphasis on symptom reduction and more on the secondary improvements in other areas of life (Lelliot et al., 2002). Similarly, adult measures of satisfaction applied to younger people fail to acknowledge potential developmental factors that may cause difference in the ways that children and adults think about their health - physical and mental – thereby reducing validity (Shapiro et al., 1997).

Methodologies used to access and / or involve users also create additional difficulties. Quantitative methods such as postal questionnaires - whilst a relatively cheap and quick way of obtaining data - often generate poor response rates and exclude non-English speakers and those with poor literacy skills leading to

sampling and response biases (Shapiro et al., 1997; Kelson, 1996). Qualitative methods, such as focus groups or unstructured telephone surveys, whilst allowing participants to feel more involved and undirected in expressing their view, are expensive, time consuming and also open to some of the shortcomings highlighted above.

Despite the difficulties highlighted above, empirical findings relating to user satisfaction have highlighted service-related issues or processes that are amenable to improvement - thereby increasing quality and satisfaction - as well as drawing attention to those factors which may lead to non-attendance and disengagement with Child and Adolescent Mental Health Services (CAMHS).

d) Empirical findings

User involvement initiatives in child and family services have primarily focussed upon parental views as opposed to the child / young person, partly due to the conceptual barriers highlighted by Moules (2002) and partly because parental satisfaction is considered crucial in determining the family's engagement with the service and therefore worthy of investigation (Rey et al., 1999).

The majority of studies report high levels of satisfaction with Child and Family services, ranging from between 60-90% (e.g. Rey et al., 1999; Firth & Bucknall, 2002). Whilst global measures of satisfaction produce little qualitative information regarding service delivery and performance (e.g. Firth & Bucknall, 2002), other measures investigating a range of service-related variables shown to be significant to users of mental health services (e.g. Lelliot et al., 2001) suggest reported satisfaction is influenced by variables such as the number of appointments (Moore & Kenning, 1996), length of waiting time for first appointment (Stallard, 1995), dedication of the therapist (Rey et al, 1999) and outcome of treatment (Kopeck-Schrader et al., 1994). Other important factors affecting rates of satisfaction include prior agreement with the referral, parental expectations and prognosis of referred problem (Gowers & Kushlick, 1992).

As expected however, the empirical literature is littered with methodological limitations highlighted above, with differing methodologies associated with various compromises of reliability, validity and generalisability of findings. Studies using

postal questionnaire surveys for example, report modest response rates ranging from 32% (Firth & Bucknall, 2002) to 57% (Gowers & Kushlick, 1992) compared to 93% obtained by studies using a semi-structured telephone interview (e.g. Potel et al., 2001). Unsurprisingly, higher levels of dissatisfaction with specific factors have been found among non-responders or those who decline to participate in satisfaction surveys, thereby illustrating the problematic un-representative nature of many results reporting low to average response rates. For example, non-responders are more likely to have dropped out of therapy, had had fewer appointments and been significantly more dissatisfied with where they met and in what family composition they were seen (Stallard, 1995). This contrasts with dissatisfied responders, who reported higher levels of dissatisfaction with the wait before the first appointment and total number of sessions.

Whilst satisfaction levels tend to be comparable across studies using different methodologies, those employing semi-structured telephone interviews elicit a range of positive and negative experiences and suggestions for improvement (e.g. Potel et al., 2001), compared to postal questionnaire which largely adopt Likert-type rating scales and minimal responding to open questions (e.g. Firth & Bucknall, 2002).

In contrast to studies of parental satisfaction, only a small number of initiatives have been undertaken with younger children which have predominantly constituted “one-off” consultations conducted by voluntary organisations (e.g. In our view; National Children’s Bureau, 2000; “Young People Have Their Say”; Mental Health Foundation, 1999). Differences between parents and their children’s expectations and satisfaction with services however, suggest the need and importance for more extensive consultation with all family members in order to obtain a representative view of users of child and family services (e.g. Gowers & Kushlick, 1992).

e) Aims of the study and rationale for choice of methodology

In negotiation with the C&FC, the primary aim of the project was to conduct a pilot survey of preferred models and / or communication channels with which to feedback views, experiences and satisfaction, thereby contributing to the evaluation of service provision and informing future service development.

However, in order to ensure this to be a useful and meaningful exercise, it was also considered necessary to investigate what service factors are considered to be of importance / interest to the local population and therefore likely to be commented upon. In addition, it was also negotiated that an initial measure of satisfaction with those aspects of the service considered to be of importance would be beneficial as a preliminary baseline measurement for future auditing procedures.

Due to time restraints and limited resources, it was felt that a postal questionnaire would be most effective in reaching as large a sample as possible within the time limits available. In order to avoid some of the some of the methodological shortcomings highlighted within the literature, the use of an existing Child and Family measure - specifically adapted and tailored to reflect the interests of the local population - was thought to increase the validity of findings as opposed to using a general standardised satisfaction measure (e.g. Client Satisfaction Questionnaire; Larsen et al., 1979). It was proposed therefore that a semi-structured telephone interview would be used to obtain local users' views in order to aid the development of a questionnaire. This proposal was based upon the high response rates and qualitative comments (positive and negative) elicited during semi-structured telephone interviews reported by Potel et al., (2001). Finally, in order to explore the C&FC's hopes to expand the consultation process to include children and young people in the future – highlighted as currently lacking in many services - parents would also be consulted about their views regarding the future involvement of their children in evaluating the service.

The study therefore aimed to address the following research questions:

1. What aspects of a C&FC do parents regard to be of most importance?
2. How satisfied are parents with those aspects of the ***** C&FC?
3. How would parents prefer to be involved in feeding back their views to the C&FC?
4. Would parents object to their child / children being asked about their experiences of the service?

METHODOLOGY

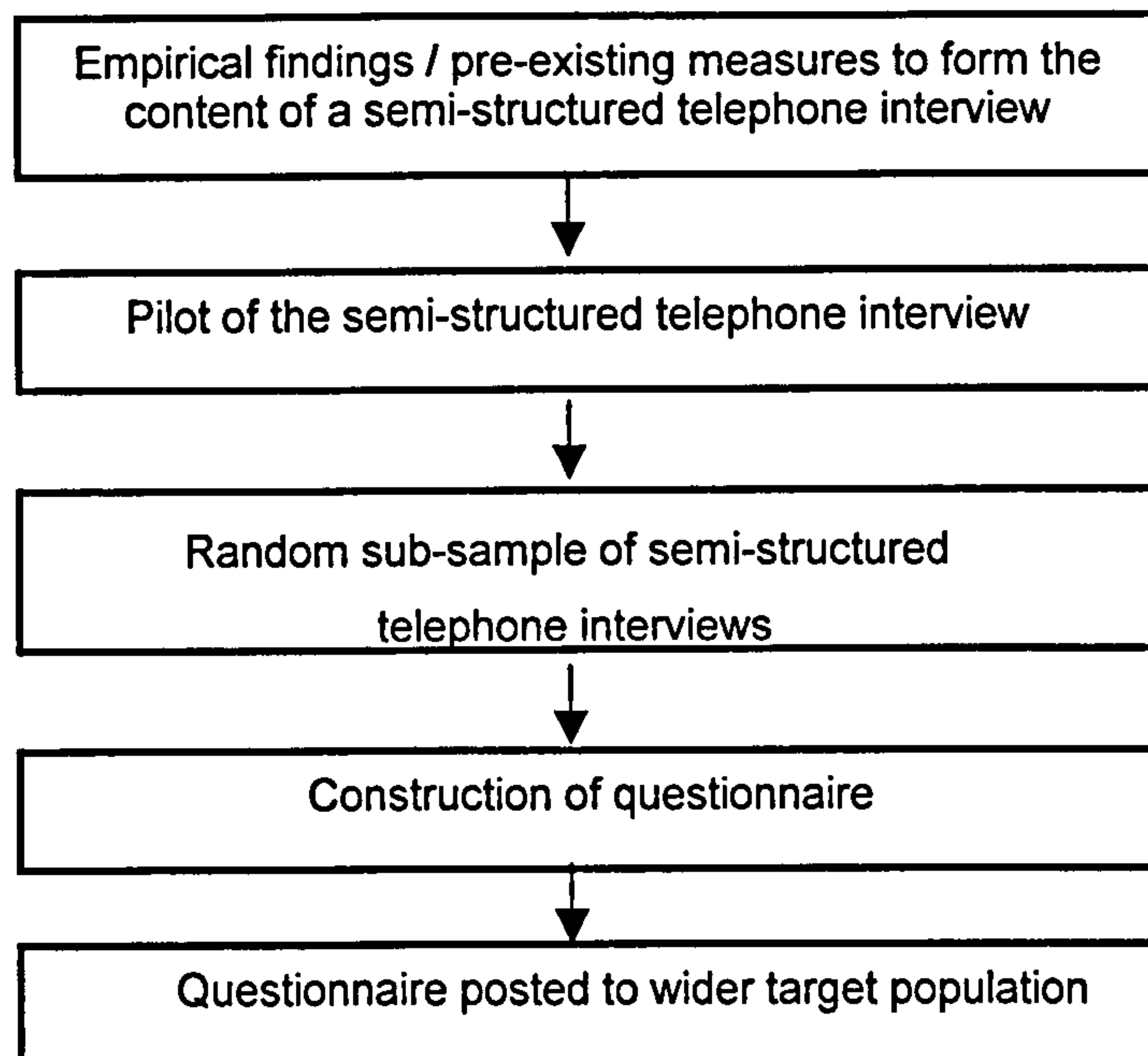
a) Participants

Participants included all families – including those had who dropped out of treatment – who attended one or more appointments at the CFC (with any professional team member), following it's relocation to the present premises, and who had since been discharged. Families still attending the CFC were excluded for reasons of potential sample / response bias such as creating fear of jeopardising access to services in the future. Families who had been sent appointments but had never attended were also excluded.

b) Design

A retrospective pilot postal questionnaire survey design was employed to meet the objectives of the study. Questionnaires were designed to reflect local interest by tailoring responses obtained from a number of semi-structured telephone interviews, which were initially developed from existing measures and empirical findings (see figure 1).

Figure 1.



The design attempts to minimise potential methodological difficulties and maximise user involvement by using a combination of approaches. A semi-structured telephone interview offers preliminary consultation with a random sample of service-users regarding what aspects of a C&FC they feel to be of most

importance, to then be included in the questionnaire and sent to the wider target population.

Use of a questionnaire as the predominant measure was chosen in order to minimise invasion of privacy and inconvenience to former CFC service-users.

c) Procedure

Identification of target sample

Details of all cases which had been opened and closed since the CFC had moved to its new premises, were obtained from the Trusts database (duration 18 months). Due to shortcomings in the quality of the data, it was also necessary to consult with individual team members regarding the status of many of the clinical cases (Appendix 1). A list was compiled and circulated to the team in order to further check for inappropriate contacts – such as families where the child may have died or been removed from the family home due to child protection issues.

Recruitment for the semi-structured telephone interview

20 families were randomly selected and sent a personalised introductory letter describing the study and asking them to participate (Appendix 2). A response slip was enclosed which could be returned by families who did not want to be involved. Parents were then contacted by telephone and asked to participate in the semi-structured telephone interview.

Recruitment for the postal questionnaire survey

Questionnaires were sent with a personalised covering letter and a stamped addressed envelope requesting that responses be returned within 6 weeks of receipt (to allow for summer holidays).

Development of measures

i) Semi-structured interview

A draft list of service factors supplied by existing measures, previous studies and research findings was circulated to the team for consultation (e.g. The Bath Child and Adolescent Psychology Service; Stallard, 1995; The Semi-Structured Telephone Interview; Potel et al., 2001). A range of options regarding the nature of the collection and analysis of data were discussed and agreed upon within the

context of the project's broader aims. For example, analysis of satisfaction ratings according to type of therapy received was discussed and rejected. It was agreed at this stage to gain an initial impression of parental users views regarding the importance of, and satisfaction with aspects of the service as opposed to a more detailed evaluation of the functioning of the team, thereby protecting anonymity of individual therapists and therapeutic approaches.

The semi- structured telephone interview was then piloted twice on a number of colleagues. Following the piloting procedure, a checklist was included at the beginning of the interview in order to ensure standardisation and coverage of important information (e.g. instruction, confidentiality and anonymity) and re-wording of several of the items.

ii) Questionnaire

Results of the semi-structured telephone interview were reviewed in terms of pre-determined criteria for inclusion or exclusion for the final questionnaire (Table 1).

Table 1. Inclusion and exclusion criteria for questionnaire items

Items to be retained	Items to be excluded	Items to be included
❖ 50% or more rate the item to be of "very" or "quite" importance	❖ 50% or more rate the item to be "not very" or "not at all" importance	❖ 25% or more suggest a factor not otherwise mentioned to be of "very" or "quite" importance

Two versions of the questionnaire were drafted up and presented to the team for consultation. In order to increase the expected response rate, it was decided to make the questionnaire anonymous so as to ensure confidentiality, particularly with respect to the high re-referral rates to the C&FC. However, parents were invited to provide their contact details in the event that they would like feedback of the survey's results. Due to reasons of cost and the initial pilot status of the project, it was decided that follow-up mailings would not be used despite acknowledgement that this may compromise response rates (e.g. Total Design Method; Dillman, 1978).

Given time restrictions and the pre-pilot of the semi-structured telephone interview, it was felt that additional piloting of the questionnaire beyond team consultation was unnecessary.

d) Measures

1. Semi-structured telephone interview (Appendix 4)

The interview consisted of four sections:

- ❖ Parental ratings of the importance of aspects of a C&FC service (15 items).
- ❖ Parental satisfaction with those aspects of the ***** C&FC (16 items).
- ❖ Preferred methods of feeding back views to the C&FC.
- ❖ Parental opinion of the C&FC's aims to elicit young service-users' views in the future.

The sequence of questions followed the course of a typical episode of care starting with the time prior to the first appointment and ending with questions about overall satisfaction as described by Potel et al (2001). Participants were first asked to rate the importance of all items before re-rating them in terms of satisfaction in order to avoid confusion and potential problems of social desirability. A 4-point scale running from "very satisfied" or "very important" to "not at all satisfied / important" was used in order to obtain the relativity of weightings as opposed to dichotomous satisfaction / dissatisfaction ratings. Participants were also prompted and given the opportunity to make comments on each item and more generally at the end of the interview.

2. Questionnaire (Appendix 5)

The final version of the questionnaire consisted of four sections. Questions 1 and 2 included 17 items to be rated twice in terms of importance and satisfaction using the same rating scale as used in the semi-structured telephone interview (see above).

Two items were added as determined by the criteria outlined in Table 1:

- ❖ Having information about the service prior to attending for the first appointment.

(42% highlighted this to be “very” or “quite important.” Comments made during the telephone interview suggested that many parents were uninformed about why they had been referred to the ***** C&FC and consequently what to expect at the first appointment).

❖ **Being seen as a family.**

(33% highlighted this to be “very” or “quite important”. Many comments indicated dissatisfaction and confusion at being seen separately by the therapist or as the main focus as opposed to their child).

Question 3 used a multiple choice response format in order to indicate preferred methods of feeding back views (e.g. comments box, questionnaire, user groups and telephone interview). Parents were asked to indicate their opinion regarding the service’s aim to consult with young service-users in the future using a forced choice response format (yes / no).

As highlighted within the questionnaire design literature, brightly coloured paper was used in order to increase response rate (e.g. Edwards et al., 2002). Space was also provided at the end for open-ended qualitative comments or suggestions (e.g. Stallard, 1995).

e) Ethical Issues

i) Anonymity and confidentiality

Responses were anonymous unless respondents offered their contact details for feedback of the results of the project. Details of families asked to participate in the study were kept confidential.

ii) Informed consent

The covering letter explained the purpose of the study, stating that participation was optional and non-participation would not affect the availability of any future treatment.

iii) Debriefing

The covering letter invited participants to contact the researcher to ask questions as a result of being contacted and asked to participate, in addition to being given

the opportunity to disclose their details in the event that they would like to receive feedback of the results

iv) Accountability

The C&FC team and service manager were consulted throughout the process, particularly in decisions regarding the type, nature and intended use of the data collected.

Formal ethical approval was not required since the project was undertaken under the departments' audit activities.

RESULTS

90 families met the inclusion criteria for the study. Following consultation with the team, three families were excluded due to child protection issues. Of the remaining 87 families, 20 were randomly selected and invited to participate in the semi-structured interview. Questionnaires were then sent to the remaining 67 families.

Semi-structured interview

Of the 20 families written to, one returned the reply slip saying they did not want to participate, three did not wish to participate when contacted, three families could not be contacted either because they had moved or the telephone number was no longer obtainable. One could not recall attending the CFC.

Twelve families (60%) participated in the semi-structured telephone interviews. Results of the semi-structured interview can be found in Appendix 6.

Postal survey

Questionnaires were sent to the remaining 67 families. 26 were returned (39%) with 11 families requesting feedback from the project.

Interview and postal survey

A response rate of 44% (38 families) was obtained using a combination of telephone interviews and questionnaires. The following results are inclusive of data collected from both sources.

Questions 1 & 2:

- 1. What aspects of a C&FC do parents regard to be of most important?**
- 2. How satisfied are parents with those aspects of the C&FC?**

Responses to questions 1 & 2 are presented adjacent to each other in order to meaningfully contextualise the relative weighting of satisfaction in terms of the level of importance attached to each item. For example, whilst satisfaction with a certain item may be high, this may be of little real significance if the item in question is regarded to be of little importance.

Items have additionally been ranked according to the weighting given to each item in terms of importance / satisfaction in order to enable easy comparison between ratings. All items rated as “very important” or “very satisfactory” by 50% or more of the sample are highlighted in bold type to indicate that these were considered to be of most importance by the majority of service-users. Items are grouped under the following service-related functions / processes: accessibility, (Tables A1&2) facilities, (Tables B1&2) process (Tables C1&2) and outcome (Table D1).

A) Accessibility

In terms of accessibility, Table A1 overleaf indicates that waiting time for the first appointment is clearly seen to be the most important service factor, with availability of help between appointments also seen to be of significant importance to the majority of respondents. The geographical and physical accessibility of the building and length of each appointment were considered to be “quite” important by the majority.

Verbatim comments reinforced the need for service flexibility and emphasised the importance of being able to contact the service and obtain professional advice in cases of emergency and / or between appointments.

Accessibility

A1) Importance (%)

	Very important	Quite important	Not very important	Not at all important
Wait time for first appointment	78	19	3	0
Availability of help / contact between appointment	56	39	8	0
Convenience of appointment time	44	42	22	0
Length of time between appointments	42	39	11	0
Accessibility of building	36	19	3	0
Length of appointment	33	53	17	0

A2) Satisfaction (%)

	Very satisfied	Quite satisfied	Not very satisfied	Not at all satisfied
Accessibility of building	56	33	11	0
Length of appointment	51	43	6	0
Convenience of appointment time	47	47	6	0
Availability of help / contact between appointment*	29*	29*	24*	10
Wait time for first appointment	33	28	19	19
Wait time between appointments**	27**	52**	16**	0

* 3 missing values (8%) ** 2 missing values (5%)

Highlighted figures indicate that the accessibility of the building and length of each appointment (typically an hour) to be most satisfactory by the majority of respondents. This suggests a discrepancy between ratings of importance and satisfaction, with the two most satisfactory factors having been rated as the least important and conversely, the two most important factors having been rated as the least satisfactory. Indeed, 34% and 38% were dissatisfied with the availability of help and waiting time for the first appointment respectively.

Verbatim comments highlighted dissatisfaction with length of waiting time, time of appointments (working hours only) length of time between appointments (often up

to four weeks) and poor communication between appointments (e.g. unable to contact the therapist, calls not being returned). Positive comments were made in relation to the geographical accessibility of the building compared to the old location of the service, particularly by those who used public transport.

B) Facilities

B1) Importance (%)

	Very important	Quite important	Not very important	Not at all important
Car Parking	42	39	19	0
Reception / waiting area	28	47	25	0
Appointment rooms	22	61	17	0

Whilst none of the facilities were considered to be very important by the majority of respondents, car parking was regarded to be more important than the physical and environmental aspects of the building. Verbatim comments however revealed a range of views, with one mother considering the reception area to be of importance in providing an area for the children to play whilst waiting for appointments. Good car parking facilities were also considered to be crucial, particularly to those with more than one child / buggies etc.

B2) Satisfaction (%)

	Very satisfied	Quite satisfied	Not very satisfied	Not at all satisfied
Appointment rooms	77	23	0	0
Car Parking*	74*	21*	0*	0*
Reception / waiting area	72	18	0	0

* 2 missing values (5%)

Despite not being considered to be of significant importance, table B2 indicates that the majority of respondents were very satisfied with the facilities of the C&FC with no dissatisfied cases. Parents commented positively on the “modern” feeling of the building, and “child friendly” appointment rooms, with toys and activities to keep them occupied during appointments.

C) Process

Table C1 indicates that process issues were generally considered to be very important. Quality of the therapeutic relationship and interaction (e.g. feeling understood, receiving advice) were unanimously rated as “very important” with only 3% rating ease with which one can talk to the therapist as “quite important”. Ratings also suggest that the majority of parents value being seen as a family (i.e. appointments where the whole family is invited as opposed to separate appointments with the child / parents).

Knowing what to expect from the service, particularly the first appointment, was considered to be of lesser importance (“quite important”) compared to the therapeutic relationship and receiving advice by the majority of respondents.

C1) Importance (%)

	Very important	Quite important	Not very important	Not at all important
Feeling understood by therapist	100	0	0	0
Receiving advice from therapist	100	0	0	0
Ease with which can talk to therapist	97	3	0	0
Being seen as a family	54	22	13	0
Knowing what to expect from first appointment	36	58	6	0
Information about the service before first appointment	13	79	8	0

C2) Satisfaction (%)

	Very satisfied	Quite satisfied	Not very satisfied	Not at all satisfied
Ease with which can talk to therapist	72	19	6	3
Being seen as a family	71	29	0	0
Feeling understood by therapist	58	19	17	6
Receiving advice from therapist	54	38	4	4
Information about the service before first appointment	17	42	37	8
Knowing what to expect from first appointment	11	56	31	2

Table C2 suggests that the majority of respondents were very satisfied with those aspects identified as being of most importance. However, the wider range of responses indicates higher levels of dissatisfaction with process issues compared to other service factors, with 32% expressing some degree of dissatisfaction the therapeutic relationship (ease with which can talk to the therapist and feeling understood), the advice received (8%) knowing what to expect from the first appointment (43%) and the service more generally (33%).

Verbatim comments of those who expressed dissatisfaction included criticisms of the individual style of the therapist (e.g. feeling rushed, not listened to). Others reported disappointment with the lack of / quality of advice and confusion over attending appointments without their child. Two parents who had been referred by their general practitioner were unsure what to expect from the first appointment and consequently found it difficult to prepare / explain to their children.

D) Outcome

D1) Importance (%)

	Very important	Quite important	Not very important	Not at all important
Improvement in the problem	89	11	0	0

The majority of respondents (89%) rated improvement in the referred problem as “very important.”

D2) Satisfaction (%)

	Very satisfied	Quite satisfied	Not very satisfied	Not at all satisfied
Total number of appointments	42	36	19	3
Improvement in the problem**	31	38	17	14

Table D2 however, suggests that whilst the majority of respondents reported some satisfaction with improvement in the problem, a considerable percentage reported some degree of dissatisfaction (31%). Verbatim comments suggested dissatisfaction with the lack of practical advice and the total number of appointment sessions (e.g. 22%).

Satisfied respondents comments reflected a wide range of outcomes. A number of parents reported a positive and significant improvement in their child's / children's problem(s). Some suggested that sessions at the C&FC had helped, but that the child's problems returned after they had been discharged from the service. Other parents reported that although their child's behaviour did not improve, the therapist helped them understand the difficulties and "put things into perspective." A couple of parents stated that they chose to drop out of treatment as they could not perceive any benefits.

E) Overall Satisfaction

	Very	Quite	Not very	Not at all
Satisfaction	37	40	17	6

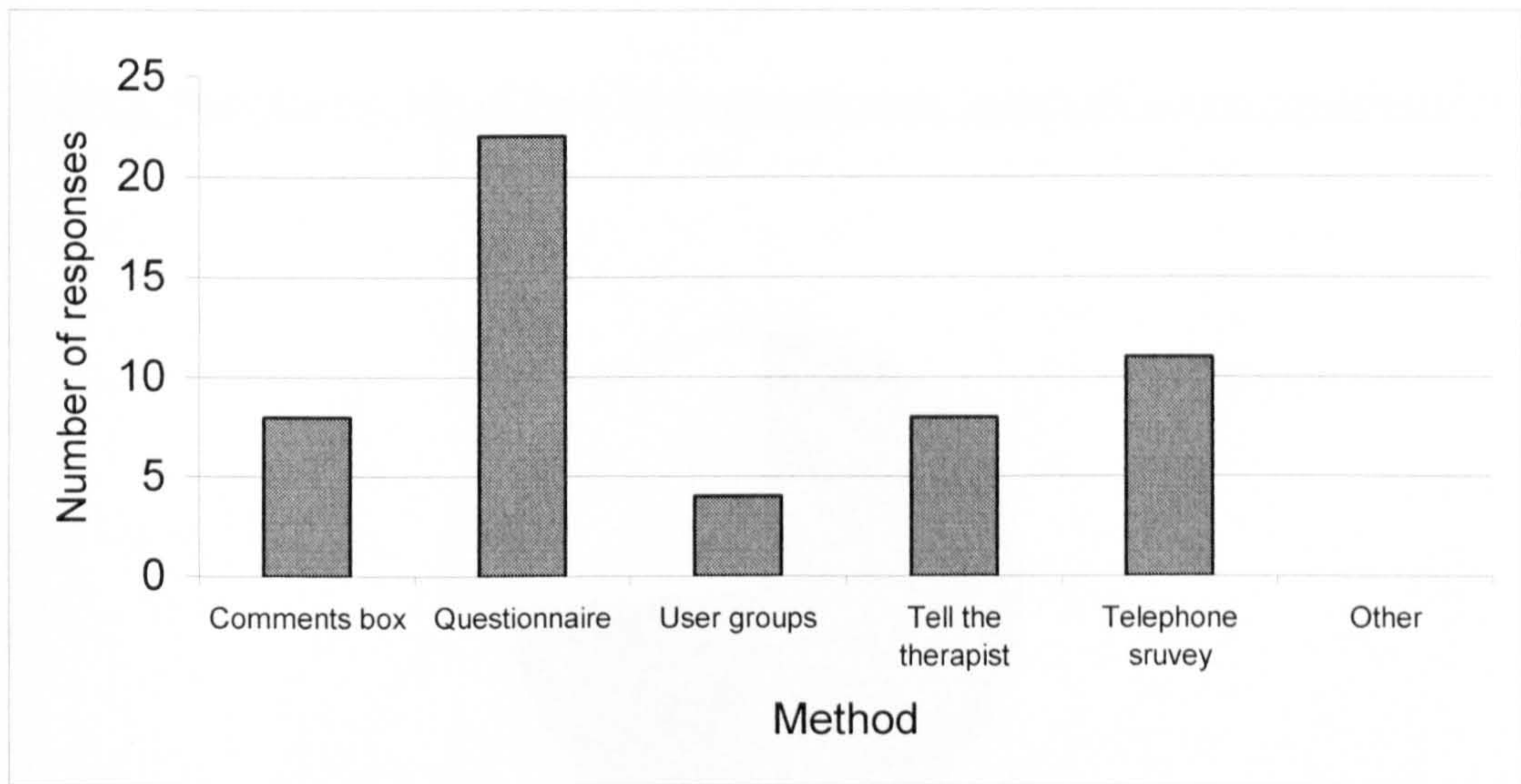
Table E suggests the majority of respondents expressed some degree of satisfaction with the service they received at the **** C&FC (77%), compare to 23% were dissatisfied to some degree.

Participants were encouraged to elaborate upon their ratings and / or particular questionnaire items using the space for open-ended comments. Verbatim responses are listed in Appendix 7.

Question 3: Preferred methods of user involvement

Parents were asked to indicate their preferred method of consulting with the service by ticking one or more options including a comments box, questionnaire, user group meetings, telling the therapist, a telephone survey or other. A multiple response analysis (Graph 1) suggests that the some parents opted for more than one option (38 families, 53 responses), but the predominantly preferred method was a questionnaire, as opposed to the range of alternative methods.

Graph 1. Parents preferred method of feeding back their views to the C&FC

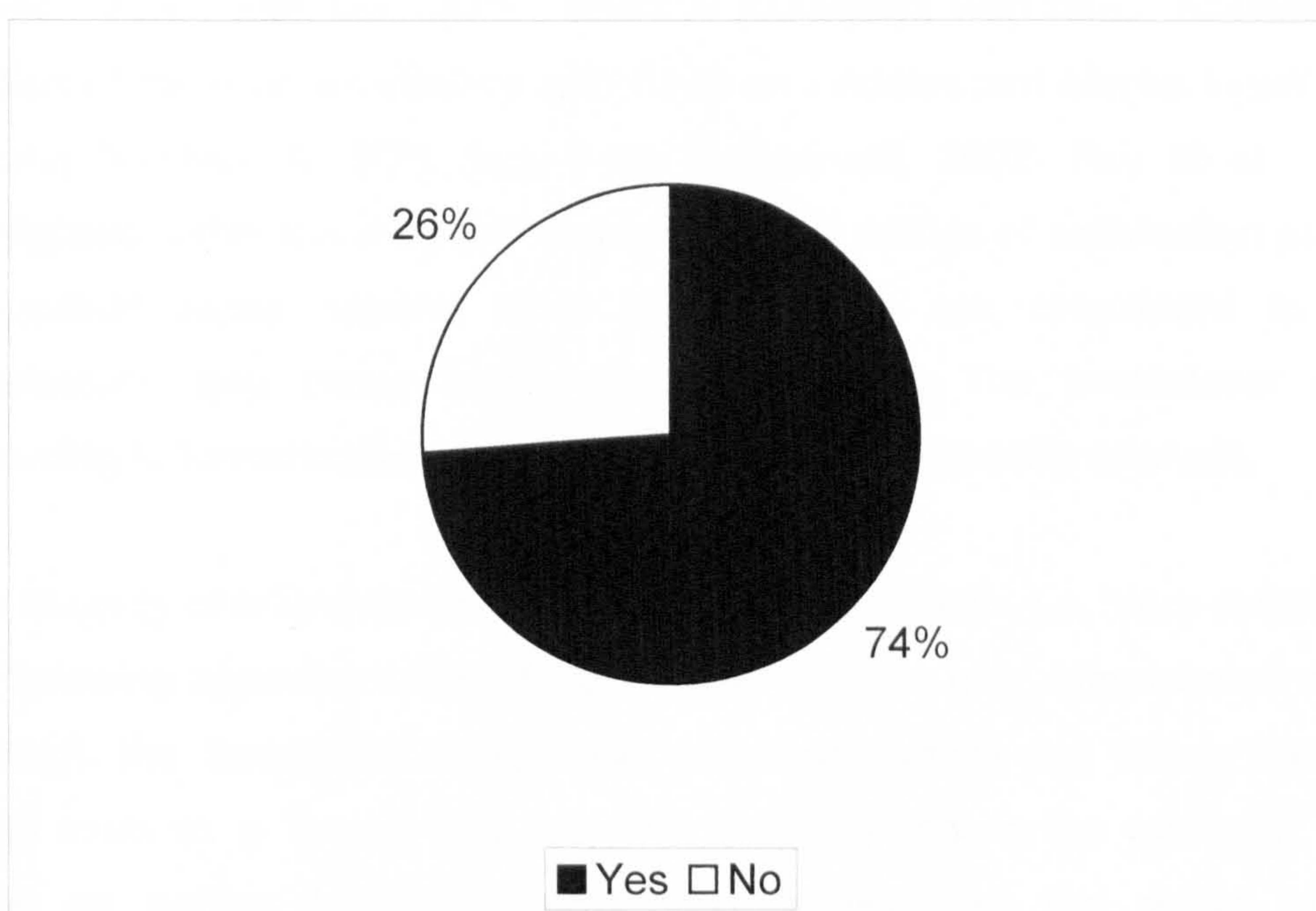


Written and verbatim comments indicated that many parents appreciated having been consulted about their views regarding the service they received, both by questionnaire and the telephone survey. Participants in the telephone survey also positively reflected upon the opportunity to comment freely and reflect upon their personal experiences in a semi-structured format as opposed to forced-choice response format. A number of respondents stated however, that although preferable, telephone interviews may be inconvenient and impractical due to child-care commitments. Others stated that they would be likely to throw a questionnaire away, or be unlikely to make the time to complete the questionnaire at home or comments card at the service.

Question 4: Parental opinion of the C&FC aims to elicit young service-users' views.

Parents were asked whether they would object to their child / children being asked about their views and experiences of attending the C&FC using a forced-choice format (yes or no response). Graph 2 indicates that the majority of parents' (74%) would be in favour of their child contributing to a model of service user involvement in order to evaluate current service provision and inform service development in the future. 26% reported that they would not want their child / children to be consulted by the C&FC.

Graph 2. Parental opinion of the C&FC's future aims to include young service-users' views



Written and verbatim comments supported findings that the majority of parents would positively welcome the involvement of their child in the evaluation of the C&FC. However, of the 26% who were opposed to the idea, comments suggested that this was because they considered their child / children were too young to be consulted and / or because their child may have been unaware of why they were attending the C&FC. Other comments suggested that consultation with children may not always be appropriate in cases where the majority of work was undertaken with the parents (e.g. parenting interventions).

A summary of findings was sent to all families who requested feedback (Appendix 8).

DISCUSSION

Summary of findings

The 44% response rate using a combination of telephone interviews and postal questionnaires is slightly lower than those typically achieved by published parental satisfaction surveys of Child and Family NHS services (e.g. 50-60%; Stallard & Chadwick, 1991). Furthermore, the final response rate was clearly mediated by the difference in response rates (21%) obtained by the two methods. A 39% response rate using a postal questionnaire design is clearly significantly poor compared to average figures given above.

Overall, the majority of parents (77%) reported some degree of overall satisfaction (“quite” “very”) with the C&FC, which is consistent with rates reported by other studies of parental satisfaction with Child and Adolescent Mental Health Services ranging between 60-90% (e.g. Firth & Bucknall, 2002; Rey et al., 1999). As highlighted within the literature however, global ratings of satisfaction provide little information about aspects of a service which are considered to be “very satisfactory” and those which require attention. The breakdown of ratings according to function allows for a more detailed and specific analysis.

The majority of respondents were most highly satisfied – i.e. “very satisfied” – with the following aspects of the C&FC: service facilities (e.g. appointment rooms, car parking), the therapeutic relationship (ease with which can talk to the therapist, being seen as a family) and outcome (improvement in the problem). However, these or similar service aspects also represented the areas of greatest dissatisfaction – i.e. aspects of the therapeutic relationship (feeling understood by the therapist and receiving advice) outcome (improvement in the problem) and accessibility (waiting time for first appointment, availability of help / contact with the service between appointments).

In terms of aspects of the C&FC that are most highly valued (i.e. importance), the results echo the empirical literature in highlighting those aspects which have been found to influence satisfaction with child and family services generally. For example, waiting time for the first appointment (Stallard, 1995), the therapeutic relationship and receiving practical advice (Rey et al., 1999). Interestingly, aspects

usually identified by services as priorities (e.g. facilities and accessibility) were rated to be of least importance by the majority of local parents.

Unfortunately, lack of additional demographic data (due to pilot status of the project) prevents further analysis of factors / variables that may be related to dissatisfaction (e.g. severity of diagnosis, prognosis; Gowers & Kushlick, 1992). However, discrepancies between ratings of importance of, and satisfaction with, aspects of the service may serve to highlight those areas of greatest dissatisfaction due to perceived needs and expectations having not been met. The widest range of responses (“very” to “not at all satisfied”) were given to those aspects which were rated to be “very important” by the majority of respondents. These included waiting time for the first appointment, aspects of the therapeutic relationship (e.g. feeling understood), receiving advice and outcome. Interestingly, many comments suggested that satisfaction with outcome did not necessarily relate to clinical improvement in the problem, but more to do with the amount and quality of the advice received. The greatest discrepancy between ratings of importance and satisfaction occurred in relation to service facilities (car parking, appointment rooms), which were generally rated to be “quite” or “not very” important, but received the highest satisfaction ratings.

In terms of preferred methods of feeding back to the C&FC, most parents opted for use of a questionnaire and were, in the majority, in favour of the C&FC's hopes to include young service-users' views in the evaluation of service quality and provision in the future.

Clinical implications

Although limitations in the nature of the data disallows for further analysis of factors or variables that may affect satisfaction and / or dissatisfaction, the study has highlighted a number of important themes for clinical practice. Discrepancies between ratings of importance and satisfaction - in particular the importance attached to receiving advice / help and contact with the service between appointments - suggests a perceived need for a more flexible and accessible “crisis response” facility, as opposed to a service that is available between the hours of 9-5pm by appointment only. This may be suggestive of the complexity or severity of mental health / behavioural problems presented by the children who

attend the clinic, or reflect a need for containment and support required by parents who are striving to support their child within the home environment. Receiving practical advice was clearly of importance to the majority of parents, which may possibly relate more strongly to satisfaction with outcome as opposed to clinical improvement in the problem. Nevertheless, the findings suggest that an additional educational and / or information based component to current practice may be beneficial and greatly received by parents.

In terms of the discrepancies between ratings of importance and satisfaction, it may be argued that some degree of dissatisfaction will be inevitable according to the suitability of the match between families, the type of problem, type of therapy and therapist style. At present, the ***** C&FC is typical of CAMHS nationally, in that choice and type of care is frequently determined by the preference of the clinician and by the resources of the local service (Harrington, Kerfoot & Verduyn, 1999). Psychodynamic approaches for example tend to work towards increasing insight and understanding as opposed to practical advice or medication provided by the psychiatrist. Approaches also vary in execution, with family therapists tending to offer monthly appointments with the whole family as opposed to weekly individual sessions with the play therapist. Findings suggested some confusion and a lack of clarity regarding the reasons and rationale for why parents may be seen separately (i.e. parenting interventions) or together with their children, provides useful information for the clinician to check for parents' understandings of the process and rationale for treatment.

Service implications

The majority of respondents expressed satisfaction with the new location of the service and it's facilities, with few suggestions being made for improvements. A major area of dissatisfaction however concerned waiting time for treatment, availability of help between appointments, having information about the service prior to and knowing what to expect from the first appointment which suggest a number of practical areas for improvement. For example, inclusion of an information sheet / brochure with the first appointment letter, changes to the management of incoming referrals / waiting list procedures (e.g. assessment to occur soon after referral in order to determine whether treatment is appropriate

and prioritise urgent cases), closer liaison and working relations with referrers, and the development a flexible consultative advice service.

In addition to highlighting a number of potential improvements to the service, initial findings indicate that parent's would prefer to feedback their views via a questionnaire. In terms of informing the development of an effective mechanism of user-involvement and consultation however, the results highlight the potential danger of a series of "one-off" exercises or surveys as opposed to the intended ongoing active involvement of users on a regular and systematic basis. Despite the current questionnaire having been designed and tailored to reflect local opinion, surveys tend to be initiated by services rather than users. This may be an area for further development by the C&FC, particularly perhaps as a result of the future inclusion of children in this process. Indeed, although difficult to obtain a representative view of parents and children (Harrington et al., 1999), the pilot study has highlighted an awareness of the different techniques that can be used to access views, in addition to some of the numerous advantages and limitations that accompany user-involvement initiatives. In terms of accessing young people's views, a number of studies have highlighted the advantages of using multi-modal methods focus when obtaining information from young people (e.g. Jacobson, Richardson, Parry-Langdon & Donovan, 2001).

Limitations of the study and recommendations for future research

The low response rate – particularly from the postal survey - is likely to have affected the validity of the results, particularly in light of previous research which suggests that higher levels of dissatisfaction are found amongst non-responders (e.g. Stallard, 1995). It is possible however, that the poor response rate could have partly been due to the characteristics of the target population, defined and identified for the purposes of an initial pilot study as opposed to future population of interest. For instance, it is recommended that service-users' are consulted between 4-6 weeks after discharge, as opposed to 18 months. This may have also biased current findings, as participants may not have been able to accurately remember contact with the service, particularly if they only attended one session. Furthermore, although strategies were used to increase response rate (e.g. anonymity) this disallowed gathering additional demographic data which could

have useful in interpreting the results (e.g. characteristics of respondents) and increase generalisability.

In terms of contributing to the audit process, service evaluation and future service development, the questionnaire could be amended and further developed to include collection of additional demographic information – e.g. type of referred problem, number of appointments – in order to allow for a more detailed analysis and investigation of variables associated with dissatisfaction, non-attendance, drop-out and other factors which affect the running and cost of service provision and delivery. It may also be used to re-audit parental satisfaction following implementation of improvements suggested by the present findings.

In the event that the C&FC adopt the questionnaire as a method for consulting with service users in the future, several adaptations could be made in order to enhance the robustness of the method for its intended use. For example, response rates might be increased in future by using a personalised identification number (Stallard, 1992), coloured ink, recorded delivery and follow up letters with a second copy of the questionnaire (Edwards et al., 2002). Despite a higher response rate and more qualitative comments using semi-structured telephone interviews, these proved costly in terms of time and resources, making them a potentially unviable method of involving service-users on an ongoing basis. However, more space could be made in order to encourage open comment and suggestions.

CONCLUSIONS

The project's findings has encouraged the C&FC to consider and act upon ways in which it might consult with and involve service-users of all ages in the future. The development and use of a questionnaire custom-made for its intended population has helped highlight those areas considered to be of most importance by local users. In doing so, the project has hopefully embodied and supported the philosophical principles underpinning the user involvement movement as opposed to imposing the services' interests and requirements to involve service users' in the auditing of service quality and provision. Furthermore, an initial baseline measure of satisfaction and / or dissatisfaction with aspects of the ***** C&FC has highlighted a number of areas and suggestions for improvement, contributing to service development and amenable to future audit.

REFERENCES

- Edwards, P., Roberts, I., Clarke, M., DiGuseppi, C., Pratap, S., Wentz, R. & Kwan, I. (2002). Increasing response rates to postal questionnaires: systematic review. British Medical Journal, 324, 1183-1185.
- Firth, C. & Bucknall, A. (2002). Evaluation of the Client Satisfaction Questionnaire for use on primary care settings. Clinical Psychology Forum, 12, 17-20.
- Gowers, S. & Kushlick, A. (1992). Customer satisfaction in adolescent psychiatry. Journal of Mental Health, 1, 353-362.
- Harkness, P. & Lake, V. (1998). Focus on clinical audit in Child and Adolescent Mental Health Services. College Research Unit, Royal College of Psychiatrists. London: Gaskell.
- Helinger, C., Sonnichsen, S. & Brannan, A. (1996). Parent satisfaction with children's mental health services in a children's mental health managed care demonstration. Journal of Mental Health Administration, 23, 69-87.
- Jacobson, L., Richardson, G., Parry-Langdon, N. & Donovan, C. (2001). How do teenagers and primary healthcare providers view each other? An overview of key themes. British Journal of General Practice, 51, 811-816.
- Jacobson, L., Mellanby, A., Donovan, C., Taylor, B. & Tripp, J. (2000). Teenagers' views on general practice consultations and other medical advice. Family Practice, 12, 156-158.
- Kelson, M. (1996). User Involvement in clinical audit: a review of developments and issues of good practice. Journal of Evaluation in Clinical Practice, 2, 97-109.
- Kopec-Schrader, E., Rey, J., Plapp J. & Beumont, P. (1994). Parental evaluation of treatment in an adolescent service. Journal of Adolescence, 17, 239-249.
- Lambert, W., Salzer, M. & Bickman, L. (1998). Clinical outcome, consumer satisfaction and ad hoc ratings of improvement in children's mental health. Journal of Consulting and Clinical Psychology, 66, 270-279.
- Lelliot, P., Beevor, A., Hogman, G., Hyslop, J., Lathlean, J. & Ward, M. (2001). Carers' and Users' Expectations of Services – User version (CUES-U): a new instrument to measure the experience of users of mental health services. British Journal of Psychiatry, 179, 67-72.
- Moore, K. & Kenning, M. (1996). Assessing client satisfaction in a psychology training clinic. Journal of Mental Health Administration, 23, 180-195.
- Moules, T. (2002). A case for involving children / young people in clinical audit. British Journal of Clinical Governance, 7, 86-91.

Potel, D., Henderson, F. & Berger, M. (2001). Outcome measures in clinical practice: The use of a semi-structured telephone interview in eliciting user feedback following contact with a primary care child clinical psychology service. (pp. 15-19). Leicester: British Psychological Society.

Rey, J., Plapp, J. & Simpson, P. (1999). Parental satisfaction and outcome: a 4-year study in a child and adolescent mental health service. Australian and New Zealand Journal of Psychiatry, 33, 22-28.

Shapiro, J., Welker, C. & Jacobson, B. (1997). The Youth Satisfaction Questionnaire: development, construct and validation. Journal of Clinical Child Psychology, 26, 87-98.

Stallard, P. (1995). Parental satisfaction with intervention: Differences between respondents and non-respondents to a postal questionnaire. British Journal of Clinical Psychology, 34, 397-405.

Telford, R., Beverley, C., Cooper, J. & Boote, J. (2002). Consumer involvement in health research: fact or fiction? British Journal of Clinical Governance, 7, 92-103.

Wolpert, M., Rowland, A., Drinkwater, J. & Maguire, P. (2001). Promoting user participation in clinical psychology services for children and young people: How to hear the voice of the child. SIG Position Paper. (pp. 1-14). Leicester: British Psychological Society.

APPENDIX 1

MEMORANDUM

To: West / East Team

From: [REDACTED]

Date: 28.5.02

As part of the pilot audit of customer satisfaction [REDACTED] and I are undertaking a questionnaire which will be sent out to families who have had contact with the Child & Family Clinic since it moved to its present location, but who have since been discharged.

Because I have not been able to access which cases are open/closed from [REDACTED], I have gone through the referral directory and listed all the clients/families that have been allocated to individual therapists. Would people please spare a couple of minutes to run through the list and tick those clients whose files are currently open or have been seen within the last 6 months.

Some clients may have been included under a co-workers name if you work jointly on a case, but please feel free to add any other names I may have missed. It is likely that I may have misspelt some names.

I hope to collect completed forms by Friday, 7th June.

Many Thanks.

[REDACTED]
Trainee Clinical Psychologist

APPENDIX 2

Personalised invitation to participate in a semi-structured interview

PRIVATE AND CONFIDENTIAL

Dear.....

I am on the Doctorate of Clinical Psychology course based at Hertfordshire University and currently working with the ***** ***** until October 2002. I am writing to ask for your participation in a short telephone survey regarding your views and comments of the ***** ***** service you and your family recently attended.

Why a telephone questionnaire?

The Child and Family Clinic is interested to learn about your family's opinions about what you considered to be important when attending the clinic. The Clinic would also like to think about how satisfied you were with the service and any suggestions for improvements, particularly ways in which you would have liked to feedback your views to the service.

The telephone survey will allow families who have used the clinic to feedback their comments in an anonymous but open manner. Your responses will be used to help format a written questionnaire which will then be posted to other families in order to gain their opinions.

What will it involve?

The telephone survey consists of a number of questions surrounding your experience of attending the Child and Family Clinic. You will be asked about various aspects of the service, how satisfied you were and any comments or suggestions for improvement. The survey will take approximately 20 minutes.

Why have I been contacted?

In order for the questionnaire to reflect local families' experiences, your name and contact details were randomly selected from a list of families who have had contact with the service within the last two years. Your participation and comments regarding your experience of the Child and Family Clinic would be greatly valued in order to help develop better communication between families and the Clinic in the future. However, if you would prefer not to be contacted, please return the reply slip below to the address shown at the top of the page by 5th July 2002. If I have not heard from you by then, I shall assume you are happy to be involved and will contact you shortly by telephone. If you have any questions about the survey or participating in it, please contact me on the number above and I'll be happy to answer any queries.

Many thanks in advance for your help and cooperation

Yours sincerely

Trainee Clinical Psychologist

To Ms *****

I do not wish to participate in the above telephone questionnaire. Please do not contact me.

Mr / Mrs

Referred child's name.....

APPENDIX 3
Covering letter sent with questionnaires

Private and Confidential

Dear.....,

I am on the Doctorate of Clinical Psychology course based at Hatfield University and currently working with the ***** Child and Family Clinic until October 2002. I am writing to ask for your participation in a short questionnaire regarding your views and comments of the ***** Child and Family Clinic service you and your family recently attended.

Why a questionnaire?

The Child and Family Clinic is interested to learn about your family's opinions about what you considered to be important when attending the clinic. The Clinic would also like to think about how satisfied you were with the service and any suggestions for improvements, particularly ways in which you would have liked to feedback your views to the service.

The questionnaire will allow families who have used the clinic to feedback their comments in a **confidential** but open manner. Your responses will be **anonymously** incorporated into a written report and presented by myself to the service manager and ***** Child and Family Clinic team in order to promote positive developments for the future.

What does it involve?

The questionnaire consists of a number of statements about your experience of attending the Child and Family Clinic. You are asked your opinions about various aspects of the service, how important you feel them to be and how satisfied you were, by ticking your responses on a rating scale between 1 (very important / satisfied) to 4 (not at all important / satisfied.) The questionnaire will take approximately 10 minutes to complete.

Why have I been contacted?

Your name and contact details have been selected from a list of families who have had contact with the service within the last two years. Your participation and comments regarding your experience of the Child and Family Clinic would be greatly valued in order to help develop better communication between families and the Clinic in the future. Please return the completed questionnaire in the stamped addressed envelope by **23rd August 2002**. If you have any questions or additional comments about the questionnaire, please contact me on the number above and I'll be happy to answer any queries.

Many thanks for your help and cooperation.

Yours sincerely

Trainee Clinical Psychologist

APPENDIX 4
Semi-structured telephone interview

Introduction

- ___ Name
- ___ Title (*trainee clinical psychologist*)
- ___ Service (****** C&FC*)
- ___ Reason for phone call (*follow up to letter - telephone interview*)
- ___ Consent to participate
- ___ Expected time to complete (*20 minutes*)
- ___ Convenient time to call (*if not now, arrange a convenient time to call back*)

Information

- ___ Purpose of survey and target population
- ___ Confidentiality
- ___ Anonymity
- ___ Questions

Instructions

"I would now like to ask what aspects of a Child and Family Service you think are important. I am going to read out a number of issues and would like you to rate how important you consider this to be in order to be able to provide a good service. You have 4 options, ranging from 1 to 4. It may be handy if you have a pen within reach to jot these down. 1 indicates that you consider the factor to be very important, 2 indicates that it is quite important, 3 equals not very important and 4 means that you consider it to be of no importance at all. So, for example, if I asked you how important you considered car parking arrangements to be to a C&FC, what would your rating be? ----- Indicating that you consider car parking to beimportant? Good, I shall now read out the items and for each ask how important you rate the following to be:

SERVICE FACTORS**IMPORTANCE**

Very Quite Not Very Not at all

	(1)	(2)	(3)	(4)
Length of time waiting for first appointment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Knowing what to expect from the first appointment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accessibility of the building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Car parking facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reception / waiting area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of appointment rooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ease with which you and your family could talk to the therapist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feeling problems and difficulties were understood by the therapist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Convenient appointment times	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Length of each appointment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Amount of time between appointments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of help / contact between appointments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total number of assessment / treatment sessions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improvement in the problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feeling that your views / concerns are heard / listened to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*I would now like to ask you to rate the same items, but this time according to how satisfied you actually were with these aspects of the service when you and your family attended the ***** Child and Family Clinic. The ratings remain the same – 1 = very satisfied, 2 = quite satisfied, 3 = not very and 4 = not at all satisfied. I'd appreciate any comments you have on each aspect or suggestions for how you think this could be improved. Again, there are no right or wrong responses and all your answers shall remain confidential.*

SERVICE FACTORS

SATISFACTION

	Very (1)	Quite (2)	Not Very (3)	Not at all (4)
Length of time waiting for first appointment <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Knowing what to expect from the first appointment <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accessibility of the building <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Car parking facilities <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reception / waiting area <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of appointment rooms <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ease with which you and your family could talk to the therapist <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feeling problems and difficulties were understood by the therapist <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SERVICE FACTORS**SATISFACTION**

	Very (1)	Quite (2)	Not Very (3)	Not at all (4)
Convenient appointment times <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Length of each appointment session <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Length of time between appointments <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of help / contact between appointments <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total number of assessment / treatment sessions <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improvement in the problem <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feeling that your views / concerns are heard / listened to <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall, how satisfied were you with the service you received? <u>Comments:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you had to attend the clinic again, how would you like to feedback your comments to service?

