

**Doctorate in Clinical Psychology
Volume I**

**Intergenerational Attachment Patterns and Dissociation
in Adolescents with Eating Disorders:
An Exploratory Study**

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ABSTRACT

The relationships among attachment classification, eating disorder symptomatology and levels of dissociative experiences were explored in a group of 25 adolescents diagnosed with eating disorders, using the Adult Attachment Interview (AAI) and self-report measures. AAI transcripts were classified for attachment status and Reflective-self Functioning (RSF). Twenty mothers of adolescents were also interviewed using the AAI, and the concordance of attachment classification was examined in adolescent-mother pairs. They were found to be highly concordant on 2-way (insecure-secure) attachment ratings and resolution status, but mothers' and daughters' levels of RSF were not significantly associated. These findings are discussed in terms of attachment theory and the transmission of attachment patterns across generations. A high proportion (76%) of eating disordered adolescents were insecurely attached, and insecure attachment was associated with severity of symptoms. Most adolescents were dismissing in attachment organisation and demonstrated low RSF. As predicted, high levels of dissociation were related to bulimic symptoms, and being unresolved to trauma was associated with high levels of dissociation and bulimic and self-harming behaviours. Adolescents reporting high dissociative experiences tended to have and mothers who were unresolved to loss/trauma, which is discussed in the context of transgenerational attachment and dissociation. A model is proposed, expanding on existing theoretical models, to link attachment, dissociation, and bulimic symptoms. Clinical implications and ideas for further research are suggested.

1. INTRODUCTION

1.1 Overview

This research is an exploratory study of attachment patterns in eating disordered adolescents, with a particular focus on eating disorder symptomatology, dissociative experiences and transgenerational attachment patterns. For this study I was able to join an ongoing research project, based at the Maudsley Hospital Eating Disorders Unit, investigating adolescents with eating disorders and transgenerational attachment patterns. To this project I introduced the concept of dissociation as an additional perspective on the understanding of eating disordered adolescents' symptomatology, which was welcomed. Recently, clinicians and researchers working with eating disorders patients (particularly bulimics), have paid more attention to dissociative experiences, and have found this a useful construct in formulating the functions of certain symptoms, and in their approach to therapy (Waller, 1995). This particular aspect of eating disorder psychopathology will be investigated in bulimic and anorexic adolescents.

Anorexia nervosa and bulimia have been perceived as multi-determined syndromes, with various interacting factors of causal significance, i.e. physical, psychological, family, sociocultural factors (Wren & Lask, 1996). Although various multifactoral models have been put forward to explain the development and maintenance of anorexia nervosa (e.g. Slade, 1982) and bulimia nervosa (e.g. Lacey, 1986), the present study focuses on attachment. This is because attachment and separation problems have been consistently identified as a particularly significant factor in eating disorders (Armstrong & Roth, 1989). Attachment theory has been presented as

a psychological theory of how certain aspects of interpersonal relationships are internalised. The attachment system is perceived as influencing a range of psychological functions including many of those disturbed in eating disorders, such as, interpersonal competencies, regulation of affect, and self-esteem (O’Kearney, 1996).

Different approaches to eating disorders (e.g. psychodynamic, Masterson, 1977; family Minuchin, Rosman & Baker, 1978; developmental Strober & Yager, 1985) all consider the implications of separation distress. Further, clinical observations have noticed that eating disordered patients were oversensitive to early maternal separation (Sours, 1974), and there have been reports on the connection between leaving home and the onset of eating disorder symptomatology (Kalucy, Crisp & Harding, 1977; Van der Broucke & Vandereycken, 1986).

As the majority of eating disorder cases have their onset in adolescence, it is not surprising that clinicians and researchers have perceived anorexia nervosa as an illness of girls who experience particular difficulty in making their way into the adult world (e.g. Crisp, 1983), with the problems of autonomy and separation in adolescence. The group of symptoms that define eating disorders have been thought of as representing the disruption of the attachment processes in a particular stage of development (Striegel-Moore, 1992).

In linking ideas about the role of dissociation in eating disorder symptomatology with attachment theory, I have introduced to the Maudlsey-based project a recent

hypothesis which discusses the possible relationship between attachment patterns and the development of dissociative features (Liotti, 1992; Main, 1996). In the wider literature on eating disorders, ideas about attachment, dissociation and their links with eating disorder symptoms have not yet been explored, and this research aims to do so.

This section will begin by describing the features of eating disorders – anorexia nervosa and bulimia nervosa, and review information about epidemiology. It is suggested that for some eating disordered individuals the bulimic symptoms and associated impulsive behaviours function to escape unpleasant feelings, by narrowing cognitive awareness. This conceptualisation leads on to a definition of dissociation, and a review of the ideas about the role of dissociation in eating disorders. This section on eating disorders ends with a brief introduction to ideas about attachment and separation difficulties in girls who develop eating disorders. However, before focusing on attachment and eating disorders, I review the main tenets of attachment theory (1.3). The reader is familiarised with different types of attachment patterns in infants and adults, and how these have been assessed in the development of attachment research, including the Adult Attachment Interview, which is a measure used in the present study. Reports supporting the assumption of the intergenerational transmission of attachment patterns are discussed, and within this context the notion of the capacity to mentalise is introduced. Recent ideas about associations between attachment organisation and dissociation are discussed (and later linked to the role of dissociation in eating disorders). The section on attachment theory ends with a brief overview of links that attachment researchers have made

between insecure attachments and psychopathology, which leads to the particular focus on attachment and eating disorders (1.4.). After reviewing some theoretical conceptualisations of the role of attachment in the development of eating disorders, some research in the area of attachment and eating disorders is critically reviewed. This leads to the rationale for the present study (1.5) – to investigate attachment patterns in adolescents with eating disorders. To make this task more manageable I have put forward two sets of hypotheses. The first are attachment-related hypotheses focusing on attachment patterns and the transgenerational nature of attachment. The second set are dissociation-related hypotheses which look at the role of dissociation in eating disorders and how this may be related to early experiences and attachment.

1.2 EATING DISORDERS: ANOREXIA NERVOSA & BULIMIA NERVOSA

1.2.1 Features of Anorexia Nervosa

An excessive over-concern with the control of body weight and shape, together with very restricted, irregular or chaotic eating behaviour are the main characteristics of eating disorders (Hsu, 1990). Anorexia nervosa and bulimia nervosa are the most recognised, although others include binge eating disorder or eating disorder unspecified (ICD-10 classification, WHO, 1992). Dramatic and often life-threatening weight loss is the primary feature of anorexia nervosa that brings it to the attention of health care professionals. Such weight loss appears to be voluntary and not due to any metabolic disease. The anorexic displays a morbid fear of fat and the pursuit of thinness expressed through the desire to maintain a suboptimal body weight, body

image disturbance, avoiding certain foods and often rigorous exercise programmes to prevent weight gain. Using the DSM-IV (A.P.A., 1994) classification schema, anorexia nervosa is diagnosed if each of the following are present:

1. Refusal to maintain body weight at more than 15% below normal weight for age and height.
2. Intense fear of gaining weight or becoming fat or of normal body weight.
3. Disturbed perception or experience of body weight size or shape.
4. Endocrine disorder manifest by an absence of at least three consecutive menstrual cycles.

Other features frequently noted in anorexia nervosa include perfectionism, obsessive-compulsive disorder, poor self-image and marked mood disturbance, with depression not unusual (Bryant-Waugh & Lask, 1995). The physical characteristics are related to self-starvation: emaciation, poor circulation leading to circulatory failure, shown by pallor, slow weak pulse, low blood pressure, cold hands and feet, discoloured skin and mucosa, a fine downy hair (lanugo) (Bryant-Waugh & Lask, 1995).

Patients suffering with anorexia do not suffer from loss of appetite or interest in food; on the contrary, they are preoccupied with food and eating. Bruch (1985) described these girls as “panicky with fear that they might lose control over their eating” and when they do lose control they gorge themselves and vomit afterwards. This binge-vomit cycle is the core symptom of bulimia nervosa, which is described below. Those who meet the above criteria for anorexia and also engage in recurrent episodes of binge eating are classified as anorexia nervosa - bulimic type (AN-B).

Anorexic patients who lose weight by restricting food intake (AN-R) have been differentiated from those whose attempts to limit intake are punctuated by episodes of binge eating (AN-B), because AN-B patients tend to present at a heavier weight, report greater impulsivity, social/sexual activity, depression, family dysfunction and generally more obvious emotional disturbance than AN-R patients (Garner, Olmstead & Garfinkel, 1985; Laessle, Wittchen, Fitcher & Pirke, 1989; Vandereycken & Pierloot, 1983). However, the sub-groups of anorexia are more 'alike' than 'different', and there is variation within these subgroups on demographic, clinical and psychological dimensions (Garner, 1990), and patients have been observed to move between the two subgroups at different points in time (Russell, 1979).

1.2.3 Features of Bulimia Nervosa

As with anorexia, fear of obesity and attempts to lose weight are core clinical features of bulimia. Dissatisfaction with current body weight and shape are often evident. Patients with bulimia practice caloric restriction, but unlike anorexics, bulimics usually weigh within the normal range, and therefore are not forced into treatment by life-threatening weight loss, and many people with bulimia will avoid seeking help for many years. When the individual gives in to her desire for food she will binge huge amounts of food. A binge varies between individuals, it can be consumption of thousands of calories, usually high carbohydrate and fat - "forbidden foods", easily ingested. The binge violates the individual's idea of dieting and thereby may increase anxiety about weight gain, and their "morbid fear of fat"

arouses the desire to purge the calories consumed to avoid weight gain. Purging includes self-induced vomiting, laxative abuse or intense exercise. The frequency of this binge-purge cycle varies between individuals and may be 10-15 times a day. Bulimia Nervosa is diagnosed if each of the following is present (DSM-IV, A.P.A., 1993):

1. Recurrent episodes of binge eating (rapid consumption of large amounts of food in a discrete period of time).
2. Feeling a lack of control over eating behaviour.
3. Behaviour aimed at preventing weight gain such as self-induced vomiting, use of laxatives or diuretics, fasting.
4. Persistent over-concern with body shape and weight.

Other common features include mood disorder, particularly depression, and impulsive self-harming behaviour such as chemical misuse, overdosing and self-mutilation (Bryant-Waugh & Lask, 1995). The physical manifestations of bulimia are not as obvious as with anorexics because weight tends to remain within the normal range. However, menstrual irregularities are common, which may be related to the frequent vomiting leading to a disturbance of insulin turn-over, and subsequent hormonal disorder. Self-induced vomiting can become intractable and has accompanying complications such as fluid and electrolyte imbalance and gastrointestinal bleeding. Other physical features include dental erosion, enlargement of the salivary glands and muscle weakness (Bryant-Waugh & Lask, 1995). Bulimics may have a history of anorexia nervosa with bulimic symptoms developing concurrently or at a later stage when weight restoration has occurred.

1.2.4 Epidemiology

Anorexia nervosa and bulimia are most commonly diagnosed in adolescent girls and young women, but it is not clear how many people suffer from eating disorders and most figures quoted in the literature are either estimates or figures relating to specific groups. For anorexia and bulimia it has been suggested that a large number of people suffer some but not all the essential features, and do not receive formal diagnoses. It has also been suggested that around 5% of all teenage girls develop “subclinical” anorexia nervosa (mild anorexia nervosa that does not come to psychiatric attention) after reaching puberty (Button & Whitehouse, 1981). However, it is impossible to know the actual number of such individuals, as there is no means of accessing them unless they seek professional help, and many will not. Information about clinical populations comes from various sources, such as case-register studies or regional statistics. There are problems using these statistics because diagnosis might not have been appropriately applied, and those who were not seen by their G.P. would be excluded. Therefore, the estimates of incidence for anorexia and bulimia given below should be taken as just rough estimates.

For anorexia nervosa the incidence in the population as a whole has been reported to vary between 0.8 and 8.1 per 100,000 per year (West, 1994). The prevalence of anorexia nervosa is much higher in specific groups than in the whole population. For example, in females aged 14-25, about 1% are likely to have anorexia nervosa, i.e. 70,000 women in the UK (West, 1994). The ratio of female to male is about 10:1, although in childhood onset anorexia this ratio is lower (Bryant-Waugh & Lask, 1995). Anorexia nervosa in adolescents has been associated with white middle-class

backgrounds (Szmukler et al., 1986), but it is increasingly reported in a wider cross-section of the population (West, 1994).

The incidence of bulimia nervosa is estimated at about 10 per 100,000 of the general population (Hoek, 1991), and 96% are female. As with anorexia, the prevalence is much higher in young females, probably about 1-2 % (Fairburn and Belgin, 1990), which would suggest about 125,000 women with bulimia nervosa between ages 15-25 in the UK (West, 1994). Clinicians report that the onset of bulimia nervosa before the age of 14 is rare (Bryant-Waugh, 1995). Most anorexics present to clinics during adolescence, whereas less than 15% of bulimics are seen at clinics during adolescence, most bulimics present in their early twenties (Eisler, 1997). Anorexics tend to be identified within about the first year of their illness, however, by the time bulimics are seen by clinicians they have been suffering with the illness for an average of about four years.

1.2.5 Child Sexual Abuse and Eating Disorders

There is increasing evidence of traumatic antecedents, particularly childhood sexual abuse, in a substantial percentage of patients who have eating disorders (Schechter, Schwartz & Greenfeld, 1987; Torem & Curdue, 1988; Demitrack et al, 1990; Gleaves & Eberenz, 1994). Oppenheimer, Howells, Palmer & Chaloner (1985) found that 31% of their anorexic patients reported a history of child sexual abuse, and Root and Fallon (1988) found a third of their sample of bulimics reported childhood sexual abuse, and two-thirds reported either sexual or physical abuse. Making comparisons of rates of sexual/physical abuse between studies is difficult because of

the different definitions of abuse employed (single answer questionnaires, to in-depth interviews) and the use of different samples (Eisler, 1995). However, a review by Connors and Morse (1993) concluded that the rates of reported abuse range from 6% to 66%, but most cluster around 30%, which is higher than the rates of abuse of 15-30% that have been reported in the general population (Bifulco, Brown & Adler, 1991).

There is conflicting evidence whether bulimic patients are more likely to have experienced sexual abuse than restricting anorexics (Eisler, 1995). In his review of recent studies, Eisler reported that in terms of abusive experiences the difference between bulimics and anorexics is that bulimics were more likely than anorexics to experience a variety of childhood adversity (e.g. indifference, discord, abuse, inconsistency in care arrangements). He added that it is unclear whether these occur more frequently than in the general population.

1.2.6 Bulimic Symptoms as an Escape from Awareness

In recent years bulimic symptoms have been viewed as functioning as a means of defense against intolerable cognitions or emotions (Lacey, 1986; Root and Fallon, 1989; Heatherton and Baumeister, 1991). Heatherton and Baumeister (1991) proposed that the primary function of bingeing behaviour is to block or reduce aversive awareness. This is achieved through a temporary cognitive shift to low levels of awareness, where the meanings usually attached to such behaviour may be ignored (e.g. weight gain, guilt, self-hate). They suggest various ways in which

cognitive narrowing is achieved, including dissociative mechanisms. Binge-eating may arise as an attempt to escape from self-awareness, because some people find it difficult and aversive to be aware of themselves. But it is difficult to escape oneself, so one strategy is to narrow the focus of attention to the present and immediate stimulus environment (Heatherton & Baumeister, 1991). This maintains the level of self-awareness at a relatively low level and avoids meaningful thoughts about identity and implications of various events. The narrowed cognitive state has several consequences relevant to bingeing – the removal of inhibitions and predisposition to irrational beliefs. Without meanings attached to behaviour, the individual is disinhibited, and more likely to engage in the behaviour, and as normal patterns of reasoning have been suspended, the individual thinks irrationally (Heatherton & Baumeister, 1991).

The notion of escaping the self by shifting levels of awareness has been applied to other phenomenon such as substance abuse, self-harm and suicide attempts. There is a high incidence of alcohol abuse, drug abuse or both, self injury and suicide among bulimic women (Beary, Lacey & Merry, 1986; Garner & Garfinkel, 1982; Yager et al 1988), which makes it plausible that binge eating is similar to the patterns and motivations of escape that characterise these other behaviours. In fact, Lacey (1986) coined the term “multi-impulsive bulimia” to describe bulimic patients who display more than one impulsive symptom. He pointed to the high demands which these patients place on the psychiatric and emergency services, and that they are associated with poor prognosis.

1.2.7 Dissociation and Eating Disorders

Dissociation is perceived as a relatively primitive defense mechanism which includes various ways of reducing awareness, such as derealization, depersonalisation, ignoring pain, auditory hallucinations, and memory loss. Bernstein and Putnam (1986) defined dissociation as: "A lack of the normal integration of thoughts, feelings, and experiences into the stream of consciousness and memory" (pp.728) It occurs to some degree in the normal population and tends to be more prevalent in individuals with major mental illnesses. High levels of dissociation have been found in a number of psychiatric disorders, including multiple personality disorder (MPD), borderline personality disorder, post-traumatic stress disorder (PTSD), and eating disorders (Bernstein & Putnam, 1993). Dissociation is conceptualised as lying along a continuum from dissociations of everyday life, such as daydreaming, to major forms of psychopathology such as multiple personality disorder. Although dissociation is a natural cognitive process, especially in response to trauma, with continued use it can become maladaptive.(Everill & Waller, 1995).

Many bulimic patients have reported feelings of depersonalisation and derealisation during episodes of bingeing and purging (Russell, 1979), and Tomm (1987) found bulimics frequently reported that their binges were involuntary, and accompanied by an amnesia-like loss of time. There is some evidence that individuals with eating disorders score high on scales measuring dissociative symptomatology. Demitrack, Putnam, Brewerton, Brandt, & Gold (1990) found that both anorexic and bulimic inpatients scored higher on the Dissociative Experiences Scale (Bernstein & Putnam, 1986) than age- and sex-matched normal controls. Everill, Waller and Macdonald

(1995) also found an association between reported dissociative experiences and frequency of bingeing in eating disordered women.

Hypnosis has been regarded as being related to dissociation, as it involves similar changes in memory and awareness, and individuals with dissociative disorders are reported to be more susceptible to hypnosis than other psychiatric groups and controls (Frischholz, et al., 1992). Bulimics are one group of patients who have been reported to show greater hypnotisability, (Pettinati, Kogan, Margolis, Schrier & Wade, 1989), which may indicate that they are high on dissociation. Alternatively, hypnotisability may be more dependent on these individuals being more open to suggestion than being more dissociative.

Everill, Waller, and Macdonald (1995) administered the Dissociative Experiences II (Bernstein Carlson & Putnam, 1993) to a sample of 60 women with eating disorders from a mix of self-help groups, a university eating disorder service and an NHS clinic, with an average age of 22.8 years. They found no differences between the diagnostic categories (AN-R, AN-B, or BN) on levels of dissociation, but a reported history of sexual abuse was associated with increased frequency of binge eating and greater reported levels of dissociation. They argue that dissociation was a mediating factor in the relationship between sexual abuse and bingeing. Eating disorder patients have been found to demonstrate higher levels of dissociative psychopathology than control subjects and a subgroup of eating disorder patients with a bingeing/vomiting component has presented with pathological dissociative symptoms (Vanderlinden Vandereycken, Dyck, & Vertommen, 1993).

In the context of ongoing overwhelming trauma (e.g. sexual abuse), dissociation appears to be a particularly adaptive response. The individual is protected from initial unpleasant experiences such as pain or humiliation, while the memory of the experience is kept out of conscious awareness in the long term, although this memory may still exert some influence over cognitions and behaviour. Dissociation is thought to be particularly effective when faced with repeated painful and traumatic experiences, e.g. ongoing sexual abuse. However, over time a reliance on dissociation as the primary defense may lead to generalisation to its use to include lesser stressors. So dissociation reactions may occur in response to stimuli reminiscent of the early trauma, and they show a range of dissociative mechanisms to deal with these triggers, which may interfere with their everyday functioning, and become maladaptive. Also while dissociation is being relied upon, the development of other more mature coping mechanisms is likely to be prevented.

Vanderlinden et al (1993) investigated the link between dissociative experiences and early trauma in the eating disorders, and concluded that binge-eating could be seen as a way of coping with feelings and memories associated with trauma. Everill, Waller and Macdonald (1995a) suggest traumatic experiences (particularly abuse at an early age) and dissociative responses to that experience are significant risk factors for the development of subsequent eating problems in some individuals. Everill and Waller (1995) have recently proposed a model to attempt to understand the development of bulimic psychopathology in individuals who report a history of trauma, but this needs to be supported with further empirical research.

The role of dissociation in eating disorder symptomatology has mainly been related to bulimia. But in the context of evidence suggesting that it is unclear whether bulimics are more likely to have suffered traumatic childhood experiences than anorexics (Eisler, 1995), this study will be investigating dissociative phenomena in bulimic and anorexic adolescents. In contrast, the eating disorders literature on attachment and separation difficulties at adolescence has tended to focus more on anorexia than bulimia. The focus on difficulties in the adolescent task of separation and individuation for anorexics more than bulimics could be due to the fact that anorexics tend to be seen by clinicians earlier in adolescence than bulimics because of the obvious, and often life-threatening weight loss. Whereas bulimics have often been able to conceal their illness for many years, and tend to be seen in late adolescence or in their adult years. But as previously mentioned, onset of bulimia is often during adolescence but not is picked up by clinicians until later. Therefore, it seems that bulimia could also be looked at in terms being a maladaptive response to coping with a particular phase of development in which attachment relationships are being renegotiated, as she develops more autonomy as an adolescent.

1.2.8 Eating Disorders and Attachment

Psychodynamic formulations of eating disorders, particularly anorexia nervosa, focus on the failure to develop a sense of autonomy and perceive the pursuit of thinness as a defense against the intrapsychic and psychosocial demands of adolescence to become more independent from their parents and alter their attachment relationships (O’Kearney, 1996). They have linked specific disturbances in early infant-mother

relationships, the demands for autonomy in adolescence, and the obsessional pursuit of thinness, i.e. the controlled maintenance of a prepubescent body (Bruch, 1973, 1978; Palazzoli, 1978; & Masterson, 1977).

Family systems accounts such as White (1986), have described transgenerational beliefs in the families of anorexics, which include a high value on loyalty of family members to each other, and a specific role prescription for a daughter where she is valued for her “being for otherness”. In this way fulfilment of the individual need, particularly in relation to adolescent individuation, is ignored. Stern et al (1981) described the anorexic and her parents as developmentally arrested in the area of individuation/separation, and the family becomes organised around the need to prevent separation from taking place. Before going on to discuss further ideas relating attachment and eating disorders, it is necessary to first review the tenets of attachment theory.

1.3 ATTACHMENT THEORY

Although attachment theory (Bowlby, 1969, 1973, 1980; Ainsworth, Blehar, Waters, & Wall, 1978) has its roots in ethology and observations of behaviour, it can be described as a theory of how some aspects of interpersonal relationships are represented intrapsychically, and ideas about how these internalised models influence subsequent relationships. The term attachment represents an aspect of the relationship whereby the person uses another individual as a source of security. Bowlby (1988) perceived the attachment system as a “biologically adaptive

motivational complex”, because when the person feels anxious or threatened, his/her attachment system activates behaviours intended to get closer. This is shown when a person is frightened or unwell, and is consoled by comforting. It is most obvious in early childhood, but it can be observed across the life cycle. The outcome of attachment is behavioural and/or psychological closeness with the aim of a subjective “felt security” (Cicchetti, Cummings, Greenberg, & Marvin, 1990). The sense of security in attachment is based on continued interaction with attachment figures and may be strongly influenced by experiences during adolescence and adulthood.

Bowlby (1988) conceptualised parenting as the provision of a secure base from which a child or adolescent can go out into the outside world with the knowledge that he/she can return to the safe place where their physical and emotional needs are met, they are comforted if distressed and reassured if frightened. The parent(s) have to be available to give comfort, reassurance and encouragement, but only to actively get involved if it is clearly necessary. An infant becomes securely attached when he/she can develop an expectation that the parent will be available, and the child feels worthy of their care, through their parent’s appropriate responsiveness (Dozier, 1990). As the child grows and is able to confidently explore further and for longer from the base, this base is taken for granted.

1.3.1 Attachment Patterns

Ainsworth, Blehar, Waters, & Wall (1978) provided the first systematic description of how attachment behaviour is shaped by the caregiver's behaviour in infants. The laboratory procedure, the Strange Situation, was designed to assess the different forms attachment behaviour may show in infants. The infant is exposed to an unfamiliar environment from which the accompanying parent twice leaves for a few minutes and twice returns. Three main patterns were identified by Ainsworth et al (1978) as:

- *Securely attached* children's attachment behaviour is initiated by the separation. They may protest and want to go with the parent. On reunion they settle quickly and they start exploring/playing again. The majority of infants show this pattern, and it is related to parent's sensitivity and prompt availability if the child is distressed, combined with respect for the child's bids for autonomy.
- *Insecure/avoidant* children do not seem concerned when the parent leaves; they may play with toys in an unimaginative way and even turn away from the parent on her return. Their attachment behaviour is minimal. This is related to parent's rejecting and/or indiffering attitudes; namely rejection of requests for comfort and interference in response to bids for autonomous play.
- *Insecure/ambivalent* children cling to the parent, protest strongly on separation, and are very difficult to console by the parent on return. They may remain clingy to the parent and do not explore - so their attachment behaviour is maximal. This is related to parent's erratic, unpredictable positive responses to the child's requests for comfort, and reluctance to promote or allow autonomy.

Main & Solomon (1990) identified a fourth group of previously unclassifiable infants as disorganised/disorientated. *Insecure/disorientated* children do not have a coherent strategy, but they show evidence of approach-avoidance conflict. Attachment behaviour is aroused so they approach the parent, but the parent is also a source of danger so they may turn away or stop. The basic feature differentiating parents of insecure/disorientated infants from parents of other groups of infants was related to traumas that have not been successfully resolved (Main & Hesse, 1990). These parents seem to be worried by traumatic memories that divert their attention from the needs of efficient caregiving. These unresolved traumas are related to past abuse, or to loss through death of significant others (Main & Hesse, 1999; Ainsworth & Eichberg, 1991). Although the infant is classified as disorganised, it should be noted that infant is not always disorganised with the caregiver, and every infant-caregiver pair is classified into the best-fitting secure/avoidant/ambivalent attachment category.

One of the assumptions of attachment theory is that an infant needs the carer to protect him from over-arousal, as the infant is incapable of developing capacities for self-regulation. The secure (and even resistant) infant develops the expectation that arousal in the presence of a caregiver will not lead to disorganisation, and seeks physical proximity to the caregiver. The avoidant infant deals with his arousal through over-control of his affect. This has been supported by physiological measures of arousal in infants showing avoidant attachment behaviour (in the Strange Situation) who actually show signs of distress, implying that the avoidance is a strategy the infant is using to deal with the threatening situation (Spangler &

Grossman, 1993). However, when parental behaviour is frightening, the infant can neither approach (secure and insecure-resistant strategies) or shift its attention (avoidant strategy). Main (1996) describes the infant as being in a 'behavioural paradox' because he has activated impulses to approach the parent as a 'safe base' and to flee from the parent as a source of alarm. The majority of children who have been abused by parents have been found disorganised in their attachment behaviour (Main, 1996). It is thought that disorganised infants may be at higher risk for mental disorder (Main, 1996). This is supported by the early results from Egeland and Sroufe's Minnesota poverty sample with 17-year olds who had a disorganised attachment pattern with mother in infancy show the most marked indices of different types of psychopathology on the K-SADS (as cited in Main & Morgan, 1996).

1.3.2 Disorganised Attachment and Dissociation

Liotti (1992) hypothesised that increased vulnerability to dissociative disorders may be present in disorganised infants. Some disorganised/disorientated behaviours in infants seem related to dissociative phenomenon, for example postures that resemble a dissociative trance. Dissociative trance in DSM IV is identified as a "narrowing of awareness of immediate surroundings of stereotyped behaviours or movements that are experienced as being beyond one's control" (A.P.A., 1994). Main and Solomon (1990) present examples of infants classified as disorganised that are suggestive of alterations of consciousness, such as freezing all movement with a trance-like expression, disorganised wandering accompanied by disorientated expression, or a sudden "blind" look in the infant's eyes. These trance-like states have been

compared to early self-hypnotic experiences, which may be linked to later dissociation. Therefore, Liotti has suggested that the ability to dissociate may develop in some individuals with disorganised attachments in infancy. Some initial empirical evidence for Liotti's hypothesis comes from the results of Egeland and Sroufe's Minnesota poverty sample with 17-year olds, previously mentioned, where only those adolescents diagnosed as having experienced dissociative episodes (according to K-SADS criteria) had been classified as disorganised with mother in infancy (as cited in Main and Morgan, 1996).

1.3.3 Working Models of Attachment

Bowlby introduced the notion of a person's "working model" of attachment relationships which indicated that early attachment-related experiences become transformed into inner representations (Bowlby, 1973). These inner representations are thought to have predictive implications for attachment situations throughout life, and particularly for stressful interpersonal experiences. The child builds a working model of his mother/carer and her ways of communicating and behaving towards him/her, and complimentary models of him/herself in interaction with the carer(s). These are constructed during the first few years of the child's life, and it is thought that these become influential cognitive structures for the child (Main, Kaplan & Cassidy, 1985). These cognitive structures are based on the child's actual experiences of interactions with his parents. His working model reflects perceptions his parents have of him that are communicated by how he is treated and also by what they say to him. These models influence how he feels towards his parent(s) and

about himself, how he expects them to treat him, and how he plans his own behaviour towards them (Bowlby, 1988). It seems that these models of parent and interaction with the parent are taken for granted and remain at an unconscious level. Stern (1997) described this as “implicit relational knowing”, i.e. the individual’s way of knowing how to relate to others. So the patterns of interaction from the model become generalised, largely unconscious, and are repeated throughout life in interactions with others.