Comments box

Questionnaire

Meetings

Tell the therapist

Telephone survey

Other
.....

The C&FC is also interested in gaining the views of the children and teenagers who attend the service. Do you think your child would be able or interested in filling out a questionnaire if we sent one in the future?

YES

NO

Finally, is there anything else you would like to add or ask?

Thank you & closure

APPENDIX 5

***** Child and Family Clinic Questionnaire

The ***** Child and Family Clinic would like to know your views about what you think are the most important aspects of a child and family service.

Instructions

You will be asked to rate the following statements twice. Please rate the first set of statements according to how important you feel they contribute to a good service (e.g. what you would expect from a "good" service). You will then be asked overleaf to rate the same statements again, but this time, asking you to rate how satisfied you actually were with each when you attended the ***** Child and family Clinic. Tick the box (1=very important to 4=not at all important) that you mostly agree with.

	IMPORTANCE			
<u>A. Importance of service Factors</u>	Very (1)	Quite (2)	Not Very (3)	Not at all (4)
1. Length of time on the waiting list for first Appointment:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Knowing what to expect from the first Appointment:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Receiving information about the service before attending first appointment:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Accessibility of the building:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Car parking facilities:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Reception / waiting area:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Quality of appointment rooms:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Being seen as a family:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Ease with which you and your family are able to talk to a therapist:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Feeling your problems and concerns are understood by a therapist:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Receiving advice from the therapist:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Convenient appointment times:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Length of <u>each</u> appointment:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Amount of time waiting <u>between</u> appointments:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Availability of help / contact with the service between appointments:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Total number of appointments:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Improvement in the problem:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This time, please rate the following statements according to how satisfied you actually were when you attended the ***** Child and Family Service. Again, responses range from 1 (very satisfied) to 4 (not at all satisfied)

B. Satisfaction ratings

SATISFACTION

	Very (1)	Quite (2)	Not Very (3)	Not at all (4)
1. Length of time on the waiting list for first appointment:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Knowing what to expect from the first appointment:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Receiving information about the service before attending the first appointment:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Accessibility of the building:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Car parking facilities:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Reception / waiting area:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Quality of appointment rooms:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Being seen as a family:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Ease with which you and your family felt able to talk to the therapist:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Feeling your problems and concerns were understood by the therapist:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Receiving advice from the therapist:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Convenient appointment times:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Length of <u>each</u> appointment:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Amount of time waiting <u>between</u> appointments:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Availability of help / contact with the service between appointments:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Total number of appointments:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Improvement in the problem:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. Overall, how satisfied were you with the service you received?

3. Have you any comments or suggestions you would like to add?

4. If you had to attend the clinic again, how would you like to feedback your comments to service?

Comments box

Questionnaire

User group meetings

Tell the therapist

Telephone survey

Other

5. Do you think your child would be able or interested in filling out a questionnaire if we sent one in the future?

YES

NO

How else do you think your child might like or be able to feedback their views?

Thank you very much for participating in the questionnaire. Please return it in the stamped address envelope by the 23rd August 2002. If you would like to be informed of the results of the questionnaire and a copy of the service report, please supply your name and contact details below and you will be sent a copy in due course.

My contact details are as follows (optional)
Name:
Address:
.....
.....
.....

APPENDIX 6
Results of the semi-structured telephone interview

Question 1 & 2: Importance and satisfaction ratings of service-related aspects

All results are given in percentages, and ranked in order of importance / satisfaction

A. Accessibility

A1) Importance (n=12)

	Very important	Quite important	Not very important	Not at all important
Wait time for first appointment	66	44	0	0
Convenience of appointment time	58	44	8	0
Accessibility of building	50	33	17	0
Length of appointment	44	58	8	0
Availability of help / contact between appointment	42	42	16	0
Wait time between appointments	33	42	25	0

A2) Satisfaction(n=12)

	Very satisfied	Quite satisfied	Not very satisfied	Not at all satisfied
Accessibility of building	67	25	8	0
Convenience of appointment time	58	42	0	0
Length of appointment	58	42	0	0
Wait time for first appointment	33	17	25	25
Availability of help / contact between appointment*	33*	17*	8*	17*
Wait time between appointments**	8**	42**	25**	0**

* 3 missing values

** 2 missing values

B. Facilities

B1) Importance (n=12)

	Very important	Quite important	Not very important	Not at all important
Car Parking	50	33	17	0
Reception / waiting area	33	42	25	0
Appointment rooms	25	50	25	0

B2) Satisfaction (n=12)

	Very satisfied	Quite satisfied	Not very satisfied	Not at all satisfied
Car Parking *	77*	8*	0*	0*
Reception / waiting area	75	25	0	0
Appointment rooms	75	25	0	0

* 2 missing values

C. Process

C1) Importance (n=12)

	Very	Quite	Not very	Not at all
Ease with which can talk to therapist	100	0	0	0
Feeling understood by therapist	100	0	0	0
Knowing what to expect from first appointment	50	33	17	0

C2) Satisfaction

	Very	Quite	Not very	Not at all
Ease with which can talk to therapist	50	34	8	8
Feeling understood by therapist	50	17	25	8
Knowing what to expect from first appointment	8	59	25	8

D Outcome

D1) Importance (n=12)

	Very	Quite	Not very	Not at all
Improvement in the problem	83	17	0	0
Total number of appointments	50	25	25	0

D2) Satisfaction

	Very	Quite	Not very	Not at all
Total number of appointments *	17*	42*	25*	8*
Improvement in the problem **	17**	33**	17**	25**

* 1 missing value

** 1 missing value

E) Overall Satisfaction

N=12

	Very	Quite	Not very	Not at all
Satisfaction	25	50	17	8

Question 3: How would parents prefer to feedback their views to the C&FC in the future (n=12)

Method	Number of responses
Comments Box	1
Questionnaire	7
User group meeting	0
Tell the therapist	1
Telephone survey	6
Other	0

Question 4: Would parents object if their child / children's views of the service were sought?

YES	NO
83%	17%

APPENDIX 7

Open-ended comments

A) Accessibility

“The car park needs to be more clearly signposted or directions and a street plan given to enable 1st time visits to find it as it is “tucked away.”

“I found it difficult to reach the therapist on the phone between appointments – a manned help line would be beneficial.”

“The first appointment should be one and a half to two hours to enable the therapist to gain as much information about the family situation. There needs to be quicker access to gaining a first appointment, self-referral rather than through school and a quicker route to seeing a therapist if we need to again.”

“It would have been better if the appointment was near to when you first go on the list as that’s when we needed help with dealing with the family break up. It was 18 months after things happened that we were called. It was then not good for us to have to remember things.”

“The main problem was the length of time between being referred and the first appointment.”

“We got to see a therapist very quickly and we all got on with her very well as a family and my son was pleased to see her on her own. I was also offered individual therapy on my own for which I am very grateful.”

B) Facilities

“A drinks / water machine (in the reception area) would improve it”

C) Process

“I would like to be able to have a report to keep about the therapists finding, concerns advice etc. This helps when dealing with other services. Also appointments for school age children to be later in the day.”

“We should have been offered a fixed appointment at the time of our first visit. It would now be very difficult to talk my partner in to going back.”

“I would like to have had a longer period of time where we could get in touch with any problems without having to go back to the doctor. We would have liked a support group of parents with children having similar problems or been pointed in the direction of books or leaflets explaining the behaviour. But I didn’t ask.”

D) Outcome

“ I cannot praise too highly the wonderful work of the two therapists who dealt with us. Our daughter’s behaviour and the way she handled her problems improved far more quickly than we could ever have hoped. She has changed from a very withdrawn, aggressive, hostile and depressed little girl into a well-balanced

outgoing happy loving and charming young lady. The therapist who saw my husband and me helped us to put the whole thing into perspective too. The positive effects on our family have been fantastic. I take every opportunity to tell friends and colleagues how good your services are – thank you!”

“My son did not find the meeting very useful. In his own words “I did not learn anything.” It was just like telling somebody about my life. He did not want to go again.”

“It was a complete waste of time.....my child was diagnosed with but I was not given any advice, given any details of support groups or given access to a social worker or someone who could help with things like future employment. I knew no more when I did when I went in. I felt that all that we achieved was to add my son to the statistics and be another person to justify there being a family clinic.”

E) Overall Satisfaction

“Great service – it should be advertised more at GP outlets because families really will use it.”

“I was very, very pleased with the prompt and sensitive service we received. My daughter found the treatment extremely beneficial which has enabled her to grow, become more confident and living her life knowing that this service is available and is there if she feels she needs it in the future.”

“I was very pleased with the family clinic. We were put at ease. The new building was clean and lots of things for the children to do. The lady we spoke to was very helpful with her comments. It has put me on the right road to carry on with the children’s behaviour.”

APPENDIX 8

Summary feedback letter for participants

Dear

Thank you very much for your recent participation in the ***** Child and Family Clinic pilot satisfaction survey and for expressing an interest in the findings. Please find enclosed a summary of the results as requested.

The purpose of the pilot survey

The survey was undertaken in order to find out what factors families considered to be of most importance when attending a Child and Family service; how satisfied parents had been with the ***** Child and Family Clinic and opinions on the most preferred way of feeding back views to the service. The project was undertaken in order to help develop better communication between families and the clinic in the future.

Who was contacted

Only families who attended the ***** Child and Family Clinic since it moved to its new premises at ***** and who have since been discharged were approached to participate in the pilot study. Results include the views of families obtained using two different methods. Firstly, a number of telephone interviews took place in order to help construct a questionnaire. The questionnaire was then sent out to approximately 70 families. Around 25 were returned.

Factors considered as most important

The telephone survey and questionnaire asked about the following aspects of a service and how important they regarded them to be, rated between being "very important" through to "not at all important": accessibility, facilities, process, outcome and general satisfaction.

The majority of families felt that the process and outcome of therapy (ease with which they could talk to the therapist; feeling problems were understood by the therapist and improvement in the problem) were the most important aspects when attending a Child and Family Clinic. The second most important factor was time spent on the waiting list for the first appointment. Other aspects concerning accessibility (location of the building, car parking facilities, convenient times of appointments) and facilities (reception, appointment rooms) were all considered to be "quite" important.

Satisfaction ratings

Respondents were then asked to re-rate the factors outlined above in terms of how satisfied they were with them when they attended the ***** Child and Family Clinic. Again, parents were asked to rate each aspect from being "very satisfied" to "not at all satisfied."

The majority of families were most satisfied with the process of therapy (ease with which they could talk to the therapist) and accessibility and service facilities (location, car parking, reception and waiting area and quality of appointment rooms.) A number of positive comments were made about how the therapist and surroundings helped relax both parents and their children, particularly during the first assessment meeting.

The majority of families were only "quite" satisfied with knowing what to expect from the first appointment and receiving information about the service before attending the first appointment. Similarly, the majority of families were only "quite" satisfied with the accessibility of the service in terms of convenient appointment times, length of each appointment and amount of time waiting between appointments. Comments suggested that some parents would welcome more regular appointments with more contact and

support between appointments, in particular, practical advice. Several parents also suggested that more information would help when preparing the child for what to expect at the first appointment.

Factors receiving the poorest ratings were length of time waiting for the first appointment, amount of time waiting and availability of help or contact with the service between appointments. Each of these received a significant number of "not very" or "not at all" satisfied.

Preferred ways of communicating with the service

The majority of respondents felt that they would be happy to fill in a questionnaire like the one used in the pilot study in the future as a means of feeding back to a service. The use of telephone surveys was also popular with people adding that they would value the opportunity to be able to say what they wanted rather than tick pre-decided options. A significant proportion felt they would be able to tell the therapist or write their comments and place them in a box. Only a few stated that they would be interested in attending user group meetings.

Parents' opinions on canvassing children's views

The majority of parents were in favour of their children being asked for their views and experiences of attending the Child and Family Clinic. Many were in favour of a "child friendly" questionnaire. However, about a quarter of respondents stated that they would not be happy for their children to be approached for their views. Reasons for this included feeling that their child wouldn't understand, or that the therapist did most of the work with the parents or simply that they had only attended for a one off session and the child would have forgotten.

What now?

The results of the pilot study will be presented to the ***** Child and Family Clinic team and integrated into future discussions and ideas to improve the service. Although this letter reports the results of the survey in terms of the majority view of respondents, there was a range of experience and satisfaction reported amongst families who have attended the Clinic in the past ranging from very satisfied to not at all satisfied. It was beyond the scope of this present summary to be fully inclusive, but these comments and views will be more fully noted, documented and commented upon in the official and final report.

A final thank you

Your views and participation in this study will be used to further improve developments in the service and communication with the families who attend. Many thanks for your participation in the study and for all your views, comments and feedback. I hope this summary has been of interest to you. Thank you.

Yours sincerely

Trainee Clinical Psychologist

LITERATURE REVIEW

**THE ROLE OF ATTACHMENT DISRUPTION
IN ANOREXIA NERVOSA**

YEAR 2

JANUARY 2003

INTRODUCTION

Anorexia Nervosa (AN) is a complex potentially life-threatening disorder which presents many challenges both to the medical and mental health services. It has the highest mortality rate of any psychiatric disorder, brought about either from physical conditions caused by the disorder – e.g. cardiac arrest and gastric haemorrhaging for example - or suicide (Noordenbos, Oldenhave, Muschtler & Terpstra, 2002; Bell, Clare & Thorn, 2001). Due to a wide ranging co-morbidity of physical and psychiatric disorders, the course and outcome of AN is highly variable, with many sufferers enduring a lifelong course of chronic illness despite treatment (Hay, Bacaltchuk, Claudino & Tovin, 2002).

Unsurprisingly, there has been huge interest and investigation into the cause – or causes - of AN. The current consensus within the eating disorder literature suggests that aetiology is multifactorial, with empirical evidence supporting the role of environmental (social and cultural) personal and genetic factors (e.g. Hay et al., 2002; Ramacciotti et al., 2002). However, the specificity and weight of each factor's role and contribution continues to be widely debated and investigated.

Early theories of AN focused upon the family as a predominant aetiological factor, particularly the relationship and interaction between the infant and mother. Bruch (1970) for example, first challenged prevailing psychodynamic theories by locating the core cause of AN within the mother-infant relationship, a view derived from extensive clinical observation. Family systems theories developed further hypotheses concerning the role of dysfunctional family relationships, construing AN as a symptom of, or an attempt to break away from dysfunctional aspects of family dynamics (e.g. Minuchin, Rosman & Baker, 1978; Selvini-Palazzoli, 1974). Both identified a number of dysfunctional characteristics specific to AN families – blame-shifting, covert alliance, superficial unity, self-sacrifice (Selvini-Palazzoli, 1974) and enmeshment, over-involvement and rigidity of family roles (Minuchin et al., 1978). Although different in emphasis, each suggests specific disturbances in early mother – child and wider familial relations. However, although highly influential, early psychological accounts relied heavily on theoretical explanation and clinical observation, and lacked empirical grounding.

Familial factors continue to undergo investigation as significant environmental influences in the aetiology of AN. A relatively recent avenue of investigation has been the application of attachment theory which, whilst encompassing earlier psychological areas of interest, allows for the empirical investigation of testable hypotheses regarding the role of dysfunctional mother-infant relationships. Initial studies investigating the application of attachment to clinical populations provided preliminary evidence for the association between attachment disruption and psychiatric disorders, including eating disorders (ED) (e.g. Fonagy et al, 1996). Since then, a number of investigations have been undertaken to explore the role and association of insecure attachment in the aetiology of AN.

This review is primarily concerned with the theoretical application and empirical investigation of the nature and function of attachment in the aetiology, development and maintenance of AN. Where possible, literature pertaining specifically to AN will be addressed, although much of the relevant material refers to heterogeneous ED populations. Behavioural and psychological features of AN will firstly be introduced before a brief discussion of attachment theory and its application to the field of ED psychopathology. The empirical literature will then be reviewed according to the theoretical propositions surrounding insecure attachment its specific application to AN / ED. Finally, the weight and contribution of the attachment research will be evaluated in terms of its contribution to the understanding of AN.

ANOREXIA NERVOSA

Anorexia Nervosa is one of two major eating disorders as classified by the Diagnostic and Statistical Manual of Disorders (DSM-IV; APA, 1994). Despite potential overlap with its sister disorder, Bulimia Nervosa (BN), the primary distinguishing feature of AN is the failure to maintain a normal body weight.

Diagnostic and clinical features

Four physical, cognitive and behavioural criteria must be met in order to fulfil the DSM-IV diagnosis of AN: a body weight below the minimal normal level for age and height (i.e. 85% or a Body Mass Index >17.5 kg/m²); an intense fear of being or becoming fat; distorted beliefs and / or perceptions regarding body weight / shape and amenorrhoea (absence of menses).

Two subtypes of AN are distinguished in terms of weight loss behaviour, accomplished either through a restricted diet - (Restricting Anorexia Nervosa; RAN) or binge eating followed by purging, including self-induced vomiting, misuse of laxatives, diuretics and / or excessive exercise (Binge Eating / Purging AN).

Course and Outcome

AN has a lifetime prevalence of 0.5 - 1% (APA, 1994) with more than 90% of cases affecting females (Hay et al., 2002; Ramacciotti et al., 2002). Onset typically begins in mid to late adolescence with a wide range course and outcome. Physical complaints such as abdominal pain, constipation, bradycardia and lanugo are common and usually attributable to the effects of starvation. Purging behaviours may bring about more serious medical conditions such as renal dysfunction, cardiovascular problems and osteoporosis (Noordenbos et al., 2002). Co-morbidity with other psychological and psychiatric disorders is also very high, particularly depression, obsessive-compulsive disorders and personality disorder (Karwautz, Hesketh, Collier & Treasure, 2002). Two thirds of patients continue to have enduring food and weight problems, whilst approximately one quarter never recover (Bell et al., 2001).

Treatment and services

Empirical evaluation of treatment efficacy and effectiveness is surprisingly limited, with no single approach demonstrating superiority of effect (Treasure & Schmidt, 2002). Evidence-based guidelines recommend a multidisciplinary assessment and treatment approach involving psychological, nutritional and medical input, focussing on weight restoration, normalised eating and attitudinal change (Department of Health 2001). Local specialist ED services are strongly recommended with good working relations with generic medical and mental health services as these may also be involved in the patient's care (DOH, 2001).

A large percentage of patients receive the diagnosis Eating Disorder Not Otherwise Specified (EDNOS), given in cases where the full AN / BN diagnostic criteria are not met. Approximately 50% of these patients require specialist treatment, suggesting that sub-threshold rates may constitute a more prevalent problem (Hay et al., 2002). This clearly has financial and planning implications for ED services and their patients, for whom it may be imperative that provision of

health care is not limited to those who meet the full AN / BN diagnostic criteria (Bell et al., 2001).

The need for a better understanding

A high prevalence of ED symptomatology – such as unhealthy concerns regarding body weight and shape (Sharpe et al., 1998) eating attitudes (Maloney & Spiro, 1989) and dieting behaviour (Pratt & Woolfenden, 2002) – is prevalent amongst non-clinical populations, particularly those considered at risk (i.e. adolescent females). A better understanding of risk factors and their role in the aetiology of AN is therefore paramount for the development and implementation of early intervention programmes (Pratt & Woolfenden, 2002). Further research is also clearly needed in order to develop more effective treatment programmes than outcome statistics currently suggest, particularly in reducing the number of deaths and suicides, and lifetime suffering for a significant proportion of patients.

◆ ◆ ◆ ◆ ◆ ◆
Theoretical propositions of attachment disruption and AN / ED will now be reviewed.

ATTACHMENT

Theoretical propositions

Bowlby (1969) described the process of attachment as the human tendency to make strong bonds to certain others, in particular the mother or primary caregiver. The quality of this first relationship has important implications for the infant in how he / she makes connections with others and the wider world. For example, if the caregiver or “attachment figure” provides a safe environment, then the child is in a position to develop the emotional, psychological and cognitive skills necessary to confidently explore the world.

Four categories of attachment style were originally identified using observational methods of infant behaviour when separated from and reunited with their mother (i.e. Strange Situation Procedure: Ainsworth, Blehar, Waters & Wall, 1978). These are classified as secure, avoidant (insecure), ambivalent (insecure) and disorganised. Different attachment styles evolve depending on the quality of the caregiving environment and relationship. Insecure attachment is characterised by a set of reactions or strategies employed to regulate negative affect in response to

aspects of caregiver behaviour such as unavailability or unresponsiveness. Disorganised attachment refers to the heterogeneous category of unorganised behavioural responses (Main & Solomon, 1990).

According to the theory, these early behaviours and experiences of the caregiver become incorporated into cognitive representations or “internal working models” which are presumed to account for the continuity between early attachment behaviour and later psychosocial functioning by guiding patterns of behaviour and affect regulation (Bowlby, 1980).

Empirical assessment

The concept of working models infers a stable “within-person” longitudinal phenomenon. This allowed for the development of reliable empirical measurement via memories, beliefs, attitudes and expectations about the self and others (Green & Goldwyn, 2002; Dallos, 2001). Whilst numerous measures and tools have been developed, the Adult Attachment Interview (AAI; George, Kaplan & Main, 1985) is currently regarded as the “gold standard.” It assesses current state of mind with respect to attachment as opposed to relationships with a particular attachment figure, seeking to classify the overall coherence in the individual’s description, integration and evaluation of attachment related experiences (Cassidy & Berlin, 1994). Four categories – autonomous, dismissing, preoccupied and unresolved have been designed to parallel the infant classification outlined above.

Insecure attachment - precursors

Of specific interest to the attachment and ED literature is the concept of insecure attachment. Common precursors include low or inconsistent maternal availability, involvement and / or direct maternal interference with infant exploration (Cassidy & Berlin, 1994). Maternal behaviours are themselves thought to represent attempts to preserve a particular “preoccupied” state of mind in relation to attachment (Main & Goldwyn, 1990). For example, strategies such as selective filtering of infant signals may be used to reduce interference of the mother’s preoccupation with her model of herself as child than caregiver (Main, 1999). Low availability may also serve to (consciously / unconsciously) maintain dependency upon the mother, thereby discouraging autonomy (Cassidy & Berlin, 1994).

Inconsistent maternal behaviours predict infant uncertainty, resulting in a heightening of attachment behaviours and increase in monitoring of the caregiver which, in tandem, decreases exploratory competence (Cassidy & Berlin, 1994). The two subtypes of insecure attachment (dismissive and preoccupied) differ in the attachment behaviours and strategies used to regulate emotion: "preoccupied" strategies are characterised by angry active reunion behaviour, whereas "dismissive" strategies are characterised by denial, passivity and confusion (Green & Goldwyn, 2002).

Sequela - implications for mental health

Attachment systems are assumed to be influential in a wide range of psychological functions (behavioural, cognitive and affective), which are central toward the development of adaptive functioning and personality formation, including schemas, emotion-regulation, behaviour and information processing (Bowlby, 1988). Disruptions in attachment – i.e. insecure – are therefore thought to lead to significant impairments in these areas – such as difficulties in regulating emotion and symptoms of psychopathology (Burge et al., 1997).

Early investigation of clinical populations supported the predicted association between insecure attachment and a range of psychiatric disorders, including eating disorders (Fonagy et al., 1996). However, few consistent relations have been found between insecure attachment classification and specific psychiatric disorders in adults (e.g. Cassidy & Mohr, 2001). With no definitive pattern between attachment classification and symptomatic presentation, insecure attachment classification is now widely regarded to be a general, as opposed to specific, risk factor for types of psychopathology (Fonagy et al., 1996). Recent advances within the wider attachment literature have in fact suggested a more precise link between disorganised attachment and psychological problems, leading to a shift from the importance of the distinction between attachment security / insecurity to that between attachment organisation / disorganisation. Recent research also suggests differential effects arising from attachments with different caregivers - disorganised attachment with one caregiver is not significantly associated with disorganised attachment with the other, with differential effects in outcome depending on whether disorganisation is in relation to the father or the mother (see Green & Goldwyn, 2002). These findings have potentially huge significance, particularly for

research areas – including ED – where the traditional focus has been upon the mother-child relationship only.

Application to eating disorders

Attachment theory – in particular the concept of insecure attachment – and corresponding empirical measurement, has allowed for the scientific investigation of mother – infant relationships which lies at the heart of many traditional psychodynamic, interpersonal and psychoanalytic theories of AN. Following from initial studies highlighting an association between insecure attachment classification and ED (e.g. Fonagy et al., 1996), the focus on mother-daughter relationships as a strong aetiological factor has continued, in addition to exploration of the wider sequelae thought to be associated with disrupted attachment .

Implicit in it's application therefore, lies the theoretical assumption that insecure attachment is a causal factor in the development and maintenance of AN / ED. The following review is organised so as to evaluate the empirical evidence of the underlying testable theoretical propositions as applied to ED, and it's explanatory value in furthering understanding of the aetiology and development of AN / ED pathology.

EMPIRICAL FINDINGS

Insecure attachment and AN

Two reviews of the attachment and ED literature present empirical evidence of the high prevalence of disrupted attachment in AN and ED populations (Ward et al., 2000; O'Kearney, 1996). Ward et al. (2000) weight the significance of the research data by distinguishing between clinical and non-clinical studies and those utilising the “gold standard” attachment measure (AAI) versus other measures.

Only a handful of studies have used the “gold standard” AAI to investigate attachment classification amongst ED populations. Each study indicates a significantly high incidence of insecure attachment classification within heterogeneous ED when compared to non-ED populations (Candelori & Ciocca, 1998; Fonagy et al., 1996; Ramacciotti et al., 2001; Ward, Ramsay, Turnbull, Steele, Steele & Treasure, 2001). Within AN populations specifically, insecure

attachment rates have been found to range from 83% - 95% (Candelori & Ciocca, 1998; Ward et al., 2001). Of these, 75% were rated as dismissive, whereas 20% were recorded as preoccupied (Ward et al., 2001). In rating the AAI, the authors noted a defensive or restricted cognitive processing bias, consistent with theoretical predictions regarding insecure attachment and processing of attachment information (e.g. Cassidy & Berlin, 1994). Studies utilising other measures also indicate a marked difference in attachment style between ED and non-ED populations (e.g. Armstrong & Roth, 1989; Broberg, Hjalms & Nevenon, 2001; Chassler, 1997; Sordelli et al., 1996).

Having established the high incidence of insecure attachment within general ED populations, further interest has focussed on establishing specific links between attachment and ED type / subtype, thereby testing implicit assumptions about the predictive ability of attachment style and differing ED symptomatology (AN / BN). Only one study using the AAI has found precise associations between attachment classification and AN subtype, with RANs rating as "dismissive" compared to purging ANs who rated as "preoccupied" (Candelori & Ciocca 1998). Studies using different measures have produced more vague or inconsistent findings - some reporting differences in attachment between BNs and ANs (e.g. Chassler, 1997), thereby suggesting different aetiological pathways for different ED subtype, whereas others have not, suggesting that similar attachment insecurities are common across ED diagnoses (e.g. Ward et al., 2000).

Studies using the "gold standard" AAI appear to support the predicted association between attachment style and ED diagnosis (Ward et al., 2000) although the wider literature indicates caution is needed in drawing conclusions about precise associations between attachment status and ED subtype. However, inconsistencies may also be due to methodological shortcomings across the ED and attachment literature including the use of small sample sizes (e.g. Ramacciotti et al., 2002) lack of appropriate comparison groups (e.g. Chassler, 1997) heterogeneous ED groups (e.g. Armstrong & Roth, 1989) and the use of a wide range of attachment measures. Although many of the attachment measurements have been shown to have adequate reliability (see Lopez & Gover, 1993), a number of theoretical and methodological inconsistencies exist within the artillery of attachment measurement. Criticisms include heavy reliance on attachment

relationships with parents, therefore failing to account for the full range of attachment experiences (O’Kearney, 1996) and different operationalisation of attachment terminology and constructs, thereby reducing the reliability and validity of conclusions drawn from studies using different measures (e.g. Green & Goldwyn, 2002; Ward et al., 2000).

In terms of significance, the use of cross-sectional, correlational study designs has meant that few inferences can be drawn about the role and process insecure attachment may play in the aetiology and maintenance of ED. It may be for example, that attachment insecurities occur as a consequence, as opposed to a precursor, of ED. Furthermore, few attempts have been made to explain cases of AN / ED where the patient has not been rated as insecurely attached. One exception is Cole-Detke & Kobak (1996) who concluded that either securely attached patients may have developed a secure system despite their parents, or that attachment strategies are not equivalent to psychopathology but rather act as a potential factor in the development pathways model for the emergence of symptoms. However, this clearly requires further theoretical explanation and empirical investigation, which has largely been overlooked within the literature.

Perceived relationship with caregivers

One way of ascertaining whether insecure attachment may precede ED symptomatology and therefore constitute an aetiological factor, is the investigation of perceptions of early relationships with primary caregivers – i.e. parents. Attachment theory suggests that low maternal availability and inconsistency is predictive of insecure attachment and thus recollections of attachment and bonding with parents is therefore of both clinical and theoretical interest.

Studies using the Parental Bonding Instrument (PBI; Parker, Tupling & Brown, 1979) provide support for differential perceptions of relationships with parental attachment figures in terms of low parental (particularly maternal) care, (e.g. Palmer, Oppenheimer & Marshall, 1988) empathy (e.g. Steiger, Van-der Feen, Goldstein & Leichner, 1989) and overprotection (e.g. Guttman & LaPorte, 2002). Furthermore, perceptions of parental bonding have been shown to differ between ED type / subtype. For example, BNs generally reported parents as “overwhelming” and “less caring”, compared to ANs who reported parents as

“absolutely caring” (e.g. Sordelli et al., 1996). BNs were also more likely to differentiate between parents, reporting lower paternal care than ANs (Palmer et al., 1988) Other studies however, have failed to find any differences between ED type or subtype, which again, may indicate that similar attachment problems underlie both AN / BN (e.g. Steiger et al., 1989).

Reports of difficult attachments with parents strongly echoes structural and systemic family theories of dysfunctional AN and ED family relationships and dynamics. Indeed, ED patients generally rate their families to be less healthy than controls in areas such as parental care and availability (e.g. McDermott, Batik, Roberts & Gibbon, 2002) affective responsiveness and general functioning (McGrane & Carr, 2002). The literature also supports the reported differences in parental relationships between ANs and BNs, with BNs and purging ANs reporting more overt hostility, negativity and less cohesion within families, whilst RANs are more likely to present their families similar to that of controls (Casper & Trioani, 2001).

Whilst findings strongly suggest that difficulties in perceived parental bonding and family functioning are common in ED populations and therefore may be an important aetiological factor, a number of difficulties in the research precludes definitive conclusions to be drawn. Firstly, psychosocial factors involved in these relationships remain to be determined and, although a number of studies have attempted to establish common parental characteristics for example, these have largely been criticised for creating crude stereotypes (Gowers, Kadambari & Crisp, 1985). Nevertheless, elevated levels of perfectionism in mothers and high rates of psychopathology in both parents of AN offspring have been commonly been found (e.g. McGrane & Carr, 2002; Woodside et al., 2002).

Furthermore, between-family designs and the sole use of the ED family member's report make it difficult to establish whether perceptions are a cause or effect of the ED, linked specifically to the ED of shared familial factors, thereby reducing the ability to draw conclusions and raising questions about reliability (Broberg et al., 2001). A number of studies investigating family functioning have attempted to overcome this difficulty by gaining other family members' perspectives (e.g. Casper & Trioani, 2001). However, only one study has recently correlated parent

and RAN offspring PBI ratings. Guttman & LaPorte (2002) found strong correlations between parents and RAN patients, although daughters reported more maternal protection than their mothers. The authors conclude that this may reflect the highly enmeshed and undifferentiated AN family structure proposed by Minuchin et al. (1978) and that further investigation of ED types / subtypes is warranted. The literature also suggests that further investigation of the fathers' role within the family may be more significant than previously credited by attachment and family theories, particularly in BN (e.g. Palmer et al., 1988).

Caregiver attachment status

Formation of disrupted attachment has been shown to closely relate to the caregiver's attachment status, mental state of mind and behaviour (Main & Hesse, 1990). Whilst much speculation has been made about parents – particularly mothers – of ED patients, caregiver attachment status has only recently begun to be addressed within the ED research literature. Due to the historical and theoretical emphasis upon the role of the mother in the aetiology of AN perhaps (e.g. Bruch, 1970), investigation continues to focus upon maternal attachment status with the unquestioning assumption that she continues to fulfil the main caregiver role.

In support of the theoretical propositions regarding the influence of the caregiver's attachment status in the formation of an insecure attachment in the infant, Ward et al. (2001) found mothers of AN patients to be characterised by high levels of insecure (dismissive) attachment. High rates of unresolved loss, trauma and psychological disorder were also evident. This echoes recent findings within the attachment literature that the development of disorganised attachment appears to be linked with experiences of unresolved loss / trauma in parental development, primarily due to parental preoccupation with their own dissociated experiences (Cassidy & Mohr, 2001). Indeed, AN families have been shown to experience significant high levels of loss – e.g. obstetric loss prior to the AN daughter's birth (Shoebridge & Gowers, 2000; cited in Ward et al., 2001) and loss of first-degree relatives (Fairburn et al., 1999). However, the role of unresolved loss and trauma and disorganised / organised attachment in relation to ED has yet to be explored. Initial indications suggest however, that the processing of loss may be an important variable (Ward et al., 2001).

Ward et al. (2001) study also provides evidence of an intergenerational transmission of attachment status between mother – daughter, with the supposition that this constitutes a potential vulnerability factor for the development of AN / ED. However, the significance of establishing the transmission of attachment status has not yet fully been explored for example, between other siblings, their attachment status and concordance or discordance for ED pathology. The role and attachment classification of fathers is also not addressed or referred to within the literature.

Insecure attachment and AN / ED symptomatology

Implicit to the discovery of high levels of insecure attachment within AN and ED populations is the assumption that insecure attachment therefore predicts or accounts for the difficulties in psychological functioning found in AN / ED. According to the theory, this may be via multiple pathways – cognitive, behavioural and affective.

Emotional regulation

A number of studies have highlighted associations between insecure attachment status and specific difficulties in regulating emotion. For example, Armstrong & Roth (1989) found high levels of separation anxiety amongst an AN population, characterised by overreaction to minor separations, self-blame, anger and rejection as well as denial of painful experiences when compared to controls. Salzman (1997) also found a relationship between insecure attachment and affective instability in adolescent AN's. Emotional volatility was associated with interpersonal difficulties, low self-esteem and depression. Unsurprisingly, since attachment patterns have been shown to extend into adult relationships (Ward et al., 2000), research findings support clinical observations of significant interpersonal and relationship difficulties within AN populations of all ages (e.g. Broberg et al., 2001), affecting willingness to seek support (e.g. DeFronzo & Panzarella, 2001) and ability to engage in a therapeutic relationship (Ward et al., 2001).

Whilst studies support the theoretical assertion that disruptions in attachment systems are influential in psychological functioning and associated with ED

symptomatology, conclusions about the precise role, mechanism and direction of associations are unable to be drawn.

One study conducted by Cole-Detke & Kobak (1996) suggests that attempts to regulate emotion, related to attachment status, may represent the mechanism related specifically to the expression of ED symptomatology. Although few consistent relations have been found between attachment classification and specific psychiatric disorders in adults (Cassidy & Mohr, 2001), the authors reported precise associations between differing insecure attachment strategies and depressive and eating disordered symptomatology. Using the AAI and a sub clinical population, ED symptoms were found to be associated with a dismissive attachment classification and use of deactivating strategies. "Deactivating strategies" are defensive attachment strategies thought to evolve when the attachment figure is perceived as unresponsive or unavailable - including denial and minimisation of anger toward parents. Depressed individuals however, tended to be preoccupied employing hyper activating attachment strategies. The authors propose that focus on dieting may represent a deactivating strategy, providing a diversionary focus for distress related cues. Although conducted on a sub clinical group with only two types of disorder, their findings provide some support for a relation between specific attachment strategies, emotion regulation and particular patterns of symptom reporting.

Cognitive mechanisms

Cognitive aetiological theories of AN / ED focus on the role of dysfunctional core self-beliefs, which are thought to form during early years when attachment issues are predominant (e.g. Young, 1994). A number of studies have investigated the role of dysfunctional cognitions as a vulnerability factor for AN and ED. Associations have been found between core beliefs and low levels of parental care in AN populations leading to hypotheses that low levels of parental care leads to low self expectations, negative self-beliefs and lack of self-identity which is proposed as the mechanism leading to vulnerability towards developing ED pathology (e.g. Leung, Thomas & Waller, 2000).

Despite strong support for the association between insecure attachment, negative-self beliefs and low self esteem (e.g. Sharpe et al., 1998) the research can be

similarly be criticised for being non-specific to ED pathology, and unable to account for their precise role as a precursor / aetiological factor or consequence of ED symptomatology. A limited number of studies have employed longitudinal designs in order to avoid similar pitfalls. Burge et al., (1997) investigated the relationship between attachment cognitions and ED symptomatology and found that insecure attachment cognitions predicted ED symptomatology. The authors conclude that insecure attachment either precedes or contributes to the course of the disorder, rather than merely being a result. This led to hypotheses that attachment cognitions may therefore play an early role in the development of symptoms by causing particular vulnerabilities toward - and a tendency to create - interpersonal stress, thus resulting in further symptomatology.

Other studies have attempted to test predictions regarding the association between attachment status and ED symptomatology in adolescent non-clinical populations. For example, Sharpe et al, (1998) investigated the prevalence of weight concerns in a non-clinical adolescent population and found a high correlation between insecurely attached adolescents and concerns about body weight and shape. Furthermore, insecure attachment was characterised by a decreased sense of self worth and heightened fear of rejection leading to a hypothesized mechanism between insecure attachment, a predisposition to weight concerns and reliance on gaining acceptance from others, thereby resulting in a greater risk of developing ED.

ATTACHMENT AND ITS CONTRIBUTION TO THE UNDERSTANDING OF AN / ED

The empirical literature provides evidence for the existence of insecure attachment within AN and ED populations, highlighting associations between attachment disruption and eating disorder symptomatology. More specifically, it has provided evidence for longstanding hypotheses concerning the role of difficult mother – daughter relationships and furthered understanding about maternal attachment status and potential variables that may affect the ability to make secure attachments.

The contribution of the attachment research in furthering understanding of AN and ED however, has been severely restricted by the theoretical and empirical adoption of a “main effects” or “single pathway” model of the role of attachment disruption in the aetiology of AN / ED. As highlighted previously, the wider attachment literature strongly indicates that main effects models are too simplistic and of little use in clarifying the role of attachment functions and specific psychiatric disorders (Green & Goldwyn, 2002). Indeed, the application of attachment to clinical populations has largely been non-specific since insecure attachment has a base rate of approximately 40% in the normal population thereby reducing its predictive value for psychopathology (e.g. Green & Goldwyn, 2002). However, the majority of ED attachment research has continued to focus upon the role of insecure attachment in the aetiology of ED despite this shift in the literature.

It can be argued that the adoption of a single pathway model has also undermined the rigour and robustness of the theoretical application of attachment to the AN / ED research in two respects. Firstly, study designs have done little to advance understanding about the longitudinal course of attachment disturbances and their development and role in the aetiology and manifestation of ED pathology. Furthermore, common methodological shortcomings have reduced the validity of conclusions. For example, use of heterogeneous ED populations, the failure to include appropriate comparison groups or control for comorbid disorders disallows specific inferences to be made about attachment disruption and ED pathology or discount alternative hypotheses that attachment disruption may instead be associated with comorbid psychological disturbances also frequently seen in AN populations (e.g. anxiety / depression; O’Kearney, 1996).

Secondly, a “main effects” empirical model of attachment disruption has effectively disregarded the wider research findings which clearly indicate that environmental (social and cultural) personal and genetic factors are all relevant in the aetiology of AN / ED. This has deterred the more complex investigation of the significance and role of disrupted attachment in combination with a variety of other risk factors (O’Kearney, 1996). For example, if, as suggested by a mains effect model, AN / ED is due to disruptions in parental (maternal) rearing practises, then a high concordance rate would be expected between sisters living within the same family, since attachment status has been shown to be stable across time, with high

correlations between mother and (affected) daughters. However attachment status amongst other family members has yet to be investigated from an attachment perspective.

Siblings have in fact been shown to be at a 7% increased risk for AN (Lilenfeld et al., 1998). However, this finding - based on concordance rates between monozygotic and dizygotic twins - suggests that increased risk is due genetic factors (e.g. Strober, Freeman, Lampert, Diamond & Kaye, 2000; Wade, Bulik, Neale & Kendler, 2000). Although a genetic component in the aetiology of AN is now widely established, definitive conclusions about the precise contribution they play in the aetiology of AN have been limited by low samples, leaving a significant proportion of outcome left unaccounted for (Bulik et al., 2000).

Traditionally, the family unit has been viewed as the main influential aetiological contender. However, the recent application of behavioural genetic approaches and more powerful within-family, sister-pair designs has indicated the importance of the role of non-shared factors as opposed to shared factors in the aetiology of AN and ED (Klump, Wonderlich, Lehoux, Lilenfeld & Bulik, 2002) thus undermining the focus upon shared family environment (Karawautz et al., 2002). Of particular significance to the present review, has been the discovery that perceived differences in parental treatment between siblings has been identified as a significant non-shared factor. Specifically, AN siblings are more likely to perceive higher maternal control and higher exposure to parental criticism than unaffected siblings (e.g. Murphy et al., 2000). In light of this recent research, the importance of attachment theory in the ED research is indicated, with differences in parental treatment potentially leading to different attachment styles between siblings, thereby representing a mechanism by which between-family factors exert their influence and explaining why one sibling in the family develops AN whereas the other does not. The full value of attachment theory and research as applied to ED therefore, may not yet have been fully and most usefully investigated.

CONCLUSION

Limitations in study design and methodological weaknesses have resulted in largely descriptive and correlational evidence of attachment disturbance in ED, which fail to further understanding about the precise role insecure attachment may play in combination with other known aetiological factors.

A review of the wider research suggests that the quality of attachment plays a large part in determining an individual's degree of vulnerability to types of psychopathology, and therefore merits further investigation as a general risk factor. Integrative studies looking at the possible relations between attachment, parent-child interactions and the role of unique individual events are needed in order to fully understand the complex interactions of aetiological factors that combine to predispose some to AN / ED pathology rather than others. Only then might the significance of disrupted attachment functioning and the development of AN / ED be fully understood.

REFERENCES

- Ainsworth, M., Blehar, M., Waters, E. & Wall, S. (1978). Patterns of Attachment: A Psychological Study of the Strange Situation. Hillsdale: Erlbaum.
- Armstrong, J. & Roth, D. (1989). Attachment and separation difficulties in eating disorders: A preliminary investigation. International Journal of Eating Disorders, 8, 141-155.
- American Psychiatric Association. (1994). Diagnostic and Statistical Manual of Mental Disorders. (fourth edition) Washington DC.
- Bell, L., Clare, L. & Thorn E. (2001). Service Guidelines for People with Eating Disorders. DCP Occasional Paper, No 3. British Psychological Society.
- Bowlby, J. (1969). Attachment and Loss: Vol 1: Attachment. London: Hogarth Press.
- Bowlby, J. (1980). Attachment and Loss: Vol 3: Loss. London: Hogarth Press.
- Broberg, A., Hjalms, I. & Nevenon, L. (2001). Eating disorders, attachment and interpersonal difficulties: A comparison between 18 – to 24 year-old patients and normal controls. European Eating Disorders Review, 9, 381-396.
- Bruch, K. (1970). Psychotherapy in primary anorexia nervosa. Journal of Nervous and Mental Disease, 150, 51-67.
- Bulik, C., Sullivan, P., Wade, T. & Kendler, K. (2000). Twin studies of eating disorders: A review. International Journal of Eating Disorders, 27, 1-20.
- Bulik, C., Sullivan, P., Fea, J. & Pickering, A. (2000). Outcome of Anorexia Nervosa: Eating attitudes, personality and parental bonding. International Journal of Eating Disorders, 28, 139-147.
- Burge, D., Hammen, C., Davila, J., Daley, S., Paley, B., Lindberg, N., Herzberg, D. & Rudolph, K. (1997). The relationship between attachment cognitions and psychological adjustment in late adolescent women. Development and Psychopathology, 9, 151-167.
- Casper, R. & Troiani, M. (2001). Family functioning in Anorexia Nervosa differs by subtype. International Journal of Eating Disorders, 30, 338-342.
- Cassidy, J. & Berlin, L. (1994). The insecure / ambivalent pattern of attachment: Theory and research. Child Development, 65, 971-991.
- Cassidy, J. & Mohr, J. (2001). Unsolvability, fear, trauma and psychopathology: Theory, research and clinical considerations related to disorganised attachment across the lifespan. Clinical Psychology: Science and Practice, 8, 275-298.
- Chassler, L. (1997). Understanding Anorexia Nervosa and Bulimia Nervosa from an attachment perspective. Clinical Social Work Journal, 25, 407-423.

Cole-Detke, H. & Kobak, R. (1996). Attachment processes in eating disorders and depression. Journal of Consulting and Clinical Psychology, 64, 282-290.

Cooper, M., Galbraith, M. & Drinkwater, J. (2001). Assumptions and beliefs in adolescents with Anorexia Nervosa and their mothers. Eating Disorders, 9, 217-223.

Dallos, R. (2001). ANT – Attachment narrative therapy: Narrative and attachment theory approaches in systemic family therapy with eating disorders. Journal of Family Psychotherapy, 12, 43-72.

DeFronzo, R. & Panzarella, C. (2001). Attachment, support seeking, and adaptive inferential feedback. Implications for psychological health. Cognitive and Behavioural Practise, 8, 48-52.

Department of Health, (2001). Treatment Choice in Psychological Therapies and Counselling: Evidence-based clinical practice guidelines. London Department of Health.

Dunn, J.F., Daniels, D., Furstenberg, F. & Plomin, R. (1985). Environmental differences within the family and adjustment differences. Journal of Personality and Social Psychology, 51, 339-346.

Fairburn, C., Cowen, P., Harrison, P. (1999). Twin studies and the etiology of eating disorders. International Journal of Eating Disorders, 26, 349-358.

Fassino, S., Svrakic, D., Abbate-Daga, G., Leombruni, P., Amianto, F., Stani, S. & Giacomo Rovera, G. (2002). Anorectic family dynamics: Temperament and character data. Comprehensive Psychiatry, 43, 114-120.

Fonagy, P., Leigh, T., Steele, M., Steele, H., Kennedy, R., Mattoon, G., Target, M & Gerber, A. (1996). The relation of attachment status, psychiatric classification and response to psychotherapy. Journal of Consulting and Clinical Psychology, 64, 22-31.

Friedberg, N. & Lyddon, W. (1996). Self-other working models and eating disorders. Journal of Cognitive Psychotherapy, 10, 193-203.

Gowers, S., Kadambari, S. & Crisp, A. (1985). Family structure and birth order of patients with Anorexia Nervosa. Journal of Psychiatric Research, 19, 247-251.

Green, J. & Goldwyn, R. (2002). Annotation: Attachment disorganisation and psychopathology: new findings in attachment research and their potential implications for developmental psychopathology in childhood. Journal of Child Psychology and Psychiatry, 43, 835-846.

Guttman, H. & Laporte, L. (2002). Family members retrospective perceptions of intrafamilial relationships. Contemporary Family Therapy, 24, 505-521.

Hay, P., Bacaltchuk, H., Claudino, A. & Ben-Tovim, D. (2002). Individual psychotherapy in the outpatient treatment of adults with Anorexia Nervosa (Protocol for a Cochrane review). In: The Cochrane Library Issue 4, Oxford.

Karwautz, A., Rabe-Hesketh, S., Zhao, J., Sham, P., Collier, D. & Treasure, J. (2001). Individual-specific risk factors for anorexia nervosa: a pilot study using a discordant sister pair design. Psychological Medicine, 31, 317-329.

Karwautz, A., Rabe-Hesketh, S., Collier, D. & Treasure, J. (2002). Pre-morbid psychiatric morbidity, comorbidity and personality in patients with anorexia nervosa compared to their healthy sisters. European Eating Disorders Review, 10, 255-270.

Klump, K., Wonderlich, S., Lehoux, P., Lilienfeld, L. & Bulik, C. (2002). Does environment matter? A review of non-shared environment and eating disorders. International Journal of Eating Disorders, 31, 118-135.

Laporte, L. & Guttman, H. (2001). Abusive relationships of women with borderline personality disorder, anorexia nervosa and a control group. Journal of Nervous and Mental Disease, 189, 522-531.

Leung, N., Thomas, G. & Waller, G. (2000). The relationship between parental bonding and core beliefs in anorexic and bulimic women. British Journal of Clinical Psychology, 39, 205-213.

Lilienfeld, L., Kaye, W., Green, C., Merikangas, P., Lotnicov, K., Ollice, C., Roa, R., Strober, M., Bulik, C. & Nagy, L. (1998). A controlled family study of anorexia nervosa and bulimia nervosa. Psychiatric disorders in first degree relatives and effects of proband comorbidity. Archives of General Psychiatry, 55, 603-610.

Lopez, F. & Gover, M. (1993). Self-report measures of parent-adolescent attachment and separation-individuation: A selective review. Journal of Counselling and Development, 71, 390-395.

Main, M. & Hesse, E. (1990). Parents unresolved traumatic experiences are related to infant disorganised attachment status: Is frightened and / or frightening parental behaviour the linking mechanism? In M.T. Greenberg, D. Cicchetti, & E. Cummings (Eds.), Attachment in the preschool years: Theory, research and intervention. (pp.121-160) Chicago: University of Chicago Press.

Main, M. & Solomon, J. (1990). Procedures for identifying infants as disorganised / disorientated during the Ainsworth strange situation. In M.T. Greenberg, D. Cicchetti, & E. Cummings (Eds.), Attachment in the preschool years: Theory, research and intervention. (pp.121-160) Chicago: University of Chicago Press.

Maloney, M. & Shephard-Spiro, P. (1983). Eating attitudes and behaviours of anorexia nervosa patients and their sisters. General Hospital Psychiatry, 5, 285-288.

McGrane, D. & Carr, A. (2002). Young women at risk for eating disorders: Perceived family dysfunction and parental psychological problems. Contemporary Family Therapy, 24, 385-395.

McDermott, B., Batik, M., Roberts, L. & Gibbon, P. (2002). Parent and child report of family functioning in a clinical child and adolescent eating disorders sample. Australian and New Zealand Journal of Psychiatry, 36, 509-514.