Working models are comparable to cognitive schema, and are active constructions forged over time and are subject to change. One’s models of self, others and relationships become firmer as their structuring is broadened and elaborated and as they are supported by more experience. By the stage of adolescence they have become quite firm, although new models of thinking may also provide new opportunities for change (Main et al, 1985). Of course, later experiences influence these inner working models, but the later experiences are not independent of pre-existing models.

Working models of disorganised attachment are thought to be more likely to become multiple and incoherent, while secure patterns of attachment are singular and coherent, or more integrated (Main & Hesse, 1990; Liotti, 1992; Main, 1995). Therefore, disorganised attachment behaviour may be related to dissociated multiple mental structures, which may be linked to incoherent, simultaneous representations of the self and attachment figure. For example the parent and self may be represented as both frightened and frightening (Liotti, 1995).

1.3.4 The Adult Attachment Interview

The Adult Attachment Interview (George, Kaplan & Main, 1985) was developed to test the ability of adults to integrate their specific memories into a more general understanding of the parent-child relationship. It has given further evidence for individual differences in the organisation of representations and memory relevant to attachment experiences. The structured, 15-question semi-clinical interview asks individuals to describe their relationships with parents, discuss how these changed over time and how they influenced their adult personality, and to recall specific experiences of parental responsiveness to them being upset and ill as a child.

In the initial study (Main, Kaplan & Cassidy, 1985) three patterns of organisation were identified in parents, from the Adult Attachment Interview, that related to the child's classification in the Strange Situation. These three categories were secure, dismissing and preoccupied, as explained below.

- 1) Parents of children who had been classified as secure (from the Strange Situation) seemed to value attachment and objectively evaluate a particular experience or relationship. They were at ease in recalling attachment episodes, and had mainly positive memories, although if a negative memory was recalled they were typically able to integrate it into a coherent view of the relationship that contained both positive and negative aspects. This was labelled "Secure" or Free to Evaluate or Autonomous Attachment (F). These adults can tune into their own children's experiences and respond appropriately to their needs, such as going to them while distressed but giving them autonomy when they want to explore.

- 2) Parents of children who had been assessed as insecure/avoidant showed “Dismissing” (Ds) attachment; they tended to devalue the importance of attachment relationships and frequently had difficulty recalling specific attachment experiences, or not relate them to how they are now. Episodes that were recalled tended to be experiences of rejection and lack of affection, often contradicting their generalised positive descriptions of their relationship with their parents. It is as if they block painful feelings and so cannot empathise with their children’s distress, and the child soon learns that going to the parent for comfort leads to a rebuff.
- 3) Those parents of children who had been judged as insecure/ambivalent (from the Strange Situation) were characterised as “Preoccupied” or Enmeshed (E) in attitudes towards attachment. They often had memories of childhood, but had difficulty integrating these into a coherent model, and seemed confused about negative aspects of their relationships with parents while still trying to please them. They are preoccupied by the past and other unresolved issues and their child finds that they can only get the parent’s attention by working at it.

Several studies have shown consistent correlations between the attachment status of infants in the Strange Situation and that of their mothers in the AAI. Main and Goldwyn (1984) found that 75% of secure infants had mothers who were rated Secure-Autonomous, while mothers of avoidant infants tended to be Dismissing, and ambivalent infants tended to have Preoccupied parents. Grossman and Grossman (1991) found a similar correspondence between mother-infant attachments (77%).

An additional classification, “Unresolved” (U), has been used if the interview shows signs of unresolved experiences of trauma usually involving the loss of attachment figures, or abuse during childhood which has not been resolved emotionally. This is identified in the transcript if there are lapses in the monitoring of reasoning during the attempted discussion of the experience, i.e. indications of incompatible beliefs, or where there are lapses in the monitoring of discourse during the discussion of the experience. These are identified through alterations in the form of discourse during the discussion of a traumatic experience, suggesting that the individual has entered into a special state of mind. These alterations include disorientated changes in speech, e.g. sudden attention to details, sudden shift into eulogistic style of speech, or suddenly raising the discussion of traumatic experience in an unrelated context. The unresolved status can be assigned on the basis of only a few sentences, and many of the Unresolved interviews are otherwise clear, and lapses in reasoning and discourse occur only in these specific passages (Main and Morgan, 1996).

1.3.5 Unresolved status on the AAI and Dissociation

Lapses in monitoring of discourse have been described as indicating that the speaker has entered a state of mind in which he/she is no longer directly focusing on the interview situation, and has in fact “lost conscious awareness of the discourse context... an encapsulation or segregation of the event from normal consciousness” (Main & Goldwyn, 1985-1995). Some interviewees stop in the middle of a sentence discussing trauma or loss, and then complete the sentence after a long pause as if no time has passed, or do not complete the sentence at all. Dissociation is identified

through alterations in consciousness and behaviour and has been associated with traumatic experiences, and the classification of Unresolved attachment status is based on alterations in the patterning of discourse occurring specifically during the discussion of traumatic experiences. Therefore, following Liotti's analysis of disorganised attachment and dissociation, Main and Morgan (1996) considered that:

- 1) some behaviours of infants categorised as disorganised resemble behaviours that would be expected if the infant had entered a dissociated state, and
- 2) some lapses in the monitoring of reasoning and discourse observed during the discussion of traumatic experiences are compatible with the behaviour which is expected when the individual enters into a dissociative state.

1.3.6 Intergenerational Patterns of Attachment

Attachment research has confirmed Bowlby's theory of stability of relationship patterns and personality by demonstrating that attachment patterns seem to be socially transmitted from one generation to the next (Steele & Steele, 1994). Now typical evidence of transgenerational attachment patterns comes from the UCL Parent-Child Project, in which the AAI was administered to 100 mothers and 100 fathers expecting their first child, in the last trimester of pregnancy (Fonagy, Steele & Steele, 1991; Steele, Steele & Fonagy, 1996). They observed the developing attachment relationship between mother and child at 12 months and between child and father at 18 months using the Strange Situation. The results confirmed the existence of an intergenerational relationship - when the mother's prenatal interviews indicated either dismissal or preoccupation, almost three quarters of the children at

the age of one year were classified as insecure (avoidant or resistant) on the Strange Situation. In contrast, for mothers classified as autonomous, 80% of their children could be classified as secure in the Strange Situation. A significant pattern of concordance between fathers and children was also powerfully evident, but somewhat, though not significantly, weaker than the cross-generational match observed for mothers and their infants (Steele et al, 1996). Furthermore, Van Ijzensoorn's (1996) meta-analytic review of over 800 infant-parent dyads found the correspondence between infant and parent classification across studies was consistently 70-80%.

A recent study of attachment patterns in psychiatrically hospitalised adolescents (Rosenstein and Horowitz, 1996) found a very high concordance between adolescent and maternal attachment classifications in the AAI; the match was 81% ($\kappa = 0.62$) using the three category system (dismissing, autonomous and preoccupied). This suggests that transmission of attachment patterns from one generation to another does occur in clinical populations.

1.3.7 Disorganised attachment and Dissociation– a Transgenerational Model

Recently researchers have become interested in the link between parents' Unresolved status and infants' Disorganised attachment behaviour. Liotti (1992) gives a transgenerational explanation of the risk of an infant developing a disorganised attachment, which relates to lack of resolution of mourning in caregivers while the infant is becoming attached. Parents whose attachment system is activated by the

distressing memories of past unresolved traumas may unwittingly invert the normal attachment relationship with their children, acting as if they unconsciously expect their children to soothe their own discomfort (Bowlby, 1988). When the child does not meet the parent's unconscious expectations to be cared for (which they fail to do), the parent may become aggressive and therefore frightening to the child (Liotti, 1992). As previously mentioned, a child's perception of their attachment figure as frightening is likely to cause disorganised attachment in the child, who is in a dilemma of whether to approach the parent for comfort or back off because of fear.

To make the link between dissociative disorders in later life, Liotti (1995) suggested that patients with dissociative disorders should be more likely to have parents who suffered unresolved grief or a major loss when they were taking care of their children. Liotti, Intrecciagli, & Cecere (1991) found that a high percentage of the mothers of dissociative patients were mourning over a serious loss in the period which their children were becoming attached to them. Frightening memories and feelings are part of unresolved mourning processes (Bowlby, 1980; Parkes, 1972). Unresolved mourning in the mothers could have been one of the sources of frightened behaviour while dealing with the infants, who acquired their vulnerability to dissociating through the mediation of disorganised/disorientated attachment (Liotti, 1992). Further support for Liotti's hypothesis comes from a recent prospective longitudinal study of adolescents originally observed in the strange situation in infancy. Dissociative behaviour observed by teachers in the school setting was found predictable from disorganised attachment status with the mother (Carlson, unpublished study reported in Main & Morgan 1996).

1.3.8 Reflective-Self Functioning and Attachment

The transmission of attachment style is thought to be not only through sensitive responsiveness of the carer to the infant, but also related to the extent to which parents are defensive about their own negative emotional experiences. Fonagy, Steele, Steele, Leigh, et al (1995) postulated that such defensiveness could lead to a lack of understanding (dismissal) or to incomplete understanding of their child's states of anxiety (preoccupation). The intergenerational transmission of secure attachment styles has in part been explained by the transmission of reflecting or mentalising capacity of the parent (Fonagy et al, 1995). This notion is based on Main's (1991) discussion of metacognitive monitoring and singular versus multiple models of attachment, which she introduced to the Adult Attachment Interview coding. She suggests that differences in attachment organisations during childhood are linked to the quality of metacognition in the parent. Incoherent adult narratives indicating poorly structured multiple models of attachment relationships may cause the child's insecure pattern of attachment. Main (1991) argues that without the capacity for metacognitive monitoring, i.e. not understanding the "representational nature of their own (and others') thinking" (p.128), then the child is open to the parent's inconsistent behaviour, because the parent cannot distinguish between the immediate experience and the mental state that might underlie it.

Fonagy et al (1995) assume that the quality of a child's attachment to the parent is linked to two factors in the parent: (1) The parent's internal working model of attachment; and (2) the parent's capacity to reflect on the current mental state of the child, i.e. the parent should have a theory of the child's mind. This enables the parent

to reflect and cope with the child's emotion and reduces the child's need to protect himself from the psychological presence of the caregiver. A child becomes insecurely attached when he has to develop defensive behaviours to protect himself from his parents' lack of understanding of the child's mental state. Parents with secure attachment patterns and high in reflective function would be expected to provide better containment of the child's affect and engender security in the child, and thereby create a better environment for the child's development of mentalising function. This facilitates the child's capacity to develop secure relationships with others, including his/her own child. Secure attachment experiences enhance the child to develop in a "theory of mind", the cognitive capacity which is the basis for reflective-self function (Fonagy et al, 1995). Of course, "theory of mind" is biologically-based (Baron-Cohen, 1989) with its own timetable, but it may be speeded up or slowed down by attachment factors.

Reflective functioning or mentalising can be defined as the ability to understand self and others in terms of mental states (feelings, beliefs, intentions and desires), and the capacity to reason about one's own and other's behaviour in terms of mental states (Fonagy et al 1996). It is described as being a natural development unless both the absence of a safe relationship and the experience of maltreatment in the context of a close relationship inhibit it. As theory of mind and reflective-self function are thought to develop in the context of intense interpersonal relationships, the fear of a mind of another would have detrimental effects on the development of understanding the attitudes, intentions, plans of others. A child who feels rejected and unloved by her parents would avoid thinking about what others feel and what she feels and

thinks, and evade the mental world so that she does not acquire reflectiveness of her own thoughts and feelings or the thoughts and feelings of others (Fonagy et al, 1995).

Fonagy, Moran, Steele, Steele & Higgitt (1991) developed the Reflective-Self Function (RSF) scale as a way of coding Adult Attachment Interviews on the individual's ability to understand mental states and their readiness to think about these in a coherent manner (see method section). RSF looks at the individual's capacity to:

- 1) see and understand oneself in terms of mental states (feelings, intentions, beliefs) and to reflect on one's own thoughts, and
- 2) contains an interpersonal component to see and understand others and their behaviour in terms of mental states.

Fonagy, Steele, Steele, Leigh et al (1996) applied the RSF scale to Adult Attachment Interviews from a sample of psychiatric patients and non-psychiatric controls, and this study indicated that patients diagnosed with psychiatric disorders scored lower on the Reflective-self Function than controls. They concluded that the borderline personality disorder group tended to avoid of thinking about their thoughts and feelings and those of others (related to early abusive experiences) and this had become generalised to all subsequent intimate relationships. This lack of reflective functioning had become a core part of their psychopathology, and reduced their capacity to come to terms with their early experiences, leaving them more vulnerable to interpersonal stress (Fonagy et al, 1996).

In relation to the present study, a small group of eating disordered adults in Fonagy et al's (1996) study (n=14) scored significantly lower on reflective-self functioning than non-psychiatric controls, and those diagnosed with depression, anxiety or substance abuse disorders. Armstrong & Roth, (1989) have described eating disordered patients as having difficulty in talking about their inner world, making attachment research with this population difficult. It could be that they show a limited capacity for reflective-self functioning, which would affect how they relate to others, and could have implications for therapy. One aspect of the present study will be assessing the individual's ability to talk about their inner world by looking at their capacity to reflect on their own thoughts and feelings and the thoughts and feelings behind the behaviour of others, particularly their caregivers.

1.3.9 Attachment and Symptomatology

Using the Adult Attachment Interview researchers have started to look at the relationship between attachment strategies and psychiatric symptomatology. Studies of psychiatric adult and adolescent populations (Allen, Hauser & Borman-Spurrell, 1996; Dozier, 1990; Dozier, Stevenson, Lee & Velligan, 1991; Rosenstien and Horowitz, 1996) support the notion that defensive (insecure) attachment strategies are prevalent in those with histories of severe psychiatric problems. Van Ijzendoorn and Bakermans-Kranenburg's (1996) meta-analysis of 33 studies did not find systematic associations between specific clinical diagnoses and attachment classification, although maltreated samples (Crittenden et al, 1991), depressed adults

(Rosenstein & Horowitz, 1993) and borderline adults (Fonagy et al, 1996) showed an over-representation of preoccupied attachments. The meta-analysis also found more individuals classified as unresolved on the AAI in clinical samples (40%), compared to non-clinical mothers (19%) and non-clinical adolescents (20%). Fonagy et al (1996) found a large proportion of their clinical sample were classified as unresolved on the AAI (76%) compared to a small number in the control sample (7%).

In particular, Rosenstein and Horowitz's (1996) study of attachment classification and psychopathology in 60 psychiatrically hospitalised adolescents found that those with *dismissing* attachment organisation were more likely to be diagnosed with a psychiatric disorder in which distress tends to be *minimised*, such as conduct disorder, substance abuse disorders, and narcissistic or antisocial personality disorder. In comparison, adolescents with a *preoccupied* attachment organisation were more likely to be diagnosed with psychiatric disorders reflecting *high levels of affective distress*, such as affective, histrionic or borderline personality disorder.

With particular relevance to the present study, Cole-Detke and Kobak (1996) compared older adolescents with depressive symptoms to those with eating disorder symptoms, and found that the eating disorder group were predominantly dismissing in attachment style, whereas the group with depressive symptoms had a predominantly preoccupied style of attachment. This study will be discussed further, but before describing more attachment-related research in eating disorder populations, the theoretical links between attachment theory and eating disorders will be reviewed.

1.4 ATTACHMENT AND EATING DISORDERS

1.4.1 Attachment and Eating Disorders - Theory

Bruch (1973) argued that a main predisposing factor in the development of anorexia nervosa is a particular early mother-daughter relationship, in which there is a lack of appropriate responses from the mother to her daughter's needs. The mother tends to act on her own need to feel in control, so the needs of the infant remain poorly differentiated and she tries to comply with what she thinks are her mother's needs. At adolescence her biological and psychological needs remain blurred and she is unable to cope with the demands of individuation and separation. Bruch's theory explains the anorexic's lack of sense of separateness and pervasive sense of ineffectiveness, and accounts for the development of a deficit in the processing of bodily cues which may underlie the body-image disturbance (Eisler, 1995). However, her theories are difficult to empirically evaluate. Indirect evidence comes from retrospective studies of childhood care, some of which are reviewed in section 1.4.2.

Masterson (1977) described the early mothering of anorexics as rewarding of dependency and threatening emotional abandonment when there are signs of the child moving towards separation or independence. This causes the child to have an overwhelming fear of abandonment and becomes confused in attempts to separate and individuate at adolescence. The mechanism used to cope with the fear and confusion are to avoid physical maturity (remaining thin) as analogous to delaying or avoiding independent psychological functioning.

The hypothesised over-intrusiveness and protectiveness of the mother described by Bruch (1973) and Masterson (1977), would not allow the infant to develop adaptive ways of coping with distress and anxiety associated with the threat of separation. Attachment theory would predict that such children would develop insecure attachment strategies, which would be shown when the attachment system is threatened. Armstrong and Roth, (1989) discussed the anorexic's 'morbid pursuit of thinness' in the context of attachment theory, and described the anorexic as lacking or misperceiving their own resources, and therefore tending to excessively depend on others in order to feel safe and secure. This sense of basic inadequacy and helplessness, with insecure neediness is indicative of anxious attachment. In the context of the importance based on thinness in our culture (Hill, 1993), Armstrong and Roth suggested that such individuals may come to rely on weight loss and dieting as a means of establishing and controlling the availability of attachment figures.

Guidano (1987) has related attachment problems described in eating disordered adolescents to his perceptions of their parents as "extremely attentive to formal aspects of life – especially social appearances" (p.156). There is a tendency to conceal any personal difficulty, and they come across as parents entirely dedicated to the well being of their child. But Guidano believes that their parenting behaviour is more directed towards obtaining for themselves a confirmation of that image than at fulfilling their child's concrete need for emotional support. Guidano attributes part of the difficulties in separation to what Minuchin et al (1978) described as 'enmeshed families', "... boundaries that define individual autonomy are so weak that

functioning in individually different ways is radically handicapped” (p.30). Under these conditions children develop an unreliability about their ability to recognise and properly decode their inner states. It is only within an ongoing relationship with an attachment figure that they can infer what is “permissible” to feel and think (Guidano, 1987).

An adolescent, with the emergence of abstract thought, begins to see her parents in a different way, less idealised. This change of image is not usually distressing for adolescents because it supports their emerging sense of individuality and begins cognitive-emotional separation from the family. However, Guidano (1987) explains that girls prone to eating disorders, in order to achieve a stable sense of self, keep their perceptions of a parent as idealised, because reappraisal of that model would be experienced as a disappointment, as it questions one’s established sense of self. This ongoing idealisation could hinder the adolescent separation process.

O’Kearney (1996) explains that it would be difficult to predict which type of insecure attachment - insecure resistant or insecure avoidant - is involved in anorexia. It is assumed that avoidant strategies develop when a child’s model of carers lead them to assess the probability of gaining access to carers as low. However, avoidance of the attachment system is never entirely successful because of our need to gain access to the attachment figure for comfort when coping with distress and anxiety (Main & Solomon, 1990). So efforts to deactivate the attachment system must continually redirect attention from attachment to other goals that may be more successful, such as dieting. Cole-Detke and Kobak (1996) consider that the

focus on appearance may serve as a diversionary function by redirecting attention from attachment to more attainable goals. It could be that the anorexic's focus on her body allows her to dismiss the importance of family and peer relationships and avoid the anxiety involved in separating from family and making closer peer attachments, or to avoid these attachment changes. Also, an externally orientated attention set may increase the individual's susceptibility to sociocultural pressures of thinness which are thought to play an important role in the development of eating disorders (Garner & Garfinkel, 1980). Alternatively, the emphasis on body shape/weight could be a type of hypervigilance to others' perceptions of her and to the possibility of criticism, rejection and abandonment (Striegel-Moore, Silberstien & Rodin, 1993). O'Kearney (1996) seems to agree that in either case, the anorexia may function to maintain the predictability in her closeness to her parents.

Armstrong and Roth (1989) have attempted to understand bingeing in terms of attachment theory. They consider that bulimic families have been characterised as disorganised and conflictual (Root, Fallon & Friedich, 1986), and parents who are preoccupied with social, financial and interpersonal difficulties may not be able to consistently perceive and meet their children's needs for security. The child may learn that from these experiences that others will be unavailable or insensitive when in need of support (i.e. develop an avoidant attachment strategy). She may use bingeing as a method of self-soothing when threatened.

O'Kearney (1996) has also predicted insecure attachments with bulimia, with bingeing seen as an attempt to maintain a sense of connection and avoid the anxiety

associated with separation. He has linked the lack of control associated with binge eating to the uncontrollable distress connected with separation for the insecure-resistant type of attachment. However, he concludes “more precise predictions about the type of insecure attachments expected for bulimia are not possible from existing theoretical models” (O’Kearney, 1996).

Bulimic symptoms have been associated with high levels of dissociative experiences (Everill & Waller, 1995), and there have been hypothesised links between dissociation and disorganised (unresolved) attachment status (Liotti, 1995). In addition to an association with insecure attachment (O’Kearney, 1996) bulimics might be more likely to have a disorganised attachment style in childhood, particularly if abuse occurred (and the attachment figure was perceived as frightening). According to Liotti (1995), they would be more vulnerable to using dissociation as a defense, so that difficult or traumatic memories would not be easily processed and lead to the individual remaining unresolved to the trauma or losses they experience. By continuing to use dissociation as a way of cutting off from these unresolved painful memories, the individual is prevented from processing the associated cognitions and affect. The bulimic symptoms remain, as either a purposeful way of cutting off from emotional pain – i.e. become totally absorbed in eating in a binge (as Lacey, (1986) conceptualised). Or the dissociation is not in their control, and once in a dissociated state it is easier to become absorbed in a binge and, as Heatherton & Baumeister (1991) seem to suggest, once the cognitive state is narrowed they become disinhibited to such behaviour.

1.4.2 Attachment and Eating Disorders: Research

The majority of the literature examining the association of attachment and eating disorder pathology is based on clinical case studies. These discuss eating disorder symptoms in the context of the relationship disturbances in object relations (Sugarman and Kurash, 1982; Sours, 1980), and failures of separation and individuation (Bruch, 1973, 1978; Masterson, 1977). This literature tends to rely on observations of eating disordered individuals and their families and relating these to a theoretical argument (O’Kearney, 1996). A small part of the literature is based on more empirical studies, and some of those that have specifically investigated attachment-related issues are reviewed in this section.

Various studies have used the Parental Bonding Instrument (PBI; Parker, Tupling & Brown, 1979), a 25 item questionnaire designed to assess the perceptions of maternal and paternal care and protection during the first 16 years of childhood. The respondent describes their childhood relationships with each parent on the dimensions “care” which relates to empathic responsiveness, and “protection” which relates to the parent’s support and tolerance of autonomy. Palmer, Oppenheimer and Marshall (1988) found that eating disordered individuals reported their mothers as less caring, i.e. less warm, affectionate and empathic, but did not differ from a normative sample in terms of perceived maternal or paternal protection. Only those with bulimia described their fathers as less caring. Russell, Kopec, Rey & Beaumont (1992) used the PBI to compare adolescent anorexic patients with normal controls and an assorted groups of psychiatric patients and found that anorexics’ reports of their childhood experiences were more like those of control subjects than the

psychiatric patients. Furthermore, Kent and Clopton's (1992) study of female college students, in which they identified a subgroup of bulimics, found that the bulimics did not differ from the controls on the PBI.

These studies have found few differences between eating disordered participants and controls on individuals' perceptions of their parents on dimensions of care and protection. Therefore, they do not seem to fully support the psychodynamic and systemic accounts of eating disorders reviewed in section 1.4.1, which describe (in different ways) families of anorexic girls as inhibiting the development of autonomy. But some of these results may be accounted for by Guidano's (1987) notion of eating disordered patients idealising their parents, so reporting experiences with them in a positive way. However, Rhodes and Kroger (1992) used the PBI and the Separation-Individuation Test of Adolescence (SITA; Levine, Green, & Millon, 1986) to look at aspects of attachment by comparing 20 late adolescent women with a diagnosis of anorexia nervosa or bulimia with age-matched non-eating disordered women. In contrast, to the previous studies reviewed, on the PBI, eating disordered women scored lower on maternal care and maternal protection (i.e. less supportive of autonomy) than student controls, but there were no significant differences between groups for fathers. The SITA was developed on the premise that separation-individuation issues are likely to be reworked in adolescence. The participant rates 103 items on a 5-point Likert scale, which make up eight subscales: Separation Anxiety, Engulfment, Dependency Denial, Symbiosis Seeking, Nurturance Seeking, Enmeshment Seeking, Self-centredness and Healthy Separation. Rhodes and Kroger (1992) found significant differences between the eating disordered and control

groups on some of the SITA subscales, and suggested that eating disordered adolescents may experience anxiety over separation, engulfment, and rejection or abandonment. The differences between eating disordered adolescents' and controls' scores also suggested a higher level of conflict over dependence and independence needs as well as over intimacy and autonomy among the eating disorder group.

Rhodes and Kroger (1992) suggest that although the combination of maternal overprotection and lack of care seems paradoxical, excessive parental anxiety could prevent meaningful care (Parker, 1989). These findings seem to support Guidano's observations (reviewed in section 1.4.1) that mothers of eating disorder prone girls tend to be protective and dedicated to the well being of their child, but in trying to create this image of themselves, they lack empathy. These results also support accounts which described eating disordered adolescents as having difficulties with separation and individuation. However, this study included a fairly small sample of eating disordered older adolescents (n=20), which make the results less reliable.

One main criticism of the above studies is a methodological issue relating to what is being measured in terms of attachment. The PBI only relies on memories of attachment-related experience with parents and does not assess the full range of attachment beliefs, expectations, strategies that make up the individual's internal working model of attachment.

Armstrong and Roth (1989) attempted to look at attachment issues using the Adolescence Separation Anxiety Test (SAT; Hansburg, 1986) to assess 27

hospitalised women diagnosed with anorexia nervosa, bulimia nervosa or ‘atypical’ eating disorder, and compared their responses to non-eating disordered samples from other studies. The SAT is composed of a series of pictures depicting a child separating from an attachment figure, which are considered to range from typical everyday separations to strongly stressful situations that depict the loss of relationship. The respondent is asked to choose from sentences to describe how the child feels and these responses are then grouped into nine response patterns that tap general ways of dealing with separation. Affective responses to SAT scenes are perceived as manifestations of strongly held beliefs that have developed from family interactions. Within the context of separation they are forced to face how well they believe they can take care of themselves and whether the relationship can be restored, as well as the idea of forming new attachments outside the family. Armstrong and Roth (1989) reported that 96% of the eating disordered group showed anxious attachment and 85% showed extreme separation depression. No differences were found between the subtypes of eating disorders. The anxious attachment and separation depression shown by eating disordered patients in response to SAT scenes are perceived as resulting from the activation of affective memories concerning “mothering” and self-schema of how one sees oneself and one’s relationships. Their responses were compared with young women who were thought to be dealing with separation issues such as intimacy, as indicated by an interview measure of their resolution of the task of intimacy versus isolation (Erickson, 1963), and those dealing with identity formation, based on an interview measure (Marcia, 1966). Armstrong & Roth (1989) reported that in comparison to these groups the eating disordered sample showed extreme dysfunctional reactions to separation.

As previously mentioned, using the Adult Attachment Interview (AAI; George, Kaplan & Main, 1985), Cole-Detke and Kobak (1996) compared older adolescents (college women) who reported depressive symptoms with those who reported elevated levels of eating disorder symptoms, on attachment style. Eating disorder tendencies were identified as one standard deviation above the mean on three scales of the Eating Disorders Inventory (EDI; Garner et al., 1983), and participants scoring over one standard deviation above the mean on the Beck Depression Inventory (BDI; Beck et al, 1979) were considered to have depressive tendencies. Those participants who met depressive criteria but scored below the mean on the eating disorder scales were selected for the depression group, and those who met eating disorder criteria but were below the mean on the BDI were selected for the eating disorder group. They found those reporting only eating disorder symptoms were predominantly dismissing (67%), whereas those reporting depressive symptoms showed a tendency toward preoccupation (43%). Those reporting high levels of both eating disorder and depressive symptoms were predominantly preoccupied (53%). This suggests that AAI classification did differ according to symptoms. Cole-Detke and Kobak (1996) found that eating disorder symptoms was uniquely associated with denial or minimisation of anger toward parents and a tendency toward a restricted processing of attachment information, as well as a lack of co-operation and insight in the interview.

However, in Cole-Detke and Kobak's (1996) study those identified as having eating disorder symptoms may not have reached a clinical diagnosis of an eating disorder. Also, they only included in the eating disorder group those who indicated disturbed

eating but did not show high levels of depression, but in clinical samples, individuals diagnosed with eating disorders tend to also report depressive symptoms (Cooper & Fairburn, 1986; Hudson & Pope, 1987). Therefore, this study cannot be applied with confidence to clinical eating disordered populations. But in support of Cole-Detke and Kobak's findings, Fonagy et al (1996) used DSM-III-R structured clinical interview to diagnose patients, and those with depression were differentiated from the eating disorders group on some AAI scales. Idealisation of parents was found to be positively associated with a diagnosis of eating disorder and negatively associated with depression. Fonagy et al (1996) discuss the relationship between a diagnosis of eating disorder and idealisation of parents relating to the clinical observations that eating disordered patients tend to be perfectionists (Slade, 1982) whose eating disorder may stem from their extremely high standards which may be based on living up to the unrealistically positive image of the parent(s).