- Minuchin, S., Rosman, B. & Baker, L. (1978). *Psychosomatic families: Anorexia Nervosa in context*. Cambridge MA; Harvard University Press.
- Murphy, F., Troop, N. & Treasure, J. (2000). Differential environmental factors in anorexia nervosa: A sibling pair study. *British Journal of Clinical Psychology*, 39, 193-203.
- Noordenbos, G., Oldenhove, A., Muschter, J. & Terpstra, N. (2002). Characteristics and treatment of patients with chronic eating disorders. *Eating Disorders*, 10, 15-29.
- O'Kearney, R. (1995). Attachment disruption in anorexia nervosa and bulimia nervosa: A review of theory and empirical research. *International Journal of Eating Disorders*, 20, 115-127.
- Palmer, R., Oppenheimer, R. & Marshall, P. (1988). Eating disordered patients remember their parents: A study using the Parental-Bonding Instrument. *International Journal of Eating Disorders*, 7, 101-106.
- Palmer, R. (2000). *Helping people with eating disorders*. Chichester: Wiley.
- Parker, G., Tupling, H. & Brown, L. (1979). A parental bonding instrument. *British Journal of Medical Psychology*, 52, 1-10.
- Pratt, B. & Woolfenden, S. (2002). Interventions for preventing eating disorders in children and adolescents. (Cochrane Review). In: *The Cochrane Library*, Issue 4, Oxford.
- Ramacciotti, A., Sorbello, M., Pazzagli, A., Vismara, L., Mancone, A. & Pallanti, S. (2001). Attachment processes in eating disorders. *Eating and Weight Disorders*, 6, 166-170.
- Rosenstein, D. & Horowitz, H. (1996). Adolescent attachment and psychopathology. *Journal of Consulting and Clinical Psychology*, 64, 244-253.
- Salzman, J. (1997). Ambivalent attachment in female adolescents: association with affective instability and eating disorders. *International Journal of Eating Disorders*, 21, 251-259.
- Sassaroli, S. & Lorenzini, R. (1992). Attachment as an informative relationship. *International Journal of Personal Construct Psychology*, 5, 239-247.
- Selvini-Palizzoli, M. (1974). *Self-starvation: From individual to family therapy in the treatment of anorexia nervosa*. New York: Jason Aronson.
- Sharpe, T., Killen, J., Bryson, S., Shisslak, C., Estes, L., Gray, N., Crago, M. & Taylor, C. (1998). Attachment style and weight concerns in preadolescent and adolescent girls. *International Journal of Eating Disorders*, 23, 39-44.
- Sordelli, A., Fossati, A., Devoti, R., La Viola, S. & Maffei, C. (1996). Perceived parental bonding in anorectic and bulimic patients. *Psychopathology*, 29, 64-70.

Strober, M., Freeman, R., Lampert, C., Diamond, J. & Kaye, W. (2000). Controlled family study of anorexia nervosa and bulimia nervosa: Evidence of shared liability and transmission of partial syndromes. American Journal of Psychiatry, 157, 393-401.

Treasure, J. & Holland, A. (1995). Genetic factors in eating disorders. In G. Szmukler, C. Dare & J. Treasure (Eds.) Handbook of eating disorders: Theory, treatment and research (pp.65-81) Chichester: John Wiley & Sons.

Treasure, J. & Schmidt, U. (2002). Anorexia nervosa. Clinical Evidence, 6, 705-714.

Wade, T., Bulik, C., Neale, M. & Kendler, K (2000). Anorexia and major depression: Shared genetic and environmental risk factors. American Journal of Psychiatry, 157, 469-471.

Ward, A., Ramsay, R. & Treasure, J. (2000). Attachment research in eating disorders. British Journal of Medical Psychology, 73, 35-51.

Ward, A., Ramsay, R., Turnbull, S., Steele, M., Steele, H. & Treasure, J. (2001). Attachment in anorexia nervosa: A trans-generational perspective. British Journal of Medical Psychology, 74, 497-505.

Ward, A., Ramsay, R., Turnbull, S., Benedettini, M. & Treasure, J. (2000). Attachment patterns in eating disorders: Past in the present. International Journal of Eating Disorders, 28, 370-376.

Warren, S., Huston, L., Egeland, B. & Sroufe, L. (1997). Child and adolescent anxiety disorders and early attachment. Journal of the American Academy of Child and Adolescent Psychiatry, 36, 637-644.

Woodside, D., Bulik, C., Halmi, K., Fichter, M., Kaplan, A., Berrettini, W., Strober, M., Treasure, J., Lilenfeld, L., Klump, K. & Kaye, W. (2002). Personality, perfectionism and attitudes toward eating in parents of individuals with eating disorders. International Journal of Eating Disorders, 31, 290-299.

**Attachment and Perceived Parental Treatment
Reported by Siblings Discordant for Eating Disorder Pathology**

MADELEINE JULIA TATHAM

**A Thesis submitted in partial fulfilment of the
requirements of the University of Hertfordshire
for the degree of Degree of Doctor of Clinical Psychology**

**The programme of research was carried out in the Department of Psychology,
University of Hertfordshire
November 2003**

CONTENTS

	Page
Abstract	117
1.0 Introduction	120
1.1 Clinical and Prognostic Complexities	122
1.2 Aetiological theories and empirical findings	126
1.3 Attachment theory	128
1.4 Adult attachment	131
1.5 The application and empirical investigation of attachment Theory to the eating disorders	134
1.6 The role of the wider family	140
1.7 Reconceptualising the role of the family	144
1.8 Summary	148
1.9 Research hypotheses	149
2.0 Methodology	151
2.1 Design	152
2.2 Participants	152
2.3 Procedure	154
2.4 Measures	156
2.5 Administration	167
2.6 Ethical considerations	168
3.0 Results	169
3.1 Sample description	170
3.2 Research hypothesis one	180
3.3 Research hypothesis two	186
3.4 Research hypothesis three	190
3.5 Research hypothesis four	193
3.6 Research hypothesis five	197
3.6. Additional analyses	200
4.0 Discussion	208
4.1 Summary of Findings	209
4.2 Limitations of study	219
4.3 Suggestions for further research	224
4.4 Conclusions	227
4.5 References	229
4.6 Appendices	240
5.0 Critical review	273
5.1 References	288

ABSTRACT

Title

Attachment and perceived parental treatment reported by sisters discordant for eating disorder pathology

Hypotheses

The study tested theoretical predictions that attachment status would differ between siblings discordant for eating disorder (ED) pathology. Differences in perceptions of parental treatment, sibling interaction and parental construing were expected to reflect differential attachment processes as follows:

1. It was predicted that higher levels of insecure attachment would be reported by ED than non-ED sisters.
2. It was expected that ED siblings would report lower levels of parental affection and higher levels of parental control during childhood compared to non-ED sisters.
3. It was expected that ED siblings would report higher levels of sibling jealousy toward their sisters than non-ED siblings.
4. It was predicted that differences would be found in parental construing of daughters. Non-ED daughters were expected to be more positively construed prior to and following development of the ED.

Design

A cross-sectional case control design was employed. Patients (cases) were assigned to the ED sister group and sisters (controls) were assigned to the non-ED sister group. Additional investigation of parental perceptions was undertaken where possible.

Setting

Participants were recruited from two neighbouring community NHS Eating Disorder Services based within the Home Counties. Both services were similar in terms of patient eligibility (e.g. 18 years and above; out-patient), staffing (multidisciplinary) and provision of treatments for a wide range of eating disorder pathology.

Participants

Participants included all female patients currently being offered outpatient treatment for eating disorder pathology (i.e. Anorexia Nervosa, Bulimia Nervosa

and EDNOS) with a sister meeting the following eligibility criteria: aged 16 years and above, without a history or current presentation of ED pathology of clinical severity. Non-ED sisters were also required to be of nearest age and to have lived in the family home for at least eight years.

Biological parents who had lived in the family home up until and / or following the onset of the eating disorder were also included.

Measures

The Stirling Eating Disorder Scales (SEDS; Williams et al., 1994) and the Hospital Anxiety and Depression Scale (HADS; Zigmond & Smith, 1983) were used to screen for eating disorder pathology and additional co-morbid symptomatology.

The Reciprocal Attachment Questionnaire (RAQ; West & Sheldon, 1984) and Sibling Inventory of Differential Experience (SIDE; Plomin & Daniels, 1984) were used to compare attachment behaviours and perceptions of differential parental treatment and sibling relationships between sister groups.

The Repertory Grid Technique (RGT) was used to explore and compare parental construing of daughters prior to and post development of an eating disorder.

Method

52 siblings (26 sister pairs discordant for eating disorder pathology) were sent questionnaires by post with a stamped addressed envelope. Parents were interviewed separately in the family home.

Main findings

As predicted, differences were found in the attachment profiles of sister groups, with ED sisters reporting higher levels of insecurity across all attachment dimensions. However, no significant differences were found in sister groups' perceptions of parental treatment during childhood, failing to support proposed hypotheses regarding differential attachment and parental treatment. ED sisters reported higher levels of jealousy directed toward non-ED sisters as expected.

Parents were found to retrospectively construe daughters as similar and equally positively as children. ED daughters became significantly less positively construed in adulthood (i.e. post development of ED) compared to non-ED sisters.

Whilst conclusions regarding the role of insecure attachment in the aetiology of ED pathology cannot be drawn (i.e. whether ED pathology is a cause or a result of insecure attachment), the study has furthered the investigation into the role of attachment and eating disorder pathology by combining a number of theoretical and empirical lines of enquiry. Results highlight a number of theoretical areas for further investigation and implications for clinical practice. Recommendations for future research are also discussed.

INTRODUCTION

“Insecure attachment” has recently been shown to be a common phenomenon in eating disordered (ED) populations and subsequently proposed to be an important factor both in their development and maintenance. However, investigation of the relationship between attachment style and ED symptomatology has been restricted by a number of methodological difficulties, thereby precluding the more rigorous testing of its application to the ED field. For example, it fails to explain why one sibling in a family goes on to develop an ED and the other does not. Traditional investigations of family influences, whilst also highlighting broad aetiological influences, similarly cannot account for the individual-specific development of an eating disorder in one sibling rather than another. A more specific line of enquiry has been the exploration of the contribution of genetic and environmental influences in the aetiology of the eating disorders, fuelled by advances made within behavioural genetic research. A seemingly significant finding has been the importance of non-shared environmental factors in constituting important individual-specific risk factors and accounting for developmental differences between siblings. Behavioural genetic research designs have only recently been applied to the ED field, with preliminary results suggesting that differential parental treatment may be of aetiological significance.

This study aims to extend current investigation of the role of attachment and ED pathology by converging several lines of theoretical and empirical research, including attachment and within family differences (specifically parental treatment and processes through which this may exert an influence). The study initially aims to establish whether sister pairs discordant for ED pathology (i.e. one sister has an eating disorder, the other does not) report perceived differences in parental treatment when growing up; and secondly, whether perceived differential parental treatment results in differences in attachment status. In an attempt to explore perceptions of differential parental treatment, parents’ construing of their daughters prior to and following the onset of the eating disorder will also be investigated.

Clinical and prognostic complexities of the eating disorders will initially be introduced before a brief discussion of historically influential aetiological theories in order to contextualise the current study’s aims and objectives. Finally the theoretical and empirical literature concerning attachment, family and environmental influences in relation to ED pathology will be reviewed, culminating in the research questions and hypotheses of the study.

CLINICAL AND PROGNOSTIC COMPLEXITIES

Despite significant investigation over the years, comprehensive aetiological models and effective treatment of the eating disorders (ED) remain elusive. Anorexia nervosa (AN) for example has the highest mortality rate of any psychiatric disorder, resulting from physical conditions caused by the disorder – e.g. cardiac arrest and gastric haemorrhaging – and / or suicide (Noordenbos, Oldenhove, Muschtler & Terpstra, 2002). Even with treatment, the course and outcome of the eating disorders is highly variable, and many sufferers endure a lifelong course of chronic illness (Hay, Bacaltchuk, Claudino & Tovin, 2002).

Despite two major diagnostic categories – Anorexia Nervosa and Bulimia Nervosa (BN) – many similarities underlie all eating disorder symptomatology. Common “core pathology” includes a narrow focus upon body weight, size and shape as the primary source of self esteem and evaluation; the fear of becoming fat and the employment of a number of behaviours aimed at reducing or preventing weight gain. These include the restriction of food intake and / or purging behaviours, including self-induced vomiting, misuse of laxatives, diuretics, enemas and excessive exercise (Fairburn, Cooper & Shafran, 2003). Despite these similarities however, the major psychiatric classification systems (e.g. Diagnostic and Statistical Manual of Disorders (DSM-IV; APA, 1994)) subdivide eating disorder pathology into two specific diagnoses – Anorexia Nervosa and Bulimia Nervosa – based upon the relative balance of under-eating or over-eating and its effects on body weight (Fairburn et al., 2003). An additional category exists for all eating disordered symptomatology which does not meet the full criteria for either (i.e. Eating Disorder Not Otherwise Specified; EDNOS).

Prevalence, course and outcome

Within an average health district of 500,000, estimations suggest that approximately 200 people will be diagnosed with an eating disorder every year, 90% of whom will be female (Hay et al., 2002; Ramacciotti et al., 2002). According to current diagnostic criteria, 57 of these will have BN, 40 AN and 100 EDNOS (Bell, Clare & Thorn, 2001).

Anorexia Nervosa typically begins in mid to late adolescence compared to Bulimia Nervosa, which tends to emerge in late adolescence or early adult life. Both have a wide-ranging course and outcome. AN is characterised by physical complaints such as abdominal pain, constipation, bradycardia, lanugo and osteoporosis, which

are usually attributable to the effects of starvation. Purging behaviours typical of Bulimia - but also present in Binge Eating / Purging AN- bring about more serious medical conditions such as renal dysfunction and heart failure (Noordenbos et al., 2002).

Co-morbidity with other psychiatric conditions is also very common, particularly personality disorder and the affective disorders (Rosenvinge, Martinussen & Ostensen, 2000). Studies suggest the most common co-existing complaint is depression, occurring in up to 84% of patients (Halmi et al., 1991). More specific associations have been found between AN and obsessive-compulsive disorder, and drug and alcohol use and BN (Herzog, Keller, Sacks, Yeh & Lavori, 1992). However, the relationship between eating disorders and co-morbid psychiatric difficulties is poorly understood, with some suggesting they may share a common vulnerability or that they may be discrete and separate syndromes (Herzog et al., 1992).

High rates of co-morbid psychiatric diagnoses and ensuing physical and medical sequelae combine to negatively impact upon prognosis and treatment. Indeed, approximately 20% of people with BN and 33% of people with AN continue to have enduring food and weight problems and / or never recover (Bell et al., 2001). Regrettably, treatment efficacy and effectiveness for AN is surprisingly limited, with no single approach demonstrating superiority of effect. Difficulties engaging ED patients also complicate therapeutic outcome (Treasure & Schmidt, 2002). In contrast, cognitive behavioural therapy (CBT) has been shown to be effective in 40-50% cases of Bulimia Nervosa, demonstrating superiority of effects over pharmacological and other psychological treatments (Fairburn et al., 2003).

At present, provision and uptake of services is poor. It is estimated that fewer than 12% people with BN receive a diagnosis while even fewer receive treatment, highlighting a need for an improvement in service provision (Bell et al., 2001). Current recommendations specify local and specialist services with close liaison with generic medical and mental health services (Department of Health, 2001). However, from limited personal clinical experience, many local services appear to run a skeleton service comprised of part time staff due to lack of funding and resources. In contrast, evidence-based guidelines recommend a multidisciplinary assessment and treatment approach involving psychological, nutritional and

medical input, focussing on weight restoration, normalised eating and attitudinal change (Bell et al., 2001).

Outcome statistics clearly suggest further research is needed in order to develop more effective treatment, particularly in reducing the number of deaths, suicides and lifetime suffering for a significant proportion of patients. This is further highlighted by the wider research, indicating high levels of ED symptomatology amongst “at risk” populations (i.e. adolescent girls), including over concern with body weight and shape (Sharpe et al., 1998), eating attitudes (Maloney & Spiro, 1988) and dieting behaviour (Pratt & Woolfenden, 2002). This also strongly suggests the need for a better understanding of aetiological factors in order to develop and implement early intervention programmes (Pratt & Woolfenden, 2002).

Methodological issues and implications for research

Much of the eating disorder literature is characterised by various pitfalls and difficulties typically associated with ED populations. For example, samples are small due to the low prevalence of the disorder and age groups are mixed, potentially including young adults who have not yet passed the at-risk period for developing an eating disorder. Other common methodological shortcomings include mixed clinical and non-clinical populations, lack of control groups and heterogeneous ED populations.

Diagnostic classifications have also shaped research agendas by splitting investigation of aetiology, maintenance and treatment of the eating disorders into categorical groupings. Whilst frequently resulting in fragmented and inconsistent findings, the validity and reliability of this conceptual distinction may in fact be questionable in the light of longitudinal data. For example, studies reveal substantial movement across the diagnostic categories, with approximately 50% of ANs eventually developing BN or an atypical eating disorder suggesting that subtype categories may not be stable and / or that AN may potentially represent a prodromal episode to a less defined atypical eating disorder (Fairburn et al., 2003; Eddy et al., 2002). Ultimately it has been argued that current cross-sectional classifications serve to create artificial boundaries and lead to misdiagnoses (e.g. The Price Foundation Group, 2001).

Recent conceptualisations portray the eating disorders trans-diagnostically along a continuum, arguing that the movement across the eating disorder diagnostic spectrum may be far from random and presently poorly understood. Fairburn et al. (2003) for example, propose a trans-diagnostic perspective of common mechanisms thought to underlie both the major diagnostic categories, including clinical perfectionism, pervasive low self-esteem, mood intolerance and interpersonal difficulties, suggesting that this may be a more useful way to conceptualise and treat ED pathology. In terms of the longitudinal research and current re-conceptualisations, it may be argued therefore that investigations of combined eating disordered groups - particularly in cases where diagnoses have changed since onset – are not as methodologically flawed as originally thought.

AETIOLOGICAL THEORIES AND EMPIRICAL FINDINGS

Unsurprisingly, there has been huge speculation and investigation into the cause – or causes - of AN and BN. The current consensus within the eating disorder literature suggests that aetiology is multifactorial, with empirical evidence supporting the role of environmental (social and cultural), personal and genetic factors (e.g. Hay et al., 2002). Whilst an extensive review of the aetiological research is beyond the scope of the present paper, it is necessary to provide a very brief overview of the historical and influential lines of investigation in order to contextualise the aims and hypotheses of the present study.

Early theories of AN focused upon the family as the predominant aetiological factor, particularly the relationship and interaction between the infant and mother. Bruch (1970) for example, first challenged prevailing psychodynamic theories by locating the core cause of AN within the mother-infant relationship, a view derived from extensive clinical observation. Family systems theories developed further hypotheses concerning the role of dysfunctional family relationships, construing AN as a symptom of, or an attempt to break away from difficult family dynamics (e.g. Minuchin, Rosman & Baker, 1978; Selvini-Palazzoli 1974). Both identified a number of dysfunctional characteristics specific to AN families such as covert alliances, superficial unity and an ethos of self-sacrifice (Selvini-Palazzoli, 1974), enmeshment, over-involvement and rigidity of family roles (Minuchin et al., 1978). Although somewhat different in emphasis, each suggests specific disturbances in early mother – child and wider familial relations. Whilst highly influential however, early psychological accounts relied heavily on theoretical explanation and clinical observation, and lacked empirical grounding.

More recently, research using twin and adoption designs present evidence for a genetic component to ED pathology (e.g. Bulik, Sullivan, Wade & Kendler, 2000; Wade, Martin & Tiggemann, 1998). Twin studies suggest concordance rates for AN between MZ and DZ twins to be 22% and 10% respectively, and even higher for BN, suggesting that genetic factors are of less relevance in AN than BN (Bulik et al., 2000; Treasure & Holland, 1995). However, estimations of the amount of variance due to genetic factors suggest that environmental influences also play a major role in the aetiology of the eating disorders, although low power due to small samples preclude definite conclusions regarding size and contribution to be drawn (see Bulik et al. (2000) for a review). Nevertheless, specific genetic predispositions continue to be investigated, with evidence for the heritability and role of personality traits including trait anxiety and perfectionism (e.g. Berg, Crosby, Wonderlich & Hawley, 2000) and eating attitudes and behaviour (e.g. Klump, McGue & Iacono, 2000). Despite these findings however, estimations still leave a large proportion unexplained by environmental factors, suggesting that none of the models alone appear to be necessary or sufficient to account for the development of an eating disorder.

Despite current agreement that aetiology is multifactorial, the specificity, weight and contribution of differing factors continues to be widely debated. Familial environmental factors continue to undergo extensive investigation as significant aetiological influences and it is these theoretical and empirical accounts that are of relevance to the present study. A relatively recent and popular avenue of investigation has been the role of "insecure attachment" following preliminary studies in the mid 1990's, which highlighted an association between attachment disruption and psychiatric disorders, including eating disorders (e.g. Fonagy et al., 1996). Since then, a number of investigations have explored the association and significance of insecure attachment in the aetiology of eating disorders. Unlike earlier theoretical proposals (e.g. Bruch, 1978), the development of tools with which to measure attachment has allowed the empirical investigation of testable hypotheses regarding the role of dysfunctional mother-infant relationships. The empirical research literature will shortly be reviewed following a brief discussion of the theoretical foundations upon which it is based.

ATTACHMENT THEORY

According to Berman & Sperling (1994), the original motivation for Bowlby's theory of attachment was to explain the processes underlying and leading to adult psychopathology. Indeed, the theoretical proposition of central relevance to the present study is the assumed relationship between the failure to form a secure attachment during early childhood (i.e. based upon the relationship between the infant and primary caregiver) and psychological functioning in later years (Lyddon, Bradford & Nelson, 1993). Underlying this proposition is the assertion that attachment systems are central in the development of adaptive functioning and personality formation, including schemas, emotion-regulation, behaviour and information processing (Bowlby, 1988). Indeed, according to Bowlby (1988)

“the extent to which (each individual) become resilient to stressful life events is determined to a very significant degree by the pattern of attachment he or she develops in the early years” (p.8).

Disruptions in attachment are therefore assumed to lead to significant impairments in these areas, including difficulties in regulating emotion and symptoms of psychopathology (Burge et al., 1997).

The majority of the research exploring the role and influence of attachment-related behaviour in adulthood has evolved from the extensive empirical investigation of infants and their attachment with primary caregivers (e.g. Ainsworth, Blehar, Waters & Wall, 1978). Before turning to the theoretical, conceptual and methodological issues concerned with adult attachment and psychopathology however, it is necessary to briefly highlight some of the fundamental theoretical propositions upon which subsequent empirical work has been grounded.

The function and goal of attachment

Attachment is conceptualised as a “biologically wired-in” behavioural control system whose function is to protect from danger, ensure safety and enhance chances of survival (West & Sheldon, 1984). The goal of attachment is therefore to maintain proximity to the caregiver in order to obtain or achieve “felt security”. Early interactions between the infant and caregiver involve interlocking care-seeking and care-giving behaviours which, if optimal, allows the child to explore the environment and his / her own relation within it in a way considered necessary for healthy cognitive, social and emotional development. However, if the caregiver

does not provide safety and security for that child (e.g. by responding to the child in an uncertain, rejecting, or erratic way) the infant is thought to be in a state of anxiety and insecurity, which prohibits a healthy interest and exploration of the wider world.

Secure / insecure attachment

The attachment phase is thought to continue up to approximately 18 months, after which an attachment relationship is created. The relationship is characterised by discrete attachment patterns dependent on the nature of the early interactions with the caregiver. Bowlby distinguished between secure and insecure attachment, conceptualising three particular types of insecure attachment pattern including compulsive care-giving, compulsive care-seeking and anxious attachment.

Internal working models

As cognitive abilities develop with age, early experiences with the primary caregiver are thought to become internalised to form an "internal working model" (IWM). These incorporate cognitive and affective representations of attachment experiences, such as expectations about a caregiver's accessibility and responsiveness and one's ability to elicit these behaviours from the caregiver. Importantly, it is the child in relation to the attachment figure - as opposed to the attachment figure per se - which is internalised, thus creating cognitive and affective schemata of the relationship, which then becomes a prototype for later relationships outside the family.

Despite debate surrounding their metaphorical or physiological status (e.g. West & Sheldon, 1994) internal working models are assumed to integrate into the personality structure and subsequently dictate representations of the self and others and subsequent patterns of interacting and responding (e.g. social interaction, emotion regulation etc.). They therefore act as the mechanism through which continuity and stability of the organisation of attachment is achieved (Bartholomew, 1990). Whilst it is theoretically possible that opportunities for revising attachment models exist (e.g. late adolescence and early adulthood when relationships outside the family assume greater importance), a number of influential and relatively stable factors are thought likely to encourage the persistence of the initial attachment style across the life span (e.g. consistent family environments from childhood to late adolescence; Main & Cassidy, 1988). Early attachment experiences may also be validated by later relationships, and / or

the continuity of cognitive and behavioural structures which reinforce and perpetuate self-fulfilling patterns of appraisal and action, thereby promoting stability and continuity of attachment style (Lyddon et al., 1993).

Empirical evidence

Initial support for the theory of attachment was provided by the empirical investigation and early observational study of infants and the identification of their behavioural attempts to regulate negative affect in response to aspects of caregiver behaviour, including unavailability and unresponsiveness (e.g. the Strange Situation Procedure; Ainsworth et al., 1978). Ainsworth et al.'s work led to the identification and classification of attachment patterns including: secure, avoidant (insecure), ambivalent (insecure) and disorganised. Longitudinal studies later supported hypotheses regarding the stability of early attachment styles in infants over a 10-year period (e.g. Elicker et al., 1992). Evidence of the mechanism proposed to underlie stability and continuity of attachment (i.e. IWMs) has been elicited from children as young as six via conversations and pictures (e.g. Main et al., 1985). Empirical studies also support theoretical predictions between infant attachment status and later functioning in childhood, including problem solving skills and imaginative play in toddlers (e.g. Matas, Arend & Sroufe, 1978) and emotional health, competence and independence in children in later years (e.g. Elicker et al., 1992).

ADULT ATTACHMENT

Conceptual and methodological issues

Although assumed to “characterise human beings from the cradle to the grave” (Bowlby, 1988 p.129), the study of attachment-related behaviour across the life span is only a relatively recent area of investigation. This may in part be due a number of theoretical, conceptual and methodological issues that differentiate adult attachment from that of infants / children, and which complicate empirical investigation.

Firstly, there are numerous ways of conceptualising adult attachment (e.g. state, trait, interaction; Berman & Sperling, 1994) although the most commonly investigated are the stable individual differences in emotional experiences and behavioural responses assumed to result from IWMs (i.e. trait). Furthermore, in order to meaningfully extend Bowlby’s theory of attachment to adults, a number of theoretical prerequisite must be met (West & Sheldon, 1994). For example, distinctions need be made between more general relationships and those which fulfil the core function and goal of attachment (i.e. security) as important primary adult attachments (e.g. Berman & Sperling, 1994; West & Sheldon, 1985).

Adult attachment also differs in terms of reciprocity and sophistication. In contrast to infants, whose primary attachment relationship is with the principal caregiver(s), adults may vary in the range of their relationships in terms of their function, intensity, quality and significance. Differences also occur in the nature of the relationship (i.e. reciprocal as opposed to complementary) and the sophistication and employment of a wider range of cognitive and behavioural strategies to deal with separation and loss of the attachment figure (e.g. Weiss, 1982). These varying dimensions of adult relationships often serve to complicate and confuse working definitions of adult attachment (see Berman & Sperling, 1994).

Measurement of attachment

Although all rely heavily on the concept of the IWM and representations of self in relation to others, differing conceptualisations and working definitions have resulted in a wide range of assessment measures and methodologies. Measures differ in terms of the type and status of attachment figure (e.g. romantic partners, parents and significant others), response format and design (e.g. current / retrospective reporting, self-report questionnaires, semi-structured interviews).

Attachment may also be measured dimensionally (i.e. intensity) as opposed to categorically (i.e. classification) (e.g. Bartholomew & Horowitz, 1996).

The current “gold standard” measure of adult attachment is The Adult Attachment Interview (AAI; George, Kaplan & Main, 1995), which assesses attachment-related experiences with parents during childhood and “current state of mind” in relation to these experiences (i.e. ability to evaluate in terms of coherency and integration). Parallel to Ainsworth’s categories, attachment status is classified into either autonomous (secure), dismissing, preoccupied and unresolved categories (Cassidy & Berlin, 1994). However, despite being held in high regard, even the AAI is limited in terms of encapsulating the full dynamics of adult attachment. Bartholomew (1990) for example, argues that friendships and love relationships might be expected to be at least as important as representations of family when defining a current attachment and focus on representations of childhood experiences may therefore preclude other alternative and important attachments which may have impacted upon attachment style over time.

Conceptual and methodological issues highlight the difficulties inherent in the measurement of adult attachment. Although many have demonstrated adequate psychometric properties, choice of measure needs to be considered in terms of suitability and applicability to the theoretical and empirical issues under investigation (see Lopez & Gover, 1993 for a review).

Empirical investigation

Despite the difficulties outlined above, the empirical literature does suggest that attachment tends to be stable across the lifespan, further emphasising the influential role of early primary attachment relationships for later development. For example, investigation of the distributions of attachment styles within general children and adult populations have found these to be similar (e.g. 56% secure, 25% avoidant, 19% anxious ambivalent (Hazen & Shaver, 1987). High rates of intergeneration transmission of attachment patterns also suggest consistency and continuity of attachment status over time (e.g. Ward et al., 2000). However, further work and research is needed on the impact of close relationships or factors that might precipitate a shift in attachment status (Rothbard & Shaver, 1994).

Investigation of the hypothesised relationship between early attachment-related experiences and adult functioning has only recently been undertaken. Preliminary

investigation appeared promising, with early studies supporting the predicted association between insecure attachment and a range of psychiatric disorders including eating disorders (Fonagy et al., 1996). However latterly, few consistent relations have been found between insecure attachment classification and specific psychiatric disorders, suggesting insecure attachment to be a general, as opposed to specific risk factor for types of psychopathology (e.g. Cassidy & Mohr, 2001). Recent advances within the wider attachment literature have in fact suggested a more precise link between disorganised attachment and psychological problems, leading to a shift from the importance of the distinction between security / insecurity to organisation / disorganisation. In contrast to early emphases on the mother as primary “all-important” caregiver, research also suggests differential effects arising from attachments with different caregivers. Disorganised attachment with one parent for example, is not significantly associated with disorganised attachment with the other, with differential effects in outcome depending on whether disorganisation is in relation to the father or the mother (e.g. Green & Goldwyn, 2002).

THE APPLICATION AND EMPIRICAL INVESTIGATION OF ATTACHMENT THEORY TO THE EATING DISORDERS

The application of attachment theory to ED pathology would seem to have evolved from the early clinical studies which suggested a link between insecure attachment and psychiatric disorders generally. Of particular interest to the ED literature however, has been the subsequent opportunity to empirically investigate the mother – infant relationship which lies at the heart of many of the influential psychodynamic and interpersonal theories. It may be of no surprise therefore, that the attachment and eating disorder literature has continued to focus on the implicit theoretical assumption that early mother–infant relationships lead to insecure attachment and constitute an important aetiological factor in the development and maintenance of ED pathology.

Theoretical elaboration of the specific application of attachment theory to ED pathology as opposed to more general psychopathology, has been slower to develop. Theoretically, there have been few proposals of the precise mechanisms or processes involved. Exceptions include constructivist theories, which make links between the quality of the attachment relationship and the subsequent development of cognitive organisation of self and others (e.g. Guidano & Liotti, 1983). Early attachment relationships for example, are purported to provide the framework for developing cognitive structures of self-knowledge, identity and cognitive growth via “looking-glass effects” of interactional feedback. Thus it is hypothesised that insecure attachment relationships typical of eating disordered families lead to the development of a “loose personal organisation”, characterised by an inability to structure an authentic sense of self, self-efficacy or self-worth and characterised by a strong need for approval yet coupled with a fear of rejection (Guidano & Liotti, 1983). Subsequent distortions in self-identity thereby determine a particular attitude toward reality as well as a rather rigid and defensive attitude towards oneself, which become all the more difficult to make explicit and distance oneself from.

The following literature is reviewed in terms of the empirical evidence for the theoretical propositions as applied to ED, and their explanatory value or predictive power in furthering understanding of the aetiology and development of AN / ED pathology.

Incidence of insecure attachment within eating disordered populations

A large proportion of the empirical literature has focussed upon the incidence of insecure attachment amongst eating disordered (anorexic and bulimic) populations. Studies employing the AAI – currently regarded as the most robust research - demonstrate a significantly high incidence of insecure attachment classification (i.e. dismissive and preoccupied) within heterogeneous ED samples compared to non-ED populations, and support predicted associations between insecure attachment and a defensive or restricted cognitive processing bias (Candelori & Ciocca, 1998; Fonagy et al., 1996; Ramacciotti et al., 2001; Ward, Ramsay, Turnbull, Steele, Steele & Treasure, 2001). Similar findings are reported by studies employing other attachment measures (e.g. Armstrong & Roth, 1989; Broberg, Hjalmsers & Nevonen, 2001; Chassler, 1997; Sordelli et al., 1996).

Having established the high incidence of insecure attachment, interest has further focussed on the more precise investigation of attachment classifications and ED subtypes. Findings are varied, with some studies suggesting different attachment classifications between eating disorder subtypes (e.g. restricting anorexics as dismissive and non-restricting anorexics as preoccupied; Candelori & Ciocca, 1998; Chassler, 1997) thereby suggesting different aetiological pathways for different ED subtypes. However, other studies have failed to find differences between subtypes, suggesting that similar attachment difficulties may underlie all ED diagnoses (for a review see O’Kearney, 1996; Ward et al., 2000).

In conclusion therefore, whilst the empirical literature does support hypothesised links between insecure attachment and ED populations, precise relations between subtypes are unclear. Inconsistencies however, may in part be due to a variety of methodological shortcomings, including the frequent lack of control populations (e.g. Chassler, 1997), the use of large heterogeneous ED populations (e.g. Armstrong & Roth, 1989), small sample sizes of distinct eating disorder subtypes (e.g. Ramacciotti et al., 2002) and the use of a wide range of attachment measures, employing different conceptualisations of attachment. Cross-sectional study designs have also meant that few inferences can be drawn about the role and process insecure attachment might play in the aetiology and maintenance of ED. It may be, for example, that attachment insecurities occur as a consequence, as opposed to a precursor, of ED.

Stability of insecure attachment across and between generations

Evidence to support hypotheses regarding the aetiological significance of insecure attachment may be seen to be provided by research which indicates stability of (insecure) attachment between generations. For example, high rates of intergenerational transmission of (insecure) attachment status within ED families suggest that this may constitute a vulnerability factor (Ward et al., 2001). Indeed, high levels of insecure (dismissive) attachment characterised by unresolved loss, trauma and psychological disorder have been found in mothers of AN patients, echoing recent findings within the attachment literature that disorganised / insecure attachment appears to be linked with experiences of unresolved loss / trauma due to parental preoccupation with their own dissociated experiences (Cassidy & Mohr, 2001; Ward et al., 2001). Indeed, AN families have been shown to experience significant high levels of loss – e.g. obstetric loss prior to the AN daughter's birth (Shoebridge & Gowers, 2000) and loss of first-degree relatives (Fairburn, Cowen & Harrison, 1999). However, the role of unresolved loss and trauma and disorganised / organised attachment has yet to be explored in relation to ED although initial indications suggest that it may be an important variable (Ward et al., 2001).

It would also appear that insecure attachment styles are stable across the life span, with compulsive care-seeking and compulsive self-reliance attachment patterns found to characterise current relationships within ED populations (e.g. Ward, Ramsay, Turnbull, Benedettini & Treasure, 2000). However, few attempts have been made to explain cases where ED patients have not been rated as insecurely attached. One exception is Cole-Detke & Kobak (1996), who conclude that either securely attached ED patients have developed a secure system despite their parents, or that attachment strategies are not equivalent to psychopathology but rather act as a potential factor in the developmental pathways model for the emergence of symptoms. Both hypotheses clearly require further empirical investigation and theoretical explanation.

Psychological functioning

In terms of exploring the proposed causal relation between insecure attachment and ED symptomatology, a wide range of psychological functioning has been investigated, including emotional regulation and cognitive functioning. Research suggests that a number of difficulties are characteristic within both domains. For

example, interpersonal difficulties and mood intolerance have been conceptualised as two underlying “core pathologies” maintaining ED pathology (e.g. Fairburn et al., 2003). The research findings support propositions highlighting an association between insecure attachment and the use of “deactivating strategies” aimed at diverting attention away from attachment cues and thereby minimising distress (in AN populations; Cole-Detke & Kobak, 1996; Karwautz et al., 2001a), interpersonal difficulties with “closeness” and “mutuality” (in mixed ED populations: Broberg et al., 2001) and the ineffective use of others and support seeking mechanisms (DeFronzo & Panzarella, 2001).

A number of studies have focussed upon the relationship between attachment classifications and the cognitive distortions characteristic of ED populations. As a major distinguishing feature of ED symptomatology compared to non-clinical dieting behaviour, cognitive theories and models have much to offer understandings of the maintenance and treatment of the eating disorders (e.g. Fairburn et al., 2003), with considerable overlap with attachment hypotheses. For example, associations have been found between insecure attachment, negative self beliefs and low self esteem, with the proposal that this be the mechanism leading to vulnerability towards ED pathology (e.g. Leung, Thomas & Waller, 2000; Sharpe et. al., 1998). However, more precise explanations of the mechanisms between low self-esteem and the development of distorted cognitions regarding body weight, size and food remain lacking.

Constructivist theories have led to the empirical investigation of cognitive style, structure and content of ED populations and constructions of the self and others. Personal Construct Psychology (Kelly, 1955) provides both a theoretical framework for understanding systems of constructions as well as a variety of methods for articulating them. Using the repertory grid technique (RGT) for example, ED populations have been found to significantly differ from control and comparison groups in terms of negative, extreme and polarised self-construing (e.g. Button, 1993; Neimeyer & Khouzam, 1985). Interestingly, people with AN construe themselves most meaningfully at their lowest weight using a restricted number of constructs predominantly relating to body weight, eating and appearance (Button, 1985). Similar to cognitive theories therefore, these findings have led to suggestions that for the eating disordered individual, body weight and shape becomes the most meaningful medium for construing the self and achieving a sense of self-identity (e.g. Button, 1985; Guidano & Liotti, 1983).

In conclusion, the evidence base highlights significant impairment in a number of areas of psychological functioning in ED populations as predicted by attachment formulations. However, the majority of studies have employed cross-sectional designs and have been able only to highlight associations between insecure attachment classification and various patterns of ED symptomatology rather than account for their precise role as either an aetiological factor or merely a consequence. As such, these findings have limited significance in their ability to support theoretical hypotheses of the role of insecure attachment and the subsequent development of ED pathology. Only a small number of studies have employed prospective and longitudinal designs which have indicated that insecure attachment cognitions precede ED symptomatology, rather than being a result thereby providing preliminary support for the aetiological importance of cognitive factors (e.g. Burge et al., 1997; Sharpe et al., 1998). However, further investigations using similar research designs are needed to clarify the role of attachment and development of psychological disturbances.

Methodological and theoretical limitations

The majority of the empirical literature has primarily focused upon establishing the hypothesised link between insecure attachment and ED symptomatology. Although these findings in themselves are of significant clinical interest and worthy of further investigation, a number of methodological inconsistencies and shortcomings considerably weaken their support of the theoretical application and contribution of attachment theory to aetiological accounts of the eating disorders. As highlighted above, the predominant use of cross sectional study designs has done little to advance understanding about the longitudinal course of attachment disturbances and their role in the aetiology and development of ED pathology.

In addition to the methodological weaknesses highlighted above, the seemingly implicit adoption of a "single pathway" or "main effects" model of attachment has further served to undermine the theoretical rigour and robustness of its application to the ED research. Firstly, the literature fails to address or investigate a number of issues that might be theoretically predicted by a single pathway attachment model of the aetiology of AN / BN. If for example, as suggested by a main effects model, the development of ED pathology is due to disruptions in parental (maternal) rearing practices, then a high concordance rate might be expected between sisters living within the same family, particularly since attachment status has been shown to be stable across time, with high correlations between mother and (ED)

daughters. However, female relatives have been found to have only a seven to twelve fold greater risk of developing an ED than a control population (Treasure & Holland, 1995).

Secondly in spite of the general shift away from main effects models within the wider attachment literature on the basis that they are too simplistic in clarifying the role of attachment functions and specific psychiatric disorders (Green & Goldwyn, 2002), empirical investigations assuming a “main effects” model of attachment disruption and ED pathology has effectively disregarded wider research findings which clearly indicate the aetiological significance of environmental (social and cultural), personal and genetic factors. As a result, the more complex investigation of the role of disrupted attachment in combination with a variety of other risk factors (e.g. co-morbid psychological disorders) has been deterred, thereby failing to discount other possible alternative hypotheses (O’Kearney, 1996).

To conclude, in terms of its predictive and explanatory power in relation to ED pathology, it is argued that the application of attachment theory has been hampered by the empirical over-focus on the incidence of insecure attachment between primary caregiver and ED individual. Further and more rigorous investigation of attachment hypotheses and the development of ED symptomatology would appear necessary, particularly the attachment status amongst other family members, (i.e. between siblings concordant and discordance for ED pathology). Indeed, the familial research suggests that the over-focus on the primary caregiver (usually assumed to be the mother) and ED child / adolescent negates and dismisses the existing wealth of empirical literature which points to the significance of the role of the wider family unit as an important environmental factor. Much of the empirical family research has in fact, much to offer and complement the study of attachment within ED populations, despite the shift away from conceptualisations of dysfunctional intrapsychic functioning as resulting from dyadic interactions to conceptualisations of the individual and problem in more systemic terms.

THE ROLE OF THE WIDER FAMILY

The family unit has traditionally been viewed as a significant factor in the aetiology of ED pathology, although changes in theoretical formulations have ultimately led to re-conceptualisations of the role and processes involved. Early systemic theories conceptualised eating disorders to be the resulting symptom of certain dysfunctional family dynamics and interaction. Minuchin et al. (1978) for example characterised families as enmeshed, rigid and overprotective with frequent involvement of the children in parental conflicts and marital satisfaction. The “symptom” (i.e. eating disorder) was conceived to function in such a way as to maintain homeostasis, leading to the foci of investigation resting on the identification of specific aspects and characteristics thought to embody the “anorectic” or “eating disordered” family. Although still influential as testable hypotheses, recent shifts within the systemic paradigm have led to reconceptualisations of the “problem” in terms of family myths, premises or shared belief systems that are coherent with symptomatic behaviours (e.g. Feixas, Procter & Neimeyer, 1995).

Empirical investigation:

Whilst a comprehensive review of the empirical systemic literature is beyond the scope of the present paper, several lines of investigation have had much to offer and complement the study of attachment within ED populations. These include the study of dysfunctional familial relationships and interaction, and parental personality and psychopathology.

A number of studies investigating familial relationships have used a variety of measures including retrospective reporting of relationships (e.g. Parental Bonding Instrument; Parker, Tupling & Brown, 1979). Findings suggest that both AN and BN populations report difficult and troubled relationships with parents, particularly in terms of care, (e.g. Palmer, Oppenheimer & Marshall, 1988) empathy (e.g. Steiger, Van-der Feen, Goldstein & Leichner, 1989) and maternal overprotection (e.g. Guttman & LaPorte, 2002). Differences have been found between ED subtypes’ reports of parental relationships, with BNs tending to report parents (particularly fathers) as “overwhelming” and “less caring”, compared to ANs who report both parents as “absolutely caring” (e.g. Sordelli et al., 1996; Palmer et al., 1988). Other studies however, have failed to find any differences between subtypes, perhaps reflecting the inconsistencies found between attachment and ED subtypes within the attachment literature, with the suggestion that similar

attachment problems may underlie all ED symptomatology (e.g. Steiger et al., 1989).

In addition to difficult parent-child relationships, more systemic investigation beyond the child-parent relationship suggests that difficulties extend into the wider functioning of the family unit. Studies using measures of family functioning (e.g. Family Assessment Device (FAD); Epstein, Baldwin & Bishop, 1983) suggest that ED adults and adolescents report higher levels of family dysfunction than controls, particularly in areas of affective involvement, organisation and behaviour control (e.g. McDermott, Batik, Roberts & Gibbon, 2002). Similarly, some studies have found differences between ED subtypes, therefore thought to characterise “Anorexic” and “Bulimic” families. For example, “BN families” are portrayed as reporting higher levels of parental discord and the family as rejecting and negative (e.g. Humphrey, 1986; Strober & Humphrey, 1987). However, other studies do not support such differences in functioning.

A further area of family research of relevance to the attachment literature is the more recent study of parental psychopathology and personality, particularly as parental mental health has been demonstrated to negatively impact upon early attachment processes and later developmental outcomes of the child (e.g. Cassidy & Mohr, 2001). Preliminary findings suggest higher rates of alcoholism and psychiatric diagnoses in first-degree relatives of ED patients than in controls, particularly elevated rates of obsessive-compulsive disorder and psychosexual difficulties amongst mothers, but not fathers (McGrane & Carr, 2002; Woodside et al., 2002). However, the relevance of these findings in relation to attachment processes and the development of ED pathology have yet to be investigated.

In summary therefore, whilst strongly supporting both attachment and systemic hypotheses of “dysfunctional parenting” in ED populations, family studies also point to the importance and role of other family members. However, the predominant use of between family measures and designs has prevented investigation of “within family” environments or differences which might explain why one sibling in a family develops an ED as opposed to another. Indeed, the majority of research suggests the need to widen the focus of interest to include other members of the family, particularly those traditionally overlooked within the ED literature (e.g. fathers).

Methodological and theoretical limitations

Despite highlighting a number of theoretical and clinical areas of interest, the family research is similarly weakened by methodological shortcomings (e.g. cross sectional designs), which preclude definitive conclusions to be drawn about their role in the aetiology of eating disorders. It might be, for example, that family dynamics and conflict are secondary to the concerns surrounding the disorder (McDermott, Batik, Roberts & Gibbon, 2002).

Furthermore, the majority of the systemic research has continued to focus heavily on investigating structural family characteristics as perceived solely by the family member with the eating disorder. Significantly less investigation of other family members' understandings of the problem has been undertaken despite the shift in focus within the wider systemic literature upon family belief systems. Of the few studies that have explored other family members' perspectives, it is apparent that differences exist between family members' reports, which may be of both clinical and theoretical relevance. For example, parental reports on the PBI have been found to strongly correlate with other, but not with that of the family member with the ED. In contrast, high correlations have been found between all family members where the family member has restricting anorexia nervosa, suggestive of the strong cohesion and enmeshment as hypothesised by Minuchin et al. (1978) (Guttman & LaPorte, 2002).

Parental beliefs, attitudes and perceptions are also of theoretical importance, particularly as early and subsequent interactions with the primary caregiver are assumed to play a significant role in the developing cognitive awareness and identity of the child. For example, the family environment which includes aspects of the parents' personalities and cognitive style, represents the "looking glass" from which the development of cognitive structures of self-knowledge, identity and cognitive growth occur and thus an awareness of family dynamics appears integral to an understanding of the development and maintenance of individual cognitive organisation (Alexander & Neimeyer, 1989; Guidano & Liotti, 1983). Indeed, according to systemic constructivists, it is the parents' cognitive organisation or "construct system" which lays the foundation for the development of "Family Construct Systems". Family Construct Systems are specific ways of understanding the world "which govern the sequences of contingent choices that constitute the interaction patterns of the family members" (Procter, 1981). Constructions of family members are based both on overt behaviour, as well as the shared understanding

of other family members and thus serve to maintain behaviour, interactions and self-knowledge through consensual validation (Feixas et al., 1993). Problems are seen to occur when the family's constructed reality does not work well for individual members and symptoms represent a compromised solution to this conflict.

A number of studies have recently begun to investigate family belief systems and the potential role they may play in the aetiology of ED. For example, certain studies have attempted to identify parental beliefs and attitudes considered to be risk factors in the development of AN / BN. Initial studies report elevated levels of perfectionism in mothers (Woodside et al., 2002) and high rates of eating disorder-type attitudes and behaviours (McGrane & Carr, 2002), with an emphasis on body satisfaction, social appearance and achievement (McDermott, Batik, Roberts, & Gibbon, 2002). However, according to systemic constructivist theories, investigation of familial constructions of individual family members are also needed in addition to beliefs regarding symptoms, in order to highlight problematic family dynamics and understandings which may underpin symptomatic behaviour. Indeed, investigation of family construct systems and interactional patterns would therefore appear to be of theoretical and clinical benefit in informing both attachment and systemic hypotheses of the role of the primary caregiver and the wider family in the aetiology of ED pathology.

The application of personal construct theory and research methodology provides a useful framework for investigation of family construct systems, as family interaction styles and constructs may be largely unspoken. The repertory grid technique (RGT) has been used to investigate the cognitive organisation of AN populations (e.g. Button, 1985) and can also be used to investigate similarities and differences between family members, with the added advantage of eliciting the family members' own constructs, as opposed to providing prescribed categories as typical of other assessment methods (Procter, 1981). A further methodology, the Family Grid (Procter, 1985), specifically allows measurement and insight into the similarity, commonality and / or agreement between family members' views of each other, indicating alliance, identification and / or differentiation and sociality, although this does not yet appear to have been extensively used with ED families.

RECONCEPTUALISING THE ROLE OF THE FAMILY

Despite differing theoretical conceptualisations regarding the role of familial processes thought to be involved in the aetiology of the eating disorders, a quite separate and “atheoretical” school of research has challenged – perhaps even revolutionised - traditional assumptions and investigation of the family and the way in which it exerts its influence. Behavioural genetic studies strongly suggest that developmental outcomes, including psychopathology are due to a combination of genetic and environmental factors (e.g. Dunn, Stocker & Plomin, 1990). In terms of the family, it has been shown that children subjectively experience very different environments compared to their siblings in a range of domains including parental treatment and sibling interaction (i.e. differences exist not only between families – as assumed within the traditional family literature - but also within families). Research findings suggest that it is these “non-shared influences”, in combination with genetic factors, that are more important in the aetiology of individual differences in “normal” or “abnormal” development in areas such as personality (Daniels, 1986); cognition (Plomin, 1990) and various forms of psychopathology (Kendler et al., 1995) than traditionally investigated family constellation variables such as sex, age and birth order (see Daniels & Plomin, 1985; Dunn et al., 1990 for a review).

Although housed within the methodological and statistical framework of behavioural genetic research, these findings have important implications for the conceptualisation and study of the family and its influence upon different members of the family. Differential “within-family” experiences, particularly those relating to relationships with parents are of prime interest to the present discussion, as these appear to be theoretically consistent with attachment and constructivist theories and their association with the development of difficulties.

Conceptual and methodological issues and implications

Traditional approaches to studying the family environment have been guided by assumptions that children in the same family are exposed to similar environments, leading to the investigation of factors frequently thought to be of prime importance in the development of adjustment and personality (e.g. parental mental health, marital relationships, parental relationships). However, these “shared family environmental influences” have been shown to hold little significance in determining why two siblings growing up in the same family might differ in terms of pathology, personality etc. and can therefore be at best be viewed as general or

broad risk factors (Karawautz, Rabe-Hesketh, Collier & Treasure, 2002). Traditional investigations of family also typically involve only one family member (e.g. the child) and cannot therefore investigate perspectives and experiences of other family members (Pike & Plomin, 1996).

Research designs and measures have been adapted to enable the precise investigation of the role of genetic and environmental factors in the differential outcomes in development between siblings, and to determine which factors are of most relevance. The use of twin, adoption and discordant sibling-pair designs provide powerful tools to determine individual specific factors (i.e. genetic and / or environmental) by using the other sibling as a control for cultural and family factors which may be specific to the development of psychopathology (Karwautz et al., 2002). Tools and measures have also been developed to investigate and allow comparison of perceptions and reports of different family members. The Sibling Inventory of Differential Experience (SIDE; Daniels & Plomin, 1987) for example, investigates differential experiences in four domains, including parental treatment, sibling interaction, peer group characteristics and life events.