Although Armstrong and Roth's (1989) study may have been assessing working models of attachment using the SAT, their study included only hospitalised patients, which weakens the external validity of their results. Also, they included a wide age range of women (17 to 43 years) with eating disorders, and did not specifically look at symptomatology. The studies which used the AAI (Cole-Detke and Kobak, 1996; Fonagy et al, 1996) did not distinguish types of eating disorders by symptomatology, and Fonagy et al's (1996) sample of patients diagnosed with an eating disorder was relatively small (n=14). A more complete analysis requires an understanding of the association between attachment and eating disorder symptomatology. Some of these issues will be addressed in the present study which uses measures of

symptomatology and attachment status (Adult Attachment Interview) with a sample of adolescent girls with diagnosed eating disorders, and includes a mixture of inpatients and outpatients.

1.5 THE PRESENT STUDY

This investigatory study looks at the attachment patterns of adolescent girls who have a diagnosis of anorexia nervosa restricting type (AN-R), anorexia nervosa bulimic type (AN-B), or bulimia nervosa (BN) - and the attachment patterns of their mothers. It aims to examine eating disorder symptomatology and attachment styles.

Everill & Waller (1995) have suggested that in some cases dissociation may have a role in the development and maintenance of bulimic symptomatology. This study investigates dissociative experiences among eating disordered adolescents, and how dissociation may relate to symptomatology, particularly bulimic symptoms and other tension-reducing behaviour such as self-harming and drug/alcohol use. Within the context of attachment theory, it has been suggested that dissociation may be related to early disorganised status of attachment, which is associated to the unresolved attachment status of the child's caregiver. Despite the recent focus on dissociative experiences in eating disorders, and the attention of attachment theorists to dissociation and disorganised/unresolved status, these ideas have not been looked at together, and this study aims to do this.

1.5a) Attachment Related Hypotheses

- i) It is predicted that patients with eating disorders will show an increased level of insecurity relative to non-clinical populations, from published studies.
- ii) Based on literature suggesting that attachment styles are transmitted from one generation to the next, it is predicted that there will be a concordance in attachment patterns between mothers and daughters.
- iii) It is predicted that eating disordered individuals will score low on Reflective-self Functioning, in line with Fonagy et al, (1996).
- iv) Reflective-self functioning in mothers and daughters are predicted to be concordant, and low levels of reflective-self functioning in mothers are predicted to be associated with insecure attachment patterns in daughters.
- v) It is predicted that different attachment patterns will be associated with different diagnoses of eating disorders (BN, AN-B, AN-R) and levels of symptomatology, specifically binge/purge behaviour, self-harming and drug/alcohol use.

1.5 b) Dissociation Related Hypotheses

- i) High levels of dissociation are predicted to be related to lack of resolution and mourning status of AAI (lack of resolution is predicted to be related to childhood trauma), and to lack of resolution and mourning status in the mother's AAI.
- ii) High levels of dissociation are predicted to be associated with higher levels of binge-purge symptomatology, self-harm, and use of drugs/alcohol.

2. METHOD

2.1 PARTICIPANTS

Participants were 25 adolescent girls, with a diagnosed eating disorder - anorexia nervosa, anorexia nervosa bulimic type, or bulimia nervosa (DSM-IV criteria, American Psychiatric Association, 1994), and 21 mothers of the adolescents. Experienced psychiatrists or clinical psychologists working with the patients at the clinics made diagnoses. Of the 25 adolescents, 9 met DSM-IV criteria for a diagnosis of anorexia nervosa, 4 anorexia nervosa bulimic type, and 12 were diagnosed with bulimia nervosa. The average age of the adolescents was 16 years, ranging from 13 to 19 years. The average length of time that the girls had been ill with an eating disorder was just over a year (13.1 months). One adolescent had been known to have an eating disorder for about 4 ½ years, and this brings up the average to over a year, but most participants had been suffering with an eating disorder for under a year. The average Body Mass Index of the adolescents was 19.1, which is just below the normal range. According to their Body Mass Index, 9 were within normal range (BMI 20-25), 11 were underweight (BMI 17-19), and 4 were morbidly underweight (BMI <17).

All participants were white, with two families of southern European origin. Social class, based on the occupation of the parents, was mixed with 60% of the sample in social class I or II (professional and managerial occupations), according to the U.K. Registrar General's Classifications of Occupations (Office of Population Censuses and Surveys, 1991).

The adolescents were recruited from the Eating Disorder Clinic at the Maudsley Hospital, Rhodes Farm Clinic and the Northgate Clinic. Those attending the Maudsley hospital were all outpatients, except for one inpatient, whereas all those at Rhodes Farm and the Northgate Clinics were inpatients. Of the total sample, 15 were outpatients and 10 were inpatients. 16 participants were recruited from the Maudsley clinic, 5 from Northgate Clinic and 4 from Rhodes Farm Clinic. Both the Maudsley and Rhodes Farm clinics are specialised eating disorders services for adolescents, and the Northgate Clinic is a regional psychiatric service for adolescents, which treats some adolescents with eating disorders. The Maudsley Hospital and the Northgate Clinic are NHS clinics and tend to see a mixture of anorexic and bulimic patients, whereas Rhodes Farm Clinic is a private inpatient clinic which mainly takes in restricting anorexics, and many of the referrals have funding from their regional health authorities. However, with these patients there was some movement between clinics; two patients who were seen as outpatients at the Maudsley clinic went on to be seen as inpatients at Rhodes Farm Clinic.

All participants were being seen in family therapy, and had been seen by therapists on at least one or two occasions before being recruited for the study. As well as family therapy some of the patients were having individual psychotherapy, and some patients at the Northgate Clinic were attending an eating disorders group.

The mothers of the eating disordered patients were recruited from each of the clinics and were involved in family therapy at the time of the study. 21 mothers participated in the study. Of the four mothers who did not participate, three did not wish to

participate, one adolescent had been fostered and had no contact with her natural or foster mother. One mother's interview could not be used because of a problem with the recording, giving a total of 20 mothers' interviews.

2.2 MEASURES

The Adult Attachment Interview

The Adult Attachment Interview (AAI) (George, Kaplan and Main, 1985) is a semi-structured interview that consists of 15 questions focusing on the description of early childhood attachment relationships and experiences (see appendix I for summary of interview questions). The questions aim to elicit from the interviewee a narrative concerning their childhood relationships with their parents and other attachment figures, changes in these relationships over time, and evaluations concerning why they feel their parents behaved the way they did during their childhood. Participants are first asked to give an overview of early relationships with their parents and then to select five adjectives to describe their childhood relationship with their mother. The interviewer asks for memories or a specific incident that could illustrate each adjective, and repeats the procedure with reference to the childhood relationship with the father. The participant is asked which parent they were closer to in childhood and why, and other specific questions include asking what the individual felt as a child when she was upset, hurt, ill, and separated from parents, whether she ever felt rejected as a child and whether their parents were likely to have known how they felt. Also, the interview includes careful probing around the topics of physical and sexual abuse as well as loss of loved ones during and since childhood.

Interviews normally last between 60 and 90 minutes. They were either video or audio recorded and transferred to audiotape to be transcribed verbatim. The interviews were rated on scales relating to attachment history and current state of mind concerning attachment, and then assigned to one of three main categories, (Main and Goldwyn, 1985/1991). The three major classification groups are Autonomous Secure (F), Insecure-Dismissing (D), or Insecure-Preoccupied or Entangled (E), with some interviews also being placed into an additional category pertaining to loss and/or trauma, classed Unresolved (U). The classification depends particularly on the goodness of fit between generalised evaluations of relationships and specific interactions recalled, rather than on the quality of the interviewee's probable past experience.

The ratings of an interviewee's current state of mind concerning attachment are particularly related to questions about whether they felt their parents knew how they felt (e.g. when distressed as a child), why their parents behaved as they did during their childhood, whether they felt her childhood has had an influence (either positive or negative) upon who they are now, and whether their relationship with their parents has changed since childhood.

The psychometric properties of the AAI have been assessed, and generally inter-rater agreements on the major classifications (D, E, F or U) have been very high, around 90% across a number of investigations. Discriminant validity has been shown to be quite good, with studies showing no variability in AAI classification with

psychometric measures of memory, intelligence, social desirability (Bakermans-Kranenberg & Van Ijzendoorn, 1993), verbal skills, neuroticism, age or occupation (Steele, 1991). Test-retest reliability of the AAI has been shown in two studies: Bakermans-Kraneneberg and Van Ijzendoorn (1993) reported 71% of interview classifications (D, E, F, U) remained stable over one month ($\kappa=0.56$), and Steele (1991) reported 77% stability of interview classifications (D, E, F) over at least one month ($\kappa = 0.63$).

A meta-analytic study of attachment representations in mothers, fathers, adolescents and clinical groups, using more 33 studies, (van Ijzendoorn & Bakermans-Kranenburg, 1996) found that adolescent AAI classification distribution was not significantly different from the non-clinical mother distribution. Van Ijzendoorn and Bakermans-Kranenburg (1996) concluded: “The AAI appears to be applicable to adolescents: The whole range of classifications has been found to be necessary to describe the adolescents’ state of mind with respect to attachment” (p.18).

Reflective-Self Function (RSF) Scale

The AAI lends itself to other coding systems, one of which is Reflective-Self Function (RSF) scale. Fonagy, Moran, Steele, Steele & Higgitt (1991) developed this as an extension to Main’s (1991) ‘metacognitive’ scale in their attempt to provide a model of intergenerational attachment. The interview is coded on the individual’s ability to understand mental states and their readiness to think about these in a coherent manner. RSF looks at the individual’s capacity to see and understand

oneself in terms of mental states (feelings, intentions, beliefs) and to reflect on one's own thoughts, but also contains an interpersonal component to see and understand others and their behaviour in terms of mental states. The scale is partly based on the AAI metacognitive monitoring and single versus multiple models of attachment (Main, 1991), and it operationalises the idea of individual differences in individuals' metacognitive capacities. The following description of the scale is based on the manual developed by Fonagy, Steele, Steele, Target & Schachter (1996).

It is a 9-point scale with operationally defined anchor points at 1, 3, 5, 7, 9. Transcripts are given a single rating based on their entire content. Raters mark the presence or absence of a reflective stance in relation to self or other and use the frequency of these statements to score the interview from 1 to 9. A summary of the different types of reflective understanding the rater seeks to find is as follows:

1. Special mention of mental states as in examples representing self or other as thinking and feeling. The anticipation of the reaction of another, which takes into account the other's perception of the mental state of the self would be rated as reflective.
2. Sensitivity to the characteristics of mental states, i.e. recognition of the limited powers of wishes, thoughts, and desires with respect to the real world.
3. Sensitivity to the complexity and diversity of mental states, as shown by the explicit recognition of the possibility of diverse perspectives on the same event.
4. Efforts at linking mental states to observed behaviour as shown by remarks that people may express different emotions to the ones they feel and may intentionally wish to deceive by presenting themselves in self-serving ways.

5. Appreciation of possibility of change in mental states, with implications for corresponding changes in behaviour, as shown in recognition of the possibility of changing attitudes in the future.

A brief summary of the ratings is:

-1 Negative RSF is only given to interviews where the interviewee resists taking a reflective stance throughout the interview. -1(A) if the interviewee responds with hostile refusal; -1(B) when inexplicable bizarre or inappropriate attributions are made by the interviewee.

1 Lacking RSF is given to interviews where the reflectiveness is almost or totally absent. 1(A) Disavowal is given where there are at least three instances of assertion of ignorance concerning mental states. 1(B) Distorting/Self-serving is given when the interviewee's answers are egocentric or self-serving, as if the individual wants to present herself in a favourable light.

3 Questionable or Low RSF is given to interviews which show some consideration of mental states but only at a fairly basic level and references to mental states and their impact on behaviour are not made explicit. 3(A), Naïve-Simplistic - where the understanding of others is superficial or banal, often with use of clichés. 3(B), Over-analytical or Hyperactive RSF - when the interview seems quite reflective but unintegrated and do not seem to link to the individual's experience.

5 Ordinary RSF give convincing indications that the interviewee has some kind of a model of the mind of attachment figures as well as their own mind.

7 Marked RSF interviews have many statements throughout the interview indicating full reflective function showing the nature of mental states and explicit attempts at drawing out mental states underlying behaviour.

9 Exceptional RSF rating is given to interviews which show a consistent reflective stance across all contexts; spontaneous reflective function is shown when discussing different relationships at different times in their life.

RSF ratings were reported to be independent of ethnicity, socio-economic status, and verbal intelligence (Fonagy et al 1991). Fonagy et al (1996) report good statistical properties of the RSF scale, with high reliability after training; a product moment correlation between two raters reviewing all transcripts was 0.91 in their study. In order to rate AAI on RSF for the present study, I attended a two-day training with the authors of the manual. Inter-rater reliability on the transcripts rated from the present study was 0.94 (Pearson correlation).

Dissociative Experiences Scale II

The Dissociative Experiences Scale II (DES II; Carlson & Putnam, 1992; Bernstein-Carlson & Putnam, 1993) is a 28-item self-report questionnaire, measuring the extent of dissociative experiences. The respondent is instructed to circle a number for each item that best describes the percentage of time they have the experience. Items include: driving or riding in a car or bus and suddenly realising that you don't remember all or part of the journey; finding that you are able to ignore pain; and hearing voices inside your head telling you to do things. It includes three subscales

that measure the presence of types of dissociative experience: (1) amnesic dissociation (e.g. memory loss); (2) absorption and imaginative involvement (e.g. daydreaming); and (3) depersonalisation and derealization (e.g. identity confusion).

The DES has been shown to have high test-retest reliability, ranging from 0.96 with a 4-week retest interval (Frischholz et al, 1990) to 0.79 for an 8-week retest interval (Pitblado & Saunders, 1991). These studies used a range of participants including non-clinical adults and adolescents, and patients diagnosed with dissociative disorders. Studies have demonstrated that people who would be expected to score high on the DES do acquire high scores, so that patients diagnosed with dissociative disorders score higher than other diagnostic groups, and patients with Post Traumatic Stress Disorder (PTSD) score fairly high, which is consistent with descriptions for high dissociative symptoms in this population, whereas adults from the general population score quite low on the DES.

DES scores have been compared with other fairly new dissociation scales; for example Frischholz et al (1991) reported a correlation of 0.52 between the DES and the Perception Alteration Scale, which is good. DES scores have also been correlated with measures of constructs related to dissociation, for example Frischholz et al (1992) found that DES scores were related to individual differences in hypnotisability. Scores on the DES have not been found to correlate with variables thought to be theoretically unrelated to dissociation, such as socio-economic status, sex, education, religion, and race (Ross, Joshi & Currie, 1990; Branscomb, 1991). DES scores and age correlate weakly, with young people scoring higher. It may be

that younger people do have more dissociative experiences, or they may be more willing to report their dissociative experiences, or they may interpret their experiences as similar to those described in the DES.