Empirical investigation: within family differences, differential parental treatment and developmental outcomes

Early empirical investigation of differential parental treatment focussed largely on the interaction and treatment provided by mothers. Preliminary cross-sectional studies initially suggested consistency of maternal behaviour and interaction toward the same child as well as between children, although longitudinal studies later indicated little stability for maternal behaviour towards the same child over time (Dunn, Plomin & Nettles, 1985), supporting earlier observations of differences in maternal behaviour between children, e.g. more directive and intrusive relationships with first-born children (Hilton, 1967).

Preliminary studies investigating within-family differences suggest that between 40-65% of siblings report different experiences across the four domains of the SIDE, most predominantly in terms of sibling interaction and peer groups suggesting that these may be more influential sources of non-shared environmental influences (Plomin & Daniels, 1985). Of central interest to the present discussion however is the empirical investigation of differential parental treatment. In the same study, 9% reported "much difference" with 35% "a bit" of difference in the parental treatment

domain. Interestingly, despite differences in siblings' reports, parents perceived their treatment of their children to be similar (Plomin & Daniels, 1985).

In terms of impact upon later developmental outcomes, early empirical findings suggest that differential parental treatment does play a role in the differential development of siblings, including various types of psychopathology. For example, associations have been made between maternal / parental control and internalising problems (e.g. depression; Dunn et al., 1990; Pike & Plomin, 1996), and externalising problems (e.g. anti-social behaviour in adolescence; Reiss et al., 1995). Findings also propose that negative parental treatment of one sibling acts as a protective buffer or "barricade" for the other sibling, who reports higher maternal closeness and appears better adjusted, scoring more highly on measures of psychological well-being (Daniels, Dunn, Furstenberg & Plomin, 1985).

Differential parental treatment has only recently been investigated within the field of eating disorders, where difficult familial – particularly parental - relationships have consistently been highlighted. Initial findings provide interesting results, particularly in relation to the theoretical application and empirical investigation of attachment relationships and their role in the aetiology of eating disorders.

Eating disorders and the role of differential parental treatment (and other non-shared environmental factors)

Perceptions of differential parental treatment have been reported in both anorexic and bulimic populations. Studies using designs investigating sister pairs discordant for AN (i.e. where one sister has anorexia nervosa and the other sister does not) have found significant differences in terms of perceptions of maternal treatment - specifically maternal control during childhood (Murphy, Troop & Tresaure, 2000) - although this finding was not replicated in a later study (Karwautz et al., 2001a). Both studies however found high rates of (retrospectively reported) pre-morbid jealousy and antagonism by the sister who later went on to develop an ED.

Differences in perceptions of parental treatment have also been reported in studies using MZ twins and sister pairs discordant for Bulimia Nervosa. Twins with BN reported greater family discord, but viewed parents as warmer toward them than their non-ED co-twin (Bulik et al., 2002). Similarly, non-ED sisters reported higher rates of maternal and paternal control, with no differences in the perceptions of parental affection and quality of sibling relationships (Lehoux & Howe, 2001).

Case control studies (ED patients and controls) similarly report significantly different perceptions of parental treatment within ED populations compared to controls. For example, patients with BN are more likely to rate their fathers as less affectionate and more controlling toward them than their sister (Wonderlich, Ukestad & Perzacki, 1994) with associations found between high levels of harm avoidance, high levels of maternal affection and low levels of maternal control (Berg, Crosby, Wonderlich & Hawley, 2000).

The investigation of the role of non-shared environmental factors in the aetiology of the eating disorders is still in its infancy, particularly AN. Preliminary studies suggest that a variety of non-shared environmental factors may constitute important individual-specific risk factors, including differential experiences within the family (i.e. differential parental treatment and sibling interaction) as well as outer-familial experiences such as body weight teasing (Lehoux & Howe, 2001), exposure to sexual abuse (Kendler et al., 2000) and prenatal and perinatal factors (Foley et al., 2001). Further research seems required to more fully investigate these early findings.

Methodological limitations

Despite providing a fresh conceptualisation of the family environment and powerful research designs which enable the more precise exploration of individual-specific factors which may be important in the development of ED pathology, methodological shortcomings limit the kind of conclusions that can be drawn. Although beyond the scope of this paper, it is necessary to briefly highlight the limitation of behavioural genetic studies to fully distinguish the differential effects of genetic and environmental influences (e.g. gene-environment correlations and interactions; Klump et al., 2000; Turkheimer & Waldron, 2000). There are also clear limitations to the heavy reliance on retrospective self-reports (i.e. SIDE), especially when investigating perceptions of parental treatment (e.g. Daniels, 1986; Dunn et al., 1996).

Despite these difficulties however, findings confirm that both AN and BN are strongly familial, although conclusions regarding specific genetic and environmental contributions in their aetiology remain limited (Bulik et al., 2000b). Direct examination of genetic and environmental correlations would require the identification of specific genes and prospective longitudinal family studies in order to assess their role and impact upon the development of an ED. Nevertheless, until

such designs are employed, theoretical and empirical reviews of the family's role in the aetiology of the eating disorders suggest a number of under-explored avenues and hypotheses that would seem to be of both theoretical and clinical interest.

SUMMARY

A review of the attachment theory literature suggests that insecure attachment constitutes a general risk factor for certain types of psychopathology, including eating disorders. Empirical findings support associations between disrupted attachment, dysfunctional family functioning and the onset of eating disorders in one individual in a family, although specific associations between attachment classification and ED subtypes have not been established. Indeed, a comprehensive theoretical explanation in relation to ED pathology appears somewhat lacking. Theoretical propositions for example would seemingly predict high rates of insecure attachment amongst siblings sharing similar parental-care environments. However, this phenomenon is not supported by statistics, thereby pointing to the importance of other mechanisms and processes unaccounted for by the theoretical application of attachment theory to the eating disorders.

Of particular relevance to the present study is the finding that the overall family environment is not of particular significance in determining differential developmental outcomes – i.e. ED pathology (Karawautz et al., 2002). This suggests that non-shared influences such as differential parental treatment are of greater significance as the potential mechanisms through which identified aetiological factors exert their influence (Klump et al., 2002). Preliminary exploration suggests that differences in parental treatment, particularly maternal control may be significant, although further investigation is needed to confirm initial findings. Behavioural genetic research findings also highlight the need to undertake investigation of relationships with different family members, particularly fathers, whose role and influence has previously been under-explored in the attachment and ED research. It may be for example, that perceptions of differential parental treatment reflect differential attachment relationships with one child as opposed to the other (Karawautz et al., 2002). It might also be that one parent is critical of one daughter's weight and more accepting of the other's (Klump et al., 2000).

Much of the family systemic literature has explored the "ED family" from the perspective of the member with an ED. Theoretical formulations suggest however

that parental construct systems and cognitive style are significant in the formation and development of the child's developing self knowledge and construct system, and are therefore of significance in the development of ED psychopathology. This indicates the need to investigate parental perceptions of their daughters and whether these correlate with reports of differential parental treatment between siblings, which have of yet, been largely ignored.

Further investigation: research hypotheses

According to a main effect model, the transmission of an insecure attachment from mother to daughter constitutes a significant factor in the aetiology and maintenance of ED pathology. However, it has been argued that a number of theoretical inconsistencies are raised in terms of the attachment status of siblings discordant for ED pathology (see Figure 1.):

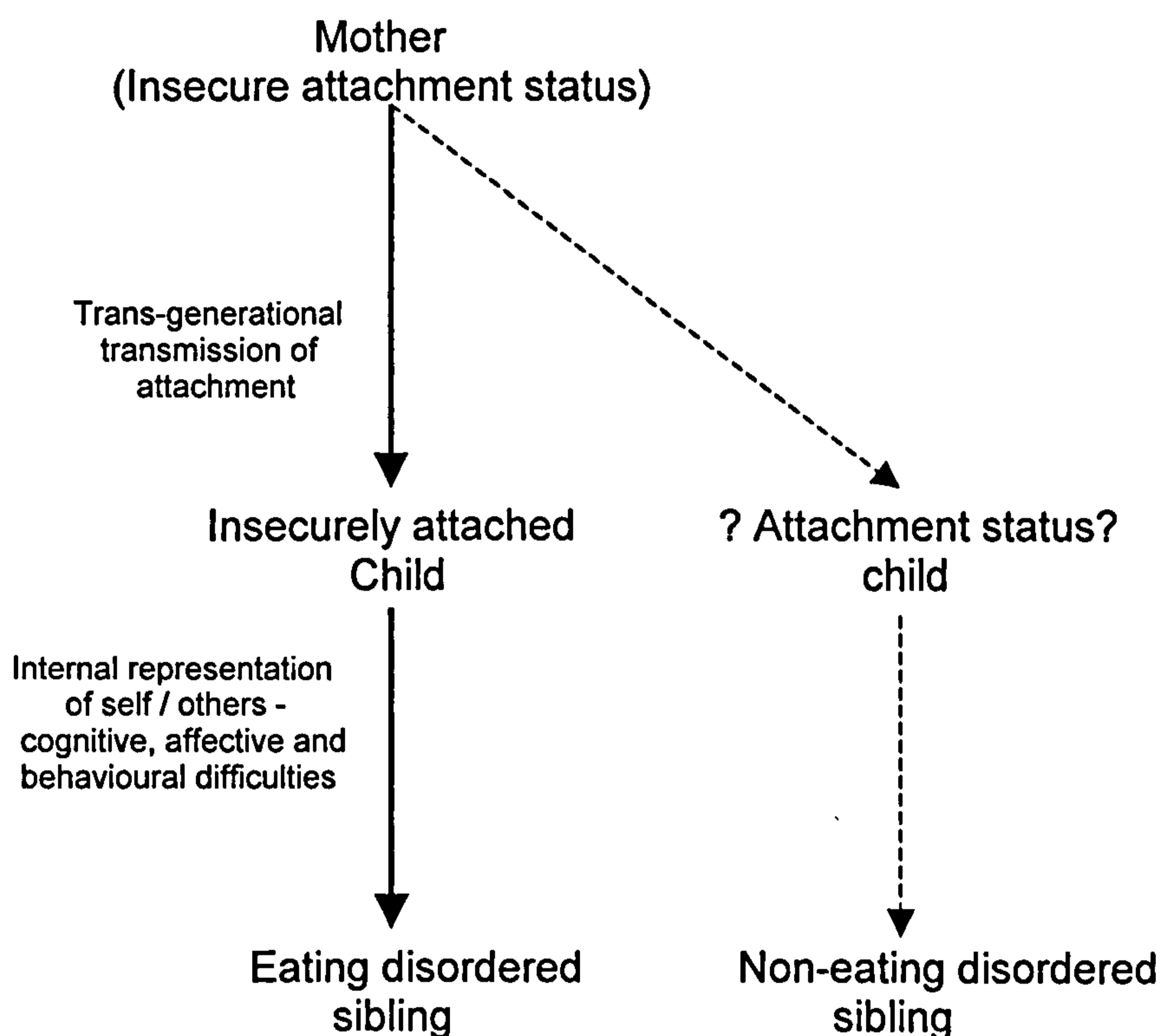


Figure 1. Main effect model of attachment and eating disorder pathology

According to the theory, it might be expected that the trans-generational transmission of insecure attachment extends to all siblings in the family, thereby raising questions regarding the proposed link between insecure attachment and ED status in cases where only one member has an eating disorder. Alternatively, it might be the case that high rates of psychiatric symptomatology (other than ED) might be found amongst non-eating disordered siblings thereby raising questions

regarding the specified relationship between insecure attachment and ED pathology. Finally, it might be possible that non-ED siblings are “securely attached”, thereby supporting the proposed role of insecure attachment in the development of ED pathology, yet raising questions regarding the transmission of attachment and mediating variables.

This study aims to further explore hypotheses of attachment and ED pathology by investigating whether differences exist in attachment and reports of parental treatment between sisters discordant for ED pathology (i.e. sister pairs where one sister has an ED and the other does not). Parental construing of daughters will also be investigated in terms of the theoretical link between family construct systems and early attachment processes (e.g. Guidano & Liotti, 1983). Based upon the theoretical and empirical literature, Figure 2. presents the hypothesised relationship between attachment status, siblings’ perceptions of parental treatment and sibling interaction in sister pairs discordant for eating disorder pathology.

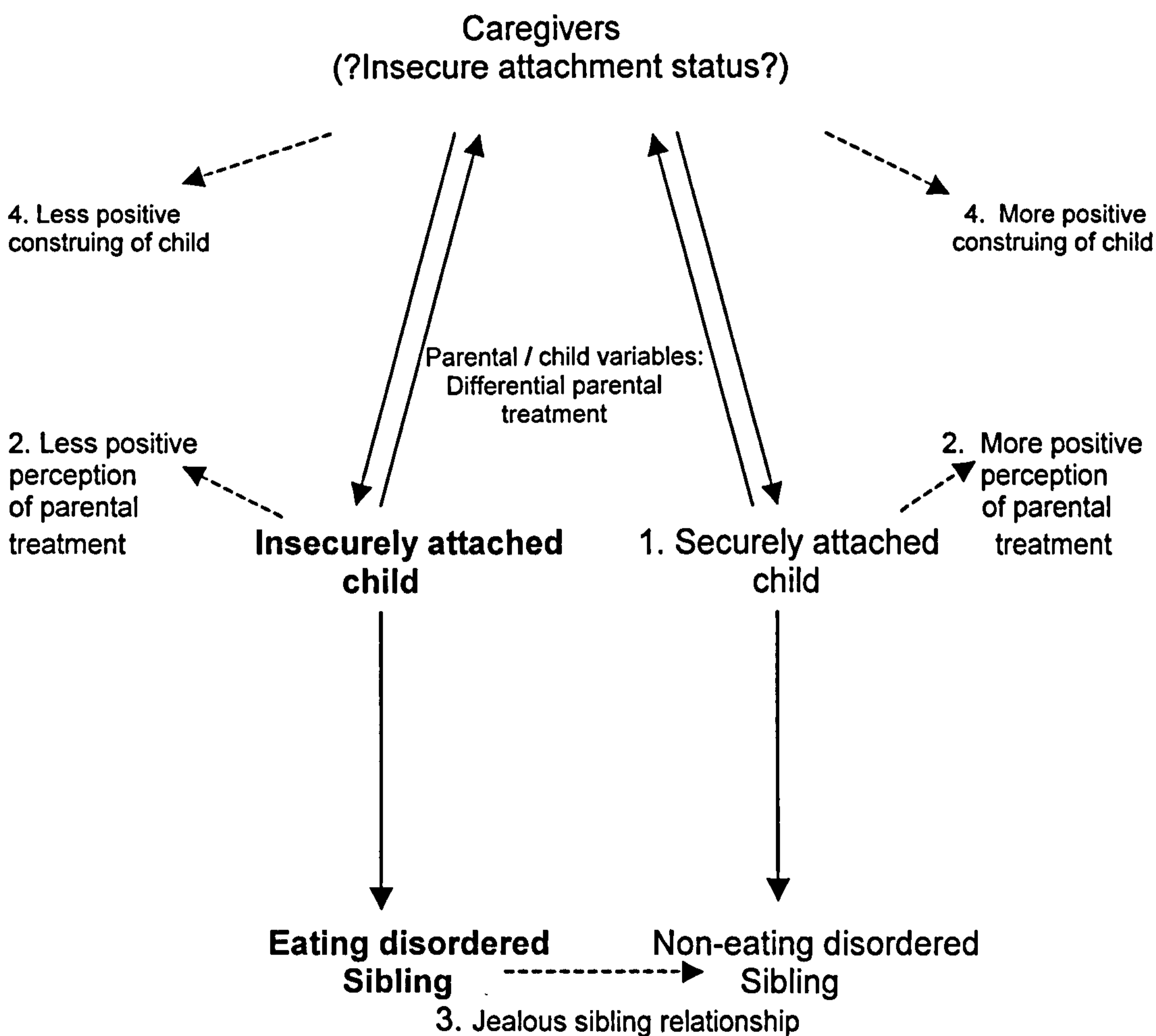


Figure 2. Hypothesised relationship between attachment status and perceptions of parental treatment, sibling interaction and parental construing in sister pairs discordant for eating disorder pathology.

The following research hypotheses are stated:

Primary research hypotheses and questions:

1. According to theoretical formulations, it is hypothesised that attachment patterns will differ between sister pairs discordant for ED. It is expected that higher levels of attachment insecurity will be found within the ED sister group, particularly in terms of the “feared loss” and “perceived availability” of the attachment figure and “compulsive care seeking” attachment pattern, as found by Ward et al. (2000).
2. Based on previous research findings, it is expected that ED siblings will report lower levels of parental affection (maternal and paternal) and higher levels of control during childhood compared to non-ED sisters (Murphy et al., 2000). It is hypothesised that perceptions of parental treatment will differ in relation to attachment status.
3. Based on previous findings, it is expected that ED siblings will report higher levels of sibling jealousy toward their sisters than non-ED siblings (e.g. Karawautz et al., 2001a; Murphy et al., 2000). Differences in sibling jealousy are hypothesised as reflecting perceived differences in parental treatment.
4. It is hypothesised that differences in attachment between the two sibling groups will be reflected in parental construing of their daughters. It is expected that non-ED daughters will be construed more positively than ED daughters prior to and post development of eating disorder symptomatology. Measures of similarity / dissimilarity are hypothesised to reflect perceived differences between siblings.
5. According to the theoretical relationships between attachment, perceptions of parental treatment and parental construing of (pre) ED and non-ED daughters, it is predicted that there will be significant associations between higher insecure attachment, less positive perceptions of parental treatment and parental construing.

Exploratory investigations

1. A content analysis of parental constructs will be undertaken in order to gain insight into the construed differences and similarities predicted between ED and non-ED daughters.
2. Repertory grids will be analysed (principal component analysis) to examine the unidimensionality or “tightness” of parental construct systems to investigate whether there is any similarities to the tightness of construing found in eating disordered – particularly AN populations (e.g. Button, 1985).
3. Mothers' and fathers' construing of daughters will be compared in order to investigate whether there are any differences between their perceptions of their children, as might be expected according to early psychodynamic theories.

METHODOLOGY

METHODOLOGY

Design

A cross sectional matched pair design was employed to investigate differences in attachment and perceptions of parental treatment between sisters discordant for ED pathology. Patients (“cases”) were assigned to the ED sister group and their sisters (“controls”) were assigned to the non-ED sister group. Parents were included where possible, in order to explore parental perceptions and compare these with sibling reports.

The chosen design controls for many extraneous variables characteristic of between-family studies and replicates more recent investigation of individual specific risk factors in the aetiology of ED pathology (e.g. Karawautz et al., 2002; Klump et al., 2002; Murphy et al., 2000).

Measures were administered by post in order to maximise inclusion of siblings who had moved away from the local area and who may otherwise have been unavailable or inaccessible for interview.

Participants

Sample source

Participants were recruited from two neighbouring community NHS Eating Disorder Services based within the Home Counties. Services were similar in terms of patient eligibility criteria, staffing, and provision of treatments. Both provide a multidisciplinary assessment and treatment service for adults (18 and over) presenting with a range of eating disorder pathology.

Each team is comprised of part-time staff including a consultant psychiatrist, clinical psychologist(s), community mental health nurses and a dietician. Decisions regarding diagnoses are made clinically within the team rather than by formal diagnostic interview procedures. Neither service provides specialist day-care or in-patient facilities, meaning that more severely affected patients (i.e. low weight) who require medical intervention are referred out of county to more specialist (NHS and / or private) in-patient units by prior agreement. Patients with dual diagnoses (e.g. personality disorder / drug and alcohol) are associated with higher

levels of risk and are seen conjointly within Community Mental Health Team settings.

Inclusion criteria: Patients:

Female patients currently being offered outpatient treatment for eating disorder pathology (AN, BN, EDNOS) with a sister were considered eligible for inclusion. Male patients, singletons and female patients with brothers only or sisters below the age of 16 were excluded from the study, as were patients who had been discharged from the service.

Diagnostic criteria (e.g. DSM IV) were not used to differentiate ED subtypes due to the working practice of each ED service (see above), in addition to conceptual shortcomings highlighted earlier (see Introduction, p.4).

Siblings:

Female siblings were included if over the age of 16 and without a history or current presentation of ED pathology of clinical severity. Sisters were also required to be of nearest age to patients and to have lived in the family home for at least eight years, as used in previous designs (e.g. Karwautz, 2002; Murphy et al., 2000).

Parents:

Biological parents were included if they had lived in the family home up until and / or following the onset of the eating disorder and remained in close contact with the siblings. Parents who had separated or divorced prior to the development of the eating disorder were excluded.

Sample Size

Based on the results reported by Murphy et al., (2000) the computed effect size as given by d was medium to large ($d=.80$) Assuming a similar large effect size for this study, a power calculation with a medium to large effect size (r effect = 0.35), a power of .80 and an alpha of 5% (one-tailed) revealed a sample size of 52 subjects (26 pairs).

Procedure

Clinical consultation

A close working relationship with each team was established in order to most effectively negotiate procedures for identifying and recruiting patients and their families. Difficulties specific to ED populations were highlighted in terms of their potential impact upon recruitment and retention. These included a characteristically ambivalent relationship with ED services, poor concentration, low motivation and difficult family relationships. The following procedures were therefore negotiated with services, so as to respect confidentiality and maximise collaboration without compromising clinical or ethical duties and boundaries.

Identification and Recruitment

Patients

Potential participants were initially identified by each ED service from their database of current patients and screened in terms of the inclusion and exclusion criteria. Eligible patients were then approached by key workers / therapists during routine contact with the service (i.e. appointments) and advised of the opportunity to participate in the research study. Patients were given a brief introduction outlining the purpose of the study and asked to provide their name and contact details if they were interested in obtaining further information about the study (Appendix 1).

Patients who registered interest via key workers / therapists were then contacted by letter or telephone (as indicated by the patient) in order to obtain consent to send the following literature and arrange a meeting. Prior to appointments, participants were sent a covering letter (Appendix 2), an information sheet (Appendix 3) and consent form (Appendix 4). A brief meeting was then held (usually in the patient's home) in order to address any outstanding queries or concerns, obtain consent and contact details of siblings and parents and introduce the questionnaires.

Siblings

Sisters of patients who had agreed to participate were contacted by telephone or letter as indicated by the patient and asked whether they would be willing to participate and / or receive more information regarding the study. Interested

siblings were then sent a covering letter (Appendix 5), an information sheet (Appendix 6) and a consent form (Appendix 7).

Parents

Parents were contacted by telephone or letter as indicated by the patient and asked whether they would be willing to participate and / or receive more information regarding the study. Interested parents were sent a covering letter (Appendix 8), an information leaflet (Appendix 9) and a consent form (Appendix 10).

26 sibling pairs and 10 pairs of parents were recruited to participate in the study out of a population of 41 eligible patients (Figure 3). Reasons for not wanting to participate in the study appeared to revolve around a reluctance to involve other family members, either because they were unaware of the patient's eating disorder, the patient had severed contact with family members and / or the patient did not wish their illness to cause any further distress or inconvenience to their family.

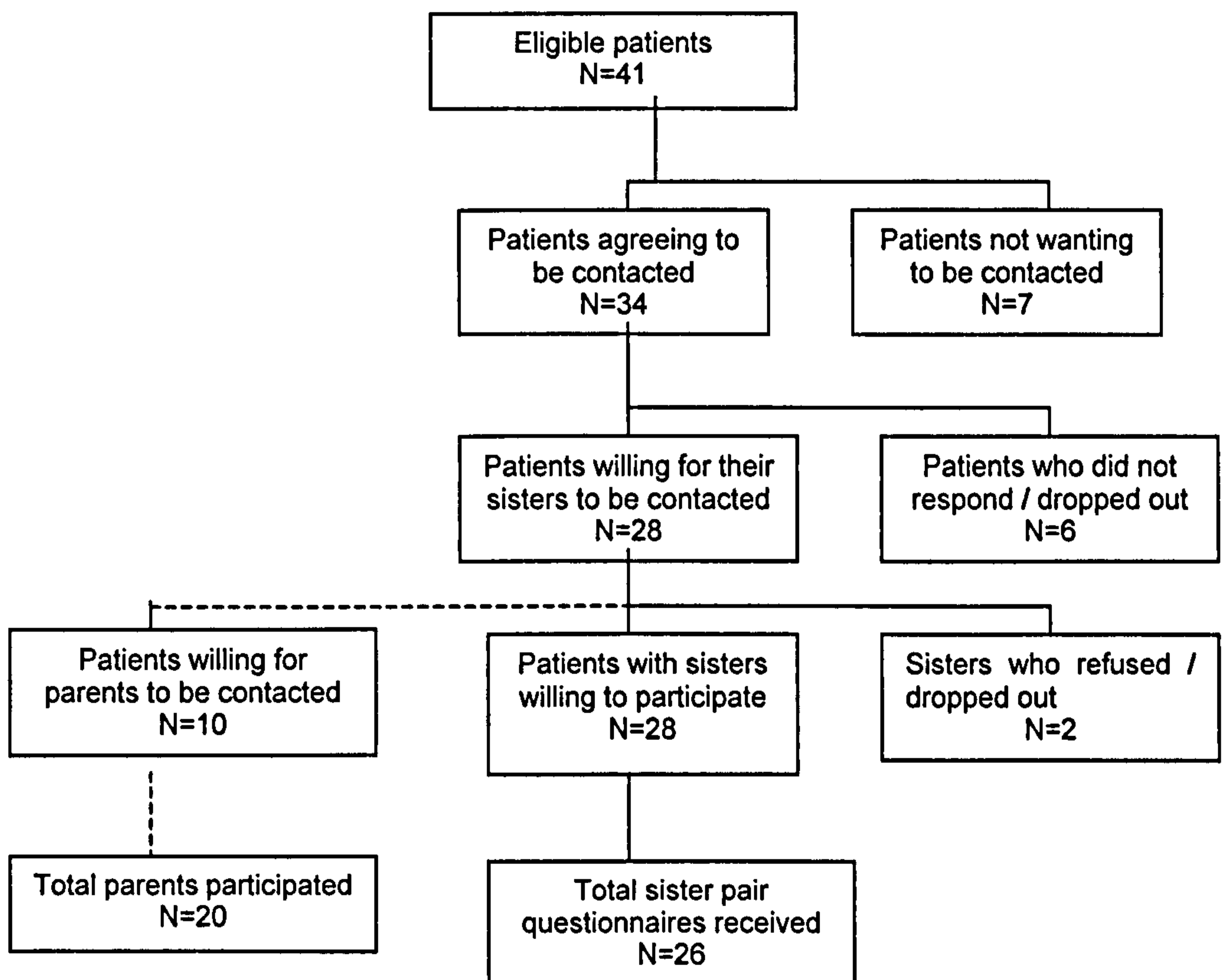


Figure 3: Recruitment

MEASURES

Each measure was considered in terms of the time and ease of completion given the potential difficulties with concentration and engagement, in addition to its psychometric properties.

1. Eating disorder pathology: Stirling Eating Disorder Scales

(Williams et al., 1994: Appendix 11)

Use

The Stirling Eating Disorder Scales (SEDS; Williams et al., 1994) were used to assess severity of eating disorder pathology in the ED patient group and to determine the presence / absence of an eating disorder in the non-ED sister group, thereby providing a measure of discordance.

Description

The SEDS is a self-report measure consisting of 80 items, designed to screen and assess severity of clinical ED symptomatology. The measure includes eight subscales of ten items, four of which assess both anorexic and bulimic dietary cognitions and behaviour:

Anorexic Dietary Cognitions (ADC)

Anorexic Dietary Behaviour (ADB)

Bulimic Dietary Cognitions (BDC)

Bulimic Dietary Behaviour (BDB)

Four further scales measure cognitive and emotional features that have been shown to be important distinguishing features of ED pathology:

Perceived External Control (PEC)

Low Assertiveness (LA)

Low Self-Esteem (LSE)

Self-Directed Hostility (SDH)

Scoring

Participants indicate the presence or absence of eating disorder cognitions and behaviour by ticking true or false in response to the 80 items. Each item has a

scale weight and scores are calculated by adding the scale values (weights) of agreed upon items (Williams et al., 1994). Cut-off scores indicate the presence of ED symptomatology, although the sample from which these were derived was small.

Psychometric properties

The authors provide a comprehensive account of the item selection and construction of the scale (Williams et al., 1994). The scale was standardised using both anorexic and bulimic eating disordered populations and controls and has demonstrated good psychometric properties in terms of internal consistency ($\alpha > 0.8$), reliability (test-retest $r > 0.9$) and concurrent validity with other widely used comparison measures (Williams et al., 1994).

Strengths and limitations

Psychometric data suggest that the SEDS is a reliable, valid and consistent measure of ED pathology and has the ability to differentiate both bulimic and anorexic dietary cognitions and behaviour. This is clearly an advantage when researching mixed ED populations and / or encompassing subtypes which transcend diagnostic classifications. The SEDS is also useful in incorporating cognitive and emotional variables shown to be particularly relevant to ED populations, although they do not differentiate between ED subtypes. Indeed, the cognitive and emotional variables have been shown to be relevant to other psychological groups and may therefore provide further clinical information on siblings discordant for ED pathology (Williams et al., 1994).

Limitations or disadvantages include the reliance on self-reporting of ED symptomatology and the large carbon copy format, which makes postage and scoring difficult. It may be for this reason that the SEDS is somewhat less widely used in research studies than other measures (e.g. Eating Disorder Inventory II; Garner, 1990). Nevertheless, for the purpose of the present project, the SEDS was considered a comprehensive and effective measure of ED dietary cognitions, behaviour and associated psychological features.

2. Clinical symptomatology: Hospital Anxiety and Depression Scale

(HADS; Zigmond & Smith, 1983; Appendix 12)

Use

The Hospital Anxiety and Depression Scale was used to assess for frequently occurring co-morbid anxiety and depression. A more detailed and comprehensive clinical profile of both sister groups was considered necessary in order to investigate the possibility of alternative psychological or psychiatric symptomatology in the non-ED sibling group.

Description

The HADS is a 14-item self-report measure developed to detect and assess severity of anxiety and depressive symptomatology.

Scoring

Anxiety and depressive symptomatology are rated separately on 7 items each. Participants are asked to indicate severity of depression and anxiety experienced in the past week by underlining one of three statements per item, scored from 0-3 (3 indicating greatest severity). Anxiety and depression scores range from 0-21, with cut off scores indicating mild (8-10), moderate (11-15) and severe (16 and over) cases.

Psychometric properties

Original cut off scores were established by mapping raw scores against severity ratings provided by clinical judges. Criticism of the above procedure led to the more recent approach of referring an individual's score to normative values derived from the general adult population (Crawford, Henry, Crombie & Taylor, 2001). The authors recommend a cut off score of 10 / 11 to identify caseness, which has been shown to be more consistent with estimates of the prevalence of anxiety and depression derived from epidemiological studies.

Strengths and limitations

The HADS is a simple, quick and reliable measure to complete and interpret and is widely used in clinical practice and research (Crawford et al., 2001). Limitations associated with its use include the reliance on self-report as well as the limited range of symptomatology compared to other measures (e.g. Brief Symptom

Inventory). However, when weighing up the time required to complete questionnaires with potential difficulties in concentration, motivation and engagement, the HADS was considered to be the most suitable and effective measure of common co-morbid psychological disorder.

3. Measure of attachment: Reciprocal Attachment Questionnaire

(RAQ; West & Sheldon, 1984: Appendix 13)

Use

The RAQ was used to assess and compare attachment behaviours and patterns in sister groups.

Description

The RAQ focuses upon specific behaviours associated with the adult attachment system and the insecure-secure dimensional dichotomy in relation to a reciprocal adult attachment figure (Sperling, Foelsch & Grace, 1996). The 43-item self report questionnaire consists of nine subscales, grouped into three dimensions of insecure attachment including function, use and pattern.

a) Function

Consistent with Bowlby's theory, the RAQ defines an attachment relationship in terms of its function (achievement of felt security) rather than structure (specific forms of relationships or behaviours). Attachment relationships are therefore differentiated from other social relationships in terms of the behaviours employed in the face of threat. Three subscales define the criteria that distinguishes an attachment relationship from other social relationships, including:

1. Separation Protest (SP)
2. Feared Loss (FL)
3. Proximity Seeking (PS)

b) Provision

The RAQ specifies the unique provision offered by an attachment relationship, which according to Bowlby, includes perceived responsiveness of the person who is turned to for emotional and instrumental support. Two subscales define the provisions provided by attachment, including:

1. Use
2. Perceived Availability (Avail)

c) Pattern

Four subscales identify the dysfunctional patterns of insecure attachment, 3 of which correspond directly to Bowlby's classification scheme of insecure attachment. The authors have included a fourth style termed "angry withdrawal," encompassing a further pattern identified by Bowlby alternating between anxious and angry from which an ambivalent pattern arises:

1. Angry Withdrawal (AW)
2. Compulsive Care-Seeking (CCS)
3. Compulsive Self-Reliance (CSR)
4. Compulsive Care-Giving (CCG)

Scoring

Questions are grouped into 9 subscales. The 5 dimension subscales (function and provision) consist of 3 items rated on a 5-point scale ranging from "strongly agree" (1) to "strongly disagree" (5) (minimum score= 3, maximum score=15). The four attachment patterns subscales consist of seven items each (minimum score = 7, maximum score=35). High scores indicate greater insecurity with respect to the attachment dimension being measured (West, Spreng, Casares-Knight, Rose & Leiper, 1998).

Theoretical considerations

The RAQ seeks to operationalise and assess the function, use and style of adult attachment outlined by Bowlby. It is based on a definition of adult attachment that focuses on reciprocal attachment to a significant other rather than on parents or dependants, thereby representing a shift away from the primacy of parental attachment figures (Lyddon et al., 1993). An adult attachment figure is defined by the authors as the person one is most likely to be living with or romantically involved with; the person most likely to be turned to for comfort, help, advice, love or understanding, the person most likely to be depended on and who may depend on you for some things (not including family members).

Theoretically, the RAQ is argued to be in close accordance with the Adult Attachment Interview and its classification system of dismissing, autonomous and enmeshed attachment (West & Sheldon, 1994). Primary differences between measures are reported to be technical rather than theoretical, including the format (i.e. semi-structured interview and self-report questionnaire) and attachment figure (i.e. parent as opposed to current attachment figure).

Psychometric properties

The authors provide a comprehensive account of the theoretical framework, scale construction and item generation (West & Sheldon 1984). The reliability and validity of the RAQ has been established with both clinical and non-clinical populations, with acceptable structural coherence of scales (alpha coefficients ranging from .87 and .88) and test-retest reliability over a 4-month period. Factor analysis confirmed the theoretical distinction between the criteria and provisions of adult attachment, suggesting that the scales are consistent with the theoretical constructs they are thought to represent (Sperling et al., 1996; West et al., 1998). The RAQ has also demonstrated consistency with other self-report measures of attachment, with two of its scales (angry withdrawal and compulsive self reliance) appearing to be empirically consistent with Ainsworth's "anxious ambivalence" and avoidant classification (Lyddon et al., 1993).

Strengths and Limitations

Despite the dominance of a categorical approach toward attachment, the RAQ aims to document various behavioural components of attachment outlined by Bowlby. In addition to its strong theoretical orientation, a dimensional approach was considered to be more useful in furthering understanding of insecure attachment within ED populations by allowing more precise assessment of individual differences in intensity rather than merely reporting categorisation. Dimensional measures (e.g. RAQ) have only recently been used in research undertaken with ED and control populations, with preliminary investigations revealing significant differences between ED and non-ED populations, but not between ED subgroups (Ward et al., 2000).

A further advantage of the RAQ is its ability to provide insight into current attachment difficulties in close interpersonal relationships by requiring the

participant to select the most appropriate relationship based on the authors definition of adult reciprocal attachment. This was considered an important advantage over other measures in light of the difficulties with interpersonal and romantic relationships characteristic of ED populations. For the purpose of consistency, the same definition of current reciprocal attachment was adopted as defined by West and Sheldon (1984), with the additional instruction that the attachment figure should ideally be someone outside the immediate family (Ward et al., 2000).

A disadvantage of using the RAQ is its relatively long format consisting of nine separate subscales, which compared to categorical measures (i.e. single variable) increases the potential number of statistical analyses involved. A further limitation is the lack of standardisation, precluding general conclusions to be drawn. However, its ability to provide a comprehensive comparison of siblings' attachment profiles was considered to be of prime importance to the present study.

4. Perceptions of parental treatment and sibling interaction: Sibling Inventory of Differential Experience

(SIDE; Daniels & Plomin, 1984: Appendix 14)

Use

The SIDE was used to investigate sibling pairs' perceptions of parental treatment and sibling interaction during childhood.

Description

The 73 item self-report measure consists of four domains: sibling interaction (24 items tapping four underlying factors: antagonism, care-taking, jealousy and closeness), parental treatment (9 items rating maternal and paternal affection and control), peer characteristics (26 items on three subscales including orientation toward college, delinquency and popularity) and events specific to the individual.

Each sibling is asked to compare their experience relative to their sibling rather than make absolute judgements. Items are phrased so individuals respond by averaging their experiences over the years when they were growing up in the family home (Daniels & Plomin, 1985).

Scoring

Items are scored using a 5-point scale indicating both the amount and the direction of difference between themselves and their sibling (e.g. my sibling has been much more this way than I have (1), my sibling has been a bit more this way than I have (2), my sibling and I have been the same in this way (3), I have been a bit more this way than my sibling (4), I have been much more this way than my sibling (5).

Scores are obtained by adding items and dividing the subscale score by the number of items. A mean score of three indicates no differential sibling experience. Scores of four and five indicate “self more than sibling”, whereas scores of one and two indicate “sibling more than self”.

Psychometric properties

The authors provide a comprehensive account of the construction and piloting of the scale. Psychometric data was obtained from a large sample of biological and adoptive siblings. The SIDE demonstrates good test-retest reliability ($r = .84$) with some low to moderate intercorrelations between scales and shows little genetic influence, implying that its origin is primarily environmental (Daniels, 1986).

Strengths and limitations

Psychometric data provided by the SIDE suggest that it is a reliable measure of sibling differential experience across the four domains (Daniels & Plomin, 1985). It is also one of a few measures specifically designed to assess perceptions of differential experience within family environments and has been widely used in developmental and behavioural genetic research studies, including recent investigation of the role of non-shared environmental factors in the aetiology of eating disorders (e.g. Karawautz et al., 2002; Murphy et al., 2000). The relative scoring system provides a simple and direct measurement of the presence and magnitude of differential experience without relying on difference scores or regression techniques.

Limitations include reliance on retrospective reporting of general experiences rather than objective observational assessment. However, this was not considered a disadvantage to the present study as the focus is upon subjective perceptions and experience as opposed to objective measurement. The SIDE is also restricted

to a limited number of “non-shared” domains (Daniels & Plomin, 1985) although again, the exploration of differential perceptions of parental treatment and sibling interaction are of central interest to the present study and so would appear to be a highly appropriate measure.

6. Parental construing of daughters: Repertory Grid Technique

(RGT; Kelly, 1955: Appendix 15)

Use

The Repertory Grid Technique (RGT) was used to explore and compare parental construing of daughters prior to and post development of an eating disorder.

Description and administration

The RGT is an assessment method derived from Personal Construct Theory (Kelly, 1955) that can be used to compare and contrast important individuals in a person’s life and describe these distinctions in terms of a person’s own idiosyncratic personal constructs (Neimeyer & Neimeyer, 1993).

Grids consisted of 12 elements (persons) from which 12 constructs were elicited from participants using an interactive interview format. Elements were restricted to the same domain (i.e. family members) in order to permit meaningful comparison (Yorke, 1989). These were supplied and numbered in order to standardise administration across participants, including:

1. Mother
2. Father
3. Partner
4. Self
5. (Pre) ED daughter as a child
6. Non-ED daughter as a child
7. ED daughter now
8. Non-ED daughter now
9. Ideal daughter
10. Ideal self
11. Self as a child
12. A disliked person.

Elements were chosen in order to reflect an intergenerational representation of the family, including participants' own parents, partner and daughters. The "ideal daughter" element was supplied in order to provide a measure of positivity / negativity of construing of daughters over time. "A disliked person" was included in order to represent a contrast or "outsider" to the family system and therefore potentially elicit a wider range of constructs. The "ideal self" element was included to provide a reference from which a measure of self-esteem can be obtained (Button, 1985).

Constructs were elicited "sequentially" using the triadic method described by Winter (2003). Constructs are used to distinguish between similarity and difference (i.e. discrimination) and are bipolar in nature (Beail, 1985). The "emergent pole" refers to the more predominant or accessible term people use to discriminate, with the opposite distinction referred to as the "contrast" pole. Elicitation involves the successive presentation of triads of elements and asking in what important way are two (e.g. family members) similar and thereby different from the third. If only one pole of a construct was offered, the participant was asked to identify the contrast pole. The construct "thin" / "fat" was supplied by the principal investigator in order to specifically investigate parental construing of body size. Participants were then asked to rate elements in terms of the constructs using a 7-point scale.

Analysis

Although repertory grids can be analysed in a variety of ways (e.g. Neimeyer & Neimeyer, 1993), data pertaining to the current investigation primarily involved the analysis of "element distance measures" using the Flexigrid software computer package (Tschudi, 1984). Element distance measures allow examination of the degree of similarity or dissimilarity of parental construing between sister pairs. A further measure (positivity / negativity) can be gained from the distance between each daughter and "ideal daughter". Differences range from 0-2, with higher values suggesting greater distance (dissimilarity) and lower values suggesting greater similarity in construing (Makhlouf Norris, 1972).

A second commonly used structural measure was employed to examine subordinate hypotheses regarding the unidimensionality or "tightness" of parental construct systems. Principal component analysis provides information on the

interrelationship of major groups of constructs (Winter, 2003). The first component is derived in such a way that it accounts for the maximum variance and a high variance (maximum 100%) is generally taken to indicate a tightly organised construct system (Winter, 2003).

Psychometric properties

Despite a number of criticisms regarding the validity and reliability of the RGT as a research instrument (e.g. Yorke, 1989), general statements regarding the psychometric properties of the RGT are relatively meaningless according to Winter (2003), since each grid seeks to obtain an idiographic representation of an individual's personal construct system. However, empirical evidence supports the use of RGT as a reliable and valid research instrument (e.g. Winter, 2003), and despite its idiographic nature, has been shown to demonstrate impressive reliability (Feixas et al., 1993). Reliability and validity can also be increased by standardising administration procedures (Button, 1985).

Strengths and Limitations

The RGT was chosen as a method for exploring parental perceptions of daughters due to its ability to combine the exploration of personal meaning at a lower level of awareness with an objectivity in scoring (Winter, 2003). This was considered to be a valuable advantage, given the potentially sensitive nature of the investigation undertaken with parents. Furthermore, in support of the exploratory nature of the investigation, the RGT allows greater freedom for assessing parents' own meanings and perspectives by eliciting their own constructs and rating them on a 7-point scale rather than being asked predetermined questions with a forced choice format (e.g. Beail, 1985).

Disadvantages or limitations in the present context included the necessity to supply elements in order to standardise procedures. The RGT is also time consuming both in its administration and interpretation, particularly as parents were interviewed separately.

Administration of measures:

Patients and siblings

Recruited patients and their siblings were sent the Stirling Eating Disorder Scales, The Hospital Anxiety and Depression Scale, The Sibling Inventory of Differential Experience and The Reciprocal Attachment Questionnaire with a covering letter (Appendix 16). Questionnaires had been estimated to take up to an hour and a half to complete and a stamped addressed envelope was provided for their return.

Parents

Parents were contacted by telephone in order to arrange a convenient appointment to meet with each of them separately to complete a repertory grid. Meetings took place in the family home and each interview lasted approximately 90 minutes.

ETHICAL CONSIDERATIONS

A number of ethical issues were raised in the planning and proposed execution of the study and identified by the Local Research Ethics Committee (LREC). These were addressed as follows:

Informed consent

Participation in the study was dependent on informed consent. Information sheets and verbal communications strongly emphasised that the decision to participate in the study was voluntary and participants were free to withdraw consent at any time without affecting their current or future care needs in any way.

Confidentiality and anonymity

The need for a close working relationship with the ED service and team members was made clear to participants in information sheets and verbal communication (i.e. to ensure clinical support and advice in the event that participation in the research study caused distress). However, participants were assured that all data, including information held on computer databases was coded so that individuals could not be identified from the data. Raw information was kept in a locked filing cabinet.

It was not considered necessary to inform GPs of their patient's participation since no medical or psychological intervention was taking place. However, participants were offered the opportunity to obtain a summary of the study, procedures and measures in order to provide to their GP if they wished.

Ethical responsibility and protection of participants' well-being

Although none of the measures were considered to seek information of a highly personal or distressing nature, it was acknowledged that the research subject may be a potentially sensitive area for both patients and their families. Strategies were therefore put in place in order to address any issues that may be raised for participants as a consequence of their participation in the study. Current patients for example were encouraged to contact their key worker or therapist to discuss concerns. Parents and non-ED siblings were also given the opportunity to contact the ED service and / or given appropriate information and contact details (e.g. the Eating Disorders Association) in case they should wish to discuss any issues independently that may have been raised by participating in the study.

The principal investigator also assumed responsibility for contacting non-patients in the event that a participant's score indicated the presence of a psychological problem (e.g. high depression score). In such cases, the individual would be contacted and informed of possible avenues of support should she / he wish. These included the offer of an initial consultation with one of the ED service's clinical psychologists, advice to contact their local general practitioner, and / or information and contact details of local mental health services and self-help groups.

The project obtained full ethical approval from both NHS local research and ethical committees.

RESULTS

RESULTS

Research hypotheses involved the comparison of sister pairs discordant for ED pathology. Profiles of eating disorder and clinical symptomatology are presented prior to investigation of specific research hypotheses.

SAMPLE DESCRIPTION

Demographic data for the ED and non-ED sibling groups can be found in Table 1. Sister groups were similar in age, with a mean age of 30 years (range 20-49) and 29 years (range 16-46) for the ED and non-ED sister group respectively. ED sisters were the elders of the sister pairs in 58% of the cases. 77% of non-ED sisters were married or romantically attached, compared to 50% of the ED sister group.

Table 1. Age, birth order and marital status of sibling groups

Variable	ED sibling group N =26	Non-ED sibling group N =26
Mean age (SD)	30.18 years (8.62)	29.32 years (8.90)
<u>Birth order:</u>		
Elder	15 (58%)	
Younger	11 (42%)	
<u>Relationship status</u>		
Attached	13 (50%)	20 (77%)
Single	13 (50%)	6 (23%)

Eating Disorder Pathology

Eating disorder status was ascertained using the first four subscales of the Stirling Eating Disorder Scales (SEDS). These relate to specific ED pathology, namely anorexic and bulimic dietary cognitions and behaviour. The remaining four subscales, concerned with the more general cognitive and emotional features associated with eating disorder pathology but also present in other clinical groups, are presented separately overleaf.

Of the 26 ED patients who participated in the study, thirteen were classified by the ED service as having Restricting Anorexia Nervosa, seven as Anorexia Nervosa (Bulimia subtype) and six as Bulimia Nervosa (two of whom had initially presented with restricting AN when referred to the service). Mean age of onset of ED pathology was 18 years (age range 10 – 30) with a mean duration of 13 years (range 9 months – 29 years).

Descriptive analysis of the SEDS eating pathology subscales

Distribution of scores can be seen in Figure 4a. (see textbox for interpretation). Means and SDs are presented in Table 2. As might be expected between clinical and non-clinical samples, the data is skewed with standard deviations (SDs), skewness and kurtosis scores indicating abnormalities in the distribution of data. As such, median values are the more robust measure of central tendency as opposed to mean values and shall be referred to in cases where the data is abnormally distributed.

As expected, higher median values within the ED group indicate higher levels of ED pathology. Cut off scores indicating caseness (Table 3) confirms the clinical severity of anorexic dietary cognitions (92%) and behaviours (58%) and bulimic cognitions (73%) and behaviour (58%) within the ED group. In comparison, median values on all four subscales within the non-ED group fall well below clinical cut off scores. However, four extreme scores on both the Anorexic and Bulimic cognition and behaviour subscales (cases 1, 2, 23 and 24) fall above the clinical threshold resulting in 19%, 12% and 15% of non-ED sisters being classified as ED on the Anorexic and Bulimic Dietary Cognitions and Bulimic Dietary Behaviour scales respectively.

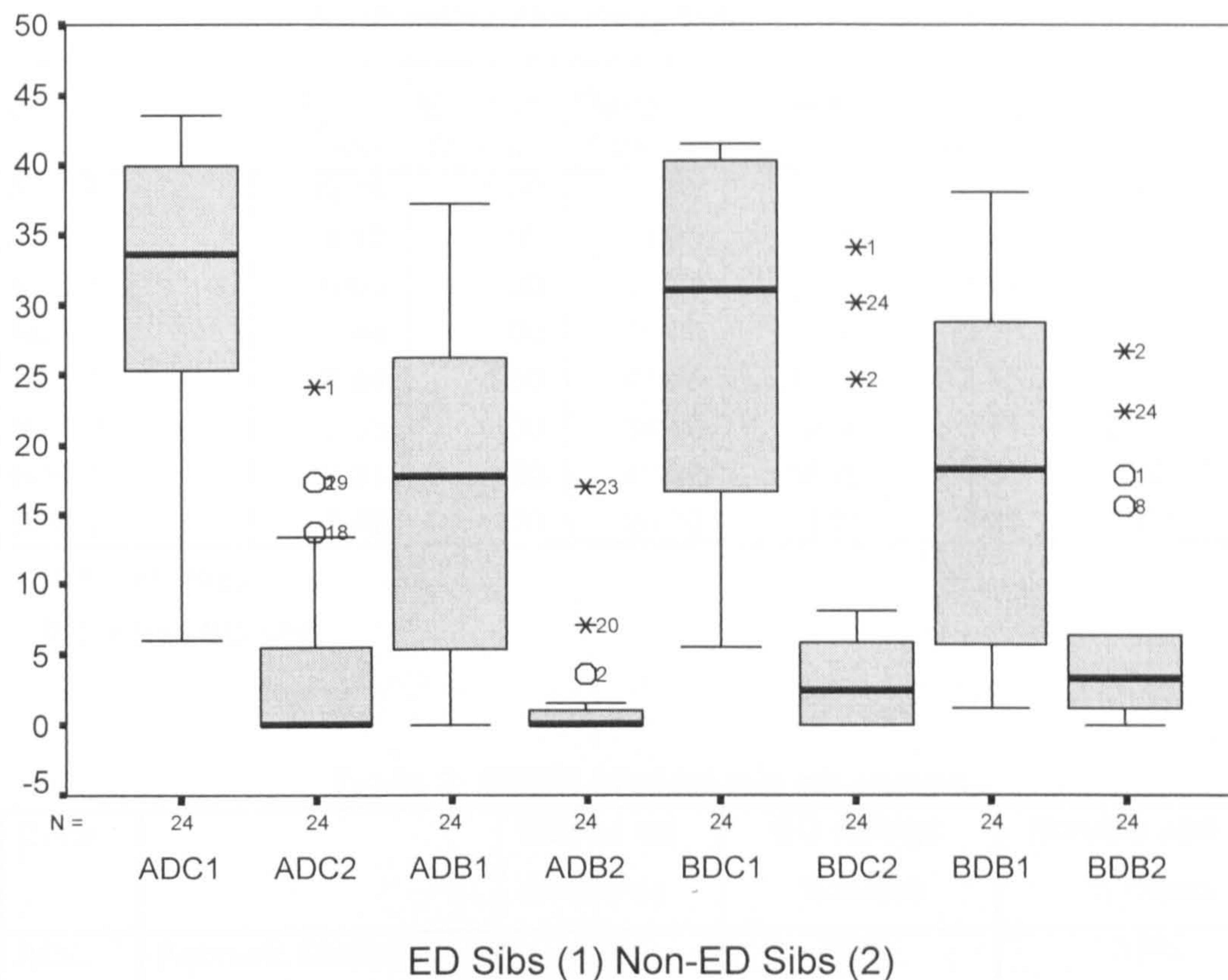


Fig 4a. Distribution of ED and non-ED siblings' scores on the SEDS eating pathology subscales

Key: ADC= Anorectic Dietary Cognitions
 ADB= Anorectic Dietary Behaviours
 BDC= Bulimic Dietary Cognitions
 BDB= Bulimic Dietary Behaviours

Interpretation of box plots
 The median represents the measure of central tendency, depicted by the dark horizontal line within the shaded box. Each shaded area represents 50% of scores, with the higher and lower bars (whiskers) representing the 75th and 25th percentile respectively. Values more than 1.5 times the box-length from either the 75th and 25th percentile are known as outliers and are designated with a circle. Extreme values fall 3 box-lengths from the 75th and 25th percentile and are represented by an asterisk.