Bernstein-Carlson & Putnam (1993) reported that a score of 30 or above indicates those with a disorder which has a considerable dissociative component (e.g. multiple personality disorder or post-traumatic stress disorder). They also suggest that scores of over 20 or 30 on the DES would lead the clinician to want to know more about the client's dissociative experiences. Therefore, in this study I have used a cut-off score of 30 to indicate considerable dissociative symptoms.

Bernstein-Carlson and Putnam (1993) have reported on various studies which have collected data from a range of clinical and non-clinical populations which included, among others, several studies using adults and adolescents in the general population and patients with eating disorders. Therefore, DES scores can be compared to the scores cited in these groups to compare levels of dissociation.

Eating Disorders Inventory

The Eating Disorder Inventory (EDI) (Garner, Olmstead, & Polivy, 1983) is a self-report questionnaire designed to assess constructs presumed to be characteristic of patients with anorexia nervosa and bulimia. It is a 64-item rating scale, and respondents are asked to rate statements according to how frequently they behave or think or feel in a certain way. The questionnaire is scored on eight sub-scales:

(1) Drive for thinness; (2) bulimia and (3) body dissatisfaction; (4) ineffectiveness; (5) perfectionism; (6) interpersonal distrust; (7) interoceptive awareness; and (8) maturity fears. The first three consist of items directly concerned with weight and eating, and the other scales are not directly related to these issues.

The construction and validation of the EDI included test results obtained from groups of eating disordered subjects and comparison groups matched for gender, age and socio-economic status. The EDI scales clearly distinguished between the controls and those with eating disorders (Garner, Olmstead & Polivy, 1983), which supports the validity of the scales. There was also good agreement between patients' self-report profiles and the clinical judgements of experienced clinicians. Garner et al (1983) found that normal weight patients diagnosed with bulimia scored significantly higher than normals on EDI subscales related to Bulimia, Drive for Thinness and Body Dissatisfaction. In a study comparing bulimics and anorexics, both groups scores similarly on all EDI subscales except Maturity Fears on which the anorexic patients scored higher (Garner, Garfinkel & O'Shaughnessy, 1985). Normative and reliability data have been provided for adolescents aged 11 to 18 years (Shore & Porter, 1990) which are used for comparison in the current study.

The EDI has been demonstrated to have high internal consistency in the form of split-half reliability (Garner et al, 1983), and very high test-retest reliability ($r=0.96$) at three weeks interval (Wear & Pratz, 1987). The EDI was not designed to be used as the only means of screening for a diagnosis of anorexia nervosa, and must be confirmed by clinical diagnosis. In the current study the EDI was used in conjunction

with a clinical diagnosis by experienced clinicians working in eating disorders teams at three clinics.

The Bulimic Investigatory Test, Edinburgh (BITE)

The BITE (Henderson & Freeman, 1987) is a self-report questionnaire consisting of 36 items that are divided onto two sub-scales and an overall scale. It asks the respondent to rate the presence and extent of a number of behaviours that are present in bulimic eating disorders. Henderson and Freeman (1987) have suggested cut-off scores, where a score at or above that level is “indicative of the presence of a severely disordered eating pattern”. The Symptom subscale (30 items; overall range: 0-30; cut-off score = 20) asks the subject to rate the presence or absence of a set of attitudes and behaviours that are related to bulimia. The Severity subscale (6 items; overall range 0-39; cut-off score = 5) measures the extent of those behaviours. The two subscales can be added to give a Total score (overall range = 0-69; cut-off score = 25).

This questionnaire was selected because it is widely used and previously validated. Specifically, it is able to distinguish binge-eaters from normal subjects and also pick up less severe levels of pathology.

Beck Depression Inventory

The Beck Depression Inventory (BDI) (Beck, 1979) is a 21-item self-administered instrument designed to assess the severity of depression. The questionnaire consists of 21 groups of statements and after reading each group of statements the respondent circles the number next to the statement which best describes the way they have been feeling in the past week, including that day. The questionnaire takes 5-10 minutes to complete. It has become one of the most widely accepted instruments in clinical psychology for assessing the intensity of depression in psychiatric patients. The BDI score provides an estimate of overall severity of depression, and cut-off scores can be used to detect depression.

Cut-off scores: 10 to 20 indicates mild levels of depression

20 to 30 indicates moderate depression

>30 indicates severe depression. (Kendall et al, 1987)

Body Mass Index (BMI)

Information about the adolescents' height and weight were taken from their clinical notes. Although most case notes included this information, some did not, so height and weight were taken from the adolescents self report from an item in the BITE. These data are less reliable, so few analyses are based on the BMI. For one participant there was no information on height and weight.

The Quetelet Body Mass Index was calculated as the rates of weight divided by height square (m^2) i.e. $BMI = \text{weight}/\text{height}^2$.

Additional Interviews conducted as part of larger Maudsley study

As part of the larger study with adolescents with eating disorders at the Maudsley Hospital, all adolescents were administered parts of the Childhood Experiences of Care and Abuse Interview (CECA) after the AAI, and Mothers were administered the short form of the Camberwell Family Interview (CFI). These interviews have not been used as part of the analysis in this study.

Childhood Experiences of Care and Abuse (CECA; Bifulco, Brown & Harris, 1994)

The CECA is a retrospective interview, which focuses on the individual's objective reports (concerning behaviour) rather than subjective (concerning feelings) report of childhood experiences. In addition to asking about home life, it asks childhood relationships and experiences outside the family such as best friends, school, etc. In this study only those parts of the CECA which are complimentary to and not replicating the AAI were administered to adolescents at the end of the AAI. The information from the CECA has not been used in the present study, but will be used in the larger research project.

Camberwell Family Interview (CFI; Vaughn & Leff, 1976)

The short form of the CFI is a semi-structured interview which measures "Expressed Emotion" (EE). It covers a number of aspects of family life and can be rated reliably. EE scores the attitudes and behaviours that a relative expresses towards a symptomatic family member. The ratings are based on both feeling and behaviours expressed during the interviews and reported behaviour outside the interview. The mothers were administered the short form of the CFI before beginning the AAI.

2.3 PROCEDURES

Recruitment

Therapists working in the Adolescent Eating Disorder Team at the Maudsley Hospital were aware of this research project, and if there was a referral which they felt was appropriate to be included in the study, either myself or Dr Pugh was contacted. If the family therapy team thought that there was a high risk that being approached for a research interview would cause the patient to drop out of therapy, then the family were not approached at that time. Those families who were invited to participate in the study were met by one of the researchers and the study was explained as follows: That we were interested in family experiences in eating disorders and that we would like the mothers and daughters to be involved in the study which consists of being interviewed separately, and for the daughter to complete some questionnaires. They were reassured that the interviews were not part of their therapy, that it would not affect their therapy if they agreed or chose not to take part in the research, and that confidentiality would be maintained. It was explained that the interviews would probably take between an hour to an hour and a half. For those mothers and daughters who agreed to participate in the study, appointments were arranged at the Maudsley Hospital.

As 6 mothers and daughters had already been interviewed by Dr Pugh in the few months before I joined the study at the Maudsley Hospital, I wrote to these patients thanking them for participating in the interviews and asking them to complete a Dissociative Experiences Questionnaire (DES-II), which I had added to the study. I enclosed a stamped addressed envelope. Some of these were completed and returned

immediately, and others were followed up with a telephone call to try to increase the response rate. (See appendix II for letter)

At both Rhodes Farm and the Northgate Clinic all therapists involved in the care of prospective participants were met and the study was explained prior to the researcher inviting patients to participate. At the Northgate Clinic only those female adolescents with a diagnosis of an eating disorder were invited to participate in the study. At Rhodes Farm Clinic adolescents whose body weights were dangerously low were not included, for example some patients were being naso-gastrically fed. Letters were sent out to mothers, and information sheets given to daughters, explaining the study and inviting them to participate (see appendix IV). The letters were followed up by a telephone call to answer any queries that they might have and, if appropriate, to arrange a time for the interviews.

Interviews

Mothers and daughters were interviewed separately. Before starting the interview participants were given separate consent forms (see appendix V). All interviews at the Maudsley Hospital were video taped in the family therapy room and all interviews at the Northgate and Rhodes Farm Clinics were audio recorded.

Dr Pugh and myself conducted equal numbers of interviews. At the Maudsley Hospital interviews were conducted by either Dr Pugh or myself; at the Northgate and Rhodes Farm clinics all interviews were conducted by myself.

Daughters were administered the Adult Attachment Interview and those parts of the Childhood Experience of Care and Abuse interview (CECA) which had not been already covered by the AAI.

Following the interview, adolescents completed the following self-report questionnaires:

- Bulimic Investigatory Test, Edinburgh (BITE)
- Eating Disorder Inventory (EDI)
- Beck Depression Inventory (BDI)
- Dissociative Experiences Scale II (DES-II)

A detailed social and clinical history was available from the patients' case notes. Information about duration of illness, use of drugs/alcohol, previous self-harming (i.e. cutting, burning, small overdoses) and previous suicide attempts, was obtained from case notes, discussion with clinicians involved in the adolescents' care, and from questions in the CECA.

Mothers were administered the short form of the Camberwell Family Interview (CFI), followed by the Adult Attachment Interview (AAI) at the clinic at which they were attending for family therapy.

At the end of each interview the participant was debriefed; the interviewer listened to the participant's experiences of the interview and was supportive. At the inpatient units the interviewer handed over to the Charge Nurse on duty at the time of the interview, that the interview had been completed, and if the patient seemed distressed this was conveyed to the nurse, indicating the level of distress and perceived risk.

For mothers the debriefing included discussing ways of accessing further support for themselves, such as individual counselling/therapy if this was thought appropriate by the researcher.

The interviews were transferred to audiotapes and transcribed verbatim. The transcripts had identifying information removed, and were given numbers, so that it was not possible for the raters to link one mother's AAI with that of her daughter. The transcripts were rated by Dr Kate Pugh on scales relating to attachment status, and rated by myself using the Reflective-Self Functioning Manual (Fonagy, Steele, Steele, Target & Schachter, 1996). Twelve of the interviews were double rated blind by Dr Howard Steele for the purpose of inter-rater reliability for attachment status and reflective-self function.

2.4 DESIGN

This study is based on a correlational design utilising structured clinical interviews and questionnaires, which were administered on one occasion to adolescents with eating disorders and their mothers. In order to test the hypotheses, associations between the following variables were considered:

Attachment and Eating Disorders:

- i) Attachment patterns of eating disordered adolescents and non-clinical populations (from previous published research studies).

- ii) Attachment patterns of mothers and daughters – in different category groupings: 3-way dismissing, preoccupied, secure; 2-way secure, insecure; 2-way unresolved to trauma, not unresolved.
- iii) Reflective-self functioning in mothers and daughters.
- iv) Mothers' Reflective-self functioning and daughters' patterns of attachment.
- v) Adolescents' attachment patterns and diagnostic categories.
- vi) Adolescents' attachment patterns and symptomatology (BITE, EDI, self-harming, drug/alcohol use).

Dissociation, Symptomatology and Attachment

- i) Adolescents' symptomatology (BITE, EDI, self-harming, drug/alcohol use) and levels of dissociation (DES-II).
- ii) Adolescents' attachment patterns and levels of dissociation (DES-II). Attachment categories grouped as: 2-way secure/insecure, and 2-way unresolved/not unresolved.
- iii) Mothers' status as unresolved to loss/trauma or not unresolved and daughters' levels of dissociation (DES-II)

2.5 Ethical Approval

Maudsley Hospital: Ethical Approval had already been given for the study at the Maudsley Hospital for Dr Pugh research by the Ethical Committee (Research) at The Bethlem & Maudsley NHS Trust. I received ethical approval for my participation in the research with the addition of another questionnaire, the Dissociative Experiences Scale II.

Northgate Clinic: Ethical Approval was received from Barnet Research Ethics Committee.

Rhodes Farm Clinic: As this is a private clinic does not have its own ethics committee, I approached the Ethical Committee at the Bethlem and Maudsley NHS Trust to cover the study which originated there at another centre.

(See appendix II for Ethics Committees' Approvals.)

3. RESULTS

3.1 Overview

These results are organised in seven main sections. Firstly, a general description of the data about adolescents' symptoms is presented, and comparisons are made between diagnostic groups. Secondly, attachment classifications in adolescents and mothers are described, and associations between them are analysed. Thirdly, Reflective-self Functioning in mothers and adolescents is described, and associations are analysed. The fourth section examines associations between attachment and adolescents' symptoms. The fifth section includes analyses of the relationships between dissociation and eating disorder symptoms, and this is followed by analysis of the relationship between levels of dissociation and attachment categories. Finally, a summary of results is presented.

3.2 Adolescents grouped by Diagnosis

The adolescents were initially split into 3 diagnostic groups: anorexic restricting type AN-R (n=9), Anorexic bulimic type AN-B (n=4), and bulimics BN (n=12). Means on measures of eating disorder symptoms for each group are shown below in Table 1. However, a comparison among the three groups has not been made using one-way analyses of variance, because the sample size is small (AN-B group n=4) and the number in each group is very unequal. Therefore, the anorexic subtypes (AN-R & AN-B) were placed into one group, based on the clinical observations that the subgroups tend to be more "alike" than "different" (Garner, 1990) before further statistical analyses were conducted. The last column in Table 1 compares the mean

scores of eating disorder symptom variables for a separate group of AN-R and AN-B

when the two anorexic subgroups are joined together, with the bulimic group (BN).