Table 2. SEDS Eating Pathology Subscales Descriptive Statistics

	Mean	Minimum	Maximum	Median	SD	Skewnes	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
ADC a	30.75	6.00	43.50	32.60	10.95	-.903	-.293
ADC b	4.12	.00	24.20	.00	7.05	1.701	1.801
ADB 1	16.66	.00	37.10	17.10	11.04	-.041	-1.061
ADB 2	1.44	.00	16.90	.00	3.56	3.834	15.864
BDC 1	28.44	5.50	41.40	31.70	12.15	-.537	-1.095
BDC 2	5.63	.00	34.10	2.00	9.47	2.288	4.320
BDB 1	19.31	1.20	43.10	18.70	13.68	.065	-1.390
BDB 2	5.42	.00	26.70	3.30	7.25	1.928	2.907

a. 1 = ED Sibs

b. 2 = Non-ED Sibs

Table 3: SEDS clinical cut off scores

Code		Clinical cut off scores	ED siblings % cases	Non-ED siblings % cases
ADC	Anorexic Dietary Cognitions	9	92%	19%
ADB	Anorexic Dietary Behaviours	14	58%	4%
BDC	Bulimic Dietary Cognitions	17	73%	12%
BDB	Bulimic Dietary Behaviours	14	58%	15%

Clinical interpretation

SEDS profiles confirm that sister groups are distinct for ED pathology. However, four “non-ED” sisters scored highly on both the anorectic and bulimic dietary cognition and bulimic dietary behaviour subscales, suggesting that they may in fact be concordant with their sisters for ED pathology.

The wide range of scores on all four subscales indicates varying degrees of severity of ED pathology within the patient group. However, a wide range of scores - some of which fall below the clinical cut off score (e.g. minimum AN dietary

behaviour score =1) - is also characteristic of a mixed ED group. For example, there was inclusion of patients in whom one might not expect to see shared symptomatology (i.e. restricting anorexics absent of bulimic symptoms and therefore scoring low on BN subscales) and patients who present with mixed symptomatology (i.e. anorexia – binge-purging subtype scoring highly on all subscales).

Statistical procedures

Non-parametric statistics for related samples (Wilcoxon) were selected to examine differences between the two sister groups due to abnormalities in the distribution of the data. Despite retention of four potentially concordant sister pairs, non-parametric statistical analysis confirmed a highly statistically significant difference between the two groups for ED pathology on both the anorexic and bulimic cognitions subscales (ADC $z = 4.25$, $p < .001$; BDC $z = 3.86$, $p < .001$, one-tailed) and Anorexic Dietary Behaviour subscale ($z = 3.89$, $p < .001$, one-tailed) with a more marginal significance on the Bulimic Dietary Behaviour scale ($z = 3.22$, $p < .01$).

Cognitive and emotional subscale scores

Analyses were carried out on the four remaining SEDS subscales assessing additional core personality characteristics central to ED pathology but also present in other clinical disorders (low assertiveness, low self-esteem, lack of perceived control and self-directed hostility). Comparisons were undertaken in order to investigate (and / or rule out) the presence of underlying pathology that may have been common to both sister groups.

Descriptive analysis of the SEDS cognitive and emotions subscales

Figure 4b. and Table 4. provide the distribution, means and SDs of ED and non-ED sisters' scores. Whilst the data appears more widely and evenly distributed in both groups, large discrepancies in the standard deviations (control and hostility subscales), skewness and kurtosis scores indicate abnormalities in distribution.

As on the first four subscales, higher median values within the ED group indicate higher levels of low assertiveness (24.60), low self-esteem (27.20) and self

directed hostility (28.70) compared to non-ED sisters. Table 5. confirms the higher percentage of caseness on each subscale within the ED sister group with 80% and over falling above scores indicating clinical significance on each subscale. However, as suggested by the positive skew, 23% and 15% do not qualify for clinical severity on the assertiveness and self esteem subscales suggesting that a number of ED sisters do not experience significant difficulties in these areas.

In comparison, a number of non-ED sisters reported difficulties with low assertiveness (27%) and self esteem (27%), as indicated by the number of scores falling above the clinical cut off scores, suggesting some commonality of difficulties across sister groups.

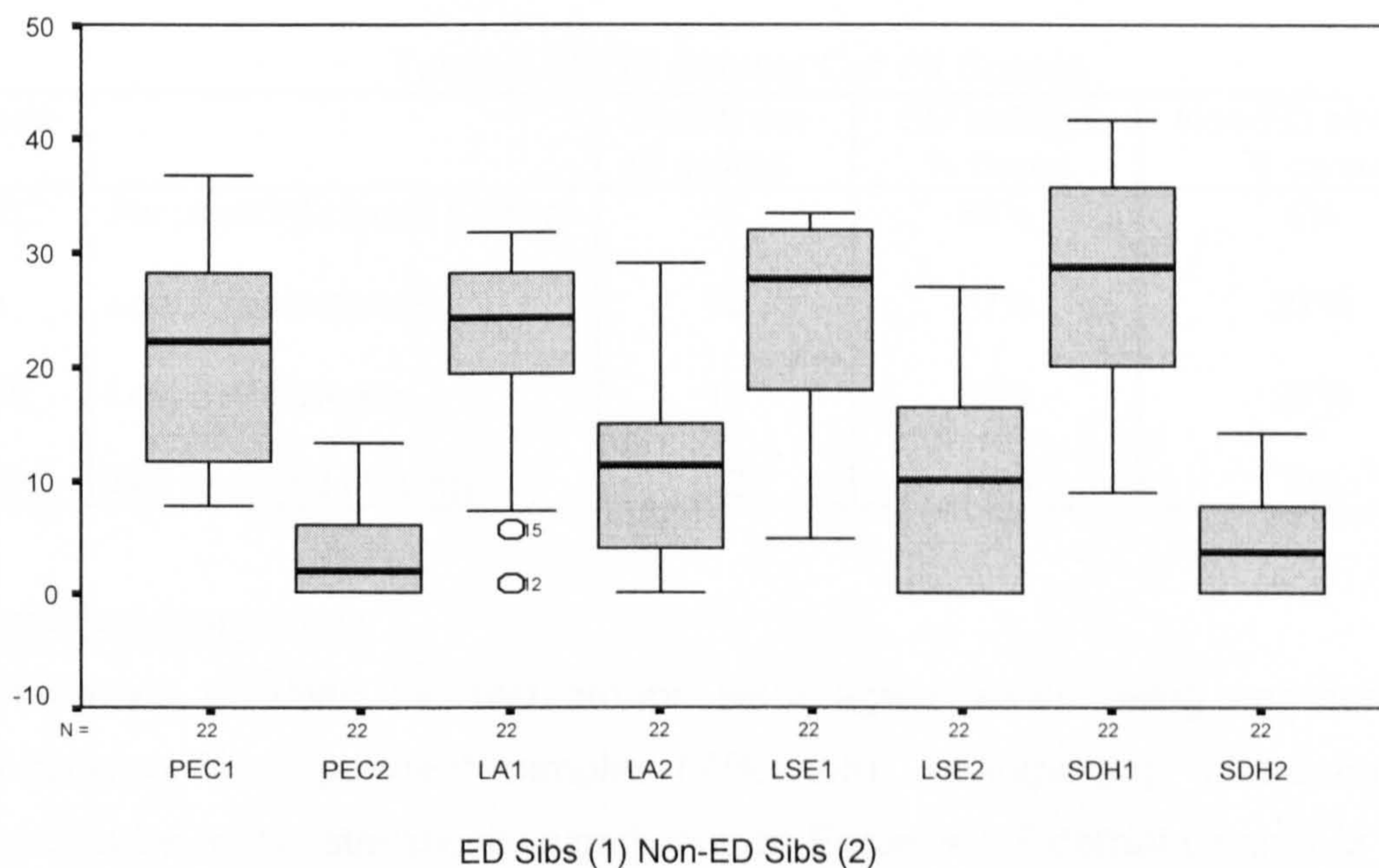


Figure 4b. SEDS cognitive and emotional subscale scores

Key: PEC = Perceived External Control
 LA = Low assertiveness
 LSE = Low Self-Esteem
 SDH = Self Directed Hostility

Table 4 SEDS Cognitive and Emotional Subscales Descriptive Statistics

	Mean	Minimum	Maximum	Median	SD	Skewnes	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
PEC a	21.58	3.60	36.80	23.60	10.27	-.120	-1.287
PEC b	3.11	.00	13.40	2.00	3.71	1.213	.919
LA 1	21.73	.00	31.90	24.60	9.62	-1.183	.344
LA 2	10.87	.00	29.00	11.10	8.39	.434	-.631
LSE 1	24.01	4.90	33.40	27.20	9.07	-.748	-.469
LSE 2	10.22	.00	27.00	10.40	8.66	.391	-.852
SDH 1	26.08	1.30	41.60	28.70	11.44	-.292	-.621
SDH 2	4.50	.00	14.30	3.80	4.40	.418	-.952

a. 1 = ED Sibs

b. 2 = Non-ED Sibs

Table 5 SEDS Clinical Cut off Scores

Code		Clinical cut off scores	ED siblings % cases	Non-ED siblings % cases
PEC	Perceived External Control	9	88%	8%
LA	Low Assertiveness	15	77%	27%
LSE	Low Self Esteem	14	85%	27%
SDH	Self Directed Hostility	12	85%	4%

Statistical procedures

Differences between the two groups were again tested using non-parametric procedures for dependent samples (Wilcoxon). As expected, differences were found to be highly statistically significant on Perceived External Control ($z = 4.29$, $p < .001$, one-tailed) Low Self-Esteem ($z = 3.83$, $p < .001$, one-tailed) and Self Directed Harm ($z = 4.17$, $p < .001$, one-tailed), with a more marginal level of significance on the Low Assertiveness subscale ($z = 3.49$, $p < .01$, one-tailed).

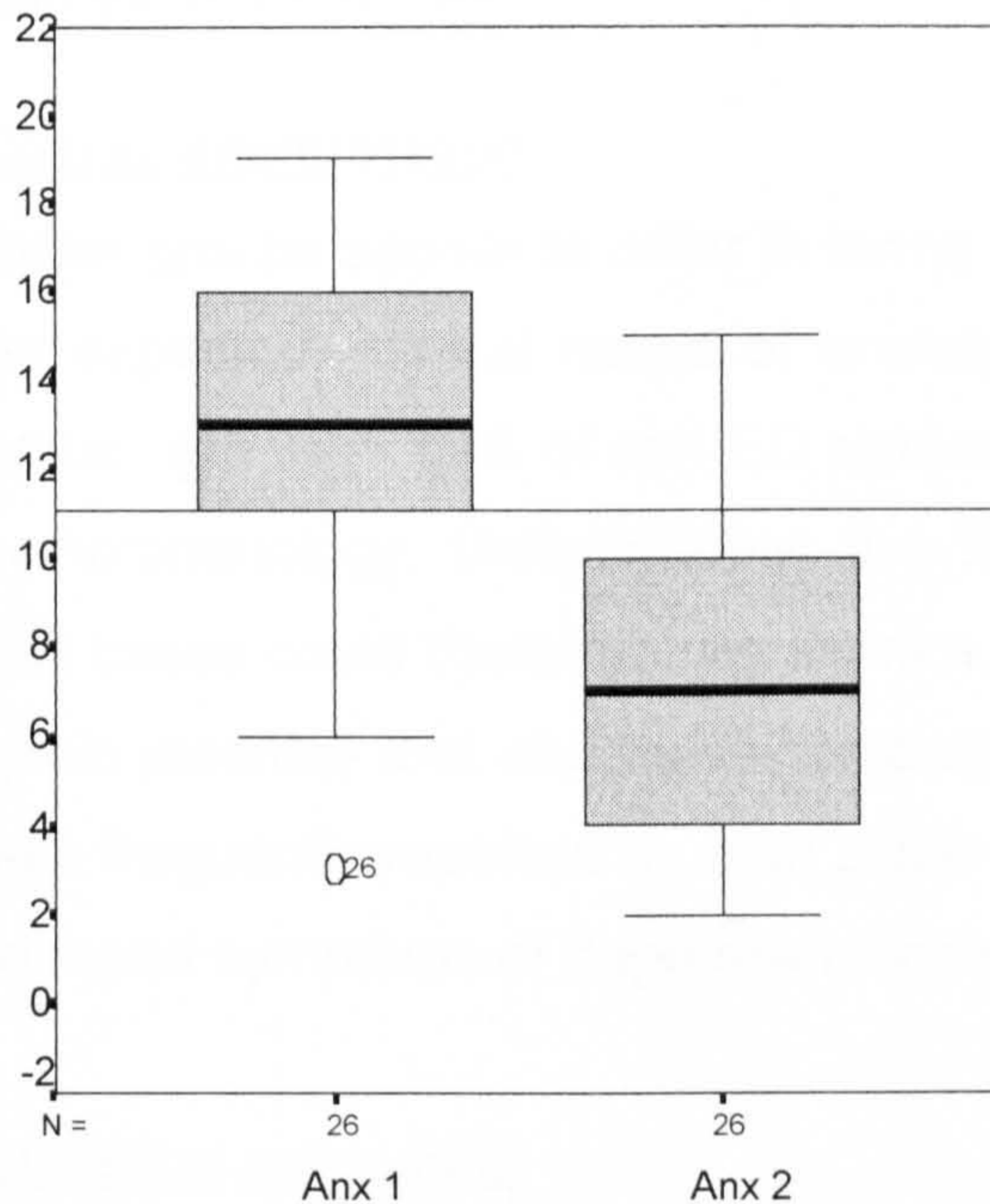
Clinical symptomatology:

Additional clinical symptomatology was assessed using the Hospital Anxiety and Depression Scale (HADS).

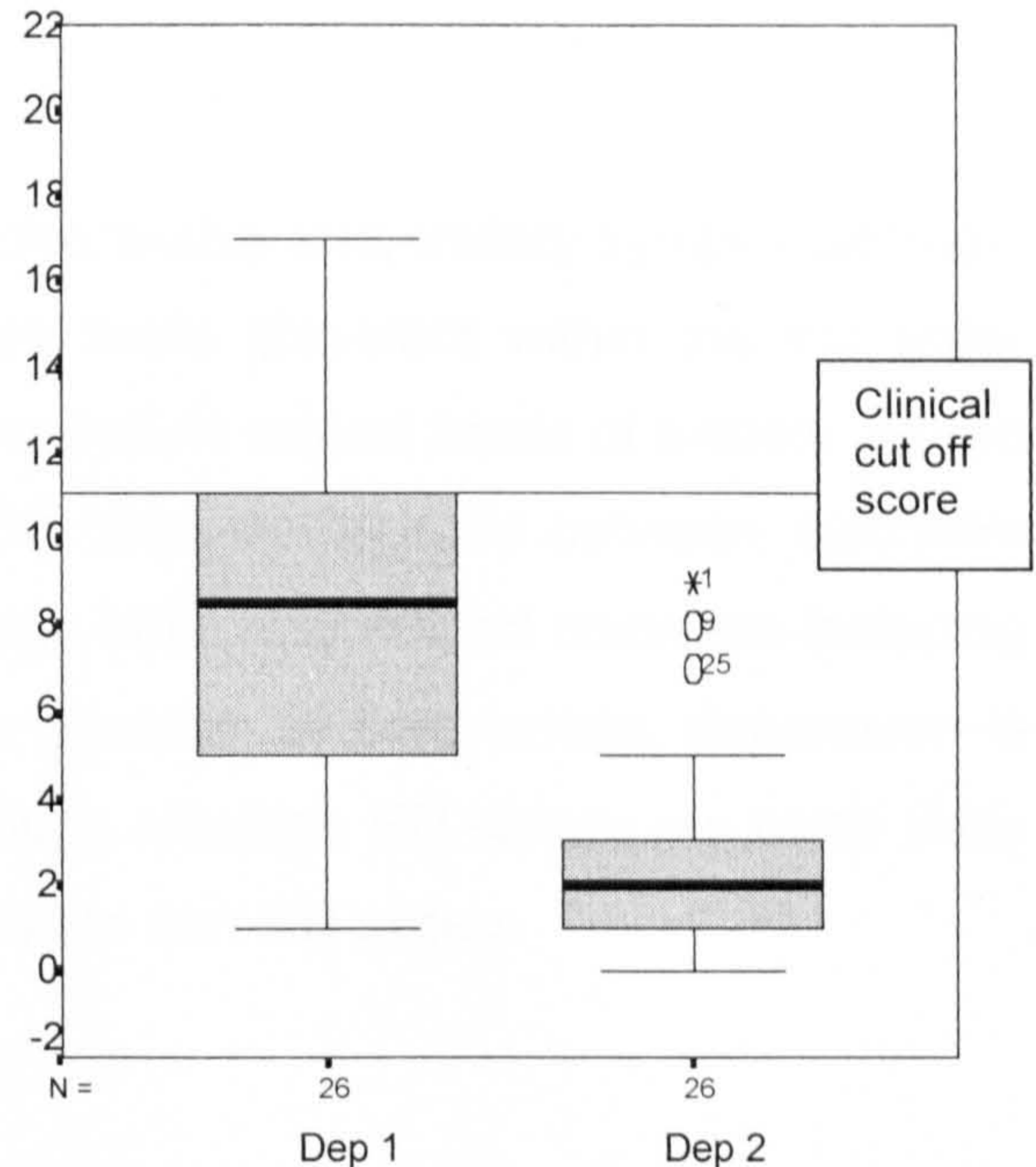
Descriptive Analysis of the HADS scores

Distribution of HADS scores can be seen in Figures 5a. and 5b. Means and standard deviations are given in Table 6. The reference line indicates clinical

caseness (score 11 and above) as suggested by Crawford et al. (2001). Whilst box plots infer normality of distribution – excepting an outlying and extreme score on the non-ED depression subscale - skewness and kurtosis values suggest that there are some abnormalities in the distribution of scores within both the non-ED responses.



ED Sibs (1) Non-ED Sibs(2)



ED Sibs(1) Non-ED Sibs(2)

Fig 5a. Anxiety Scores

Fig 5b. Depression Scores

Table 6: HADS Descriptive statistics

	Mean	Minimum	Maximum	Median	SD	Skewnes	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Anxiety ^a 1	12.96	3.00	19.00	13.00	4.13	-.541	-.084
Anxiety ^b 2	7.31	2.00	15.00	7.00	4.05	.373	-.951
Depression 1	8.38	1.00	17.00	8.50	4.51	.070	-.668
Depression 2	2.69	.00	9.00	2.00	2.38	1.343	1.347

a. 1 = ED Sibs

b. 2 = Non-ED Sibs

Sisters' anxiety scores share a similar range of 13 points, although median values indicate higher severity of anxiety within the ED sister group (median=13.00) compared to the non-ED sisters (median=7.00). Table 6 confirms the higher percentage of caseness within the ED sister group, with 69% qualifying for a clinical diagnosis of anxiety compared to 23% of non-ED sisters.

In comparison, depression scores are clearly unequally distributed between groups. Median values suggest greater symptom severity within the ED sister group (median=8.50) compared to the non-ED group (2.00). Distributions are also more widely spread within the ED sister group, with 31% falling within the range of clinical severity compared to 0% within the non-ED group, despite three outlying and extreme scores.

Clinical interpretation

Sister groups appear to differ in terms of depressive and anxiety symptomatology. As expected, clinical cases of anxiety are more prevalent within the ED sister group, although 19% of non-ED sisters also report clinical levels of anxiety related symptomatology. Unfortunately, the HADS does not specify between disorders and cases could therefore represent a range of anxiety related disorders including panic disorder and obsessive-compulsive disorder. In comparison, depression is less frequently reported by both sister groups although ED sisters are more likely to report symptoms of depression compared to non-ED sisters.

Statistical procedure

Due to abnormalities in the distribution of data, non-parametric tests were conducted to investigate differences between the two groups. In accordance with the clinical interpretation of findings, group means were highly significantly different for both anxiety ($z = 3.70, p < .001$, one-tailed) and depression ($z = 4.12, p < .001$, one-tailed).

SUMMARY

Sister groups were similar in age with relatively equal numbers of older / younger sib-ship combinations (58%). Non-ED sisters were more likely to be in a romantic relationship. Statistically, the two groups were discordant for ED pathology, depression and anxiety. However, clinical measures suggest that four sister pairs may in fact have been concordant for ED pathology. Several cases of anxiety related disorders were also reported in the non-ED sister group. Due to small sample size however, all participants were retained in the study for statistical analysis.

INVESTIGATION OF RESEARCH HYPOTHESES

Sister groups discordant for ED pathology were compared in terms of attachment status, perceptions of parental treatment and sibling interaction. Prior to investigation of research hypotheses, an analysis of descriptive data was conducted in order to test for normality of distribution (e.g. skew and kurtosis; Fife-Schaw, 1995). Group comparisons were then carried out using either parametric (*t*-test for dependent samples) or nonparametric (Wilcoxon) statistical analysis where appropriate. Rationale for choice of test is presented following descriptive analyses of scale data, prior to statistical procedures. A qualitative analysis of RGT data was also undertaken in order to explore quantitative findings. Finally, correlational analyses were conducted to investigate hypothesised relationships between variables under examination.

Research hypothesis 1:

Differences in attachment patterns between ED and non-ED sisters

According to the theoretical and empirical application of attachment theory, insecure attachment is a significant factor in the aetiology and maintenance of ED pathology. According to theoretical formulations, it is hypothesised that attachment patterns will differ between siblings with and without an ED. It is expected that higher levels of attachment insecurity will be found within the ED sister group, particularly in terms of the “feared loss” and “perceived availability” of the attachment figure and “compulsive care seeking” attachment pattern.

Attachment status was measured using the RAQ. Three subscales refer to the particular dimensions of adult reciprocal attachment, two to the unique provision provided by attachment relationships and four measure the pathological insecure attachment patterns outlined by Bowlby (presented separately below). Higher scores denote greater insecurity with respect to the attachment dimension or pattern being measured (see Methodology).

Attachment figures

13 (50%) ED sisters completed the RAQ in relation to a romantic partner compared to 21 (81%) non-ED sisters. Five (19%) ED sisters identified their best friend as their attachment figure, compared to three (12%) of non-ED sisters. Despite instruction that “the attachment figure should ideally be outside the immediate family,” five (19%) ED sisters and two (8%) non-ED sisters reported their attachment figure to be their mothers, two (8%) ED sisters completed the questionnaire in relation to their (non-ED) sister and one (4%) to a brother-in-law.

Descriptive analysis of the RAQ subscales

a) Dimensions of attachment

Figure 7a. displays summary statistics for the distribution of attachment dimension scores for sister groups (minimum score=3, maximum score = 15). Means and SDs are presented in Table 7. Skewness and kurtosis values indicate abnormalities in the distribution of data on all three non-ED dimension subscales. There is at least one extreme (low) value on the Separation Protest and Feared Loss subscales. In terms of dispersion, ED sisters' scores are more widely distributed on all dimension subscales apart from Proximity Seeking, which shares a range of 11 with non-ED sister scores.

ED sisters score more highly on the Proximity Seeking subscale (median 9.00) and Separation Protest subscale (8.50). The largest discrepancy between the two groups occurs on the Feared Loss subscale (ED sibs median=10.00; non-ED sibs median=7.00) suggesting greater insecurity within the ED sister group in sustaining confidence in the future of an attachment relationship.

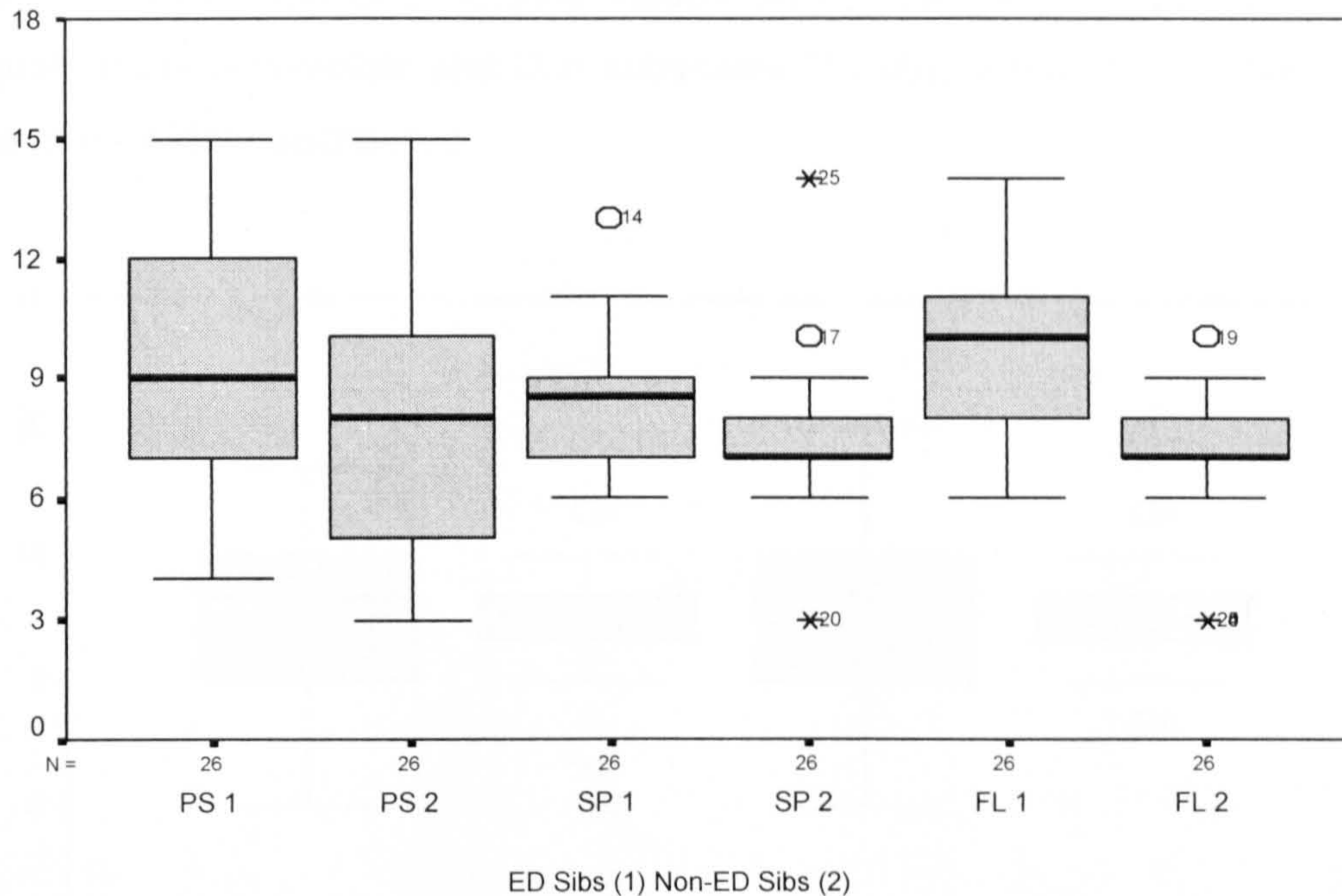


Figure 7a: Dimensions of attachment

Key:

PS = Proximity Seeking
 SP = Separation Protest
 FL = Feared Loss

Table 7: RAQ Dimensions of Attachment: Descriptive Statistics

	Mean	Minimum	Maximum	Median	SD	Skewnes	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Proximity Seeking1	9.34	4.00	15.00	9.00	3.49	-.057	-.918
Proximity Seeking2	7.84	3.00	15.00	8.00	3.51	.223	-.815
Seperation Protest1	8.62	6.00	13.00	8.50	1.65	.791	.500
Seperation Protest2	7.50	3.00	14.00	7.00	1.79	1.462	7.645
Feared Loss1	9.58	6.00	14.00	10.00	1.98	.177	-.312
Feared Loss2	6.96	3.00	10.00	7.00	1.73	-1.088	1.595

a. 1 = ED Sibs

b. 2 = Non-ED Sibs

b) Provision of attachment

Figure 7b displays summary statistics for the distribution of attachment dimension scores for sister groups (minimum score=3, maximum score = 15). Means and SDs are presented in Table 8. Skewness and kurtosis values indicate abnormalities in the distribution of data on the non-ED Availability subscale, with a number of extreme and outlying values on both subscales. Median values are equal on the Availability and Use subscales (11.00), although ED siblings' scores are more widely distributed.

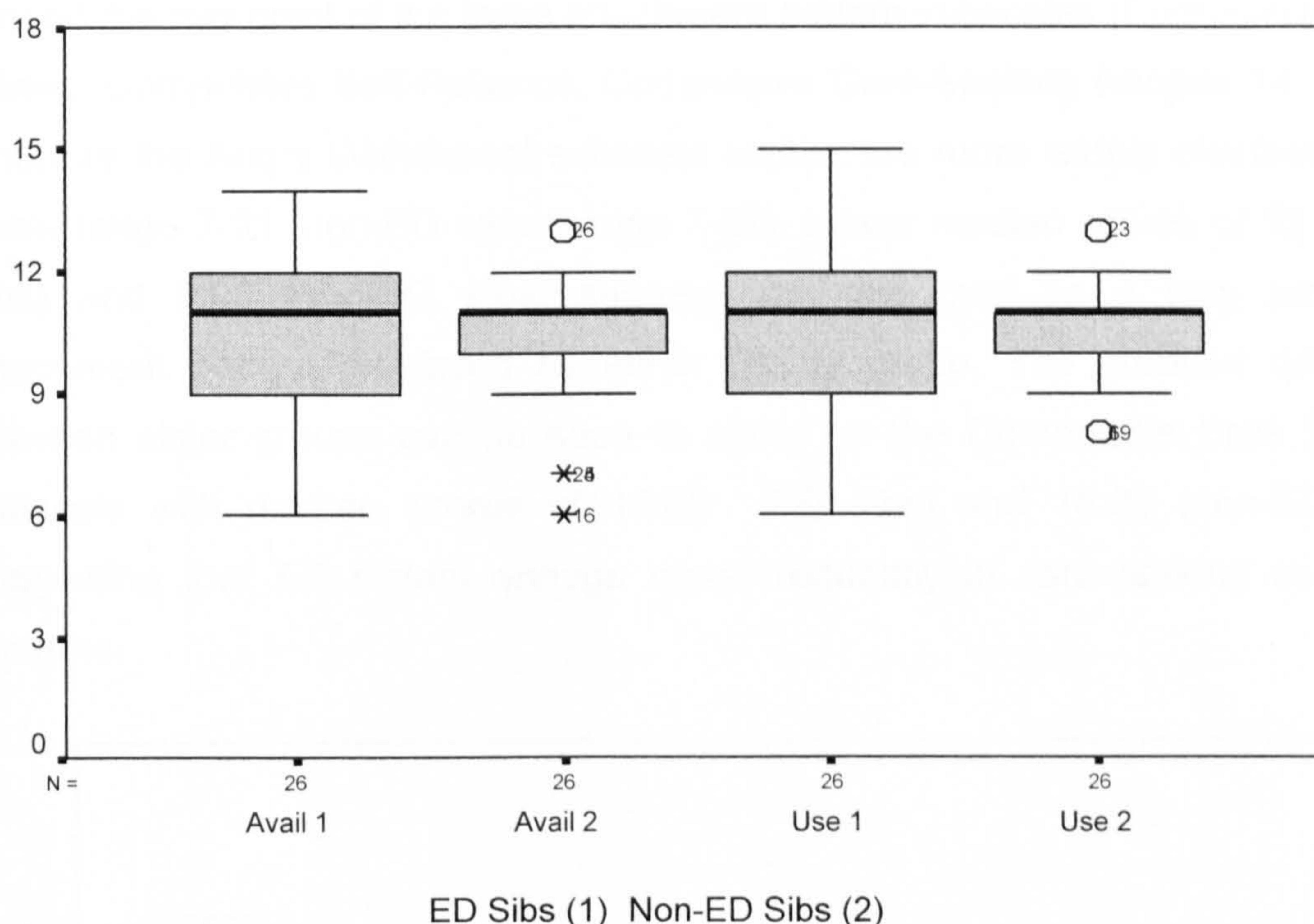


Fig 7b: Provision of attachment relationships

Key:
 Avail = Availability
 Use = Use

Table 8: RAQ Provision of Attachment: Descriptive Statistics

	Mean	Minimum	Maximum	Median	SD	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Availability 1	10.19	6.00	14.00	11.00	2.26	-0.438	-0.700
Availability 2	10.35	6.00	13.00	11.00	1.60	-1.384	1.911
Use 1	10.85	6.00	15.00	11.00	2.41	-0.287	-0.370
Use 2	10.58	8.00	15.00	11.00	1.14	-0.647	0.986

a. 1 = ED Sibs

b. 2 = Non-ED Sibs

c) Insecure Attachment Patterns

Figure 7c below shows the distribution of attachment pattern scores (minimum score = 7, maximum score = 35). Means and SDs can be found in Table 9. Data appears more normally distributed, although skewness and kurtosis scores again indicate abnormalities in the distributions of non-ED sibling scores. Two outlying (high) values can be seen within the distribution on the non-ED compulsive care seeking patterns scores.

The shaded areas of the boxes (representing 50% of values) are positioned around the mid point of the three attachment pattern subscales (Compulsive Care-Giving, Compulsive Self-Reliance, Compulsive Care-Seeking (ranges 14 – 29)), whereas the Angry Withdrawal subscale scores are more widely distributed (ED sister range 7-31; non-ED sister range 7-27). Lower median scores of 12.50 (ED sibs) and 9.00 (non-ED sibs) suggest that this may be a less prominent attachment pattern displayed by either sibling group. The greatest difference between sister groups can be seen to occur on the Compulsive Care Seeking subscale with median scores of 19.50 (ED sibs) and 15.00 (non-ED sibs), suggesting that ED sisters engage more frequently in care-seeking behaviour patterns.

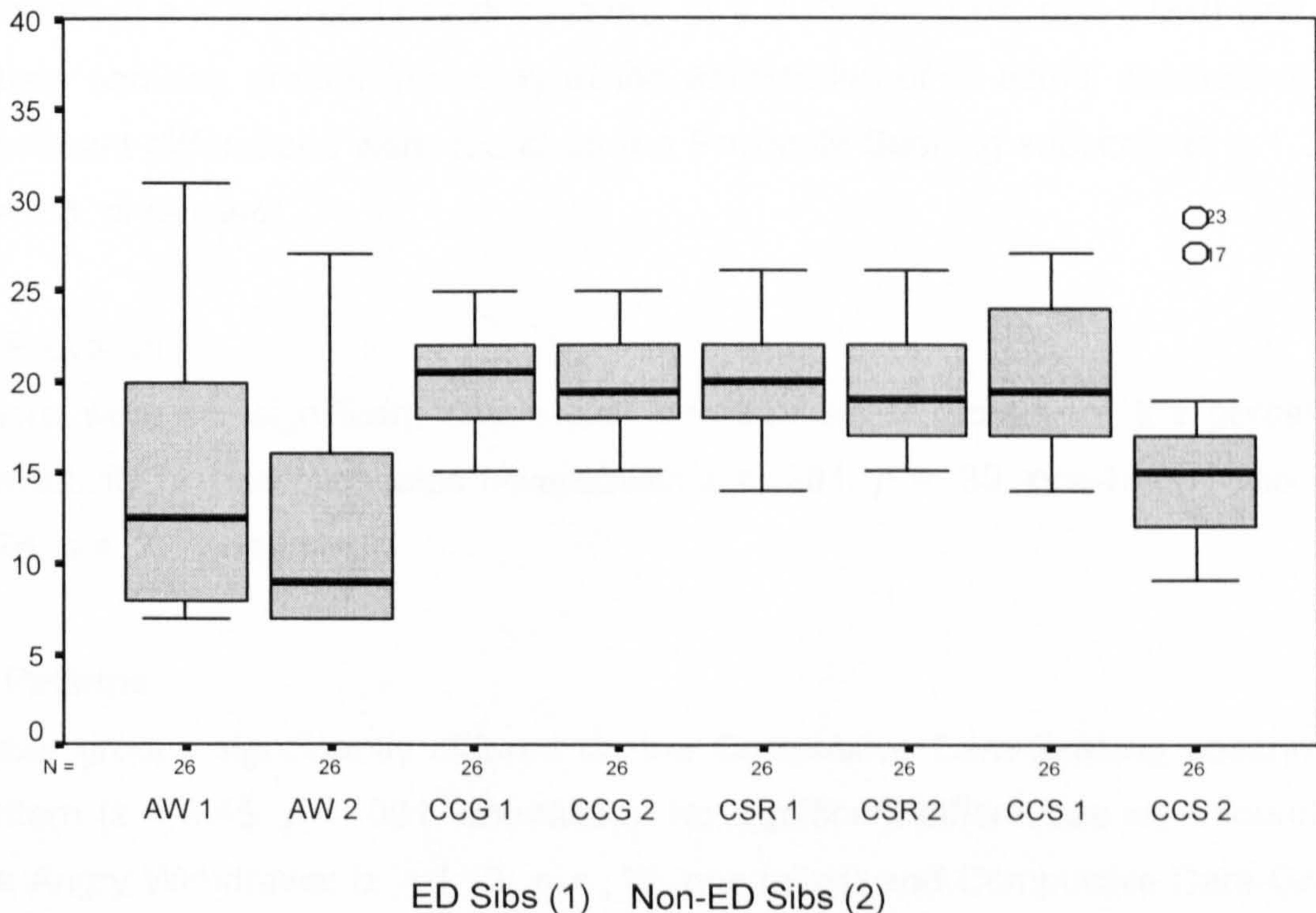


Fig 7b: RAQ Attachment Patterns

Table 9: RAQ Attachment Patterns Descriptive Statistics

	Mean	Minimum	Maximum	Median	SD	Skewnes	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
AW ^{a1}	14.65	7.00	31.00	12.50	7.50	.941	-.297
AW ^{b2}	11.77	7.00	27.00	9.00	5.52	1.14	.721
Care Giving 1	20.19	15.00	25.00	20.50	2.91	-.059	-.936
Care Giving 2	19.77	15.00	25.00	19.50	2.82	.174	-.754
Self Reliance 1	20.00	14.00	26.00	20.00	3.33	.049	-.602
Self Reliance 2	19.31	15.00	26.00	19.00	3.16	.493	-.693
Care Seeking 1	20.69	14.00	27.00	19.50	4.11	.089	-1.35
Care Seeking 2	15.50	9.00	29.00	15.00	4.69	1.34	2.52

a.1 = ED Sibs

b.2 = Non-ED Sibs

Statistical procedures

Due to abnormalities in the distribution of the data, non-parametric tests for related samples (Wilcoxon) were conducted to investigate statistical significance of expected differences between siblings on the attachment dimensions of the RAQ.

a) Dimensions

Sister groups significantly differed on the Separation Protest ($z = 2.34, p < .01$, one-tailed) and Feared Loss dimensions ($z = 3.73, p < .001$, one-tailed) with ED sisters showing greater insecurity at the anticipation of or actual separation. No significant differences were found on the Proximity Seeking subscale ($z = 1.387, p = .08$, one-tailed).

b) Provision

There were no significant differences between sister groups on the perceived Availability or Use subscales (Availability: $z = .281, p = .39$, one-tailed; Use; $z = .476, p = .32$, one-tailed).

c) Patterns

Sister groups significantly differed on the Compulsive Care-Seeking attachment pattern ($z = 3.45, p < .001$, one-tailed). No significant differences were found on the Angry Withdrawal ($z = 1.13, p = .13$, one-tailed) and Compulsive Care-Giving ($z = .84, p = .20$, one-tailed) attachment pattern subscales.

Given the more regular distribution of scores, a related *t*-test was conducted on the remaining attachment subscale, Compulsive Self-Reliance. No significant difference was found between sister groups ($t = 0.76$, $d.f. = 25$, $p = .23$, one-tailed).

Research hypothesis 2:

Differences in ED and Non-ED siblings' perceptions of parental treatment

Based on previous research findings, it is expected that ED siblings will report lower levels of parental affection (maternal and paternal) and higher levels of control during childhood compared to non-ED sisters. It is hypothesised that perceptions of parental treatment will differ in relation to attachment status

Retrospective perceptions of parental treatment during childhood were measured using the Parental Treatment domain of the SIDE, including separate ratings for maternal and paternal affection and control. A rating of 3 indicates that siblings perceive their treatment to have been “the same”, 2 and 1 indicates parental treatment was directed towards siblings “a bit” and “much more.” Scores of 4 and 5 indicate parental treatment was directed toward me “a bit” and “a lot more” (see Methodology).

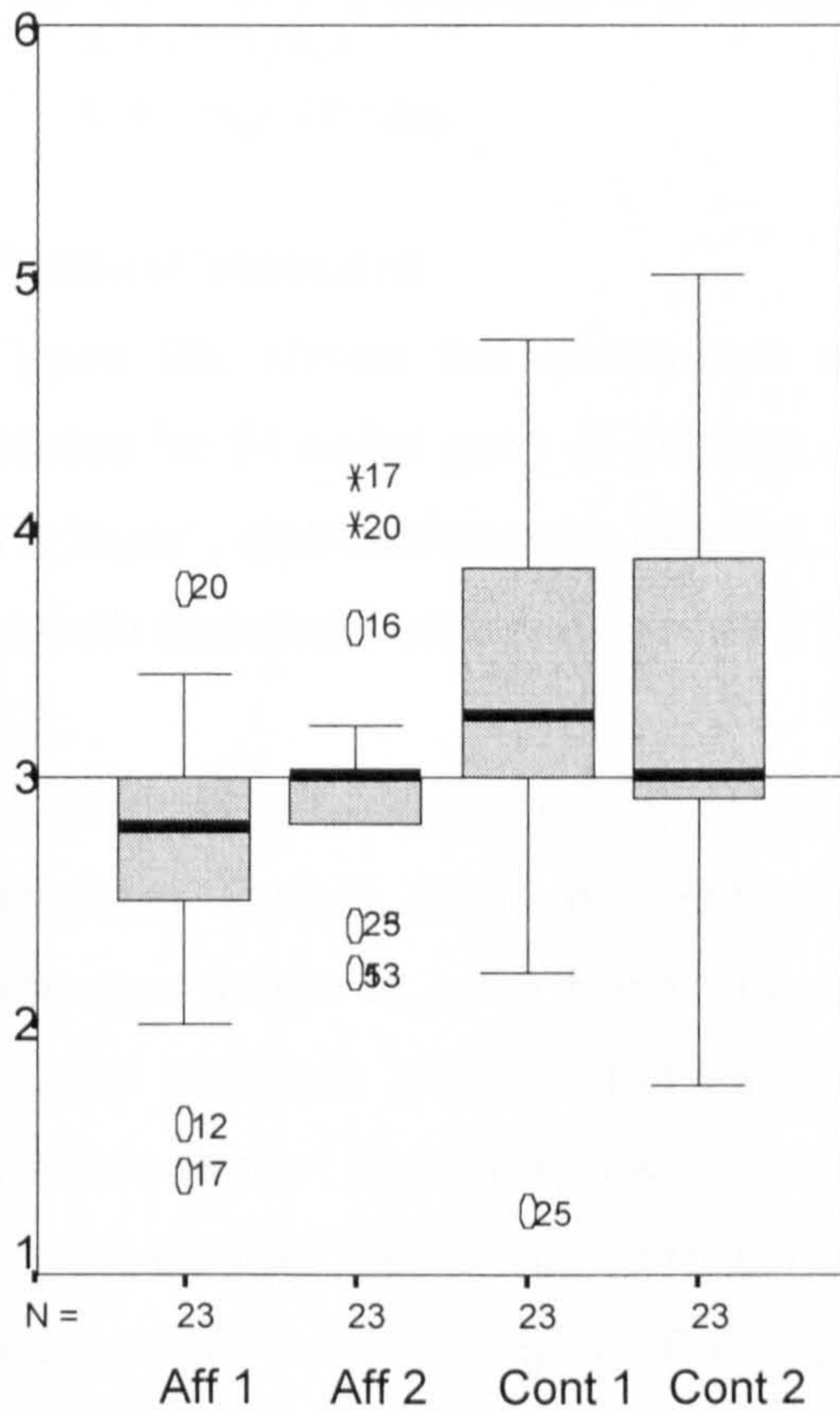
Descriptive analysis of the SIDE parental treatment domain

Maternal treatment:

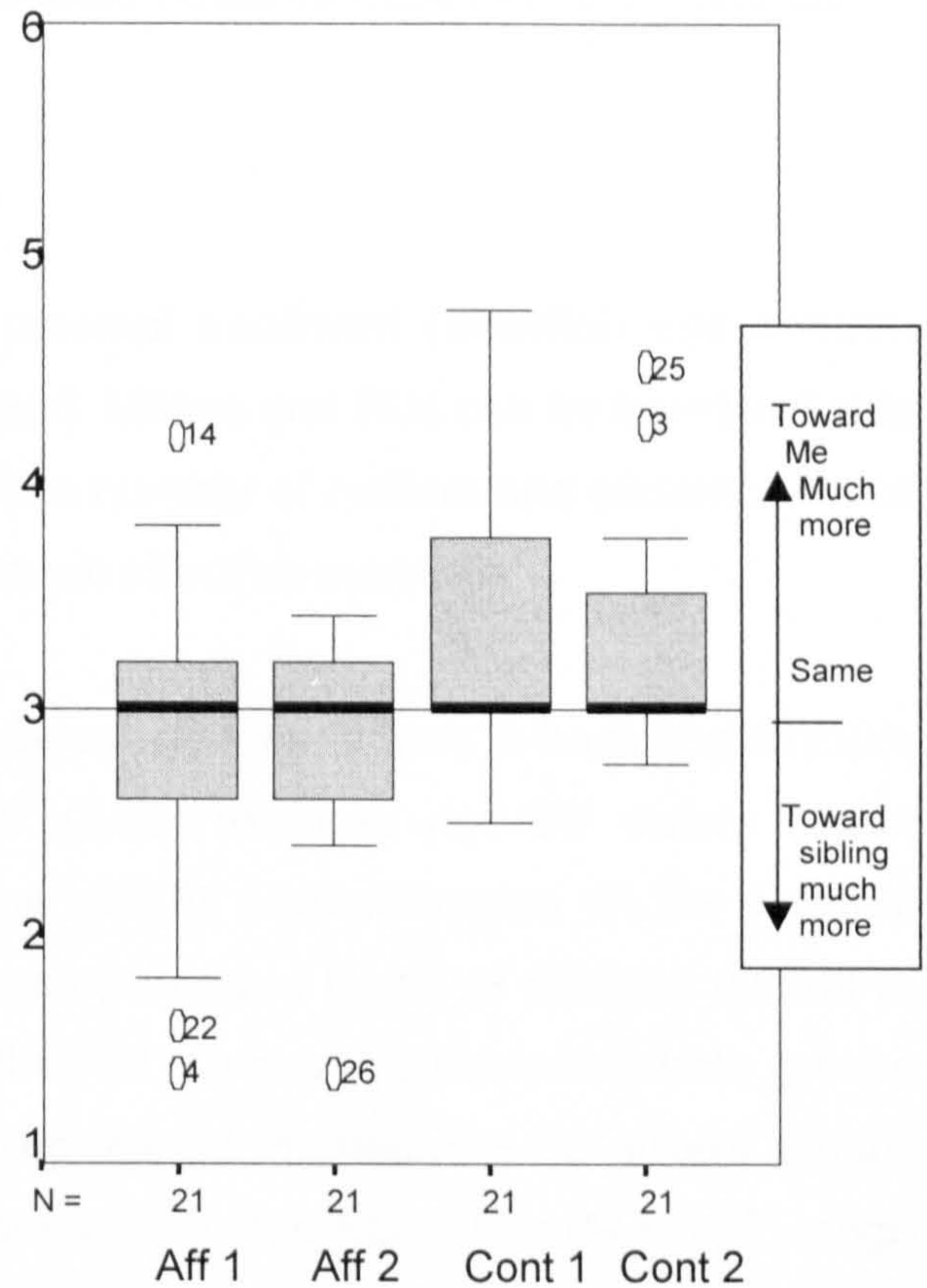
Figure 8a. shows the distribution of scores for maternal treatment (affection and control) for 23 sister pairs (3 missing cases). Means and SDs can be found in Table 10. A number of outlying and extreme scores are immediately obvious suggesting the assumptions of normality are not met, confirmed by skewness and kurtosis scores.

Scores can be seen to centre around the score 3, highlighted by the reference line although scoring follows the predicted direction on all subscales. A median score of 2.66 lying below the reference score of 3 suggests that the ED sister group perceived their mother to have shown more affection toward their non-ED sisters, with higher levels of maternal control being directed towards themselves (median 3.25). In contrast, non-ED sisters reported maternal affection to have been directed slightly more towards siblings (median 2.90) and maternal control to have been “the same” (median 3.00). The wider distribution of scores and positive skew on the ED sisters' perceptions of maternal control suggest that they perceived their mother as more controlling towards themselves compared to their non-ED sibling.

Outlying and extreme scores on three of the four subscales indicate more extreme ratings made by related sister pairs (cases 12, 17, 20, 23 and 25). Pair 17 concurred in their perception of maternal affection, with both reporting their mother as having been more affectionate toward the non-ED sister. Pair 20 both perceived their mother to have shown more affection toward themselves. ED sister case 12 perceived her mother to have shown "much more" affection toward her (non-ED) sister.



EDSibs (1) Non-ED Sibs(2)



ED Sibs(1) Non-ED Sibs(2)

Figure 8a: Maternal treatment

Figure 8b: Paternal treatment

Table 10 SIDE Parental Treatment Descriptive Statistics

	Mean	Minimum	Maximum	Median	SD	Skewnes	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Mat Affection ^{a. 1}	2.70	1.40	3.75	2.66	.53	-.596	.784
Mat Affection ^{b. 2}	2.94	2.20	4.20	2.90	.47	1.006	1.738
Mat Control 1	3.37	1.25	4.75	3.25	.79	-.278	1.121
Mat Control 2	3.34	1.75	5.00	3.00	.78	.561	.210
Pat Affection 1	2.78	1.40	4.20	2.80	.69	-.210	.179
Pat Affection 2	2.88	1.40	3.40	3.00	.46	-1.598	3.682
Pat Control 1	3.39	2.50	4.75	3.13	.69	.705	-.689
Pat Control 2	3.32	2.75	4.50	3.00	.51	1.438	1.067

a. 1 = ED Sibs

b. 2 = Non-ED Sibs

Paternal treatment:

Figure 8b. shows the distribution of paternal treatment (affection and control) scores for 21 sister pairs (5 missing cases). Means and SDs can be found in Table 10. Again, distributions are skewed, with a number of outliers and extreme values in both directions on the ED sisters' paternal affection subscale.

Median scores suggest that ED sisters perceived their fathers to have shown more affection toward their (non-ED) sister (2.80) whereas non-ED sisters report affection levels to have been "the same" (3.00). Median scores on the paternal control subscale indicate that both groups perceived levels of paternal control to be "the same." However, the positive skew of the data indicates that both groups perceived their father as more controlling toward themselves, ED sisters slightly more so ($M = 3.39$, range 2.50-4.75) compared to non-ED sisters ($M = 3.32$, range 2.75 – 4.50).

ED sister cases 4 and 22 perceived their father to have shown more affection toward the non-ED sister "a bit" and "much more." In contrast, ED sister case 14 perceived greater affection directed toward "me a bit more." Non-ED sister cases 3 and 25 both perceived their father as more controlling towards themselves.

Statistical procedures

Group mean and median scores were found to fall within the direction predicted. Due to abnormalities in the distribution of the data on the maternal affection and paternal control subscales, non-parametric tests for related samples were

conducted in order to test for statistical significance. However, no significant differences were found between sibling groups' ratings of maternal affection ($z = 1.15$, $p = .13$, one-tailed) or paternal control ($z = 0.44$, $p = .33$, one-tailed) contrary to expectation. Two related t -tests were conducted on the remaining two parental treatment scales. Again, no differences were found on either (maternal control: $t = 0.042$, d.f. = 23, $p = .48$, one-tailed) or paternal affection: $t = 0.103$, d.f. = 20, $p = .46$, one-tailed).

Research Hypothesis 3:

Differences in ED and non-ED siblings' perceptions of sibling relationships

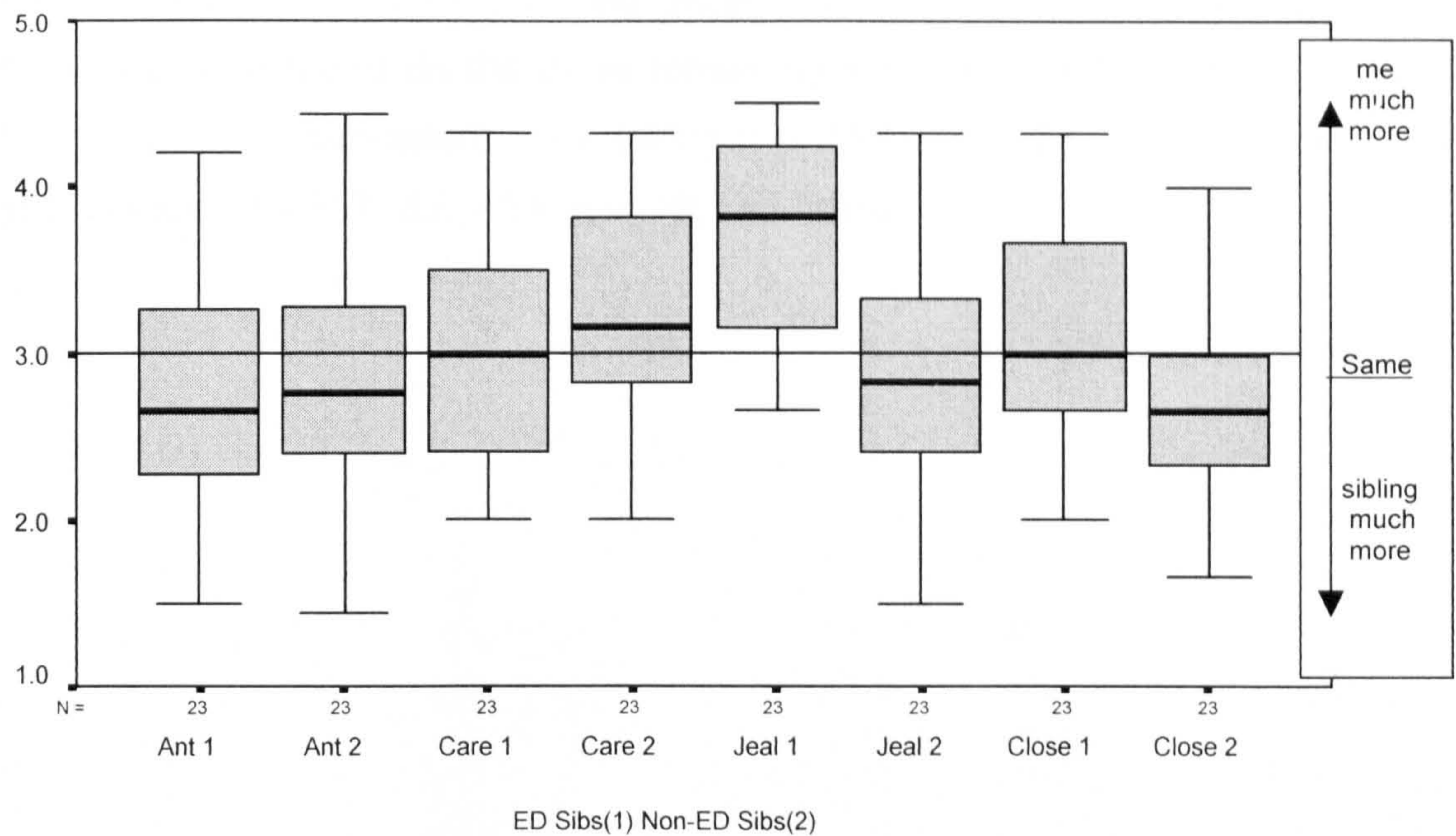
Based on previous research findings, ED sisters were expected to report higher levels of sibling jealousy. Predictions are based on hypotheses that sibling jealousy further reflects perceptions of differential parental treatment.

Perceptions of sibling relationships during childhood were measured using the Sibling Interaction Domain of the SIDE (Antagonism, Care-Taking, Jealousy and Closeness).

Descriptive analysis of the SIDE sibling interaction subscales

Figure 9. shows the distribution of scores for sibling interaction for 23 sister pairs (3 missing cases). Means and SDs can be found in Table 11. Data appear to satisfy the assumptions of normality in terms of the distributions, skew and kurtosis of the data (Fife-Schaw, 1995).

Scores centre around the score 3, indicating that the majority of siblings perceived their treatment of each other to have been the same. However, both sibling groups perceived the other to have been more antagonistic than themselves sharing similar mean values of approximately 2.80. ED sisters perceived care-taking behaviours to have been "the same" ($M = 3.05$) whereas non-ED sisters reported that they had been slightly more caring ($M = 3.24$). The largest discrepancy in perceived treatment of each other occurs within the sibling jealousy domain, with ED sisters reporting more jealousy toward their (non-ED) sister ($M = 3.68$). Interestingly, non-ED sisters agreed, perceiving ED sisters to have displayed more jealousy toward them as children ($M = 2.92$).



Key:
Ant = Antagonism,
Care = Care Taking,
Jeal = Jealousy
Close = Closeness

Figure 9 SIDE sibling interaction

Table 11 SIDE Sibling Interaction Scales Descriptive Statistics

	Mean	Minimum	Maximum	Median	SD	Skewnes	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Ant 1	2.78	1.50	4.20	2.66	.78	-.012	-1.287
Ant 2	2.81	1.44	4.44	2.77	.69	1.214	.919
Care 1	3.05	2.00	5.00	3.00	.80	-1.183	.344
Care 2	3.24	1.33	4.33	3.16	.72	.434	-.631
Jeal 1	3.68	1.80	4.50	2.75	.70	-.748	-.469
Jeal 2	2.92	1.50	4.33	3.00	.70	.391	-.852
Close 1	2.97	2.00	4.33	2.66	.71	-2.920	-.621
Close 2	2.81	1.66	4.00	2.66	.66	.418	-.952

a. 1 = ED Sibs

b. 2 = Non-ED Sibs

Statistical procedures

Four *t*-tests for dependent samples were conducted to investigate mean differences in siblings' reports of sibling interaction during childhood. As predicted, a significant difference was revealed for sibling jealousy ($t = 3.25$, $d.f. = 23$, $p < .005$, one-tailed) indicating that ED siblings perceived themselves to have

behaved more jealously toward their sister than vice versa. No other significant differences were found on the three remaining subscales: antagonism ($t = .021$, $d.f. = 24$, $p = .98$, two-tailed), care taking ($t = .598$, $d.f. = 24$, $p = .56$, two-tailed) and closeness ($t = .717$, $d.f. = 24$, $p = .48$, two-tailed).

Research hypothesis 4:

Dissimilarity in parental construing of ED and non-ED siblings

It is hypothesised that differences in attachment between the two sibling groups will be reflected in parental construing of their daughters. It was expected that non-ED daughters will be construed more positively than the ED daughters prior to and post development of eating disorder symptomatology. Measures of similarity and positivity were thought to reflect perceived differences in attachment and parental treatment.

Sample description

The parent sample comprised ten married couples (mothers and fathers). All had remained in the same relationship since the birth of their children and were currently co-habiting as a married couple. Four were parents of daughters with restricting anorexia nervosa, two with anorexia (bulimia subtype), one with bulimia nervosa and two who had since developed bulimia following a period of restricting anorexia nervosa.

Element Distances

Element distances were obtained from the analysis of Repertory Grid Technique data using the Flexigrid computer software package (Tschudi, 1984). The higher the distance between a particular pair of elements, the greater their construed dissimilarity (range 0-2; see Methodology). Measures of similarity and / or dissimilarity between siblings were obtained from the distance between siblings. Elements included each daughter “as a child” and “now” (i.e. adult), thus allowing comparison of element distances (between siblings) over time, pre and post development of the eating disorder.

Measures of positivity / negativity were obtained using the distance of each sibling from each parent's own construct of an “ideal daughter.” Similarly, “child” and “adult” elements enabled comparison over time.

Descriptive analysis of element distances

Table 12. shows the means, SDs and range of mothers' and fathers' element distance scores.

a) Similarity / dissimilarity

Mean distance scores of daughters as children suggest that mothers (0.87) and fathers (0.79) both construed their children to be similar. Mean distances between siblings become greater in adulthood, (mothers: 1.07 and fathers: 1.00) suggesting greater differentiation between daughters.

Table 12 Parental Construing Descriptive statistics

Element distances	Mother's ratings		Father's ratings	
	Mean (SD) Range N=10		Mean (SD) Range N=10	
a) <u>Similarity / dissimilarity</u> Distance between siblings as children	.84 (.31) (.32-1.31)		.79 (.29) (.35-1.17)	
	1.07 (.22) (.72-1.37)		1.00 (.32) (.47-1.51)	
b) <u>Positivity / negativity</u> Distance of sibling (child) from "ideal daughter"	ED sib Mean (SD) Range	Non-ED sib Mean (SD) Range	ED sib Mean (SD) Range	Non-ED sib Mean (SD) Range
	.87 (.19) (.58-1.23)	.75 (.22) (.30-1.17)	.80 (.22) (.42-1.31)	.71 (.14) (.45-.90)
Distance of sibling (adult) from "ideal daughter"	.95 (.41) (.64-1.56)	.57 (.21) (.30-.90)	1.04 (.38) (.30-.90)	.65 (.33) (.31-1.21)

b) Positivity / negativity of construing:

Mean distance scores suggest that mothers perceived both the (pre) ED daughter ($M = 0.87$) and non-ED daughter ($M = 0.75$) as similar to their own concept of an ideal daughter, with non-ED daughters construed slightly more closely so. Fathers also construed both daughters as similar to their concept of an ideal daughter, with the non-ED daughter closer to the ideal ($M = 0.71$) than her (pre) ED sister ($M = 0.80$).

Larger differences in construing can be seen in parents' mean distance scores between each daughter and "ideal daughter" in adulthood. Mothers' mean distance

score ($M = 0.95$) suggests adult ED daughters to be further from their concept of an ideal daughter compared to non-ED daughters ($M = 0.57$). Non-ED daughters also appear to become more positively construed in adulthood than childhood, compared to ED adult daughters, who have become less so. Fathers' mean scores suggest a similar trend, construing ED daughters ($M = 1.04$) as further from the concept of the ideal daughter compared to the non-ED daughter ($M = 0.65$).

c) Differences between mothers' and fathers' construing

Table 12. shows mean element distance scores for mother and father groups. Mean scores appear similar on each element distance, as highlighted above. Statistical analyses were undertaken in order to investigate significant differences (see Tables 13. and 14.).

Statistical procedures

Differences in parental construing between the two groups (similarity and positivity) were tested using non-parametric procedures for dependent samples (Wilcoxon). Results are shown in Table 13. In contrast to expectations, no significant differences were found in the positivity of construing of daughters when children by either mothers or fathers. However, as predicted, significant differences were revealed in parents' construing of daughters in adulthood (mothers; $z = 2.70$, $p < .01$, one-tailed and fathers; $z = 1.96$, $p < .05$, one-tailed), with the non-ED daughter significantly closer to the "ideal daughter" than her ED sister.

Table 13. Parental construing between sister groups (similarity and positivity)

Element Distances	Z	Significance	p value (one tailed)
<u>Mothers</u>			
Distance of ED and non-ED siblings (children) from "ideal daughter"	1.13	.13	n.s.
Distance of ED and non-ED daughter (adults) from "ideal daughter"	2.70	.007	< .01
Distance of siblings from children to adults	1.89	.30	n.s.
Distance of ED sib from "ideal" child to adult	1.68	.04	< .05
Distance of non-ED sib from "ideal" child to adult	1.48	.07	n.s.
<u>Fathers</u>			
Distance of ED and non-ED siblings (children) from "ideal daughter"	.92	.18	n.s.
Distance of ED and non-ED daughter (adults) from "ideal daughter"	1.96	.03	< .05
Distance of siblings from children to adults	1.58	.06	n.s.
Distance of ED sib from ideal child to adult	1.68	.04	< .05
Distance of non-ED sib from ideal child to adult	6.12	.27	n.s.

Further statistical procedures were undertaken in order to investigate whether mothers and fathers significantly differed in their construing of daughters. Differences were investigated using non-parametric procedures for dependent samples (Wilcoxon). No significant differences between parents' construing of their daughters (children or adults) were found (Table 14).

Table 14

Comparison of mothers and fathers Element Distances	Z	Significance	p value (two tailed)
Distance of siblings as children	.15	.88	n.s.
Distance of siblings as adults	.61	.54	n.s.
Distance of ED sibling (child) from "ideal daughter"	1.28	.20	n.s.
Distance of non-ED daughter (child) from "ideal daughter"	.46	.65	n.s.
Distance of ED daughter (adult) from "ideal daughter"	.26	.80	n.s.
Distance of non-ED daughter (adult) from "ideal daughter"	.89	.37	n.s.

Research Hypothesis 5:

Associations between attachment, perceptions of parental treatment and construing of daughters

According to the theoretical relationships between attachment, perceptions of parental treatment and parental construing of (pre) ED and non-ED daughters, it was predicted that there would be significant associations between higher insecure attachment, less positive perceptions of parental treatment and parental construing (less positivity):

1. There will be a relationship between higher insecurity and less positive perceptions of parental treatment in ED sisters
2. There will be a relationship between ED sister jealousy of non-ED sisters and perceptions of differential parental treatment
3. There will be a relationship between positivity of parental construing of daughters and attachment

Statistical procedures

Due to irregularities in the data, non-parametric correlational procedures were used (Spearman Correlation Coefficient). In accordance with the predictions, only relevant variables were included in the correlational analysis, including the significantly different patterns of attachment (Compulsive Care Seeking; Feared Loss), all subscales of perceived parental treatment and positivity scores of parental construing of daughter as children (distance from “ideal daughter”). Results can be found in Table 15.

Relationship between higher insecurity and perceptions of parental treatment

Table 15. indicates a positive relationship between higher insecurity in attachment (compulsive care seeking) and non-ED siblings' perceptions of parental treatment. Specifically, the more mothers are perceived to show affection towards the non-ED sibling, the greater insecurity in attachment and compulsive care seeking behaviours shown by ED siblings ($\rho = 0.577, p < .005$, one-tailed). ED sister' perceptions of paternal affection positively correlate with non-ED sisters' reports that both parents were more controlling towards them (maternal control; $\rho = .392, p < .005$, one-tailed; paternal control, $\rho = .396, p < .05$, one-tailed).

No significant relationship was found between attachment insecurity and paternal treatment (affection or control).

Table 15: Correlations between attachment, perceptions of parental treatment and parental construing using Spearman's correlation coefficient

	Parental Treatment				ED Sibs Jealousy	Attachment		Parental Construing	
	ED Sibs Maternal Affection	ED Sibs Maternal Control	ED Sibs Paternal Affection	ED Sibs Paternal Control		ED Sibs Feared Loss	ED Sibs Comp Care Seek	ED sibs distance from "ideal child" (Mothers)	ED Sibs distance from "ideal Child" (Fathers)
Non-ED Sibs Maternal Affection	-.051 ns	-.101 ns	-.023 ns	.159 ns	.054 ns	.309 ns	.577** .002	-.069 ns	.305 ns
Non-ED Sibs Maternal Control	-.191 ns	-.179 ns	.392** .004	-.331 ns	.348 .052	.163 ns	-.304 ns	-.019 ns	.111 ns
Non-ED Sibs Paternal Affection	.091 ns	-.225 ns	-.264 ns	.077 ns	.152 ns	.009 ns	.237 ns	.339 ns	.169 ns
Non-ED Sibs Paternal Control	-.290 ns	-.220 ns	.396* .038	-.282 ns	.304 ns	.313 ns	-.102 ns	.052 ns	.113 ns
Non-ED Sibs Sibling Jealousy	.050 ns	-.070 ns	-.122 ns	-.266 ns	-.419* .021	-.305 ns	-.336* .046	-.073 ns	-.234 ns
Non-ED Sibs Feared Loss	-.115 ns	.278 ns	-.023 ns	-.235 ns	-.185 ns	-.085 ns	-.009 ns	.255 ns	.482 ns
Non-ED Sibs Comp Careseek	-.390* .027	-.103 ns	.291 ns	-.217 ns	-.087 ns	.027 ns	.128 ns	.168 ns	.166 ns
Non-ED Distance "ideal child" (mothers)	-.509 ns	-.264 ns	.797* .005	-.373 ns	-.563 ns	.284 ns	.557* .047	-.332 ns	-.314 ns
Non-ED Distance "ideal child" (fathers)	.409 ns	.185 ns	-.323 ns	.264 ns	-.629* .035	-.481 ns	-.211 ns	-.598* .034	-.394 ns

* Correlation is significant at the .05 level (one tailed)

** Correlation is significant at the .005 level (one tailed)

Interpretation of correlational data

Higher scores on the parental treatment and sibling interaction scores indicate treatment in the direction of "me much more" whereas lower scores fall within the direction of "sibling much more."

Higher scores on the attachment subscales (Feared Loss and Compulsive Care-Seeking) denote higher insecurity of attachment.

Lower values on the parental construing of element distances with the "ideal daughter" suggest higher idealisation of daughters

Relationship between perceptions of parental treatment and sibling jealousy

Parental (maternal / paternal) affection or control was not associated with sibling jealousy in either group, although a near significant relationship can be seen between ED sisters' self reported jealousy and non-ED sisters' perceptions of maternal control towards themselves ($\rho = .348$ $p = .052$, one-tailed). However, non-ED sisters' perceptions of higher levels of ED sister jealousy are negatively related to the high levels of compulsive care seeking behaviours within the ED sister group, suggesting perhaps that attachment-related behaviours may be interpreted as signifying jealousy ($\rho = -.336$, $p < .05$, one-tailed).

Perceptions of sibling jealousy are negatively correlated ($\rho = -.419$, $p < .05$, one-tailed), reflecting corresponding reports highlighted earlier (i.e. ED sisters reported higher levels of jealousy toward non-ED sisters, non-ED sisters perceiving (pre) ED sisters to have been more jealous; see Figure 9).

Relationship between parental construing (positivity) of daughters, sibling jealousy and attachment

There were no significant associations between positivity of parental construing of daughters and attachment. However, ED sibling jealousy can be seen to be negatively related to the positivity of paternal construing of the non-ED daughter, suggesting that the more positively fathers view non-ED daughters, the greater levels of jealousy reported by ED siblings ($\rho = -.629$, $p < .05$, one-tailed).

ADDITIONAL ANALYSES

Further exploratory analyses of the RGT data (parental construing) were conducted in order to gain a more qualitative insight into construed differences / similarities between daughters both pre- and post- development of the eating disorder. Secondly, in accordance with constructivist theories, parental construct systems were also analysed in terms of “tightness” and themes that may be reflective of the wider ED literature. Finally, an investigation of the qualities and characteristics found to correlate highly with the supplied construct “fat” and “thin” was conducted, in order to ascertain some of the associations made by parents in relation to extremes of body size.

1. Qualitative differences in construing of daughters pre / post development of an eating disorder

In order to further investigate predicted differences in parental construing of daughters, a content analysis was conducted of those constructs which most clearly differentiated daughters both as children and adults. A difference in raw scores (ratings given to each daughter on all constructs using a 7-point scale) of four and above was set as the criterion representing differentiation.

a) Children

Table 16. includes all constructs on which mothers and fathers differentiated between daughters when children using the criteria above. Words written in black represent the emergent pole (i.e. the pole chosen by the participant to differentiate the three family members supplied). Words written in grey represent the contrast to the emergent pole). For ease of interpretation, some construct poles have been reversed, indicated by the symbol R in the left hand column.

Table 16: Constructs differentiating daughters as children

Construct.	7 ←————→ 4 ←————→ 1				
	EMERGENT POLE		CONTRAST POLE		
	Raw Score	Non- ED daughter	ED daughter	Raw Score	
Mothers	1. R	(4)	Mature.....	Immature	(1)
	2. R	(4)	Compliant.....	Mischievous	(1)
	3.	(5)	Extravert.....	Placid	(1)
	4.	(6)	Easy going.....	Sensitive	(2)
	5. R	(7)	Fat.....	Thin	(2)
	6. R	(7)	Bad tempered.....	Placid	(1)
	7. R	(6)	Confident.....	Low Self esteem	(2)
	8. R	(7)	Kind.....	Hurtful	(2)
	9. R	(6)	Open.....	Secretive	(2)
	10. R	(6)	Accepting discipline.....	Non-conforming	(2)
	11.	(6)	Caring.....	Aggressive	(1)
	12. R	(6)	Cooperative.....	Difficult	(2)
	13. R	(6)	Open.....	Closed	(2)
Fathers	1.	(7)	Measured.....	Instinctive	(2)
	2.	(5)	Stable.....	Changeable	(1)
	3. R	(7)	Going with the flow.....	Cautious	(2)
	4. R	(6)	Doesn't give a damn.....	Inbred guilt	(2)
	5. R	(4)	Self worth.....	Eager to please	(1)
	6. R	(7)	Confident	Lacking confidence	(2)

Despite no statistically significant difference being found in the positivity of parental construing of both daughters as children, Table 16. suggests that parents did differentiate between daughters in a number of seemingly important ways. For example, non-ED daughters were construed as having been more confident, kind, caring and open than non-ED daughters, who in contrast, were construed as having a low self-esteem, being hurtful, secretive and aggressive. Table 16. also suggests that parents tended to rate non-ED daughters as having been more disciplined during childhood (e.g. mature, compliant, cooperative, measured and stable) compared to non-ED daughters (e.g. immature, mischievous, non-conforming, changeable and difficult). One parent's response suggests that there were big differences in the body size between daughters when they were children, with the non-ED daughter being construed as fat (7) compared to her (pre) ED sister who was construed as having been thin (2).

b) Adults

Table 17. presents all constructs on which mothers and fathers differentiated between daughters as adults, again using a difference in scores of four or above.

Table 17: Constructs differentiating daughters as adults

Construct	7 ←————→ 4 ←————→ 1				
	EMERGENT POLE		CONTRAST POLE		
	Raw Score	Non- ED daughter	ED daughter	Raw Score	
Mothers	1. R	(6)	Easy Going.....	Serious	(2)
	2. R	(7)	Fun loving.....	Thoughtful	(2)
	3. R	(7)	Straight forward.....	Complex	(1)
	4.	(5)	Fat.....	Thin	(1)
	5. R	(6)	Accepting of life.....	Unpredictable	(1)
	6. R	(6)	Understanding.....	Self Centred	(2)
	7. R	(6)	Confident.....	Lacking confidence	(2)
	8. R	(6)	Placid.....	Rebellious	(2)
	9. R	(5)	Close.....	Outsider	(1)
	10.	(7)	Happy go lucky.....	Worrier	(1)
	11. R	(5)	Kind.....	Hurtful	(1)
	12.	(7)	Open.....	Closed	(2)
	13. R	(4)	Laid back.....	Perfectionist	(1)
	14. R	(7)	Open.....	Secretive	(1)
	15. R	(6)	Outgoing.....	Withdrawn	(2)
	16.	(6)	Caring.....	Self centred	(2)
	17. R	(6)	At ease with self.....	Lacking confidence	(2)
	18.	(5)	Lynch pin.....	Takes soft option	(2)
	19.	(5)	Outspoken.....	Quiet	(1)
Fathers	1.	(4)	Cautious.....	Uncautious	(1)
	2.	(6)	Measured.....	Instinctive	(1)
	3.	(6)	Stable.....	Changeable	(2)
	4.	(6)	Cautious.....	Going with the flow	(1)
	5. R	(6)	Doesn't give a damn.....	Inbred guilt	(2)
	6.	(6)	Happy go lucky.....	Serious	(2)
	7.	(6)	Happy.....	Sad	(2)
	8. R	(7)	Gregarious.....	Lonely	(2)
	9.	(6)	Self controlled.....	Unstable	(1)
	10.	(6)	Dissatisfied.....	Contented	(2)
	11.	(6)	Fat.....	Thin	(1)
	12. R	(7)	Easy to relate to	An enigma	(2)
	13.	(5)	Outgoing.....	Introverted	(1)
	14. R	(7)	Enjoys company.....	Lonely	(1)
	15. R	(4)	Very happy.....	Very unhappy	(1)
	16. R	(5)	Placid.....	Arrogant	(1)
	17. R	(6)	Certain.....	Unsure	(2)
	18.	(6)	Open.....	Closed	(1)
	19.	(6)	Confident.....	Uncertain	(2)

Table 17. indicates that a greater number of constructs are used to differentiate daughters in adulthood, reflecting the large differences perceived between daughters when adults. As in childhood, non-ED daughters appear to be rated more highly on positive constructs, including those applied to daughters as children, suggesting continuation of construed differences between daughters over time. However, a number of constructs differentiating daughters might be seen as directly relating to eating disorder pathology (e.g. self-centred, perfectionist, secretive, withdrawn, sad, lonely, unstable and “an enigma”).

2. Tightness of construing and predominant (superordinate) parental constructs

Tightness of construing can be used as a measure of the degree of “rigidity,” “concreteness” or “black and white” thinking which, according to theoretical formulations might be expected in a family with influential family construct systems. Mean scores for mothers and fathers are shown in Table 18. According to conventional rules of analyses, parental scores are not indicative of a tight or rigid cognitive style (Winter, personal communication, 2003). There were also no significant differences between mothers and fathers construing, suggesting that both are equally flexible or permeable in their thinking.

Table 18. Tightness of parental construing

	Mothers Ratings Mean (SD)	Fathers ratings Mean (SD)	Z	p value
Tightness of construing	46.85 (5.32)	48.96 (9.24)	1.16	.28

Superordinate Constructs

Further investigation was carried out in relation to the predominance of constructs. Superordinacy refers to the predominance of a construct's use in relation to others and can be identified by the higher percentage of the total variation it assumes in relation to other elicited constructs.

Table 19. presents all constructs which fell above the expected score (8.33%) if all constructs assumed equal weight. Mothers and fathers are presented as pairs in order to reflect the more predominant constructs between and within couples / families.

Table 19. Predominant constructs (parental pairs)

Parent Pairs	POLE 7	←—————→ CONTRAST 1	% of total variance
Mother 1	Immature.....	Mature	16.14
Father 1	Unemotional.....	Emotional	13.92
	Indecisive.....	Positive	11.44
	Positive.....	Negative	11.42
	Short-tempered	Calm	10.09
Mother 2	Placid.....	Bad tempered	12.24
	Low self esteem.....	Confident	10.82
	Happy.....	Sad	10.42
	Care free.....	Born worrier	10.24
Father 2	Hurtful.....	Kind	10.24
	Confident.....	Lacking confidence	10.70
	Selfish.....	Considerate	10.56
	Lonely.....	Enjoys company	10.18
Mother 3	Immature.....	Mature	13.45
	Extreme.....	Stable	11.87
Father 3	Confident.....	Poor self image	13.43
	Cautions.....	Going with flow	13.20
	Measured	Instinctive	11.57
Mother 4	Complex.....	Straight forward	11.94
	Intense.....	Laid back	10.21
Father 4	Sociable.....	Introverted	10.31
Mother 5	Unpredictable.....	Accepting of life	18.91
	Content and happy.....	Stroppy	11.02
Father 5	Unhappy.....	Happy	15.32
	Difficult.....	Easy going	12.34
	Unloved.....	Loved	11.93
	Non affectionate.....	Affectionate	11.53
Mother 6	Open.....	Closed	15.95
	Secretive.....	Open	12.16
Father 6	Unemotional.....	Emotional	10.17
	Annoying.....	Reasonable	15.54
	Caring.....	Not caring	14.79
Mother 7	Staying with boundaries.....	Non conforming	10.28
	Non conforming.....	Accepting discipline	10.28
Father 7	Lacking in confidence.....	At ease with self	10.03
	Selfish.....	Considerate	12.42
Mother 8	Lacking confidence.....	Confident	14.87
	Lynch pin.....	Takes soft option	11.38
	Outspoken.....	Quiet	11.38
	Complex.....	Uncomplicated	10.37
Father 8	Open.....	Closed	13.39
	Shy.....	Outgoing	11.56
	Confident.....	Uncertain	11.20
	Insecure.....	Secure	11.05
	Unsure.....	Certain	10.86
	Communicative.....	Uncommunicative	10.36
Mother 9	Aggressive.....	Caring	12.03
	Dissatisfied.....	Content	12.03
	Unaffectionate.....	Loving	11.30
	Difficult.....	Cooperative	10.73
Father 9	Tantrums.....	Quiet	14.66

Constructs were loosely broken down into themes, of which 4 were identified comprising 72% of the total constructs:

1. Temperament (22% of construct content) including:

Intense, complex, secretive, uncommunicative, shy, lonely, introverted, unemotional, closed

In contrast to

Straightforward, communicative, laidback, easy going, enjoys company, uncomplicated, care free, open, and outgoing

2. Behaviour (22% of construct content) including:

Difficult, aggressive, non-conforming, unpredictable, extreme, bad-tempered, short-tempered, tantrums, outspoken

In contrast to

Cooperative, caring, accepting discipline, accepting of life, stable, placid, calm, staying within boundaries

3. Self Esteem (18% of construct content) including:

Confident, secure, certain, positive, cautious, measured

In contrast to

Lacking confidence, unsure, insecure, poor self-image, negative

4. Mood (10% of construct content) including:

Happy, content, satisfied, positive, carefree

In contrast to

Unhappy, sad, stroppy, negative, dissatisfied

No constructs related to body size, shape and / or physical appearance.

3.Body size: associations with “thin” / “fat”

Table 20. lists all construct poles that were significantly associated with the supplied construct of body size “thin-fat.” Using the Pearson product moment correlation statistical tables, associations were deemed significant if they met or exceeded an *r* value of 0.576 (d.f.= 10) at .05 level of significance (two-tailed).

Table 20: Construct poles significantly associated with thin and fat

Thin	r value	Fat	r value
Nice Caring Kind - - - - - -	.67 .67 .58	Considerate Sympathetic Understanding Easy going Thoughtful Open minded Enjoys company Flexible Happy go lucky Confident Stable	.69 .62 .61 .70 .73 .68 .70
Introverted Impulsive Quiet Guilt Serious Unemotional Family Orientated Nervous Easily Led Insular Extreme	.62 .64 .72 .73 .73 .64 .68 .82 .62 .70	Extraverted Noisy Outgoing General acceptance Doesn't give a damn Emotional Not family orientated Assertive - - -	.86 .62 .60 .72 .73 .64 .82
Selfish Unsympathetic Malicious Self centred Difficult Lonely Rigid	.60 .69 .61 .70	Horrible Ruthless Cruel - - -	.67 .67 .58

The table is split into three sections, with more positive terms placed within the top two adjacent sections, ambiguous or neutral terms positions within the two middle segments and more negative terms placed within the bottom two sections. Although grouped as such, interpretation of the meanings of construct poles (i.e. positive / negative) may not accurately represent those as used or intended by participants.

Parents appear to associate the term "fat" with a greater number of positive than negative construct poles, including personality characteristics and temperament. In contrast, "thin" is associated with fewer positive attributes including being caring and kind. Patterns were reversed in terms of negative associations. "Thin" is associated with a greater number of negative than positive personality traits and characteristics including selfishness, maliciousness, self-centredness, loneliness and rigidity. In contrast, "fat" is associated with ruthlessness and cruelty. A large number of associations have been tentatively coded as neutral in order to reduce false assumptions being made regarding the desirability of each construct pole. However, it is conceivable that several of these could be attributed as either positive and / or negative.

DISCUSSION

DISCUSSION

Summary of findings

The primary objective of the study was to test the theoretical prediction that attachment status would differ between sisters discordant for ED pathology. Perceptions of differential parental treatment were expected to reflect predicted differences in attachment, with the more insecurely attached ED sister group expected to report higher levels of parental control and lower levels of affection. Parental construing of daughters was also investigated in terms of the theoretical link between family construct systems and early attachment processes (Guidano & Liotti, 1983; Procter, 1981), with particular emphasis upon differential attachment.

a) Attachment

A measure of reciprocal attachment was used to explore the theoretical relationship between insecure attachment and ED pathology. Based on theoretical predictions, it was hypothesised that sister pairs would differ in terms of insecure attachment, with higher levels of insecurity expected within the ED sister group.

As predicted, ED sisters scored more highly on all nine subscales of the RAQ suggesting higher insecurity across all attachment dimensions. Significant differences were found on two of the subscales which distinguish attachment relationships from other social relationships: Feared Loss and Separation Protest. Feared loss is a central concept in the theoretical and clinical understanding of patterns of insecure attachment in adults and refers to the inability to sustain confidence in the permanence of the attachment relationship (West & Sheldon, 1985). Differences suggest that ED sisters experience greater insecurity at the anticipation of, or actual separation compared to non-ED sisters.

No significant differences were found between sister groups on the subscales identifying the unique provision provided by attachment (use and perceived availability), suggesting that sister-pairs are similar in the extent to which they perceive and experience their attachment figure to be reliably available and accessible.

In terms of insecure attachment pattern, ED sisters were found to score significantly higher on the compulsive care-seeking attachment pattern (Bowlby's anxious attachment). Compulsive care-seeking is theoretically consistent with high levels of feared loss, as it is assumed to be indicative of inconsistent parenting leading to doubts regarding the availability and responsiveness of the attachment figure. Subsequent anxiety (or feared loss) results in concrete attempts to confirm security by displaying urgent and frequent care-seeking behaviours. Findings indicate that ED sisters show higher insecurity regarding the permanence of their attachment relationship and engage in higher levels of compulsive care-seeking behaviours in relation to current attachment figures than non-ED sisters.

According to the theoretical and empirical attachment literature, it may be suggested therefore that differences in attachment patterns (i.e. compulsive care-seeking) between sister pairs indicate that ED sisters experienced differing parenting during childhood, particularly inconsistent parenting according to Bowlby's theory. This would appear to support hypotheses proposing differential attachment in families where one sibling develops an ED and the other does not, and in doing so, strengthening the theoretical relationship between insecure attachment and ED pathology.

However, a number of issues prevent definitive conclusions to be drawn. For example, as the RAQ is essentially a measure of insecure attachment without standardised norms, conclusions regarding the categorical attachment status of non-ED siblings (i.e. secure vs. insecure) cannot be made, thereby diluting the potential significance of findings in terms of their support of attachment hypotheses and ED pathology. It may be, for example, that non-ED sisters might also be classified as insecurely attached using a categorical approach, suggesting that it is the intensity of the insecure attachment which is of more relevance than general classifications. The validity of ED sisters' responses also need to be viewed with caution. Despite instruction to complete the questionnaire in relation to a non-family member, a higher number of ED siblings chose family members (e.g. mothers) as their attachment figures, thereby potentially measuring a concept alternative to that of reciprocal adult attachment as defined by West and Sheldon (1985).

b) Perceptions of parental treatment

Based on the empirical literature, it was predicted that ED sisters would report higher levels of parental control and lower levels of affection during childhood compared to non-ED sisters. Reports of differential parental treatment were hypothesised to reflect predicted differences in attachment between siblings, thereby acting as an additional measure of differential attachment.

Contrary to expectations, no significant differences were found between sister pair reports of parental treatment (maternal and paternal control and affection) during childhood. However, scores did fall within the predicted direction, with ED sisters tending to have perceived both parents to have shown higher levels of affection toward their sibling and higher levels of control towards themselves. Non-ED sisters were more likely to have perceived treatment to have been the same, suggesting that either they were unaware of and / or disagreed with the differences perceived by their ED sister. In terms of paternal control however, both groups similarly perceived their father as having been more controlling towards themselves.

Visual inspection of the distribution of scores suggested a number of sibling pairs reported more extreme ratings of differential parental treatment, particularly by mothers. Case identification revealed that the more extreme ratings were made by sister pairs where one sister has BN, supporting earlier findings which suggest that BNs are more likely to report higher levels of family conflict and fathers as less caring than ANs. Indeed, a number of participants (three ED sisters and two non-ED sisters) did not complete the paternal treatment domain of the SIDE, perhaps indicative of difficult relationships with fathers. Where reasons for non-completion were given, two sister pairs reported their father had left the family whilst they were young and one non-ED sister could not recall her childhood. The inability to remember one's childhood may also be seen as significant, particularly according to AAI classifications of attachment, in which incoherent or partial accounts of childhood tend to be indicative of insecure and disorganised attachment (George et al., 1985). Non-completion, seemingly for a variety of reasons, may therefore have biased results in either direction, although only a small and relatively equal number of ED and non-ED sisters did not complete the parental treatment subscales.

The statistical insignificance of findings does not appear to support the hypothesized link between differential attachment and perceptions of parental treatment. However, predicted trends in the direction of scores do tentatively resonate with early and influential psychodynamic aetiological ED theories of control and individuation (i.e. ED sisters' perceptions of higher parental control and less affection). Indeed, it may be that ED sisters' perceptions of parental treatment constitute the inconsistent parenting dynamic indicated by the significantly high levels of compulsive care-seeking attachment patterns within the ED sister group (e.g. controlling yet inconsistently emotionally responsive). Furthermore, sister-pair reports suggest that this dynamic may have occurred only between the mother and (pre) ED daughter, and not the non-ED sibling, supporting both early psychodynamic theories of difficult mother – daughter relationships and the current findings which indicate differential attachments with parents. This concurrently supports behavioural genetic hypotheses and preliminary investigations proposing that differential parental treatment may be a potentially important non-shared environmental factor in the differential outcome of siblings.

Despite the theoretical points of interest above, the significance of subjective reports of differential parental treatment and its relevance to the aetiology of ED is difficult to establish without a control group and / or knowledge of “normative” differences between two non-ED siblings and two concordant ED siblings (Klump et al., 2002). For example, differences may merely reflect findings which suggest psychiatric patients in general perceive their parents as less caring and affectionate than controls (e.g. Arindell et al., 1989). It might also be argued that subjective perceptions are unreliable in ascertaining whether parents objectively differed in the treatment of their children. However, it is perceptions that are of central importance to the present study, particularly as these themselves are likely to be a reflection of insecure attachments and internal working models, thereby explaining why non-ED sisters' perceptions of treatment were largely “the same”.

c) Sibling interaction

Based on previous research, it was predicted that ED sisters would report higher levels of jealousy toward their (non-ED) sister during childhood (Karawautz et al.,

2001; Murphy et al., 2000). Higher levels of ED sister jealousy were hypothesised to reflect perceived differences in parental treatment during childhood.

As expected, ED sisters did report significantly higher levels of jealousy toward non-ED sisters. In contrast to perceptions of parental treatment however, non-ED sisters concurred with ED sisters' perceptions, rating (pre) ED sisters as displaying higher levels of jealous behaviour towards them in childhood. No significant differences were found on the remaining three subscales (Antagonism, Care-taking and Closeness) although sisters were more likely to perceive each other as being more antagonistic.

Results reflect the anticipated direction of sisters' ratings. However, conclusive support for the proposed hypothesis that higher levels of jealousy reflect perceived differences in parental treatment during childhood can only be tentatively drawn. No explanation or elaboration of ratings was sought, and thus a wide range of factors other than perceived differential parental treatment may have also account for premorbid levels of jealousy (e.g. peer popularity). Two ED sisters conspicuously refrained from completing the questions relating to sibling jealousy, suggesting perhaps that this remains to be difficult subject for some participants.

d) Parental construing

The RGT was used to obtain a measure of perceived similarity / dissimilarity, and positivity / negativity of daughters, both pre ED (i.e. as children) and post ED pathology (adults). It was hypothesised that daughters (as children) would be construed as dissimilar by parents, with the non-ED daughter more closely resembling both parents' concept of an "ideal daughter," thereby reflecting differences in attachment and parental treatment. Based upon clinical observations of the negative impact an eating disorder may have upon the wider family, it was also anticipated that dissimilarity and negativity in construing of the ED daughter would increase post development of ED pathology. A number of subordinate and exploratory hypotheses were also investigated, including a content analysis of parental constructs and an investigation of measures of tightness of construing.

di) Similarity / dissimilarity, positivity / negativity of daughters

Element distances suggested that both parents construed their daughters as very similar when children, with mean scores falling within the predicted direction in terms of the higher idealisation of the non-ED daughter. Contrary to expectation however, differences between daughters did not reach statistical significance.

Differences in mothers' construing of daughters in adulthood were found to be significant as expected, with non-ED sisters being viewed similarly to, yet more positively than their childhood selves compared to ED siblings, who became less positively construed over time. Within comparisons of ED daughter element distances (i.e. as children prior to the eating disorder and adults post development of ED pathology), also appear to reflect expectations of the negative impact an ED has upon family relations and the subsequent revision of parental construct systems.

Fathers also construed ED daughters as dissimilar in adulthood to their former selves compared to their non-ED siblings, who remained close or similar to their childhood selves. As predicted, non-ED adults were significantly closer to the notion of an "ideal daughter" compared to ED adults, who had become less idealised / more negatively construed over time.

dii) Similarity of parental construing

There were no significant differences between mothers' and fathers' construing of daughters in terms of similarity and positivity either as children or adults, indicating a high degree of commonality between parents (in terms of element distances and content of constructs) and suggestive of a "close," "undifferentiated" family system.

diii) Exploratory content analysis of parental constructs

Despite non-significant differences in the positivity in parental construing of daughters, a content analysis of the constructs used to differentiate daughters as children did appear to support hypotheses. Non-ED daughters were found to be more positively construed in terms of personality characteristics (e.g. confident, kind, caring and easy going) and behaviour (e.g. mature, compliant and cooperative). In contrast, ED siblings were construed as secretive, hurtful, closed and mischievous in comparison. Greater differentiation in construing could be

seen between daughters in adulthood, with a large number of constructs tending to be characteristic of the "eating disorder personality." These included constructs such as complexity, unpredictability, perfectionism, secrecy and withdrawal and are likely to have contributed to the more negative construing of the ED daughter in adulthood, in comparison to the non-ED daughter.

A qualitative analysis of the more predominant constructs suggested a number of themes including temperament, behaviour, self-esteem and mood. It would appear that non-ED daughters were construed primarily on the (less positive) contrast poles of constructs, both in childhood and adulthood. For example, ED daughters were more likely to be construed as complex and introverted, unhappy and underconfident yet more difficult to manage (e.g. unpredictable, non-conforming and difficult). In contrast, non-ED siblings tended to be construed more positively.

With respect to body size (i.e. "thin-fat" pole) parents tended to associate thinness with negative construct poles such as selfishness, maliciousness, self-centredness and rigidity, suggesting that stereotyped ideals of slimness were not highly prized within families. However, it is possible that negative associations are reflective of a construing system that has been revised by the experience of having a daughter whose illness appears to centre around a preoccupation with body size. Nevertheless, it would appear that parents do not tend to construe people in terms of body shape, size or physical appearance.

Whilst the majority of results confirmed expectations, findings do not support hypotheses of differential attachment and parental treatment. Contrary to expectation, parents construed daughters as equally similar and positively when children, thereby suggesting similar attachment and treatment. It is possible that a small sample size ($N = 10$) failed to produce an effect size large enough to be found significant or that retrospective construing of daughters was liable to idealisation as found by other investigators (e.g. Halverson, 1988). However, it is also conceivable that the high similarity in construing of daughters as children is reflective of a "close", "undifferentiated" family system, which denies or discourages individuation and differentiation. Accordingly, hypotheses predicting differences between daughters would clearly be unsubstantiated, supporting instead theoretical formulations which suggest that minimisation of differences and

/ or high similarity in construing represent the mechanism through which conflict arises (i.e. between one family member's own needs and the family's constructed reality, leading to psychological distress (e.g. ED) and invalidation (e.g. Proctor, 1981). It might further be hypothesised therefore that the child who most neatly fits within the parental construct system is construed more positively, secures a more close relationship with primary care givers and enjoys a better quality of psychological well-being (i.e. non-ED sibling).

Unfortunately, the theoretical and clinical relevance of findings to ED pathology is not possible to establish without a control or comparative group. It may be for example, that parents generally do construe their children, particularly same sex children, as similar, mirroring wider research findings which indicate that parents tend to view their treatment of their children to be the same (e.g. Daniels, 1985). However, observations made during the administration of the RGT tend to support tentative hypotheses regarding the close, "undifferentiated" ED family system (personal communication, Winter 2003). For example, the majority of parents could not identify "a disliked person" within their social circle / neighbourhood and two parental pairs expressed discomfort with the concept of the "ideal daughter."

Comparability of findings to existing empirical literature

The research questions were based upon a number of theoretical and empirical lines of enquiry and attempted to combine previous findings in the context of newly formulated hypotheses. Before reviewing findings in relation to the existing empirical literature however, it is important to acknowledge variations in the study populations used in the present study and those subsequently cited.

The current population was drawn from a community setting with a range of mixed ED pathology as opposed to in-patient / mixed in-patient and out-patient populations with a specific ED diagnosis (e.g. Karawautz et al., 2002; Ward et al., 2000). Participants were also older than populations used in other studies than the samples used by Murphy et al. (2000) and Karawautz et al. (2002) with a higher mean age of between three to five years and with a longer duration of illness, therefore suggestive of a more chronic ED population. Non-ED sisters were younger in 58% of cases compared to 51%, with fewer clinical symptoms compared to comparable levels of anxiety (7%) found within both sister groups by Karawautz et al. (2002).

Despite these differences, the results largely support findings reported within the wider literature. In terms of attachment, findings reveal a similar pattern and intensity of insecure attachment to the study using the RAQ with a mixed ED population (Ward et al., 2000). In addition to highlighting significant differences in adult reciprocal attachment between ED and other populations, both findings provide more detailed information regarding the pattern and profile of insecure attachment as opposed to simply providing further evidence of a greater incidence. However, the current study extends the empirical investigation of attachment and ED by undertaking a preliminary investigation and comparison of within-family attachments.

The results also reflect preliminary investigations into the role of non-shared environmental factors in ED pathology, with significant findings of higher levels of premorbid sibling jealousy (e.g. Karawautz et al., 2002; Murphy et al., 2000). Non-significant findings in relation to perceptions of differential parental treatment mirror the variation in results reported within the wider nonshared environment and ED literature (e.g. LeHoux & Howe, 2001; Karawautz et al., 2002), which has been proposed to be the result of small effect sizes (Klump et al., 2002). Despite the statistical non-significance of differential parental treatment findings therefore, trends within the current data and wider literature suggest further investigation is merited. Furthermore, the current study furthers investigation by combining the exploration of nonshared environmental factors (parental treatment and sibling interaction) within the theoretical and empirical investigation of attachment. No

other studies directly investigating this link could be found, making comparison of current findings difficult.

The application of the RGT in order to investigate parental construing and attachment also appears to be a relatively under researched area within the ED literature, although the absence of a control or comparison group again prevents firm conclusions regarding their significance to ED pathology to be drawn. Findings may therefore be more meaningfully considered within the wider constructivist assessment of ED patients and their perceptions of their families more generally. Indeed, the high commonality between mothers and fathers reflects the high levels of commonality found between mothers and adolescent AN daughters (Hall & Brown, 1983). The relatively idealised perception of both daughters as children is also reminiscent of the idealisation and positive role image of mothers found in AN populations (Fransella & Crisp, 1970; Weinrich et al., 1985). A content analysis of the more predominant parental constructs reflected a number of themes highlighted within the systemic literature, including closeness, difficulties with communication and conflict. In terms of parental cognitive style and “tightness of construing” (i.e. rigidity) however, moderate scores do not match the high degree of tightness of construing found in AN populations (e.g. Button, 1985). This suggests that a “tight” cognitive style is not a shared family characteristic, but rather symptomatic of ED pathology. However, these are only very tentative and generalised observations which again merit further investigation.

Theoretical implications

Predicted differences in attachment appear to support the proposed theoretical link between insecure attachment and ED status. However, in revealing significant differences in the attachment of siblings discordant for ED pathology, a number of theoretical questions are raised, firstly regarding the process of attachment between parents and children within the same family and secondly, their significance in relation to ED pathology.

Current findings imply that a number of variables (i.e. parent / child characteristics) may be important mediating factors in early attachment processes between siblings, one of whom later goes on to develop an eating disorder. This essentially

highlights a theoretical and empirical gap within the attachment and ED literature, which to date has assumed the trans-generational transmission of insecure attachment between mother and ED daughter only. It would appear however, that a more robust investigation of attachment processes between caregiver and siblings is needed to more fully explicate any specific link between attachment and ED pathology.

A second objective of the study was to investigate the theoretical links between parental / family construct systems and early attachment processes (Guidano & Liotti, 1983). Findings indicated a high degree of commonality between parents, indicative of a strongly cohesive Family Construct System which may leave little room for individuation whilst increasing the likelihood of conflict between individual and family construct systems. High commonality might also suggest the higher possibility of invalidation of dominant parental construct / family construct systems, resulting in the dismissal or even pathologising of perceived threats to predominant ways of viewing the world, reminiscent of the "idealised state of mind" scale contained within the AAI.

Further empirical investigation of the possible link between construing styles and within-family attachment patterns in families where one member has an ED would therefore appear necessary, particularly in terms of the relationship between construct systems and early attachment processes and the theoretical proposition that these represent an important mechanism through which attachment is transmitted. This would involve the wider examination of the themes around which family members construe their selves and others, in contrast to the current narrow focus upon specific parental (predominantly maternal) cognitions regarding body shape, food and dietary cognitions as a major vulnerability factor for ED pathology.

Clinical implications

Clinical implications are discussed in a critical review of the study (see Tatham, 2003).

Limitations of the study

Despite several strengths in the chosen design (i.e. inclusion of family members), a number of limitations necessitate caution to be exercised in the interpretation and application of findings.

A Sample population

i) Representativeness

Participants were recruited from two Community NHS ED services and are not therefore representative of the ED population as a whole (e.g. in-patient populations). Eligibility criteria stipulating patients have a sister further reduces generalisability of findings to singletons and those patients with brothers only.

ii) Bias

Participants were self-selected from a larger population of eligible patients. Whilst severity of ED pathology has been shown to influence participation rates in research studies (Wade, Tiggerman, Martin & Health, 1997), a host of other factors may conceivably have been important in determining who chose to participate in the current study or not. Inclusion of family members in particular appears to have been a highly significant factor, with a number of patients declining to take part due to the inclusion of sisters (parents were optional).