Table 1: Adolescents split in 3-way diagnostic groups – means of eating disorder symptom variables, and comparison of anorexics (AN-R & AN-B) with bulimics (BN)

Symptom Variables: Means (& Standard Deviations)	Anorexia Restricting Type (AN-R) (n=9)	Anorexia Bulimic Type (AN-B) (n=4)	AN-R & AN-B groups collapsed (n=13)	Bulimia Nervosa (BN) (n=12)	t-test: AN-R AN-B (n=13) compared with BN (n=12)
Length of Illness in months	8.1 (7.8)	7.5 (5.1)	7.9 (6.9)	18.8 (15.1)	t=2.27 p=0.03
Age in years	15.6 (1.9)	15.5 (2.6)	15.6 (2.1)	16.5 (1.7)	N.S.
Body Mass Index	18.4 (2.1)	17.1 (1.8)	17.9 (2.0)	20.7 (2.5)	t=2.97 p<0.01
Bulimic Inventory Test Edinburgh(BITE)	17.4 (6.8)	22.5 (22.6)	19.0 (12.9)	33.0 (15.1)	t=2.45 p=0.02
Beck Depression Inventory (BDI)	27.3 (12.7)	24.3 (16.1)	26.4 (13.2)	28.7 (12.9)	N.S.
Drive For Thinness (EDI)	13.0 (5.5)	14.2 (9.7)	13.4 (6.7)	16.8 (4.3)	N.S.
Bulimia scale (EDI)	1.56 (2.3)	7.50 (7.5)	3.4 (5.1)	8.7 (5.3)	t=2.43 p=0.02
Body Dissatisfaction (EDI)	20.11 (6.9)	16.0 (11.9)	18.8 (8.4)	19.0 (9.3)	N.S.
Ineffectiveness (EDI)	12.89 (9.7)	14.5 (8.2)	13.4 (9.0)	16.3 (8.0)	N.S.
Perfectionism (EDI)	7.11 (6.9)	4.25 (3.9)	6.2 (6.1)	8.4 (5.6)	N.S.
Interpersonal Distrust (EDI)	6.89 (4.6)	5.5 (5.1)	6.5 (4.6)	8.8 (5.6)	N.S.
Interoceptive Awareness (EDI)	10.6 (7.5)	10.0 (5.7)	10.4 (6.8)	12.5 (6.8)	N.S.
Maturity Fears (EDI)	9.1 (8.3)	2.8 (2.2)	7.2 (7.6)	9.6 (7.7)	N.S.

N.S.= no significant differences among groups

The difference between the anorexic and bulimic groups on age did not quite reach significance, but the means in the table indicate that the normal weight bulimics were generally slightly older than the anorexics. However, when outpatients and inpatients were compared, inpatients were significantly older than outpatients in this sample, $t=24.0$; $p<0.05$. Most of this difference was accounted for by the Northgate Clinic Sample ($n=5$), all of whom were inpatients and aged between 17 and 19 years.

As expected, there was a significant difference between the anorexics and bulimics on Body Mass Index (BMI), with anorexics (restricting and bulimic subtypes) having lower mean BMIs than the bulimic group ($t=2.97$; $p<0.01$). There was also a significant difference in mean length of illness between the two groups ($t=2.27$; $p<0.05$), with bulimics generally being ill for longer than the anorexic group.

Table 1 shows high Beck Depression Inventory (BDI) scores for all diagnostic groups, indicating that these eating disordered adolescents reported high levels of depressive symptoms. Scores on the BDI between 20 and 30 indicate moderate depression, and scores above 30 indicate severe depression. In this sample almost half of the adolescents (46%) scored above 30 on the BDI. In comparing the anorexic group (AN-R & AN-B) with the bulimic group on depressive symptoms as measured by the BDI, there was not a significant difference between the two groups. However, when outpatients and inpatients were compared on mean BDI scores, there was a significant difference between the two groups, $t=22$; $p<0.01$, with inpatients scoring higher than outpatients, indicating that inpatients reported more depressive symptoms than outpatients.

Just over half of the adolescents (54%) score above the cut-off score on the total BITE score (>25). As expected there was a significant difference between the anorexic and bulimic group on their mean of total BITE scores, $t=2.45$; $p<0.05$, indicating that those diagnosed as bulimic actually report significantly more bulimic symptoms than the anorexic group. As shown by the mean scores of the three groups in table 1, the normal weight bulimic group show the highest level of bulimic symptoms and severity, followed by the anorexic bulimic subtype group, and the anorexic restrictors report the least bulimic symptoms.

The mean EDI scores for this sample, shown in the above table, are comparable to other eating disordered populations (young adults) (Garner, Olmstead & Polivy, 1983), and considerably higher than norms provided for non-clinical females aged 11 to 18 years (Shore & Porter, 1990). On the Eating Disorders Inventory there were no significant differences between the anorexics and bulimics on the following scales: Drive for Thinness, Body Dissatisfaction, Ineffectiveness, Perfectionism, Interpersonal Distrust, and Interoceptive Awareness. As expected, there was a significant difference between the anorexics and normal weight bulimics on the EDI bulimia scale ($t=2.43$; $p<0.05$), with the bulimic group scoring higher.

3.2.1 Self-Harming Behaviour

14 of the 25 eating disordered adolescents engaged in some type of self-harming behaviour. Self-harming behaviour was mainly cutting parts of the body and taking overdoses, and this information was found in individuals' case notes.

Table 2: Cross-tabulation of Self-harming behaviour by Diagnostic Category

Diagnosis	No self-harm	Self-harming	TOTAL
Anorexia restricting type	8	1	9
Anorexic bulimic type	2	2	4
Bulimia	4	8	12
TOTAL	14	11	25

Table 2 shows that of the 9 adolescents with anorexia nervosa restricting type, only one engages in self-harming behaviour, in comparison to 8 out of the 12 diagnosed with bulimia nervosa. The group of anorexic bulimic subtype adolescents is equally split – two self-harm and two do not.

The adolescents were initially split into three-way diagnostic groups in Table 2, but a Chi-square statistic would not be so appropriate because the expected frequency in four cells would be less than five. Therefore, only the two group diagnostic system was used – anorexics restricting and bulimic subtypes (AN-R & AN-B) placed in one group and compared with bulimics (BN) group. Chi-square statistic shows a significant difference between the observed and expected frequencies for number of patients who self-harm by two-way diagnostic category, $\chi^2 (2, n=25) = 4.81, p < 0.05$, which indicates that significantly more bulimic (BN) than anorexic (AN-R & AN-B) adolescents engage in self-harming behaviour than would be expected by chance alone.

3.2.2 Drug/Alcohol Use

Information relating to use of drugs and alcohol was acquired from case notes and parts of the CECA interview with the adolescents. Of the total sample (25), 17 did not use drugs/alcohol, 5 admitted to binge-drinking only, one used hard drugs (heroin) and two were using multiple drugs (cannabis, amphetamines, gas) and alcohol. The participants were split into two groups: those who use drugs/alcohol, and those who do not, and then compared by diagnostic categories.

Table 3: Crosss-tabulation of the use of drugs/alcohol by diagnostic category

Diagnosis	No drugs/alcohol	Drug/alcohol use	TOTAL
Anorexia restricting type	9	0	9
Anorexic bulimic type	2	2	4
Bulimia Nervosa	6	6	12
TOTAL	17	8	25

Table 3 shows that none of the restricting anorexics were using drugs/alcohol, but 50% of the bulimic group (6) and 50% of the anorexia-bulimic subtype group (2) were using drugs/alcohol. Again, a Chi-square statistic would not be so appropriate while the diagnostic groups are split three ways, because the expected frequency in four cells would be less than five. Therefore, only the two group diagnostic system was used – anorexics restricting and bulimic subtypes (AN-R & AN-B) placed in one group and compared with the bulimic (BN) group. $\chi^2 (1, n=25)=3.44, p=0.06$, almost reaches significance, and indicates that less anorexics than bulimics reported using drugs/alcohol than would be expected by chance alone.

3.2.3 Sexual Promiscuity

Two of the adolescents were sexually promiscuous; one adolescent was prostituting herself. Both of these participants had bulimic symptoms, and engaged in self-harming behaviour (cutting arms or stomach).

3.3 Attachment Classification

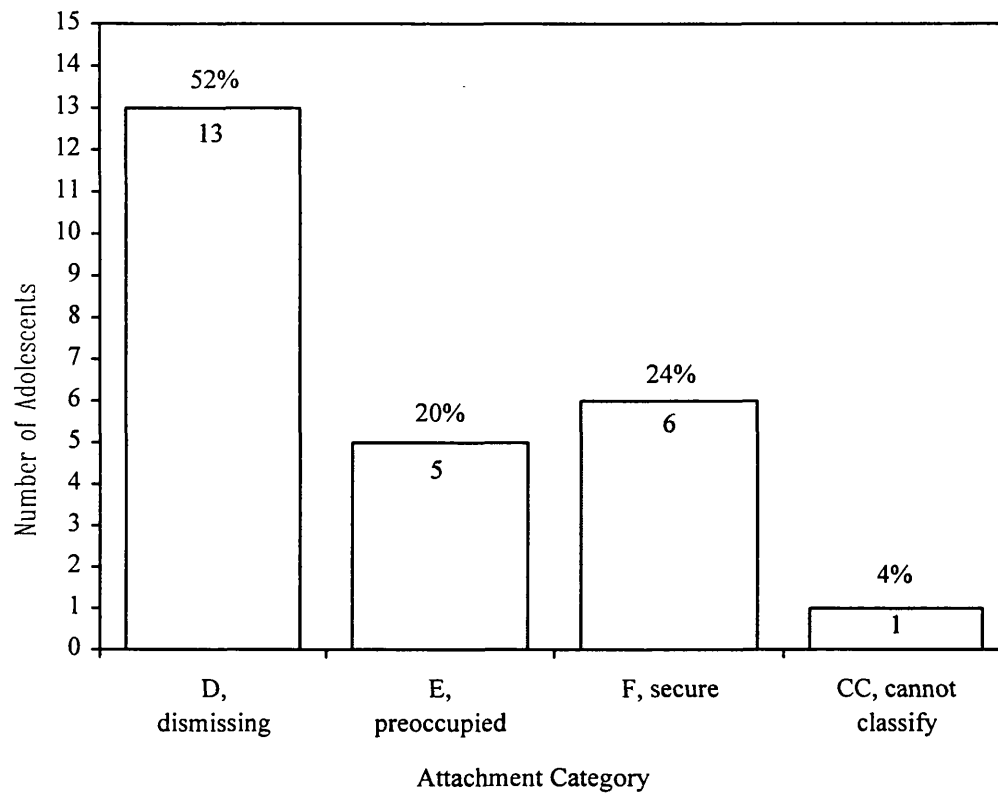
Data on attachment classifications were analysed in 4 separate ways:

- 1) using the traditional three way categories (D, E, F)
- 2) using a four category system including Unresolved (D,E,F,U)
- 3) using two way categories – secure or insecure
- 4) using two-way categories according to resolution status with respect to loss/trauma (U/notU)

3.3.1 Attachment Classification in Eating Disordered Adolescents

The raters found one adolescent's interview did not easily fit into a Preoccupied or Dismissing category, but was not secure, so was labelled "cannot classify" and was excluded from three-way analyses. The raters did agree that this adolescent was Unresolved to loss (figure 2), so it was included in 4-way analyses.

Figure 1: Primary Attachment Category in Adolescents – 3-way classification: dismissing, preoccupied, autonomous, plus “cannot classify”



The three-way category system for attachment (Figure 1) shows that over half the sample (13) had a dismissive style of attachment (Ds), 5 were classified as preoccupied (E), and 6 as secure/autonomous (F). When insecure attachment groups D, E and CC are joined, it shows that 19 (76%) of the eating disordered adolescents were insecurely attached.

Four-way Attachment Classification in Adolescents – including Unresolved

Figure 2: 4-way attachment classification in adolescents

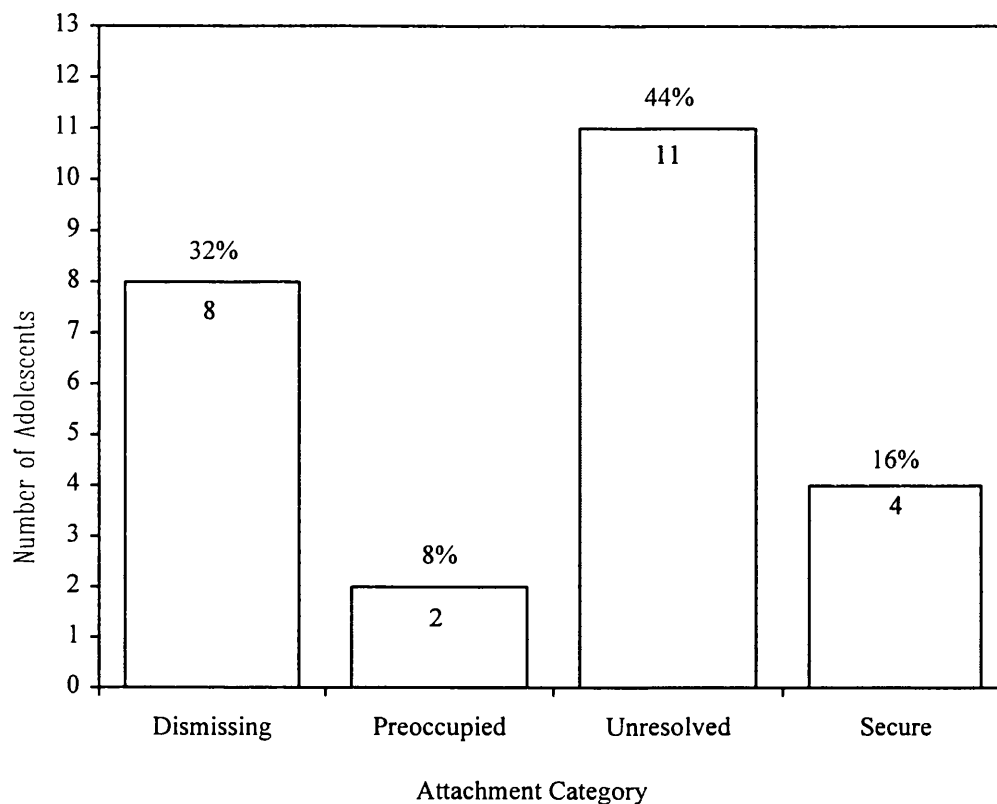


Figure 2 shows that 11 (44%) of the adolescents were unresolved to loss/trauma. The four-way classification of attachment shows that of the 13 dismissing adolescents 5 are also unresolved; 3 of the 5 preoccupied adolescents are also unresolved; and 3 of the 7 secure adolescents are also unresolved. Of the group of 11 adolescents classified as unresolved, 5 were unresolved to loss (through death), 5 were unresolved to trauma (4 unresolved to experiences of child sexual and physical abuse; 1 unresolved to physical abuse) and one adolescent was unresolved to both loss and trauma. To familiarise the reader with how an unresolved interview is identified, some excerpts from interviews are presented below.

Examples Adolescents' interviews indicating Unresolved to Loss
(Note: interviewer's questions in *italic*.)

Example 1

Did you lose any close member of the family when you were a child?

Well, when I was born my brother died, well he died in um May and I was born in November -- so that's --

Do you think his death has had an effect on you, in the way you've developed?

Um -- I don't know maybe they, I don't know whether they -- no that's the wrong thing. --- Maybe they hope that I might have been like a replacement or something for (brother). But I doubt it. My sister prayed for me, for a girl, so I suppose I was lucky. So (4 sec) But I don't really think about (brother) much 'cos I didn't know him at all, whereas my brothers knew him for a year at least. All I have is a picture, so I don't know anything about him at all.

Here the interviewee is disorientated with respect to the time of her brother's death; (he died six months *before* she was born). This confusion was not corrected in the interview. Her speech becomes more incoherent than it has been previously in the interview.

Example 2

Do you feel that your feelings about his death have changed over time?