Recruitment of non-ED sisters and parents was by necessity determined by patients and therefore open to bias. Despite the prerequisite that non-ED sisters should be nearest in age, a number of patients provided contact details of a different sister due to self-reported strained / negative relationships with nearest aged siblings. Due to difficulties in recruitment (see critical review; Tatham, 2003), all consenting sisters were included in the study although it is conceivable that the inclusion of more amiable sibling relationships resulted in less extreme ratings of differential parental treatment and sibling relationships.

A further potential source of bias included past / present treatment. It is conceivable that some forms of treatment (e.g. family therapy) may have biased recall of early environments and / or in some cases helped address difficult family relationships, thereby affecting accuracy of retrospective reports.

iii) Sample size

Based on the research findings reported by Murphy et al. (2000), a power calculation revealed a sample size of 26 sister pairs would be needed in order to detect differences between the two groups. Difficulties in recruitment (see Tatham, 2003) and concerns regarding small size of the sample led to the decision to retain four sister pairs whose SEDS scores suggested concordance for eating disorder pathology. Their inclusion may have therefore served to inflate scores within the non-ED sister group, thereby potentially reducing mean differences between sister groups and the detection of significant differences in terms of attachment, parental treatment and sibling interaction.

b) Design

i) Control group

Failure to include a control or comparison group compromised the ability to establish the significance of findings in relation to ED pathology. The lack of normative data for measures of attachment, differential parental treatment and parental construing further reduced the ability to determine whether statistically significant differences between groups were clinically significant and / or relevant to ED pathology.

ii) Cross-Sectional

Use of a cross sectional design further precluded conclusions being drawn, particularly regarding the direction of effects of parental treatment and parental construing. It is likely for instance that parental treatment (objective and subjective) is a result of bi-directional influences between caregiver and child and that differential parental treatment is equally likely to be an effect as well as a cause (Daniels, 1987). In order to address and / or counter balance some of the obvious limitations of using a cross sectional design, retrospective measures were included, but these are also not without disadvantages (see below).

Related to the question of direction of effects is the more complex issue of gene-environment effects. Caution needs to be exercised when interpreting the significance of environmental factors upon developmental outcomes (e.g. perceptions of differential parental treatment), particularly when using within-family designs, as siblings and parents share heredity and environment. Whilst precise

estimates of the role genetic and environmental factors play in a range of developmental outcomes have been attempted with varying controversy (see Turkheimer & Waldron, 2000), understanding at present remains mainly speculative.

iii) Retrospective bias

A number of measures were used which relied heavily on retrospective recall (i.e. perceptions of parental treatment during childhood; parental construing of daughters as children) thereby introducing potential sources of error including low reliability and validity of autobiographical memory and possible memory impairment associated with psychiatric disorders. However, Brewin et al. (1993) argue that these influences are negligible and may be further minimised by obtaining reports from multiple informants and eliciting recollections for factual information as opposed to value judgements.

c) Measures

i) Attachment

The measurement of attachment is a complex phenomenon and despite many unique strengths, the RAQ incurred some disadvantages. For example, the validity of the RAQ relies heavily on the assumption that attachment patterns are largely continuous across the lifespan by measuring attachment status in relation to a current attachment figure (as opposed to parents). Whilst the empirical base does support the notion of continuity, it is also theoretically conceivable that attachment patterns are open to change. A measure of current attachment therefore may not reliably reflect early attachment patterns formed with primary caregivers.

Secondly, a number of participants completed the questionnaire in relation to a family member, suggesting an absence of a current attachment figure as defined by the authors. Similar problems were reported by Ward et al. (2000), suggesting that ED patients are likely to have fewer attachments compared to non-ED sisters / controls and reflecting research findings which indicate ED patients have smaller social networks and fewer romantic partners than the general population (Tiller et al., 1997). Consequently, it may have been more appropriate to use an attachment measure that did not require responses to be made in relation to an

current attachment figure, particularly given the difficulties of this population in initiating and maintaining secure relationships.

ii) Perceptions of parental and sibling interaction

As highlighted above, a number of difficulties are inherent in the investigation of retrospective accounts, although reliability and validity may be improved by investigating specific events rather than global value judgements (Brewin et al., 1993). A limitation of the SIDE however, is that it requires participants to average their experience over a number of years, thereby potentially masking specific incidents that may have had a significant effect. A further disadvantage of this approach is the inability to differentiate or investigate differential experience in relation to developmental stage (Daniels & Plomin, 1985). It may be, for example, that the amount and type of differential experience may vary significantly at different time points (e.g. infancy, early childhood and adolescence). In terms of ED pathology, it may be of special relevance to investigate differential experiences in adolescence surrounding the typical age of onset.

The SIDE has been extensively used in behavioural genetic research investigating the significance of non-shared environmental influences on differential outcomes. However, a meta-analysis of studies (not including eating disorders) suggests effect sizes to be very small, with the largest effects having been found via direct observation of environment rather than indirect reports from others (Turkheimer & Waldron, 2000). In addition, the SIDE does not permit investigation of the subjective interpretation of perceived differential experiences, making assessment of their impact difficult. It may be, for example, that they represent the mechanism through which differential perceptions exert their influence upon differential outcomes (Klump et al., 2002).

iii) Repertory grids

Inclusion and investigation of parental reports pre / post ED constituted a major contribution to the ED literature, which has largely focussed upon the patient's perceptions of family dynamics only. However, interpretation of data involved a number of assumptions (e.g. similarities in construing reflect equality of treatment), which may be questioned. Individual repertory grids are also limited in their ability to investigate family construct systems (Procter, 1985). Finally, the lack of parallel

measures of parental perception / treatment (e.g. semi-structured interviews, behavioural observations) with which to substantiate findings also compromised both the reliability and validity of conclusions.

Suggestions for further research

In addressing some of the limitations of the current study, a number of areas of improvement for future research projects have been highlighted. Furthermore, results have raised several tentative hypotheses and areas of theoretical and clinical interest that merit further investigation.

Theoretical and clinical areas of interest

Despite the wealth of strong evidence in support of the role of insecure attachment and the development of ED pathology, current findings indicate the more specific investigation of variables that might mediate processes between parents and children in the same family is required. In particular, investigation of the attachment status of other members – particularly fathers and siblings both discordant and concordant for ED pathology – may help clarify the specific contribution insecure attachment may play in the development of an eating disorder. Indeed, the wider investigation of attachment in combination with a range of factors shown to be important in the aetiology of ED pathology appears necessary in order to extend the current “main effect” model, criticised as being too simplistic and which negates other important research findings.

Investigation of parental construing has also raised preliminary hypotheses regarding the role of construct systems in the aetiology of problems as well as the relationship between styles of construing and attachment. Results suggest a possible link, with ED families seemingly characterised by high levels of commonality and closeness, leaving little room for individual negotiation. It may be that this particular style of construing is reflective of the high levels of insecure attachment / unresolved loss amongst mothers of ED patients found by Ward et al. (2000). If so, family construct systems may therefore act as one of the mechanisms through which attachment patterns and styles are transmitted. Further investigation is of interest, not only in relation to the development of eating disorders, but also to the theoretical and clinical application of attachment generally.

Finally, further investigation of some of the assumptions implicit in the interpretation of the data obtained from the RGT (e.g. similarity in construing and treatment) would be of use in order to test accuracy of conclusions.

Study Design

One of the major strengths of the current study design was the inclusion of other family members, including non-ED sisters, which controlled for a number of extraneous variables. However, it is recommended that future research designs incorporate a control group with which to compare and help establish the clinical and or theoretical significance of findings in relation to ED pathology. Depending on the research hypotheses under investigation, this may involve the recruitment of similar family compositions in which no psychiatric symptomatology is present and / or the inclusion of families with siblings who are both concordant for ED pathology and no ED pathology.

Furthermore, longitudinal designs are needed to fully establish directional effects (e.g. perceptions of parental treatment) and developmental outcomes as opposed to cross sectional correlational designs. These would also provide the opportunity to investigate stability of attachment over time and the possible multiple pathways through which it may be maintained and / or modified.

Measures

Measures were carefully selected in relation to research hypotheses and participant characteristics. However, in light of some of the acknowledged limitations, a number of amendments are recommended in order to increase the reliability and validity of further investigations.

Given some of the shortcomings incurred in the use of a non-standardised dimensional measure of reciprocal attachment, it is recommended that future investigations initially employ a categorical approach in order to enable easier comparison between groups under investigation and the wider literature. Whilst the AAI represents the "gold standard," it is argued that large sample sizes and limited resources (e.g. time taken to administer interview schedules, lack of financial resources required to employ skilled raters to score transcripts) may frequently preclude use of the AAI as a viable option. However, a number of

alternative measures exist with good psychometric properties, many of which have been used with ED populations (see Ward et al., 2000).

Secondly, in order to supplement limitations of retrospective reporting, measures such as the SIDE could be complemented with semi-structured interview procedures in order to further substantiate sibling reports. Semi-structured interviews would also allow more detailed investigation of the significance of subjective interpretation of differential experiences, as well as the more thorough investigation of particular developmental stages.

Finally, parental constructs and family construct systems may be more expertly investigated using measures specifically designed for this purpose (e.g. the Family Grid; Procter, 1985). The Family Grid involves inclusion and investigation of parents' and offsprings' construing of each other and their "metaperspectives" from which useful information can be gained regarding the structure and inter-relationships of the family structure. As a methodology, the Family Grid combines several theoretical lines of interest including the investigation of systemic hypotheses concerning ED family dynamics such as covert coalitions, family alliances and hostility at a lower level of cognitive awareness (Procter, 1985). With respect to attachment, individual or family grids can also be used to investigate attachments beyond the nuclear family and important and influential relationships between generations.

Sample

Despite acknowledgment of the difficulties in recruiting ED patients and their families (see critical review; Tatham, 2003) future research could include larger samples in order to ensure the more stringent exclusion of potentially unsuitable cases as well as enable comparison between ED subgroups.

CONCLUSIONS

The application and empirical investigation of attachment theory to the aetiological study of eating disorders would still appear to be in its infancy. Early studies provide evidence in support of its potential importance, although much of the research appears alienated from advances made within the wider field of attachment. The current focus for example, has been to highlight the high incidence of insecure attachment within ED populations and establish links with the attachment style of mothers. It has been argued however, that this essentially main effect model of attachment and ED pathology is firstly, too simplistic in its aetiological explanation of a complex phenomenon and secondly, theoretically weak.

The present study primarily sought to investigate implicit theoretical predictions that attachment status would vary between two siblings discordant for eating disorder pathology, by drawing upon recent behavioural genetic research which highlights the potential significance of differential parental treatment and other non-shared environmental influences. Findings did indicate significant differences in the attachment patterns between siblings, raising questions not only regarding the process of attachment between parents and children within the same family, but also concerning potential variables which may be important mediating factors in early attachment processes and later developmental outcomes, such as ED pathology. Preliminary exploration of the role of parental / family construct systems suggested a possible relationship between parental construing, differential attachments and ED pathology, although this requires more extensive investigation.

In conclusion, the study has furthered the investigation into the role of attachment and eating disorder pathology by combining a number of theoretical and empirical lines of enquiry. Although tentative, preliminary results provide a promising platform for further investigation, whilst emphasising the theoretical, clinical and empirical complexities of eating disorder research. It has subsequently been argued that integrative studies are needed in order to fully understand the complex interactions of aetiological factors that combine to predispose some to ED pathology rather than others. Only then might the significance of disrupted

attachment functioning and the development of ED pathology be more fully understood.

REFERENCES

- Ainsworth, M., Blehar, M., Waters, E. & Wall, S. (1978). Patterns of Attachment: A Psychological Study of the Strange Situation. Hillsdale: Erlbaum.
- Alexander, P. & Neimeyer, G. (1989). Constructivism and family therapy. International Journal of Personal Construct Psychology, 2, 111-121.
- American Psychiatric Association. (1994). Diagnostic and Statistical Manual of Mental Disorders. (fourth edition) Washington DC.
- Armstrong, J. & Roth, D. (1989). Attachment and separation difficulties in eating disorders: A preliminary investigation. International Journal of Eating Disorders, 8, 141-155.
- Arrindell, W., Emmelkamp, P., Monsma, A. & Brilman, E. (1983). The role of perceived parental rearing practises in the aetiology of phobic disorders: A controlled study. Journal of Psychiatry, 143, 183-187.
- Bartholomew, K. & Horowitz, L. (1991). Attachment Styles Among Young Adults: A Test of a Four Category Model. Journal of Personality and Social Psychology, 61, 226-244.
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. Journal of Personal and Social Relationships, 7, 147-178.
- Beal, N. (1985). Repertory Grid Technique and Personal Construct: Applications in Clinical and Educational Settings (Ed.) Croom Helm, Kent.
- Bell, L., Clare, L. & Thorn E. (2001). Service Guidelines for People with Eating Disorders. DCP Occasional Paper No 3. British Psychological Society.
- Berg, M., Crosby, R., Wonderlich, S. & Hawley, D. (2000). Relationship of temperament and perceptions of nonshared environment in bulimia nervosa. International Journal of Eating Disorders, 28, 148-154.
- Berman, W. & Sperling, M. (1994) The Structure and Function of Adult Attachment. In M. Sperling & W. Berman (Eds.) Attachment in Adults: Clinical and Developmental Perspectives (pp. 3-30) Guildford Press, New York.
- Bowlby, J. (1988). A Secure Base: Parent-child Attachment and Healthy Human Development. New York: Basic Books.
- Bowlby, J. (1980). Attachment and Loss: 3 London: Hogarth Press.
- Bowlby, J. (1969). Attachment and Loss: 1 London: Hogarth Press.
- Brewin, C., Andrews, B. & Gotlib, I. (1993). Psychopathology and early experience: A reappraisal of retrospective reports. Psychological Bulletin, 113, 82-98.

- Broberg, A., Hjalpers, I. & Nevonen, L. (2001). Eating disorders, attachment and interpersonal difficulties: A comparison between 18 – to 24 year-old patients and normal controls. European Eating Disorders Review, 9, 381-396.
- Bruch, K. (1978). Psychotherapy in primary anorexia nervosa. Journal of Nervous and Mental Disease, 150, 51-67.
- Bulik, C., Sullivan, P., Wade, T. & Kendler, K (2000a). Twin studies of eating disorders: A review. International Journal of Eating Disorders, 27, 1-20.
- Bulik, C., Sullivan, P. Fea, J. & Pickering, A. (2000b). Outcome of anorexia nervosa: Eating attitudes, personality and parental bonding. International Journal of Eating Disorders, 28, 139-147.
- Burge, D., Hammen, C., Davila, J., Daley, S., Paley, B., Lindberg, N., Herzberg D. & Rudolph, K. (1997). The relationship between attachment cognitions and psychological adjustment in late adolescent women. Development and Psychopathology, 9, 151-167.
- Button, E. (1993). Eating Disorders. Personal Construct Therapy and Change. Wiley & Sons, Chichester.
- Button, E. (1985). Personal Construct Theory and Mental Health. Theory, Research and Practise. Wiley & Sons, Worchester.
- Button, E. (1983). Personal construct theory and psychological well-being. British Journal of Medical Psychology, 56, 313-321.
- Candelori, C. & Ciocca, A. (1998). Attachment and eating disorders. In P. Bria, A. Ciocca and S. de Risio (Eds.) Psychotherapeutic Issues in Eating Disorders: Models, Methods and Results (pp.139-153). Rome: Societa Editrice Universo.
- Casper, R. & Troiani, M. (2001). Family functioning in anorexia nervosa differs by subtype. International Journal of Eating Disorders, 30, 338-342.
- Cassidy, J. & Berlin, L. (1994). The insecure / ambivalent pattern of attachment: Theory and research. Child Development, 65, 971-991.
- Cassidy, J. & Mohr, J. (2001). Unsolvability, fear, trauma and psychopathology: Theory, research and clinical considerations related to disorganised attachment across the lifespan. Clinical Psychology: Science and Practice, 8, 275-298.
- Chassler, L. (1997). Understanding anorexia nervosa and bulimia nervosa from an attachment perspective. Clinical Social Work Journal, 25, 407-423.
- Cole-Detke, H. & Kobak, R. (1996). Attachment processes in eating disorders and depression. Journal of Consulting and Clinical Psychology, 64, 282-290.
- Cooper, M., Galbraith, M. & Drinkwater, J. (2001). Assumptions and beliefs in adolescents with anorexia nervosa and their mothers. Eating Disorders, 9, 217-223.

- Crawford, F., Henry, J., Crombie, C. & Taylor, E. (2001). Normative data for the HADS from a large non-clinical sample. British Journal of Clinical Psychology, 40, 429-434.
- Crisp, A. & Fransella, F. (1972). Conceptual change during recovery from Anorexia Nervosa. British Journal of Medical Psychology, 45, 395-405.
- Dallos, R. (2001). ANT – Attachment narrative therapy: Narrative and attachment theory approaches in systemic family therapy with eating disorders. Journal of Family Psychotherapy, 12, 43-72.
- Daniels, D. & Plomin, R. (1985). Differential experience of siblings in the same family. Developmental Psychology, 21, 747-760.
- Daniels, D. (1986). Differential experiences of siblings in the same family as predictors of adolescent sibling personality differences. Journal of Personality and Social Psychology, 51, 339-346.
- Daniels, D., Dunn, J., Furstnberg, F. & Plomin, R. (1985). Environmental differences within the family and adjustment differences within pairs of adolescent siblings. Child Development, 56, 764-774.
- DeFronzo, R. & Panzarella, C. (2001). Attachment, support seeking, and adaptive inferential feedback. Implications for psychological health. Cognitive and Behavioural Practise, 8, 48-52.
- Department of Health. (2001). Treatment Choice in Psychological Therapies and Counselling: Evidence-based Clinical Practice Guidelines. London: Department of Health.
- Dunn, J., Stocker, C. & Plomin, R. (1990). Nonshared experiences within the family: Correlates of behavioural problems in middle childhood. Development and Psychopathology, 2, 113-126.
- Dunn, J., Plomin, R. & Nettles, M. (1985). Consistency of mothers' behaviour toward infant siblings. Developmental Psychology, 21, 1188-1195.
- Dunn, J., Daniels, D., Furstenberg, F. & Plomin, R. (1985). Environmental differences within the family and adjustment differences. Journal of Personality and Social Psychology, 51, 339-346.
- Eddy, K., Keel, J., Dorer, D., Delinsky, S., Franko, D. & Herzog, D. (2002). Longitudinal comparison of anorexia nervosa subtypes. International Journal of Eating Disorders, 31, 191-201.
- Elicker, J., Englund, M. & Sroufe, L. (1992). Predicting peer competence and peer relationships in childhood from early parent-child relationships. In R. Parke & G. Ladd (Eds.), Family-peer Relations: Modes of Linkage (pp.77-106). Hillsdale, NJ., Erlbaum.
- Epstein, N., Baldwin, L. & Bishop, D. (1983). The McMaster Family Assessment Device. Journal of Marital and Family Therapy, 9, 171-180.

- Fairburn, C., Cooper, Z. & Shafran, R. (2003). Cognitive behaviour therapy for eating disorders: a "transdiagnostic" theory and treatment. Behaviour Research and Therapy, 41, 509-528.
- Fairburn, C., Cowen, P. & Harrison, P. (1999). Twin studies and the etiology of eating disorders. International Journal of Eating Disorders, 26, 349-358.
- Fassino, S., Svrakic, D., Abbate-Daga, G., Leombruni, P., Amianto, F., Stani, S. & Giacomo Rovera, G. (2002). Anorectic family dynamics: Temperament and character data. Comprehensive Psychiatry, 43, 114-120.
- Feixas, G., Procter, H. & Neimeyer, G. (1993). Convergent lines of assessment: Systemic and constructivist contributions. In Neimeyer, G. Constructivist Assessment: A Casebook. London: Sage Publications.
- Feixas, G. (1992). Personal construct approaches to family therapy. In R.A. Neimeyer and G. Neimeyer (Eds.) Advances in Personal Construct Psychology. (pp.217-257), Greenwich.
- Feixas, G. (1990a). Approaching the individual approaching the system. Journal of Family Therapy, 4, 4-35.
- Feixas, G. (1990b). Personal construct theory and systemic therapies. Journal of Marital and Family Therapy, 16, 1-20.
- Fife-Schaw, C. (1995). Bivariate Statistical Analyses. In Breakwell, G., Hammond, S. & Fife-Schaw (Eds.). Research Methods in Psychology. (pp. 350-371). London: Sage.
- Foley, D., Neale, M. & Kendler, K. (2001). Does intrauterine growth discordance predict differential risk for adult psychiatric disorder in monozygotic twins? Manuscript submitted for publication.
- Fonagy, P., Leigh, T., Steele, M., Steele, H., Kennedy, R., Mattoon, G., Target, M. & Gerber, A. (1996). The relation of attachment status, psychiatric classification and response to psychotherapy. Journal of Consulting and Clinical Psychology, 64, 22-31.
- Fransella, F. & Crisp, A. (1970). Conceptual organisation and weight change. Psychotherapy and Psychosomatics, 18, 176-185.
- Friedberg, N. & Lyddon, W. (1996). Self-other working models and eating disorders. Journal of Cognitive Psychotherapy, 10, 193-203.
- Garner, D. (1991). Eating Disorder Inventory-2 (EDI-2), Professional manual. Odessa: Psychological Assessment Resources.
- George, C., Kaplan, N. & Main, M. (1985). The Adult Attachment Interview. Unpublished Manuscript, University of California at Berkeley.
- Gowers, S., Kadambari, S. & Crisp, A. (1985). Family structure and birth order of patients with anorexia nervosa. Journal of Psychiatric Research, 19, 247-251.

Green, J. & Goldwyn, R. (2002). Annotation: Attachment disorganisation and psychopathology: new findings in attachment research and their potential implications for developmental psychopathology in childhood. Journal of Child Psychology and Psychiatry, 43, 835-846.

Griffen, D. & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. Journal of Personality and Social Psychology, 67, 430-445.

Guidano, V. & Liotti, G. (1983). Cognitive Processes and Emotional Disorders. New York: Guildford Press.

Guttman, H. & Laporte, L. (2002). Family members' retrospective perceptions of intrafamilial relationships. Contemporary Family Therapy, 24, 505-521.

Hall, A. & Brown, L. (1983). A comparison of the attitudes of young anorexia nervosa patients and non-patients with those of their mothers. British Journal of Medical Psychology, 56, 39-48.

Halmi, K., Eckert, E., Marchi, P., Sampugnaro, V., Apple, R. & Cohen, J. (1991). Comorbidity of psychiatric diagnoses in anorexia nervosa. Archives in General Psychiatry, 48, 712-718.

Halverson, C. (1988). Remembering your parents: Reflections on the retrospective method. Journal of Personality, 56, 435-443.

Hay, P., Bacaltchuk, H., Claudino, A. & Ben-Tovim, D. (2002). Individual psychotherapy in the outpatient treatment of adults with anorexia nervosa (Protocol for a Cochrane review). In: The Cochrane Library Issue 4, Oxford.

Hazen, C. & Shaver, P. (1987). Romantic love conceptualised as an attachment process. Journal of Personality and Social Psychology, 52, 511-524.

Herzog, D., Keller, M., Sacks, N. & Lavori, P. (1992). Psychiatric comorbidity in treatment-seeking anorexics and bulimics. Journal of the American Academy of Child and Adolescent Psychiatry, 31, 810-818.

Hilton, I. (1967). Differences in the behaviour of mothers toward first and later born children. Journal of Personality and Social Psychology, 7, 282-290.

Humphrey, L. (1986). Structural analysis of parent-child relationships in eating disorders. Journal of Abnormal Psychology, 95, 395-402.

Karwautz, A., Rabe-Hesketh, S., Collier, D. & Treasure, J. (2002). Pre-morbid psychiatric morbidity, comorbidity and personality in patients with anorexia nervosa compared to their healthy sisters. European Eating Disorders Review, 10, 255-270.

Karwautz, A., Rabe-Hesketh, S., Zhao, J., Sham, P., Collier, D. & Treasure, J. (2001a). Individual-specific risk factors for anorexia nervosa: a pilot study using a discordant sister pair design. Psychological Medicine, 31, 317-329.

Karawautz, A., Volkl-Kernstock, S., Nobis, G. & Hafferl-Gattermayer, A. (2001b). Characteristics of self-regulation in adolescent patients with anorexia nervosa. British Journal of Medical Psychology, 74, 101-114.

Kelly, G. (1955). The Psychology of Personal Constructs. New York: Norton

Kendler, K., Walters, E., Neale, M., Kessler, R., Heath, A. & Eaves, L. (1995). The structure of genetic and environmental risk factors for 6 major psychiatric disorders in women. Archives of General Psychiatry, 52, 374-383.

Klump, K., Wonderlich, S., Lehoux, P., Lilienfeld, L. & Bulik, C. (2002). Does environment matter? A review of non-shared environment and eating disorders. International Journal of Eating Disorders, 31, 118-135.

Klump, K., Miller, K., McGue, M. & Iacono, W. (2001). Genetic and environmental influences on anorexia nervosa syndromes in a population-based twin sample. Psychological Medicine, 31, 737-740.

Klump, K., McGue, M. & Iacono, W. (2000). Age differences in genetic and environmental influences on eating attitudes and behaviours in preadolescent and adolescent female twins. Journal of Abnormal Psychology, 109, 239-251.

Laporte, L. & Guttman, H. (2001). Abusive relationships of women with borderline personality disorder, anorexia nervosa and a control group. Journal of Nervous and Mental Disease, 189, 522-531.

Lehoux, P. & Howe, N. (2001). The role of perceptions of differential environment and personality traits in the etiology of bulimia nervosa. International Journal of Eating Disorders, 27, 45-57.

Leung, N., Thomas, G. & Waller, G. (2000). The relationship between parental bonding and core beliefs in anorexic and bulimic women. British Journal of Clinical Psychology, 39, 205-213.

Lilienfeld, L., Kaye, W., Greeno, C., Merikangas, I., Iotnicov, K., Ollice, C., Roa, R., Strober, M., Bulik, C. & Nagy, L. (1998). A controlled family study of anorexia nervosa and bulimia nervosa. Psychiatric disorders in first degree relatives and effects of proband comorbidity. Archives of General Psychiatry, 55, 603-610.

Lopez, F. & Gover, M. (1993). Self-report measures of parent-adolescent attachment and separation-individuation: A selective review. Journal of Counselling and Development, 71, 390-395.

Lyddon, W., Bradford, E. & Nelson, J. (1993). Assessing adult attachment: a review of current self-report measures. Journal of Counselling and Development, 71, 390-395.

Main, M. & Hesse, E. (1990). Parents' unresolved traumatic experiences are related to infant disorganised attachment status: Is frightened and / or frightening parental behaviour the linking mechanism? In M.T. Greenberg, D. Cicchetti, & E. Cummings (Eds.). Attachment in the preschool years: Theory, research and intervention (pp.121-160). Chicago: University of Chicago Press.

Main, M. & Solomon, J. (1990). Procedures for identifying infants as disorganised / disorientated during the Ainsworth Strange Situation. In M.T. Greenberg, D. Cicchetti, & E. Cummings (Eds.). Attachment in the preschool years: Theory, research and intervention (pp.160-187). Chicago: University of Chicago Press.

Main, M. & Cassidy, J. (1988). Categories of response to reunion with the parent at age 6: Predictable from infant attachment classifications and stable over a 1-month period. Developmental Psychology, 24, 415-426.

Maloney, M. & Shephard-Spiro, P. (1983). Eating attitudes and behaviours of anorexia nervosa patients and their sisters. General Hospital Psychiatry, 5, 285-288.

Matas, L., Arend, R. and Sroufe, L. (1978). Continuity of adaptation in the second year: The relationship between quality of attachment and later competence. Child Development, 49, 547-556.

McGrane, D. & Carr, A. (2002). Young Women at risk for eating disorders: Perceived family dysfunction and parental psychological problems. Contemporary Family Therapy, 24, 385-395.

McDermott, B., Batik, M., Roberts, L. & Gibbon, P. (2002). Parent and child report of family functioning in a clinical child and adolescent eating disorders sample. Australian and New Zealand Journal of Psychiatry, 36, 509-514.

Minuchin, S., Rosman, B. & Baker, L. (1978). Psychosomatic families: Anorexia Nervosa in context. Cambridge: Harvard University Press.

Murphy, F., Troop, N. & Treasure J. (2000). Differential environmental factors in anorexia nervosa: A sibling pair study. British Journal of Clinical Psychology, 39, 193-203.

Neimeyer, G. & Khouzam, N. (1985). A repertory grid study of restrained eaters. British Journal of Medical Psychology, 58, 365-367.

Neimeyer, G. & Neimeyer, R. (1993). Defining the Boundaries of Constructivist Assessment. In Neimeyer, G. Constructivist Assessment: A Casebook. (pp.1-25). London: Sage Publications.

Neimeyer, G. & Neimeyer, R. (1993). Constructivist Assessment: What and When. In Neimeyer, G. Constructivist Assessment: A Casebook. (pp. 207-223). London: Sage Publications.

Noordenbos, G., Oldenhove, A., Muschter, J. & Terpstra, N. (2002). Characteristics and Treatment of Patients with Chronic Eating Disorders. Eating Disorders, 10, 15-29.

O'Kearney, R. (1995). Attachment disruption in anorexia nervosa and bulimia nervosa: A review of theory and empirical research. International Journal of Eating Disorders, 20, 115-127.

Palmer, R., Oppenheimer, R. & Marshall, P. (1988). Eating disordered patients remember their parents: A study using the Parental–Bonding Instrument. International Journal of Eating Disorders, 7, 101-106.

Palmer, R. (2000). Helping people with eating disorders. Chichester: Wiley

Parker, G., Tupling, H. & Brown, L. (1979). A parental bonding instrument. British Journal of Medical Psychology, 52, 1-10.

Pike, A. & Plomin, R. (1996). Importance of nonshared environmental factors for childhood and adolescent psychopathology. Journal of American Academy for Child and Adolescent Psychiatry, 35, 560-570.

Plomin, R. (1990). Nature and Nurture: An Introduction to Human Behavioural Genetics. California: Brooks / Cole.

Plomin, R. & Daniels, D. (1987). Why are children in the same family so different from one another? Behavioural and Brain Sciences, 10, 1-60.

Pratt, B. & Woolfenden, S. (2002). Interventions for preventing eating disorders in children and adolescents (Cochrane Review). In: The Cochrane Library, Issue 4, Oxford.

Procter, H. (1985). A construct approach to family therapy and systems intervention. In E. Button (Ed.). Personal Construct Theory and Mental Health. (pp.327-350). Cambridge: Brookline.

Procter, H. (1981). Repertory grids in family therapy and research. In Beail, N (Ed.). Repertory Grid Technique and Personal Construct: Applications in Clinical and Educational Settings. (pp.219-239). Kent: Croom Helm.

Ramacciotti, A., Sorbello, M., Pazzagli, A., Vismara, L., Mancone, A. & Pallanti, S. (2001). Attachment processes in eating disorders. Eating and Weight Disorders, 6, 166-170.

Reiss, D., Hetherington, M., Plomin, R., Howe, G., Simmens, S., Henderson, S., O'Connor, T., Bussell, D., Anderson, E. & Law, T. (1995). Genetic questions for environmental studies: Differential parenting and psychopathology. Archives of General Psychiatry, 52, 925-936.

Rosenstein, D. & Horowitz, H. (1996). Adolescent attachment and psychopathology. Journal of Consulting and Clinical Psychology, 64, 244-253.

Rosenvinge, J., Martinussen, M. & Ostensen, E. (2000). The comorbidity of eating disorders and personality disorder: A meta-analytic review of studies published between 1983-1998. Eating Weight Disorders, 5, 52-61.

Rothbard, J. & Shaver, P. (1994). Continuity of attachment across the lifespan. In M. Sperling & W. Berman (Eds.). Attachment in Adults: Clinical and Developmental Perspectives. (pp. 31-71). New York: Guildford Press.

- Rowe, D. & Plomin, R. (1981). The importance of nonshared environmental influences in behavioural development. Developmental Psychology, 17, 517-531.
- Salzman, J. (1997). Ambivalent attachment in female adolescents: association with affective instability and eating disorders. International Journal of Eating Disorders, 21, 251-259.
- Sassaroli, S. & Lorenzini, R. (1992). Attachment as an informative relationship. International Journal of Personal Construct Psychology, 5, 239-247.
- Scholz, M. & Asen, E. (2001). Multiple family therapy with eating disordered adolescents: Concepts and preliminary results. European Eating Disorders Review, 9, 33-42.
- Selvini-Palizzoli, M. (1974). Self-starvation: From individual to family therapy in the treatment of anorexia nervosa. New York: Jason Artonson.
- Sharpe, T., Killen, J., Bryson, S., Shisslak, C., Estes, L., Gray, N., Crago, M. & Taylor, C. (1998). Attachment style and weight concerns in preadolescent and adolescent girls. International Journal of Eating Disorders, 23, 39-44.
- Shoebridge, P. & Gowers, J. (2000). Parental high concern and adolescent onset anorexia nervosa. British Journal of Psychiatry, 176, 132-137.
- Sordelli, A., Fossati, A., Devoti, R., La Viola, S. & Maffei, C. (1996). Perceived parental bonding in anorectic and bulimic patients. Psychopathology, 29, 64-70.
- Sperling, M., Foelsch, P. & Grace, C. (1996). Measuring adult attachment: Are self-report instruments congruent? Journal of Personality Assessment, 67, 37-51.
- Steiger, H., Van der Feen, J., Goldstein, C. & Leichner, P. (1989). Defense styles and parental bonding in eating disordered women. International Journal of Eating Disorders, 8, 131-140.
- Strober, M., Freeman, R., Lampert, C., Diamond, J. & Kaye, W. (2000). Controlled family study of anorexia nervosa and bulimia nervosa: Evidence of shared liability and transmission of partial syndromes. American Journal of Psychiatry, 157, 393-401.
- Strober, M. & Humphrey, L. (1987). Familial contributions to the aetiology and course of anorexia and bulimia. Journal of Consulting and Clinical Psychology, 55, 645-659.
- The Price Foundation Collaborative Group. (2001). Deriving behavioural phenotypes in an international multi-centre study of eating disorders. Psychological Medicine, 31, 635-645.
- Tiller, J., Sloane, G., Schmidt, U., Troop, N., Power, M. & Treasure, J. (1997). Social support in patients with anorexia nervosa and bulimia nervosa. International Journal of Eating Disorders, 21, 31-38.

- Treasure, J. & Holland, A. (1995). Genetic factors in eating disorders. In G. Szmukler, C. Dare & J. Treasure (Eds.). Handbook of eating disorders: Theory, treatment and research (pp. 65-81). Chichester: Wiley.
- Treasure, J. & Schmidt, U. (2002). Anorexia Nervosa. Clinical Evidence, 6, 705-714.
- Turkheimer, E. & Waldron, M. (2000). Nonshared environment: A theoretical, methodological and quantitative review. Psychological Bulletin, 126, 78-108.
- Van Ijzendoorn, M. & Bakermans-Kranenburg, M. (1996). Attachment representations in mothers, fathers, adolescents and clinical groups: A meta-analytic search for normative data. Journal of Consulting and Clinical Psychology, 64, 8-21.
- Wade, T., Bulik, C., Neale, M. & Kendler, K. (2000). Anorexia and major depression: Shared genetic and environmental risk factors. American Journal of Psychiatry, 157, 469-471.
- Wade, T., Martin, G. & Tiggemann, M. (1998). Genetic and environmental risk factors for the weight and shape concerns characteristic of bulimia nervosa. Psychological Medicine, 28, 761-771.
- Wade, T., Tiggemann, M., Martin, N. & Heath, A. (1997). Characteristics of interview refusers: Women who decline to participate in interviews relating to eating. International Journal of Eating Disorders, 22, 95-99.
- Ward, A., Ramsay, R. & Treasure, J. (2000). Attachment research in eating disorders. British Journal of Medical Psychology, 73, 35-51.
- Ward, A., Ramsay, R., Turnbull, S., Steele, M., Steele, H. & Treasure, J. (2001). Attachment in anorexia nervosa: A transgenerational perspective. British Journal of Medical Psychology, 74, 497-505.
- Ward, A., Ramsay, R., Turnbull, S., Benedettini, M. & Treasure, J. (2000). Attachment patterns in eating disorders: Past in the present. International Journal of Eating Disorders, 28, 370-376.
- Warren, S., Huston, L., Egeland, B & Sroufe, L. (1997). Child and adolescent anxiety disorders and early attachment. Journal of the American Academy of Child and Adolescent Psychiatry, 36, 637-644.
- Weinreich, P., Doherty, J. & Harris, P. (1985). Empirical assessment of identity in anorexia and bulimia nervosa. Journal of Psychiatric Research, 19, 297-302.
- Weiss, R. (1982). Attachment in adult life. In C.M. Parkes and J.S. Hinde (Eds.). The place of attachment in human behaviour. (pp. 61-82). New York: Basic Books.
- West, M., Spreng, S., Casares-Knight, P., Rose, S. & Leiper, R. (1998). A comparison of two measures to assess adult attachment. The Journal of Genetic Psychology, 159, 345-352.

West, M. & Sheldon-Keller, A. (1994). Patterns of Relating: An Adult Attachment Perspective. London: Guildford Press.

West, M. & Sheldon, A. (1988). Classification of pathological attachment patterns in adults. Journal of Personality Disorders, 2, 153-159.

West, M., Sheldon, A. & Reiffer, L. (1987). An approach to the delineation of adult attachment: scale development and reliability. Journal of Nervous and Mental Disease, 175, 738-741.

Williams, G., Power, K., Miller, H., Freeman, C., Yellowless, A., Dowds, T., Walker, M. & Parry-Jones, W. (1994). Development and validation of the Stirling Eating Disorder Scales. International Journal of Eating Disorders, 16, 35-43.

Winter, D. (2003). Repertory grid technique. Psychotherapy Research, 13, 25-42.

Winter, D. (1992). Personal Construct Psychology in Clinical Practice Theory, Research and Applications. London: Routledge.

Wonderlich, S., Ukestad, L. & Perzacki, R. (1994). Perceptions of nonshared childhood environment in bulimia nervosa. Journal of the Academy of Child and Adolescent Psychiatry, 33, 740-747.

Woodside, D., Bulik, C., Halmi, K., Fichter, M., Kaplan, A., Berrettini, W., Strober, M., Treasure, J., Lilenfeld, L., Klump, K. & Kaye, W. (2002). Personality, perfectionism and attitudes toward eating in parents of individuals with eating disorders. International Journal of Eating Disorders, 31, 290-299.

Yorke, D. (1985). Administration, analysis and assumption: Some aspects of validity. In Beail, N (Ed.). Repertory Grid Technique and Personal Construct: Applications in Clinical and Educational Settings. (pp.383-399). Kent: Croom Helm.

APPENDIX 1
Consent to be contacted

I am in my third year on the Doctorate in Clinical Psychology Course at the University of Hertfordshire and currently working with the ***** based at the *****. As part of my training, I am required to undertake a piece of health-related research. I am planning to conduct a small study investigating family relationships between sisters and parents where one sibling in the family suffers from an eating disorder and the other does not.

The following form asks for your consent to allow me to contact you in order to discuss whether you would be interested in contributing to the research project. Your consent does NOT oblige or contract you to participate and you are free to refuse when contacted. If you do not wish to participate, your access to health care services is NOT affected in any way.

Yours sincerely

Madeleine Tatham
Trainee Clinical Psychologist

Please complete the following:

I (name)

Am willing to be contacted in order to discuss whether I would like to participate in the above research study. I understand that I am under no obligation to take part and will be provided with more information about the study once I have been contacted.

Signed.....

Please provide contact details (Name, address and / or telephone number)

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

APPENDIX 2
Covering letter (patients)

PRIVATE AND CONFIDENTIAL

Dear

I am in my second year on the Doctorate in Clinical Psychology Course at the University of Hertfordshire and will soon be working with the Eating Disorders Service based at *****. As part of my training, I am required to undertake a piece of health-related research. I am planning to conduct a small study investigating family relationships between sisters and parents where one sibling in the family suffers from an eating disorder and the other does not.

I have been notified by the ***** team that you may be willing to participate in the research study. Participation will involve receiving a number of questionnaires by post which you are then asked to complete and return in a pre-paid envelope. They should take no longer than 1 hour to complete. I have enclosed an information sheet for you to read, but would like to emphasize that the amount of time and inconvenience that your involvement might cause has been carefully thought out and planned so as to cause as little disruption as possible. All information is treated confidentially and anonymously.

I appreciate that the research area may be a potentially difficult topic for many patients and their family members. It is my hope that by investigating those suffering with an eating disorder and their family members' experiences, research can further identify factors that may contribute to the development of eating disorders as well as providing a better understanding of the issues and support needed for other family members.

Please see the information sheet for further information about the study and I look forward to meeting you on ***** at *.** ** when we can discuss any queries or concerns you may have together.

Yours sincerely

Madeleine Tatham
Trainee Clinical Psychologist

APPENDIX 3 Patient Information Sheet

INVITATION TO TAKE PART IN A RESEARCH PROJECT

Title: Parental treatment and attachment in sisters
with and without an eating disorder

Investigator: Madeleine Tatham

Introduction

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with friends, relatives and your GP if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the study?

The study is intended to explore family member's perceptions of their relationships with other family members, particularly focusing on sister pairs, one of whom suffers from the eating disorder. The purpose of this study is to investigate differences in the experiences within and between family members. Clearly all families are different, but the study aims to look for any similarities with the hope of furthering our understanding about factors that may be involved in the onset and development of an eating disorder in some people rather than others.

We aim to recruit 26 patients, their nearest aged sister and parent(s) to take part in this study.

Do I have to take part?

No. It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. However, you may still decide to withdraw at any time without having to give a reason.

If you decide not to take part, or if you withdraw, this will not affect the standard of care you receive. Nor will your legal rights be affected by agreeing or refusing to take part.

What would the study involve?

If you do decide to take part, you will be sent 4 questionnaires to complete in your own time and send back in a pre-paid stamped addressed envelope. The questionnaires require you to rate your responses on a rating scale (i.e. simply ticking or circling the most appropriate response for you as opposed to writing down lots of information.) There are 4 questionnaires in total, asking about eating patterns and behaviour, mood, experiences growing up in the family, and current relationships. It is estimated to take an hour and a half at the most to complete.

Furthermore, in order to obtain a family perspective, your consent to contact your nearest aged sister and parents to ask if they also would be willing to participate in the study will be necessary. The study involves both you, your nearest aged sister and your parent(s) to fill in a number of questionnaires.

What are the possible disadvantages and risks of taking part?

There are no foreseeable disadvantages or risks to taking part in the study. Participation will entail no more than 2 hours of your time.

Although not expected, if the questionnaires raise some issues that are problematic or uncomfortable for you, your ***** key worker will be available to support and discuss these with you. Additional contact details are given below so as to ensure that any disadvantage or discomfort as a result of taking part in the study is minimal.

What are the benefits of taking part?

Although there is no direct personal benefit from taking part in the study, we hope that the information we get from this study may help us to better understand some of the factors that may contribute to why some people develop an eating disorder. We also hope that, by exploring the experiences and views of other family members, we can contribute to the improvement of treatment for patients with eating disorders in the future as well as improving support for family members.

What if I have any concerns during the research?

Sometimes during the course of a research project, participants reveal new information about themselves or experience discomfort caused by the subject of a research project. Participants are encouraged to contact their ***** key worker and the following services should they feel it appropriate. Parents and sisters are also advised to access the following sources of support.

***** (9am – 5pm Monday – Friday. Answerphone outside hours)

Eating Disorders Association (EDA)
First Floor
Wensum House
103 Prince of Wales Road
Norwich
Norfolk NR1 1DW
01603 621414 (9am – 6.30pm Monday – Friday)
Eating Disorders Association Youth Line (under 18's)
01603 765050 (01603 765050)

Remember that your participation is voluntary and you are free to withdraw from the research at any time if you wish.

What if something goes wrong?

We will take every care in the course of this study. If however you are harmed in this study due to someone's negligence, then you may have grounds for a legal action for which you would need to pay. There are no additional compensation arrangements for participants in this study.

The normal NHS complaints mechanism is available to you if you wish to complain about any aspect of the way you are approached or treated during the course of this study. Formal complaints should be addressed to*****.

Should you require independent advice about making a complaint or seeking compensation, you may wish to contact the*****.

Will my participation in the study be kept confidential?

If you decide to take part in the study, only the ***** team will be made aware of your participation. The principal investigator, Madeleine Tatham, will be working closely with

APPENDIX 4
Patient consent form

CONSENT FORM

Title of Project: Attachment and parental treatment between sisters with and without
An eating disorder

Name of Researcher: Madeleine Tatham

I (name).....

Of (address).....

.....

- 1. I confirm that I have read and understand the patient information sheet dated 14 August 2003 (version 4) for the above study and have had the opportunity to ask questions.

- 2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.

- 3. I understand that sections of any of my medical notes may be looked at by responsible individuals from the ***** or from regulatory authorities where it is relevant to my taking part in research. I give permission for these individuals to have access to my records.

- 4. I agree to take part in the above study and also to my sister and parents being invited to participate.

Name of Patient

Date

Signature

Name of Person taking consent
(if different from researcher)

Date

Signature

Researcher

Date

Signature

1 for patient; 1 for researcher; 1 to be kept with hospital notes

APPENDIX 5
Covering letter (Sisters)

PRIVATE AND CONFIDENTIAL

Dear

I am in my second year on the Doctorate in Clinical Psychology Course at the University of Hertfordshire and will soon be working with the ***** based at *****. As part of my training, I am required to undertake a piece of health-related research. I am planning to conduct a small study investigating family relationships between sisters and parents where one sibling in the family suffers from an eating disorder and the other does not.

I have recently met with your sister, ***** to introduce the study and ask whether she would be interested in participating. Having had the opportunity to discuss the study and what it will involve, ***** has agreed to take part and also given her consent to allow me to contact you and send you the questionnaires for completion. I am writing to ask if you also would be willing to take part in the study. I have enclosed an information sheet for you to look at, but would like to emphasize that the amount of time and inconvenience that your involvement might cause has been carefully thought out and planned so as to cause as little disruption as possible. All information is treated confidentially and anonymously.

If you decide to take part, please complete the 4 questionnaires provided and return with a signed consent form in the pre-paid envelope. They should take no longer than 1 hour to complete. Instructions for completion are provided at the beginning of each questionnaire, but if you have any difficulties when completing any of them, please feel free to contact me on ***** and I'd be very happy to discuss any aspect of the research project with you. More information is also available in the enclosed information sheet.

I appreciate that the research area may be a potentially difficult topic for many patients and their family members. It is my hope that by investigating those suffering with an eating disorder and their family members' experiences, research can further identify factors that may contribute to the development of eating disorders as well as providing a better understanding of the issues and support needed for other family members.

Please do contact me if you would like to discuss any of the points raised in this letter. I hope to hear from you soon,

Yours sincerely

Madeleine Tatham
Trainee Clinical Psychologist

APPENDIX 6 Sister Information Sheet

INVITATION TO TAKE PART IN A RESEARCH PROJECT

Title: Attachment and parental treatment between sisters with and with an eating disorder

Investigator: Madeleine Tatham

Introduction

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with friends, relatives and your GP if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the study?

The study is intended to explore family member's perceptions of their relationships with other family members, particularly focusing on sister pairs, one of whom suffers from an eating disorder. The purpose of this study is to investigate differences in the experiences within and between family members. Clearly all families are different, but the study aims to look for any similarities with the hope of furthering our understanding about factors that may be involved in the onset and development of an eating disorder in some people rather than others.

We aim to recruit 26 patients, their nearest aged sister and parent(s) to take part in this study.

Do I have to take part?

No. It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. However, you may still decide to withdraw at any time without having to give a reason.

If you decide not to take part, or if you withdraw, this will not affect the standard of care your sister receives. Nor will your legal rights be affected by agreeing or refusing to take part.

What would the study involve?

If you do decide to take part, you will be sent 4 questionnaires to complete in your own time and send back in a pre-paid stamped addressed envelope. The questionnaires require you to rate your responses on a rating scale (i.e. simply ticking or circling the most appropriate response for you as opposed to writing down lots of information.) There are 4 questionnaires in total, asking about eating patterns and behaviour, mood, experiences growing up in the family, and current relationships. It is estimated to take an hour and a half at the most to complete.

What are the possible disadvantages and risks of taking part?

There are no foreseeable disadvantages or risks to taking part in the study. Participation will entail no more than 1 hour of your time.

Although not expected, if the questionnaires raise some issues that are problematic or uncomfortable for you, support and advice will be made available to ensure that any disadvantage or discomfort as a result of taking part in the study is minimal. Please see below for procedures and contact details.

What are the benefits of taking part?

Although there is no direct personal benefit from taking part in this study, we hope that the information we get from this study may help us to better understand some of the factors that may contribute to why some people develop anorexia nervosa. We also hope that, by exploring the experiences and views of other family members, we can contribute to the improvement of treatment for patients with eating disorders in the future as well as improving support for other family members.

What if I have any concerns during the research?

Sometimes during the course of a research project, participants reveal new information about themselves or experience discomfort caused by the subject of a research project. Family members are encouraged to contact the following services and sources of support to discuss these and any individual issues that may arise:

***** (9am – 5pm Monday – Friday. Answerphone outside hours)

Eating Disorders Association (EDA)
First Floor
Wensum House
103 Prince of Wales Road
Norwich
Norfolk NR1 1DW
01603 621414 (9am – 6.30pm Monday – Friday)
Eating Disorders Association Youth Line (under 18's)
01603 765050 (01603 765050)

Remember that your participation is voluntary and you are free to withdraw from the research at any time if you wish.

What if something goes wrong?

We will take every care in the course of this study. If however you are harmed in this study due to someone's negligence, then you may have grounds for a legal action for which you would need to pay. There are no additional compensation arrangements for participants in this study.

The normal NHS complaints mechanism is available to you if you wish to complain about any aspect of the way you are approached or treated during the course of this study. Formal complaints should be addressed to *****.

Should you require independent advice about making a complaint or seeking compensation, you may wish to contact the *****.

Will my participation in the study be kept confidential?

If you decide to take part in the study, only the ***** team will be made aware of your participation. The principal investigator, Madeleine Tatham, will be working closely with the ***** team and may share with them the information that participants give in the course of the study. This is so that the team is aware of the needs and welfare of their patients and other family members, and able to offer appropriate support should any concerns arise during the research. If health issues arise that are unrelated to the eating disorder, the ***** team would contact the participant and advise how they could pursue other channels of support, such as contacting their own GP if necessary.

All information which is collected about you during the course of the research would be kept strictly confidential in a safe place. It may be looked at by people from regulatory authorities to check that the study is being carried out correctly. Your name, however, would not be disclosed outside the ***** team at *****.

It will not be possible to identify you in any publication of the research findings.

If you would like, we will give you a summary of the study and what it will involve to give to your GP and inform him or her of your participation in the study.

Who is organising and funding the research?

The research study is part of the principal investigators' doctorate in clinical psychology run by the University of Hertfordshire. The ***** Hertfordshire Partnership NHS Trust and the University of Hertfordshire are all supporting the research study, which will be undertaken whilst the principal investigator is working with the ***** team on clinical placement.

Who has reviewed the study?

This study has been reviewed by the ***** Local Research Ethics Committee.

Contact for further information

If you have any concerns or questions about this study at any time, please contact:

Name: Madeleine Tatham **Tel:** *****

You are entitled to and will be given a signed copy of this form. Thank you for your consideration of this research study.

APPENDIX 7
Sister consent form

CONSENT FORM

Title of Project: Attachment and parental treatment between sisters with and without an eating disorder

Name of Researcher: Madeleine Tatham

I (name).....

Of (address).....

.....

- 1. I confirm that I have read and understand the sibling information sheet dated 14 August 2003 (version 4) for the above study and have had the opportunity to ask questions.
- 2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.
- 3. I understand that my participation in the study will be disclosed only to the ****
***** at *****
I also understand that responsible individuals within the ***** team may have access to the information I disclose during the course of the study.

Name of Sibling	Date	Signature
-----------------	------	-----------

Name of Person taking consent (if different from researcher)	Date	Signature
---	------	-----------

Researcher	Date	Signature
------------	------	-----------

1 for sister; 1 for researcher; 1 to be kept with patient's hospital notes

APPENDIX 8
Covering letter (parents)

PRIVATE AND CONFIDENTIAL

Dear

I am in my second year on the Doctorate in Clinical Psychology Course at the University of Hertfordshire and will soon be working with the Eating Disorders Assessment and Management Service based at *****. As part of my training, I am required to undertake a piece of health-related research. I am planning to conduct a small study investigating family relationships between sisters and parents where one sibling in the family suffers from an eating disorder and the other does not.

I have recently met with your daughter, ***** to introduce the study and ask whether she would be interested in participating. Having had the opportunity to discuss the study and what it will involve, ***** has agreed to take part and also given her consent to allow me to contact you. I am writing to ask if you also would be willing to take part in the study. I have enclosed an information sheet for you to look at, but would like to emphasize that the amount of time and inconvenience that your involvement might cause has been carefully thought out and planned so as to cause as little disruption as possible. All information is treated confidentially and anonymously.

If you do decide to participate, a meeting will be arranged at a time which is convenient for you in order to complete an interview / questionnaire. The meeting is expected to take about an hour and a half to two hours maximum. Please see the information sheet for further information about the questionnaires and measures, or contact me with any queries or concerns on *****. I'd be very happy to discuss any aspect of the research project with you.

I appreciate that the research area may be a potentially difficult topic for many patients and their family members. It is my hope that by investigating those suffering with an eating disorder and their family members' experiences, research can further identify factors that may contribute to the development of eating disorders as well as providing a better understanding of the issues and support needed for other family members.

Please do contact me if you would like to discuss any of the points raised in this letter. Having spoken to *****, I shall contact you ***** in order to arrange a time to meet which is convenient to you both.

Yours sincerely

Madeleine Tatham
Trainee Clinical Psychologist

APPENDIX 9

Parent Information Sheet

INVITATION TO TAKE PART IN A RESEARCH PROJECT

Title: Attachment and parental treatment between sisters with and without an eating disorder

Investigator: Madeleine Tatham

Introduction

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with friends, relatives and your GP if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What is the purpose of the study?

The study is intended to explore family member's perceptions of their relationships with other family members, particularly focusing on sister pairs, one of whom suffers from the eating disorder and their parent(s). The purpose of this study is to investigate differences in the experiences within and between family members. Clearly all families are different, but the study aims to look for any similarities with the hope of furthering our understanding about factors that may be involved in the onset and development of an eating disorder in some people rather than others.

We aim to recruit 26 patients, their nearest aged sister and parent(s) to take part in this study.

Do I have to take part?

No. It is up to you to decide whether or not to take part. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form. However, you may still decide to withdraw at any time without having to give a reason.

If you decide not to take part, or if you withdraw, this will not affect the standard of care your daughter will receive. Nor will your legal rights be affected by agreeing or refusing to take part.

What would the study involve?

If you do decide to take part, you will be contacted by the principal investigator who will want to arrange to meet with you at a time and place that is convenient for you. During this meeting, you will be asked to complete a questionnaire which asks about your children's upbringing. We also hope you would complete a "repertory grid" which the principal investigator will administer. This simply asks you to think of differences between family members and then rate them. Full details will be given at the meeting and the principal investigator will be happy to answer any questions prior to the meeting. The meeting is estimated to take up to two hours of your time.

What are the possible disadvantages and risks of taking part?

There are no foreseeable disadvantages or risks to taking part in the study. Participation will entail no more than 2 hours of your time.

Although not expected, if the questionnaires raise issues that are problematic or uncomfortable for you, support and advice will be made available to ensure that any

disadvantage or discomfort as a result of taking part in the study is minimal. Please see below for procedures and contact details.

What are the benefits of taking part?

Although there is no direct personal benefit from taking part in the study, we hope that the information we get from this study may help us to better understand some of the factors that may contribute to why some people develop eating disorders. We also hope that, by exploring the experiences and views of other family members, we can contribute to the improvement of treatment for patients with eating disorders in the future as well as improving support for other family members.

What if I have nay concerns during the research?

Sometimes during the course of a research project, participants reveal new information about themselves or experience discomfort caused by the subject of a research project. Family members are encouraged to contact the following services and sources of support to discuss these and any individual issues that may arise:

***** (9am – 5pm Monday – Friday. Answerphone outside hours)

Eating Disorders Association (EDA)
First Floor
Wensum House
103 Prince of Wales Road
Norwich
Norfolk NR1 1DW
01603 621414 (9am – 6.30pm Monday – Friday)
Eating Disorders Association Youth Line (under 18's)
01603 765050 (01603 765050)

Remember that your participation is voluntary and you are free to withdraw from the research at any time if you wish.

What if something goes wrong?

We will take every care in the course of this study. If however you are harmed in this study due to someone's negligence, then you may have grounds for a legal action for which you would need to pay. There are no additional compensation arrangements for participants in this study.

The normal NHS complaints mechanism is available to you if you wish to complain about any aspect of the way you are approached or treated during the course of this study. Formal complaints should be addressed to *****.

Should you require independent advice about making a complaint or seeking compensation, you may wish to contact the *****.

Will my participation in the study be kept confidential?

If you decide to take part in the study, only the ***** team will be made aware of your participation. The principal investigator, Madeleine Tatham, will be working closely with the ***** team and may share with them the information that participants give in the course of the study. This is so that the team is aware of the needs and welfare of their patients and other family members, and able to offer appropriate support should any

APPENDIX 10
Parent Consent Form

CONSENT FORM

Title of Project: Attachment and parental treatment between sisters with and without an eating disorder

Name of Researcher: Madeleine Tatham

I (name).....

Of (address).....

.....

1. I confirm that I have read and understand the parent information sheet dated 14 August 2003 (version 4) for the above study and have had the opportunity to ask questions.

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.

3. I understand that my participation in the study will be disclosed only to the ***** at *****

I also understand that responsible individuals within the ***** team may have access to the information I disclose during the course of the study.

Name of Parent	Date	Signature
----------------	------	-----------

Name of Person taking consent (if different from researcher)	Date	Signature
---	------	-----------

Researcher	Date	Signature
------------	------	-----------

1 for parent; 1 for researcher; 1 to be kept with patient's hospital notes

APPENDIX 11
STIRLING EATING DISORDER SCALES
(Reproduced due to large carbon copy format)

This questionnaire contains 80 statements about thoughts and feeling. Read each statement and carefully decide if it applies to you or not. If the statement applies to you usually or all the time tick the True circle. If the statement rarely or never applies to you tick the False circle. If you make a mistake cross it out and give your correct answer. Do not spend a long time thinking about each statement – just give your first reaction. There are no right or wrong answers. There are two pages of statements-please be sure to answer all of them. Complete page 1 first and then Page 2.

I tend to bottle up my emotions rather than make a scene
At times I think I am no good at all
I often want to injure myself
I can pretty much decide what happens in my life
I find myself preoccupied with food
I eat the same food day after day
I feel satisfied with my eating patterns
I eat a lot of food even when I'm not hungry
I find it difficult to ask personal questions
I have a positive attitude towards myself
I believe I am a bad person
My life is determined by my own actions
When I eat anything I feel guilty
I eat low calorie foods all the time
When I binge I have a sense of unreality
I never eat uncontrollably
I feel I can ask my parents/ friends not to nag me
I feel I am not as popular as other people of my age
I often feel angry with myself
Little in this world controls me- I usually do what I decide to do
High carbohydrate foods make me feel nervous
I often hide food rather than eat it
When I binge I feel disgusted with myself
I hide the evidence of my binges (e.g. food wrappers)
I feel confident going into a social gathering
I believe my parents are proud of me
I feel ashamed of myself
I feel I live according to other people's rules
I believe I am allergic to many foods
I cut my food into very small pieces in order to eat more slowly
I am not worried about my bingeing
I take laxatives in order to get rid of the food I have eaten
I am afraid of people being angry with me
I have a strong sense of self-worth
I do not behave the way I should
I feel I am in control of my body
I can eat sweets without feeling anxious
I weigh myself after meals
I feel ashamed of the amount of food I can eat
I try to diet but always lose control

STIRLING EATING DISORDER SCALES

As you did for Page One, read each statement carefully and decide if it applies to you or not. If the statement applies to you usually or all the time tick the True circle. If the statement rarely or never applies to you tick the False circle. If you make a mistake cross it out and correct your answer. Do not spend a long time thinking about each statement – just give your first reaction. There are no right or wrong answers. When you have completed this page go back and check that you have answered all the statements on both pages.

If someone is unfair to me, I feel that I can tell him / her
I have little respect for myself
I have very hostile feelings towards myself
I feel my family have control over me
I must be very controlled in my eating habits
I count the calories of everything I eat
I hate myself after bingeing
I intentionally vomit after eating
I am an assertive person
I feel proud of my achievements
I have very little to feel guilty about
I often feel I am controlled by something outside of myself
If I overeat a little I feel frightened
I eat rich, high calorie foods
I feel frightened if I cannot get rid of the food I have eaten either by vomiting, laxatives or fasting
I always eat a lot in secret
I feel I cannot tell people when they have hurt me
I do not feel very clever
I should be a better person
I feel my boyfriend / girlfriend / spouse / parent has a lot of control over me
I can overeat a little and not feel nervous
I keep to a very strict diet regime
I feel my eating patterns control my life
I often eat so much my stomach hurts
I feel I can assert myself with people in authority
I feel I am not as attractive as other people my age
I deserve to be punished
My health is not under control
I believe I do not need as much food as other people
I often eat in front of others
I believe I can stop eating when I want to
I lie about the large amount of food I eat
I tend to sulk rather than have an argument
I have a nice personality
I have very little to be self-critical about
Other people control my life
I feel disgusted with myself when I eat anything
I cook for others but avoid eating with them
I feel that my eating patterns are out of control
I rarely binge

APPENDIX 12
The Hospital Anxiety and Depression Scale
(Zigmond and Snaith, 1983)
(Reproduced as requested by the LREC)

Name.....

Date.....

Instructions

Please read each item and underline the reply which comes closest to how you have been feeling in the past week.

Don't take too long over your replies; your immediate reaction to each item will probably be more accurate than a long thought-out response.

I feel tense or "wound up":

Most of the time

A lot of the time

From time to time, occasionally

Not at all

I still enjoy the things I used to enjoy:

Definitely as much

Not quite so much

Only a little

Hardly at all

I get a sort of frightened feeling as if something awful is about to happen:

Very definitely and quite badly

Yes, but not too badly

A little, but it doesn't worry me

Not at all

(Continued overleaf)

I can laugh and see the funny side of things:

As much as I always could

Not quite so much now

Definitely not so much now

Not at all

Worrying thoughts go through my mind:

A great deal of the time

A lot of the time

From time to time but not too often

Only occasionally

I feel cheerful

Not at all

Not often

Sometimes

Most of the time

I can sit at ease and feel relaxed:

Definitely

Usually

Not often

Not at all

(Continued overleaf)

I feel as if I am slowed down

Nearly all the time

Very often

Sometimes

Not at all

I get a sort of frightened feeling like “butterflies” in the stomach:

Not at all

Occasionally

Quite often

Very often

I have lost interest in my appearance:

Definitely

I don't take as much care as I should

I may not take quite as much care

I take just as much care as ever

I feel restless as if I have to be on the move:

Very much indeed

Quite a lot

Not very much

Not at all

(Continued overleaf)

I look forward with enjoyment to things:

As much as ever I did

Rather less than I used to

Definitely less than I used to

Hardly at all

I get sudden feelings of panic:

Very often indeed

Quite often

Not very often

Not at all

I can enjoy a good book or radio or TV programme

Often

Sometimes

Not often

Very seldom

Now check that you have answered all the questions

APPENDIX 13
The Reciprocal Attachment Questionnaire
(West & Sheldon-Keller, 1994)

Instructions

This questionnaire is designed to ask you about your feelings and behaviours in close relationships with significant others. All questions refer to an "attachment figure." An attachment figure should be either

- a) most likely, the person you are living with or romantically involved with
- b) the person you'd be most likely expect to turn to for comfort, help, advice, love or understanding
- c) the person you'd most likely to depend on and who may depend on you for some things.

Your attachment figure may be your husband, boyfriend or girlfriend or another special friend, the person you feel closest to right now. Ideally, your attachment figure should be outside the immediate family. Please indicate whom you have allocated your attachment figure to be, and how they are related to you.

My attachment figure is.....(Initials only) Relationship to me.....

Please circle the appropriate number for each statement.

	Strongly.....				Strongly
	Agree				Disagree
	1	2	3	4	5
I have to have my attachment figure with me when I'm upset	1	2	3	4	5
I feel lost if I'm upset and my attachment figure is not around	1	2	3	4	5
When I am anxious I desperately need to be close to my attachment figure	1	2	3	4	5
I don't object when my attachment figure goes away for a few days	1	2	3	4	5
I resent it when my attachment figure spends time away from me	1	2	3	4	5
I feel abandoned when my attachment figure is away for a few days.	1	2	3	4	5
I have a terrible fear that my relationship with my attachment figure will end.	1	2	3	4	5
I'm afraid that I will lose my attachment figure's love.	1	2	3	4	5
I'm confident that my attachment figure will always love me.	1	2	3	4	5
I'm confident that my attachment figure will try to understand my feelings.	1	2	3	4	5
I worry that my attachment figure will let me down.	1	2	3	4	5

Strongly.....Strongly

	Agree				Disagree
	1	2	3	4	5
When I'm upset, I am confident my attachment figure will be there to listen to me.	1	2	3	4	5
I turn to my attachment figure for many things, including comfort and reassurance.	1	2	3	4	5
I talk things over with my attachment figure.	1	2	3	4	5
Things have to be really bad for me to ask my attachment figure for help.	1	2	3	4	5
I wish there was less anger in my relationship with my attachment figure.	1	2	3	4	5
I get frustrated when my attachment figure is not around as much as I would like.	1	2	3	4	5
My attachment figure only seems to notice me when I'm angry.	1	2	3	4	5
I'm furious that I don't get any comfort from my attachment figure.	1	2	3	4	5
I get really angry at my attachment figure because I think he or she could make more time for me.	1	2	3	4	5
I often feel angry with my attachment figure without knowing why.	1	2	3	4	5
My attachment figure is always disappointing me.	1	2	3	4	5
I put my attachment figure's needs before my own.	1	2	3	4	5
I can't get on with my work if my attachment figure has a problem.	1	2	3	4	5
I enjoy taking care of my attachment figure.	1	2	3	4	5
I expect my attachment figure to take care of his or her own problems.	1	2	3	4	5
I don't make a fuss over my attachment figure.	1	2	3	4	5
I don't sacrifice my own needs for the benefit of my attachment figure.	1	2	3	4	5
It makes me feel important to be able to do things for my attachment figure.	1	2	3	4	5
I feel it is best not to depend on my attachment figure.	1	2	3	4	5
I want to get close to my attachment figure, but I keep pulling back.	1	2	3	4	5
I wouldn't want my attachment figure relying on me.	1	2	3	4	5

Strongly.....Strongly

	1	2	3	4	5
	Agree			Disagree	
I usually discuss my problems and concerns with my attachment figure.	1	2	3	4	5
It's easy for me to be affectionate with my attachment figure.	1	2	3	4	5
I'm so used to doing things on my own that I don't ask my attachment figure for help.	1	2	3	4	5
I feel that there is something wrong with me because I'm remote from my attachment figure.	1	2	3	4	5
I often feel too dependent on my attachment figure.	1	2	3	4	5
I wish that I could be a child again and be taken care of by my attachment figure.	1	2	3	4	5
I rely on myself and not my attachment figure to solve my problems.	1	2	3	4	5
I do not need my attachment figure to take care of me.	1	2	3	4	5
I'm never certain about what I should do until I talk to my attachment figure.	1	2	3	4	5
I would be helpless without my attachment figure.	1	2	3	4	5
I feel that the hardest thing to do is to stand up on my own.	1	2	3	4	5

APPENDIX 14
Sibling Inventory of Differential Experience (SIDE)
 Daniels and Plomin 1984
 (Reproduced as requested by the LREC)

Sibling completing the questionnaire _____

PLEASE READ THIS INTRODUCTION CAREFULLY

This questionnaire is designed to ask you and your sibling about what makes you different from each other as you were growing up. We would like you to compare yourself to your sibling (or one of your siblings, which we have specified below.) For each question, think about what causes differences between you and your sister. We will first ask you about differences in how you interacted with your sister. Then we will ask you about how your parents have interacted with you and your sibling. Lastly, we will question you about your friend and other influences outside your home.

For the entire questionnaire, compare yourself to: _____

For the entire questionnaire, think about your experiences over the years when you were growing up and living at home.

I. Interactions with your sibling

Circle the appropriate number for each question. No item will apply in every situation, but try to consider what usually happened between you and your sibling. Please answer quickly and honestly – there are no right or wrong answers. It should take about 20 minutes to complete this questionnaire.

- 1 = My sibling has been much more this way than I have.
- 2 = My sibling has been a bit more this way than I have.
- 3 = My sibling and I have been the same in this way.
- 4 = I have been a bit more this way than my sibling.
- 5 = I have been much more this way than my sibling.

For example: The first question asks who started fights more often between the two of you. If your sibling nearly always started the fights, you would answer by circling "1". If you nearly always started them, you would circle "5". Circle "3" if there is no difference between you and your sibling (if you both started fights a lot or very little.) If you don't know or can't remember, or if the question just doesn't apply to you, leave the question blank. (Avoid circling "3" or leaving the question blank whenever possible.)

	Sibling Much more		Same		Me Much more
1. In general, who started fights more often?	1	2	3	4	5
2. In general, who showed more trust for the other?	1	2	3	4	5

3. In general, who showed more concern and interest for the other?	1	2	3	4	5
4. In general, who was more willing to help the other succeed?	1	2	3	4	5
5. In general, who liked spending time with the other more?	1	2	3	4	5
6. In general, who was more likely to take responsibility for the other?	1	2	3	4	5
7. In general, who was more stubborn with the other?	1	2	3	4	5
8. In general, who showed more confidence than the other?	1	2	3	4	5
9. In general, who acted more bitter toward the other?	1	2	3	4	5
10. In general, who compared themselves with the other more?	1	2	3	4	5
11. In general, who was more likely to show feelings of anger toward the other?	1	2	3	4	5
12. In general, who was more likely to feel superior over the other?	1	2	3	4	5
13. In general, who showed more understanding for the other?	1	2	3	4	5
14. In general, who was more likely to get jealous of the other?	1	2	3	4	5
15. In general, who acted more kindly toward the other?	1	2	3	4	5
16. In general, who was more likely to let the other down?	1	2	3	4	5
17. In general, who showed more affection toward the other?	1	2	3	4	5
18. In general, who was more likely to deceive the other?	1	2	3	4	5
19. In general, who was bossier toward the other?	1	2	3	4	5
20. In general, who was more likely to want to get along well with the other?	1	2	3	4	5
21. In general, who was the more supportive of the other?	1	2	3	4	5
22. In general, who tried to outdo the other more?	1	2	3	4	5
23. In general, who admired the other more?	1	2	3	4	5
24. In general, who felt like the inferior one most?	1	2	3	4	5

II. Parental Interaction With You and Your Sibling

Circle the numbers separately for your mother and father. If your parents were divorced or if one died, answer the questions for the mother or father with whom you lived for the longest period of time. Remember to think about your experiences over the years as you were growing up and living at home.

- 1 = In general, this parent has been much more this way toward my sibling than me.
- 2 = In general, this parent has been a bit more this way toward my sibling than me.
- 3 = In general, this parent has been the same toward my sibling and me.
- 4 = In general, this parent has been a bit more this way toward me than my sibling.
- 5 = In general, this parent has been much more this way toward me than my sibling

For example: The first question asks if your parent has been stricter with you or your sibling. If our parent has been more strict with your sibling than with you, you should circle "1". If your parent has been much more strict with you, circle "5". Circle "3" if your parent has been equally strict with both of you. If you don't know or can't remember, or if the question just doesn't apply to you, leave the question blank.

	Toward sibling much more	MOTHER Same			Toward me much more
25. Has been strict with us	1	2	3	4	5
26. Has been proud of the things we have done	1	2	3	4	5
27. Have enjoyed doing things with us	1	2	3	4	5
28. Has been sensitive to what we think and feel.	1	2	3	4	5
29. Has punished us for our misbehaviour	1	2	3	4	5
30. Has shown interest in the things we like to do.	1	2	3	4	5
31. Has blamed us for what another family member did.	1	2	3	4	5
32. Has tended to favour one of us.	1	2	3	4	5
33. Has disciplined us.	1	2	3	4	5

	Toward Sibling much more	FATHER Same			Toward me much more
34. Has been strict with us	1	2	3	4	5
35. Has been proud of the things we have done	1	2	3	4	5
36. Have enjoyed doing things with us	1	2	3	4	5
37. Has been sensitive to what we think and feel.	1	2	3	4	5
38. Has punished us for our misbehaviour	1	2	3	4	5
39. Has shown interest in the things we like to do.	1	2	3	4	5
40. Has blamed us for what another family member did.	1	2	3	4	5
41. Has tended to favour one of us.	1	2	3	4	5
42. Has disciplined us.	1	2	3	4	5

III. Interactions with your peer group

Circle the appropriate number for each characteristic below. Think of each item as if your peer group (your main group of friends) has a personality of its own. Even though friends inside each peer group might be quite different, think about how the group is in general. If you are unable to answer any question, please leave it blank – that is, do not circle any of the numbers for that question. Think about your experiences over the years when you were growing up and living at home.

- 1 = My sibling had a peer group much more like this than my peer group.
2 = My sibling had a peer group a bit more like this than my peer group.
3 = My sibling and I have had the same type of peer group in this way.
4 = I have had a peer group which is a bit more like this than my sibling's peer group.
5 = I have had a peer group which is much more like this than my sibling's peer group.

For example: The first question asks whose group of friends has generally been the more popular. If your sibling usually "hung out" with a much more popular group of friends than yours, you would circle a "1". If you usually had a more popular group of friends than your sibling's peer group, you would circle a "5". Circle "3" if there is no difference between you and your sibling for the characteristic. Leave it blank if you don't know of if the characteristic does not apply to your peer group.

	Sibling's peers much more		Same	My peers much more	
	1	2	3	4	5
43. Popular	1	2	3	4	5
44. Ambitious	1	2	3	4	5
45. Outgoing	1	2	3	4	5
46. Lazy	1	2	3	4	5
47. Hard working	1	2	3	4	5
48. Intelligent	1	2	3	4	5
49. Mature	1	2	3	4	5
50. Extroverted	1	2	3	4	5
51. Delinquent	1	2	3	4	5
52. Responsible	1	2	3	4	5
53. Successful	1	2	3	4	5
54. Friendly	1	2	3	4	5
55. Rebellious	1	2	3	4	5
56. Conforming	1	2	3	4	5
57. Well adjusted	1	2	3	4	5

Circle the appropriate number for each interest below. Friends inside peer groups may have had separate interests but rate the activity that best describes what the group has liked to do in general.

- 1 = My sibling had a peer group much more interested in this than my peer group.
 2 = My sibling had a peer group a bit more interested in this than my peer group.
 3 = My sibling and I had peer groups with this same interest.
 4 = I had a peer group a bit more interested in this than my sibling's peer group
 5 = I had a peer group much more interested in this than my sibling's peer group.

	Sibling's peers Much more		Same	My peers much more	
58. Going to college	1	2	3	4	5
59. Achieving in school	1	2	3	4	5
60. Student government	1	2	3	4	5
61. "Partying" drinking etc.	1	2	3	4	5
62. Illicit drugs (e.g. marijuana)	1	2	3	4	5
63. Political and social issues	1	2	3	4	5
64. Achieving "status" in social situations	1	2	3	4	5
65. Having a boyfriend or girlfriend	1	2	3	4	5
66. Likely to skip class	1	2	3	4	5
67. Likely to get along well	1	2	3	4	5
68. Likely to be called the "bad" crowd	1	2	3	4	5

IV. Events Specific to You or Your Sibling

Circle the appropriate number for each of the questions below.

- 1 = sibling much more
 2 = sibling a bit more
 3 = the same for me and my sibling
 4 = me a bit more than my sibling
 5 = me much more than my sibling

Think about your experiences over the years when you were growing up and living at home.

	Sibling much more	Same		Me much more	
69. Who was more likely to go out on dates?	1	2	3	4	5
70. Who was more likely to get in fights with their boyfriend or girlfriend?	1	2	3	4	5
71. Who had a more difficult time breaking up with their boyfriend or girlfriend?	1	2	3	4	5
72. Who has been the one more likely to have an intense, close friendship?	1	2	3	4	5
73. Who was the one to have more friendships at any one time?	1	2	3	4	5
74. Who was more influenced by teachers in school?	1	2	3	4	5
75. Who has been more influenced by close relatives such as grandparents or aunts and uncles? Explain.....	1	2	3	4	5
76. Who has been more influenced by meeting a special person? Explain.....	1	2	3	4	5
77. Who has been more influenced by an extraordinary event? Explain.....	1	2	3	4	5
78. Who has been more influenced by an accident or illness? Explain.....	1	2	3	4	5
79. Who has been more influenced by the death of a loved one? Explain.....	1	2	3	4	5
80. Who has been more influenced by parental separation or divorce? Explain.....	1	2	3	4	5
81. Who has been more influenced by a family psychological problem? Explain.....	1	2	3	4	5
82. Who has been more likely to have a psychological problem? Explain.....	1	2	3	4	5

APPENDIX 15
Repertory Grid scoring sheet

Role Title List	Response Sheet																			
	Client: Date of Birth:																			
	Therapist:																			
Sort	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Emergent	Contrast	
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				

APPENDIX 16
Covering letter sent with questionnaires

Private and Confidential

Dear

**Re: Participation in Doctorate in Clinical Psychology Research project
Parental treatment and attachment in sisters with and without an eating
disorder**

Many thanks for agreeing to participate in the research project I am undertaking in liaison with the ***** team. Please find enclosed an information sheet, a consent form and the 4 questionnaires that participants are invited to complete and return to me in the stamped addressed envelope provided. Some have been designed specifically for people who suffer from an eating disorder, but please complete this even if you feel it does not apply to you. The forms include:

1. The Stirling Eating Disorder Scales
2. The Sibling Inventory of Differential Experience
3. The Reciprocal Attachment Questionnaire
4. The Hospital Anxiety and Depression Scale

Instructions for completion are provided at the beginning of each questionnaire. Please try and answer all the questions – they should take no longer than one hour to complete. It would also be helpful if you could insert a piece of paper between the pages of the Stirling Eating Disorder Scales when you are filling it out, in order to protect the bottom page from the carbon copy sheets contained between the pages.

If you have any difficulties when completing the questionnaires, please feel free to contact me on *****. I'd like to take this opportunity to thank you again for your agreement and time taken to participate in the research project. I intend to inform all participants of the results of the study in due course.

Many thanks for your participation.

Yours sincerely

Madeleine Tatham
Trainee Clinical Psychologist

CRITICAL REVIEW

CRITICAL REVIEW

Title

Attachment and perceived parental treatment reported by sisters discordant for eating disorder pathology.

Hypotheses

The study tested theoretical predictions that attachment status would differ between siblings discordant for eating disorder (ED) pathology. Differences in perceptions of parental treatment, sibling interaction and parental construing were expected to reflect differential attachment processes as follows:

1. It was predicted that higher levels of insecure attachment would be reported by ED than non-ED sisters.
2. It was expected that ED siblings would report lower levels of parental affection and higher levels of parental control during childhood compared to non-ED sisters.
3. It was expected that ED siblings would report higher levels of sibling jealousy toward their sisters than non-ED siblings.
4. It was predicted that differences would be found in parental construing of daughters. Non-ED daughters were expected to be more positively construed prior to and following development of the ED.

Design

A cross-sectional matched pair design was employed. Additional investigation of parental perceptions was undertaken where possible.

Setting

Participants were recruited from two neighbouring community NHS Eating Disorder Services based within the Home Counties. Both services were similar in terms of patient eligibility (e.g. 18 years and above; out-patient), staffing (multidisciplinary) and provision of treatments for a wide range of eating disorder pathology.

Participants

Participants included all female patients currently being offered outpatient treatment for eating disorder pathology (i.e. Anorexia Nervosa, Bulimia Nervosa and Eating Disorder Not Otherwise Specified) with a sister meeting the following eligibility criteria: aged 16 years and above, without a history or current presentation of ED pathology of clinical severity. Non-ED sisters were also required to be of nearest age and to have lived in the family home for at least eight years.

Biological parents who had lived in the family home up until and / or following the onset of the eating disorder were also included.

Measures

The Stirling Eating Disorder Scales (SEDS; Williams et al., 1994) and the Hospital Anxiety and Depression Scale (HADS; Zigmond & Smith, 1983) were used to screen for eating disorder pathology and additional co-morbid symptomatology.

The Reciprocal Attachment Questionnaire (RAQ; West & Sheldon, 1984) and Sibling Inventory of Differential Experience (SIDE, Plomin & Daniels, 1984) were used to compare attachment behaviours and perceptions of differential parental treatment and sibling relationships between sister groups.

The Repertory Grid Technique (RGT) was used to explore and compare parental construing of daughters prior to and post development of an eating disorder.

Main findings

As predicted, differences were found in the attachment profiles of sister groups, with ED sisters reporting higher levels of insecurity across all attachment dimensions. However, no significant differences were found in sister groups' perceptions of parental treatment during childhood, failing to support proposed hypotheses regarding differential attachment and parental treatment. ED sisters reported higher levels of jealousy directed toward non-ED sisters.

Parents were found to retrospectively construe daughters as similar and equally positively as children. ED daughters became significantly less positively construed in adulthood (i.e. post development of ED) compared to non-ED sisters.

Whilst conclusions regarding the role of insecure attachment in the aetiology of ED pathology cannot be drawn (i.e. whether ED pathology is a cause or a result of insecure attachment), the study's findings hold a number of implications for clinical practice.

IMPLICATONS FOR CLINICAL PRACTICE

The prognosis and treatment of eating disorders is severely compromised by subsequent medical complaints, frequently co-existing psychiatric disorders and the egosyntonic nature of symptoms. In addition to clinical complexities therefore, patients may also be reluctant to seek treatment, which potentially threatens the committed engagement in any chosen treatment approach. Non-engagement with services and treatment clearly needs to be targeted in order to reduce mortality levels and the poor treatment outcome for many people with eating disorders, particularly Anorexia Nervosa (Bell, Clare & Thorn, 2001).

Insecure attachment and eating disorders

The theoretical and empirical investigation of attachment theory in relation to eating disorder populations provides some insight into some of the possible reasons behind difficulties in engaging this client group, and in doing so, highlights a number of implications for aspects of clinical practice, including difficulties in establishing a therapeutic alliance, treatment approaches and service provision and delivery.

Therapeutic relationship

Insecurely attached individuals typically experience significant difficulties in establishing and maintaining close interpersonal relationships. Research indicating that ED patients have fewer social networks and romantic partners suggests this to be particularly true of ED populations (e.g. Tiller et al., 1997). Difficulties in interpersonal functioning (e.g. distrust of others, lowered support seeking) not only impact upon psychological well-being generally, but are also likely to interfere with the building and maintenance of a healthy patient- therapist alliance upon which

the success of subsequent therapeutic work relies. Much of the initial emphasis when working with ED patients therefore may need to focus upon the development of a good therapeutic relationship before any explicit therapeutic work is undertaken (BPS, 2001).

The study attempted to explore beyond established categorical measures of attachment status by using a dimensional measure of insecure attachment in relation to current relationships. ED patients' attachment relationships were found to be characterised by high levels of feared loss, separation protest and compulsive care seeking behaviour, suggesting an inability to retain confidence in the permanence of the relationship and the engagement in urgent, care-seeking behaviours. Interpersonal dynamics such as these indicate the therapeutic need for careful and considered planning of endings and breaks, as well as an awareness of a potential tendency to engage in demonstrative attempts to secure attachment at times of perceived threat (e.g. acts of self-harm; see implications for service delivery). In addition to providing a theoretical framework with which to anticipate therapeutic interactions, attachment approaches also allow greater insight into the interpersonal difficulties commonly experienced within ED populations, thereby informing treatment approaches.

Treatments

Implications for treatment are far reaching in terms of the theoretical link between insecure attachment and psychological functioning in ED populations (e.g. interpersonal functioning, emotional regulation and low self esteem). However, treatment approaches vary in the emphasis they place on subsequent difficulties associated with insecure attachment depending on the theoretical conceptualisation of ED pathology (e.g. CBT vs. psychodynamic); length of therapy (i.e. brief vs. long-term); modality (e.g. individual vs. family); and aims (symptomatic change vs. modification of attachment representations).

Recent CBT conceptualisations appear to focus upon the cognitive aspects of insecure attachment, resulting in the trans-diagnostic formulation and treatment approach targeting core mechanisms seen to underlie all ED pathology (i.e. difficulties in interpersonal relationships, tolerating negative mood and low self-esteem; Fairburn, Shafran & Cooper, 2003). Whilst the aetiology of difficulties may

not necessarily be addressed (i.e. difficult early attachments) subsequent problems such as interpersonal difficulties become the target for intervention, supported by the wider research highlighting the relationship between mental health and social support generally. However, investigation of the efficacy of the trans-diagnostic CBT approach – which from an attachment perspective appears to target subsequent difficulties arising from fundamental attachment difficulties – is still in its infancy.

According to attachment formulations, alternative treatment approaches would aim to target and modify cognitive-affective revision of the patient's working model of attachment, either by focussing upon early relationships with parents or by fostering an emotionally significant relationship (i.e. the therapeutic relationship) with which to challenge existing attachment representations (e.g. Epstein, 1980). Indeed, the aim of psychotherapy from an attachment theory perspective is the formation of a "secure base" through which exploration of difficulties can then be safely undertaken. Whilst there is some evidence in support of the therapeutic value in moderating the effects of difficult early attachments within the general population (Bartholomew & Horowitz, 1994), empirical evidence in support of attachment-based treatments for ED is lacking. Given the strong evidence of a high incidence of insecure attachment within ED populations, further investigation of attachment based treatments may be of benefit, particularly in relation to anorexia nervosa whose prognosis is poor even with treatments currently available (Department of Health, 2001).

The high incidence of insecure attachment and evidence of its trans-generational transmission also indicates the suitability of a family systems approach, particularly with children and adolescents. Reports of higher levels of jealousy toward non-ED sisters in childhood for example may have important implications for self-esteem and relationships within the wider family. Indeed, the Department Of Health (2001) recommends a family approach in the treatment of ED amongst children and adolescents. In addition to well-established forms of family therapy, investigation of parental construing suggests that a systemic constructivist therapeutic approach may also be of value in identifying family construct systems (i.e. important family themes and values) and addressing the contributions of the family context to the patients' personal construct system in addition to the impact

of the patient's constructions on the larger family system (e.g. Alexander & Neimeyer, 1989).

Service provision and delivery

The application of attachment theory to ED also provides a useful conceptual framework with which to understand the wider ambivalent relationship many patients have with ED services, therefore serving to inform service provision and delivery. For example, the ED service may itself be interpreted as an "attachment" through which a variety of behavioural patterns may be enacted (e.g. separation protest, compulsive care seeking). As such, services may be better able to anticipate crises such as suicide attempts (e.g. care seeking behaviours in response to the perceived threat or actual loss of an attachment) and plan how best to respond to them (e.g. policies and procedures ensuring consistency of approach, emergency duty systems, outreach workers etc).

As highlighted earlier, services might place greater emphasis on the preliminary stage of engaging patients before undertaking therapeutic interventions (e.g. Treasure & Schmidt, 1987). As such, services are likely to need to plan for prolonged contact and high rates of service consumption (Bell et al., 2001).

Other findings and implications for service provision

It has been widely recognised that the medical, psychological and physical sequela of eating disorder pathology also negatively impact upon the family and its members, reflected in the recent recommendation for services to offer support for families and relatives (Bell et al., 2001).

Investigation of parental construing of daughters prior to and post development of an eating disorder strongly suggested that daughters become significantly less positively construed over time by both parents. Constructs used to differentiate daughters were characteristic of ED symptomatology or the "eating disordered personality," including complexity, unpredictability, perfectionism and secrecy. These were hypothesised as having contributed to the negative revision in parental construct systems and thought to reflect and maintain the negative impact an eating disorder has upon family relations. Parental and sibling reports also

indicated that many felt ill-informed and unsupported by services to know how to respond or support their affected family member.

One implication for service provision therefore may be additional psycho-educational services for parents / family members, particularly for younger patients whose families may also be involved in their treatment. For example, psycho-education may be beneficial in informing parents about the various behavioural and psychological manifestations of an eating disorder, helping parents to distinguish between ED symptomatology and their daughter. Other aims include the improvement in the quality of life for family members by reducing stress and burden, thereby benefiting patients. They also aim to reduce social isolation and stigmatisation by creating new and multiple perspectives where others can learn from each other and help foster solidarity and provide an alternative source of support (Schoz & Asen, 2001).

To date, there does not appear to be much empirical investigation into the effectiveness of family psycho-educational interventions for eating disorders. Consultation with a number of national services suggests that the provision of services for parents and other family members is poor, with much of the relevant literature originating from the large specialised tertiary / tier four ED services. Indeed, the two ED services involved in the research were unable to extend services to include family / carers due to limited resources. However, studies do report a range of positive outcomes, including a decrease in rates of expressed emotion, improvement of family functioning and reduction in family distress by positively changing the family's perceptions of the patient's symptoms (Uehara, Kawashima, Goto, Tasaki & Someya, 2001).

REFLECTIONS ON THE RESEARCH PROCESS

Given the poor prognosis and outcome of eating disorders, further research is clearly warranted particularly in terms of treatment efficacy. However, certain difficulties would appear typical and characteristic when undertaking research with this patient group (e.g. Karawautz, Rabe-Hesketh, Collier & Treasure, 2002; Murphy, Troop & Treasure, 2000), some of which were encountered during the current study.

Recruitment

Access to patient populations

Considerable difficulties in recruitment were encountered throughout the research process. Problems initially arose in obtaining access to ED patient populations, during which a total of ten specialist (NHS and private) ED services were approached with the hope of gaining access to both in-patient and outpatient populations. However, eight services declined to liaise with the current project for a number of reasons, including research already being undertaken with the patient population either by the service itself or by researchers from other institutions by prior agreement. In contrast, smaller local services felt under-resourced to offer the time or support and were concerned about the possible ramifications of involving other family members. A small number of clinicians adopted a “protective”, somewhat elitist / specialist stance in relation to ED patients, appearing reluctant to liaise with any research initiatives.

Difficulties in accessing ED patient populations not only reflects the current inconsistencies in service provision across the UK, but also raises a number of wider implications for the ED literature generally. Given the low prevalence of the disorder, many studies appear to have accessed the same ED populations (e.g. Klump, Miller, McGue & Iacono, 2001), raising ethical questions regarding the over-researching of small samples as well as the generalisability of findings to wider ED populations. The majority of UK studies for example have been conducted on populations served by the large, tertiary / tier four specialist in-patient services located within the London region. Researchers without an established link with an ED service (e.g. via a university or training hospital) may therefore experience similar difficulties in accessing clinical populations across the UK.

Given the unequal distribution of specialist services within the UK, it would appear that there is a need for greater funding for smaller ED services to provide support and / or conduct research projects locally. As found in the execution of the present study, research opportunities may be increased by establishing good working relations with the ED service, and being flexible in adopting a procedure and methodology that accommodates the clinical management of patients. Alternative

options include recruiting volunteers from national support and advice organisations such as the Eating Disorders Association (EDA).

Recruitment of patients

The current study reports a higher participation rate compared to the two studies cited above (63% compared to 19% reported by Murphy et al., 2000). Higher participation may have been due to the clinical status of the population (e.g. community as opposed to in-patient population). Alternatively, recruitment procedures negotiated with the ED service may have also served to increase interest and / or willingness to participate in the study. For example, rather than contacting patients by post (e.g. Murphy et al., 2000; Ward et al., 2000) patients were initially informed of the opportunity to participate in the research project by their key workers and then arranged to be met by the researcher to clarify any outstanding issues. A further factor that may have increased participation may have been the absence of other research demands being made upon the patient sample. Both Murphy et al. (2000) and Karawautz et al. (2002) accessed patient populations who were also involved or had been previously involved in other research projects.

Unfortunately demographic data of those patients who declined to take part in the study was not collected, preventing further investigation of factors which may enhance participation rates in the future. Those patients who did participate did so willingly and expressed an interest both in the aims of the project and in being informed of the results once completed. Many participants expressed the desire to contribute to further understanding of EDs in order to help others and a number volunteered to participate in future research projects.

Recruitment of family members

The recruitment of sisters was inevitably heavily dependent upon the successful recruitment of patients. However, a number of other factors further influenced whether a patient agreed to involve her sister and / or allow the researcher to make contact. Two out of twenty eight identified eligible patients declined to ask their siblings. Reasons included estranged relationships, fear of asking and being rejected. Once invited to participate, only one sister refused. It appeared that the

research topic invoked anger in some siblings in relation to the recurring effect and impact the eating disorder had had on the family.

Once recruited, an additional difficulty was the apparent concordance for ED pathology in four sibling pairs. Contrary to the specification that non-patient siblings were eligible to participate in the study if they did not have a history or current presentation of eating disorder pathology, four “non-ED” sisters recorded high levels of anorexic and bulimic dietary cognitions and behaviour as measured by the Stirling Eating Disorder Scales, suggestive of ED symptomatology. Similar rates of concordant ED symptomatology were found by Karawautz et al. (2002), suggesting that ED pathology may be more common within families than officially recognised or diagnosed.

Recruitment of parents was similarly dependent upon patients. Given anticipated difficult relationships with parents, the study had been designed so that a patient’s inclusion in the study was not dependent upon their consent for either parent to be contacted. A large number of patients were unwilling for parents to be contacted / asked to participate in the study. Reasons included difficult or estranged relationships, parents no longer being alive, parents being unaware of their daughters’ ED status and patients unwillingness for their parents to be caused additional upset or inconvenience by the ED. Ten out of twenty six patients gave consent for their parents to be approached, all of whom agreed to take part in the study. Interestingly, all parental pairs had remained married, suggesting a bias toward parents who had maintained more positive family relationships. Clearly the ten parental couples who did participate were highly self-selected and therefore not representative. Nevertheless, those who did were keen to do so, stating that they felt their needs to have largely been neglected by services and that they would like to contribute to furthering understanding. They too expressed an interest in the aims of the project and all opted to be informed of the results on completion.

Interestingly, given many ED services’ reservations and fears about including other family members, no concerns were knowingly raised by patients or family members who participated in the study. Most gave positive feedback about being approached, indicating that the ED had remained a significant issue for the family

and its members. In contrast to some expectations therefore, the experience of involving other family members in ED research was a mutually positive experience, and although somewhat ambitious given resources, enabled a more systemic investigation of families in which one member develops an eating disorder.

Future studies involving family members will no doubt experience similar difficulties in recruiting. However, participation may be increased by recruiting through organisations specifically aimed at family / carers as opposed to via patient populations.

REFLECTIONS ON METHODOLOGY AND RECOMMENDATIONS FOR FUTURE RESEARCH

Design and methodology

Specific strengths and limitations of the measures employed in the study have been discussed within the main body of the discussion (see Tatham, 2003). Suggestions for improvement and recommendations for further research have also been highlighted. In terms of the clinical implications of undertaking research with this client group, a number of further suggestions might also be proposed.

Postal questionnaires

Information was obtained from patients and their sisters using questionnaires as opposed to interviews. These were sent by post in order to maximise inclusion of siblings who had moved away from the local area and who may otherwise have been unavailable or accessible for interview. Indeed, a number of non-ED siblings were living overseas and were therefore still able to participate. Distribution of questionnaires by post also appeared to increase the participation rate of patients, with a number of women declining the opportunity to meet with the principal researcher, instead preferring to be sent the questionnaires, seemingly in order to avoid a face-to-face meeting.

The use of postal questionnaires however, was not without disadvantages. A number of ED patients required numerous prompts to return completed forms and / or asked to be sent further copies, which elongated the data collection phase.

Difficulties in completing the questionnaires included the number and length of questionnaires (4), which were reported to feel overwhelming by some, in addition to the time and concentration taken to complete them. Non-ED sisters tended to require less prompting or follow-up for return of questionnaires, and response rates generally appeared swifter in cases where the ED patient had been met, as opposed to simply sending out the forms as requested.

Future studies might consider using a more immediate procedure such as an interview format, although this may conceivably serve to reduce the number of patients willing to participate and require more resources. Studies employing a similar methodology might consider meeting with participants if resources allow, which may help with the completion and return of measures sent by post.

Administration of Repertory Grids

Repertory Grids were administered to parents within the family home in order to minimise the amount of inconvenience caused by participating in the study. This provided a more “person-centred” dimension to the collection of the research data, which otherwise was obtained via questionnaires sent by post.

Given the sensitive nature of the investigation undertaken with parents, the Repertory Grid Technique is recommended as a useful methodology with which to obtain rich information in a non-threatening manner, both for clinical and research purposes. A number of parents had expressed reservations about the procedure prior to being interviewed, apparently expecting difficult questions regarding family history. However, many parents subsequently reported surprise at the non-intrusiveness of the procedure and claimed to have enjoyed the experience.

From a researcher’s point of view, administration of the RGT did occasionally feel intrusive, particularly when asking parents to rate their own parents and childhood self along elicited constructs. It could also be difficult to witness mothers’ and fathers’ discomfort in consciously rating their ED daughter more negatively following the development of the eating disorder. Many parents felt the need to explain the reasons behind their ratings, thereby taking more time and necessitating a greater sensitivity than originally anticipated. Finally, although each parent was offered an opportunity to debrief following the interview, it was

sometimes difficult to retain the distinction between the researcher and clinician role. Researchers choosing to adopt the RGT as a research tool in the future are advised to allow adequate time for administration and be prepared to respond sensitively to issues raised during its administration. It may also be helpful to arrange meetings in a neutral setting as opposed to the family home, although this may cause unnecessary inconvenience to participants.

Follow-up studies

In terms of clinical practice, a number of areas of further investigation would be of use in clarifying and further informing clinicians and researchers alike regarding the role, impact and treatment of attachment difficulties within ED populations.

More specific investigation of the nature or profile of “insecure attachment” categorisations would be of use in further informing clinicians about the role and impact of difficulties in interpersonal functioning. The recent reformulation of interpersonal difficulties as an underlying core mechanism (e.g. Fairburn et al., 2003) highlights current thinking concerning the role and clinical impact “insecurity of attachment” has upon ED patients, not only in terms of the ability to establish a therapeutic alliance, but also in relation to seeking practical and emotional support and reducing feelings of isolation. Categorical measures of attachment are limited in their ability to provide clinically useful information regarding the formulation of individual difficulties and subsequent targets for intervention. A more specific and informed insight may be achieved using dimensional measures of (insecure) attachment, combined with a structured interview format investigating the extent and nature of current interpersonal difficulties in order to inform treatment planning and goals of therapy.

Follow up studies would also benefit from recruiting larger patient populations in order to enable comparison and statistical investigation between ED subtypes and possible clinical implications specific to each. Whilst recruitment has been highlighted as a major difficulty, small sample sizes are limited in the number of statistical analyses and permitted investigations.

A further study of clinical relevance might be the investigation of the effectiveness of proposed psycho-educational interventions aimed at helping family members

distinguish between ED symptomatology and the person with the ED, with the hope of reducing the negative impact on wider familial relations. Administering a standardised repertory grid prior to and post intervention may achieve this.

Dissemination of current findings

Findings are of interest to clinical practitioners and researchers alike, both in terms of the application of attachment theory to the field of eating disorders and implications for clinical practice. Research questions emanated from existing empirical and theoretical literature and thus, in aiming to extend investigation into within family attachment patterns and perceptions of parental treatment, attempted to adopt a similar design and methodology to those studies most closely resembling the current investigation. Despite acknowledged limitations, findings are comparable to existing research and therefore of publishable quality and interest. Indeed, the significant differences in the attachment profile of sisters discordant for eating disorder pathology appears to be a new focus of investigation within the attachment and ED literature and one that holds potentially significant implications for the application of attachment theory to the field of eating disorders, implying the need for further investigation and theoretical explanation.

Finally, in light of the observations made regarding the limitations of the ED literature generally, a major strength of the current study was the use of a community ED patient sample attending a small part-time staffed local ED service. Findings may therefore be of particular interest and relevance to those clinicians in small ED services or in a mental health community setting who work with the majority of ED patients who do not meet the criteria or obtain funding to receive highly specialist in-patient and outpatient services. The study has highlighted the need for further local research initiatives to be undertaken and the difficulties that may presently be encountered in doing so.

REFERENCES

- Alexander, P. & Neimeyer, G. (1989). Constructivism and family therapy. International Journal of Personal Construct Psychology, 2, 111-121.
- Bartholomew, K. & Horowitz, L. (1991). Attachment styles among young adults: A test of a four category model. Journal of Personality and Social Psychology, 61, 226-244.
- Bell, L., Clare, L. & Thorn E. (2001). Service Guidelines for People with Eating Disorders. DCP Occasional Paper No 3. British Psychological Society.
- Department of Health. (2001). Treatment Choice in Psychological Therapies and Counselling: Evidence-based clinical practice guidelines. London Department of Health.
- Fairburn, C., Cooper, Z. & Shafran, R. (2003). Cognitive behaviour therapy for eating disorders: a "transdiagnostic" theory and treatment. Behaviour Research and Therapy, 41, 509-528.
- Karwautz, A., Rabe-Hesketh, S., Collier, D. & Treasure, J. (2002). Pre-morbid psychiatric morbidity, comorbidity and personality in patients with anorexia nervosa compared to their healthy sisters. European Eating Disorders Review, 10, 255-270.
- Klump, K., Miller, K., McGue, M. & Iacono, W. (2001). Genetic and environmental influences on anorexia nervosa syndromes in a population-based twin sample. Psychological Medicine, 31, 737-740.
- Murphy, F., Troop, N. & Treasure J. (2000). Differential environmental factors in anorexia nervosa: A sibling pair study. British Journal of Clinical Psychology, 39, 193-203.
- Scholz, M. & Asen, E. (2001). Multiple family therapy with eating disordered adolescents: Concepts and preliminary results. European Eating Disorders Review, 9, 33-42.
- Tiller, J., Sloane, G., Schmidt, U., Troop, N., Power, M. & Treasure, J. (1997). Social support in patients with anorexia nervosa and bulimia nervosa. International Journal of Eating Disorders, 21, 31-38.
- Treasure, J. & Schmidt, U. (2002). Anorexia Nervosa. Clinical Evidence, 6, 705-714.
- Uehara, T., Kawashima, Y., Goto, M., Tasaki, S. & Someya, T. (2001). Psycho education for the families of patients with eating disorders and changes in expressed emotion: A Preliminary study. Comprehensive Psychiatry, 42, 132-138.
- Ward, A., Ramsay, R. & Treasure, J. (2000). Attachment research in eating disorders. British Journal of Medical Psychology, 73, 35-51.