I think I got more upset about it over time, I mean we were quite close anyway but I feel that I got closer to him now than when I first found out.

Here the interviewee is talking about the death of a friend when she was at junior school, 10 years ago, and her discussion moves into the present, which is an indication of disbelief that the person is dead. This interviewee brings the discussion about this loss into the interview earlier in the interview, indicating "invasion into

other topics of information regarding a death” (Main & Goldwyn, 1991), which adds to a rating of unresolved to loss.

Example of an Adolescents’ interviews indicating Unresolved to Trauma

The classification of being unresolved to trauma is made if there is unsuccessful denial of the occurrence, nature or intensity of the abusive experience. For example:

You touched a bit on this earlier, but I was going to ask you were your parents ever threatening towards you?

Yeah.

Yeah. In what way?

. (six seconds pause) I know they’d hit me a lot.

Who would hit you?

Both of them.

What, how often would that happen?

Don’t know ...(three seconds pause) It wouldn’t be really badly a lot.

In this interview the adolescent is describing physical abuse from both parents, and there seems to be some confusion, as she initially describes being hit frequently by mother and father, but a short while later says that her mother did not hit her badly frequently. But she goes on to describe her mother hitting her frequently with a stick.

Would she used her hand or something?

She had a stick as well.

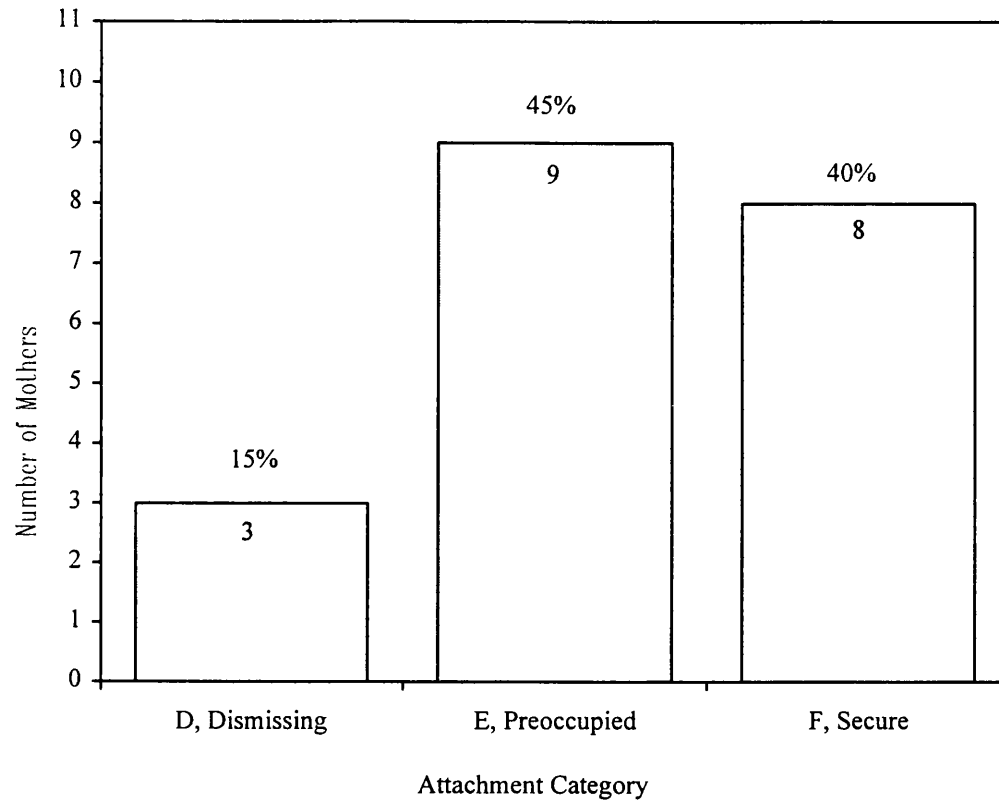
What would it be once a week or less?

Probably more than that. I was pretty bad (laughs).

This adolescent also indicates feelings of being causal and deserving of it in a personal sense, which would lead to a rating for unresolved to trauma.

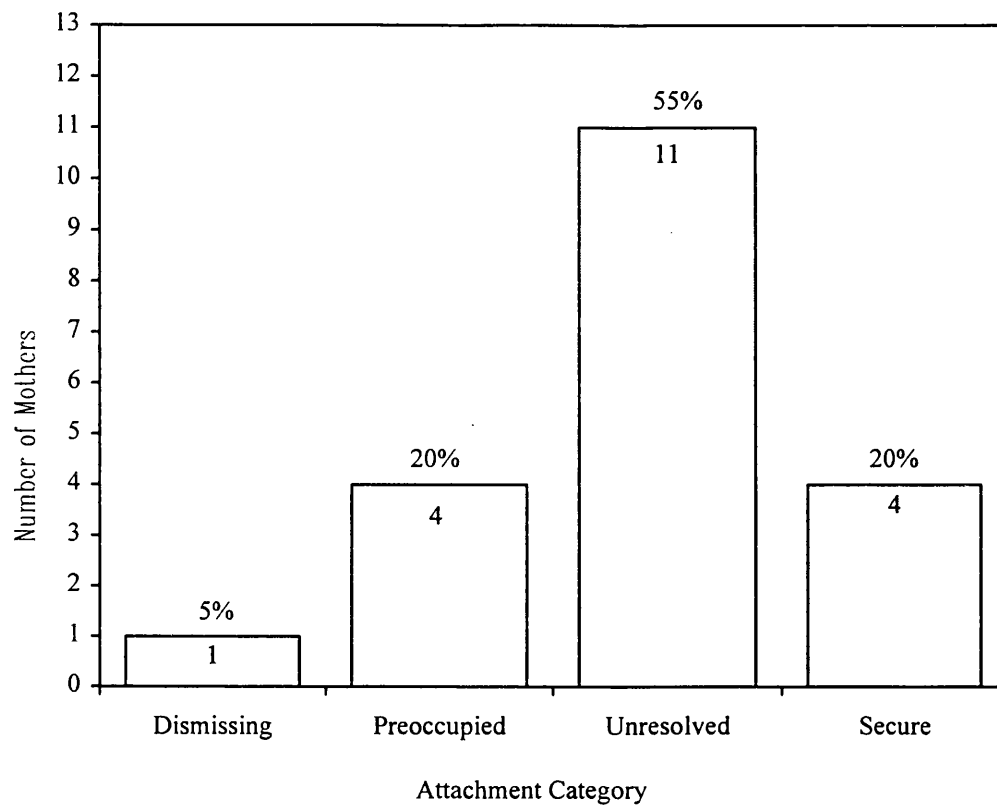
3.3.2 Attachment Status in Mothers

Figure 3: Three-way Attachment Classification in Mothers



Of the 20 mothers who were interviewed with the AAI 3 (15%) were classified as dismissing, 9 (45%) were classified as preoccupied, and 8 (40%) were classified as secure/autonomous. When insecure attachment groups D and E are joined, it shows that 12 (60%) of the mothers are insecurely attached.

Figure 4: Four-way Attachment Classification in Mothers



The four-way classification of attachment shows that over half the mothers were classified as Unresolved (11; 55%). Of the of the 3 Dismissing mothers, 2 were also unresolved; 5 of the 9 preoccupied mothers were also unresolved; and 4 of the 8 Secure mothers were also unresolved. Of the group of 11 mothers classified as unresolved, 9 were unresolved to loss, and 2 were unresolved to trauma (1 physical abuse, 1 sexual abuse).

3.3.3 Association between Mother-Daughter Attachment Status

Table 4: Mother and daughter attachment status compared in two-way categories: secure – insecure, showing observed and expected frequencies

Daughters Attachment Status	Mothers Attachment Status		TOTAL
	D, E – Insecure	F - Secure	
Ds, E - Insecure	12 (9.6)	4 (6.4)	16
F - Secure	0 (2.4)	4 (1.6)	4
TOTAL	12	8	20

Note: Expected frequencies in parentheses

Table 4 shows that there is a strong association between mother and daughter attachment on two-way (secure – insecure) classification, Kappa = 0.60, $p < 0.01$. The table shows an 80% match between mother and daughter two-way attachment status, when a 56% match would be expected by chance alone. Of the 12 mothers who were classified as insecure (Ds or E) on the AAI, all 12 daughters were also classified as insecure. The table shows differences between the observed and expected frequencies in each cell, and Chi-square statistic indicates that these differences are significant, $\chi^2 (1, n=20) = 7.5$, $p < 0.01$, Fisher's Exact Significance Test (2-tailed) $p < 0.01$.

Mother and daughter attachment status was also compared in the three-way (D, E, F) categories.

Table 5: Cross-tabulation of mother and daughter attachment status compared in 3-way categories, showing observed and expected frequencies

Daughter Attachment Status	Mothers Attachment Status			TOTAL
	Ds- dismissing	E- preoccupied	F - secure	
Ds – dismissing	2 (1.7)	6 (5)	3 (4.4)	11
E – preoccupied	1 (0.6)	3 (1.8)	0 (1.6)	4
F – secure	0 (0.6)	0 (1.9)	4 (1.5)	4
TOTAL	3	9	7	19

Note: Expected frequencies in parentheses.

One mother-daughter pair were excluded form the 3-way analysis because the daughter was categorised as “cannot classify” on 3-way attachment status. The association between mother and daughter on 3-way attachment classification is not as strong as the association on 2-way (secure-insecure) attachment classification, but the kappa statistic indicates that there is an association between mother and daughter 3-way attachment status; kappa=0.30, $p < 0.05$. There was a 48% match on 3-way attachment classification, when we would expect only a 28% match by chance alone.

Table 5 shows that for a daughter to be categorised as secure, the mother is always categorised as securely attached. If the mother has a preoccupied attachment status, then the daughter is always classified as insecure, and there is a 66% chance of the daughter being Dismissing. As seven out of nine of the cells have an expected frequency of less than five, the Chi-square statistic is not as reliable, but does indicate a significant difference between the observed and expected frequencies,

$$\chi^2 (4, n=20) = 9.62, p < 0.05.$$

3.3.4 Association between Mothers and Daughters on Resolution to loss/trauma

A two way cross-tabulation was carried out to look at the association between mothers and daughters classification on the category of unresolved to loss/trauma.

Table 6: Cross-tabulation of mother and daughter status on Unresolved to loss/trauma, showing observed and expected frequencies

Daughters Resolution Status	Mothers Resolution Status		TOTAL
	U – Unresolved	Not unresolved	
U – Unresolved	6 (3.9)	1 (3.2)	7
Not unresolved	5 (7.2)	8 (5.9)	13
TOTAL	11	9	20

Note: Expected frequencies in parentheses.

Table 6 shows that there is a strong association between mother and daughter status on two-way Unresolved classification, a 70% two-way match, when a 50% match would be expected by chance alone; Kappa=0.42, $p<0.05$. Of the 9 mothers who were not classified as unresolved, 8 daughters were also not unresolved, with only one daughter being unresolved to loss/trauma when the mother is not unresolved. It was hypothesised that unresolved daughters would be expected to have unresolved mothers, so one-tailed Fisher's Exact Test was used (and as two cells had expected frequencies of less than five). Fisher's Exact Test = 0.05, indicating a significant association between mothers and daughters resolution status.

3.4 Reflective-Self Functioning

Table 7: Mothers' and Daughters' Reflective-Self Functioning (RSF) Scores

Reflective-Self Functioning	Mean RSF Score	Standard Deviation	Minimum RSF Score	Maximum RSF Score	N
Daughters	2.8	1.98	0	7	25
Mothers	2.8	1.54	1	6	20

Mothers and daughters mean Reflective-self Functioning score is 2.8. This indicates that participants generally had questionable or low RSF, or were lacking reflectiveness in the Adult Attachment Interviews. The mean RSF of these adolescents' interviews was the same as the eating disorder group in Fonagy et al's (1996) study, which was lower in comparison to other psychiatric groups in that study.

Of the daughters interviews 18 (72%) scored lower than 5 (Ordinary RSF), and of the mothers interviews 16 (80%) scored lower than 5. 9 (36%) of the daughters, and 5 (20%) of the mothers, scored 1 or less, indicating reflectiveness as almost or totally absent in those interviews. A Pearson Correlation indicated that there was not a significant association between mothers' and daughters' RSF scores.

Mothers' Reflective-self Functioning and Daughters' Attachment Patterns

Mothers' mean RSF scores were compared on daughters 3-way (D, E, F) and 2-way (secure/insecure, and unresolved/resolved) attachment classifications using one-way analysis of variance statistic. No significant differences were found among

daughters' attachment category and mothers' mean RSF scores. These analyses were repeated with daughters' mean RSF scores and mothers' attachment status, and no significant differences among groups were found.

3.5 Attachment and Eating Disorder Symptomatology

3.5.1 Attachment Status and Diagnosis

Chi-square analyses did not yield significant associations between attachment classification - two way: (secure/insecure and Unresolved/resolved) and three way (D, E, F), and eating disorder diagnosis when split into three groups (anorexia – restrictors; anorexia – bulimic type; bulimia nervosa). On 3-way analysis 50% of the cells had expected frequencies of less than five, so the adolescents were split into two diagnostic groups: anorexics - restrictors & bulimic subtypes compared with bulimics.

Chi-square analyses were repeated and did not yield significant associations between attachment - 2-way (insecure/secure & unresolved/resolved) and 3-way (D, E, F) categories - and 2-way diagnostic groups.

3.5.2 Attachment Status of Inpatients and Outpatients

Table 8: Cross-tabulation of 3-way attachment status with adolescents grouped as inpatients or outpatients

Adolescents Attachment Status	Outpatient	Inpatient	TOTAL
Dismissing (Ds)	7 (7.6)	6 (5.4)	13
Preoccupied (E)	1 (2.9)	4 (2.1)	5
Secure (F)	6 (3.5)	0 (2.5)	6
TOTAL	14	10	24

Note: Expected frequencies in parentheses.

Again for this 3-way analysis, $n=24$ because one adolescent was categorised as “cannot classify” on attachment status. Table 8 shows that none of the 10 inpatients were secure in attachment organisation, when 25% of inpatients would be expected to be securely attached by chance alone. Whereas the outpatients were mixed securely and insecurely attached. In both patient groups the majority of insecure adolescents were dismissing, but those who were classified as preoccupied were more likely to be inpatients. 80% of preoccupied adolescents were inpatients when only 42% of preoccupied adolescents would be expected to be inpatients by chance alone. Chi-square analysis on three-way attachment categories yields a significant association between attachment organisation and inpatient/outpatient status, χ^2 (2, $n=24$) = 7.42, $p < 0.05$. However, table 8 shows that 4 cells have an expected frequency of less than 5, which indicates that the Chi-square statistic is less reliable. The analysis was repeated on two-way attachment status (insecure-secure) and yielded a significant association between attachment security and inpatient/outpatient status, χ^2 (2, $n=25$) = 5.27, $p < 0.05$; Fisher’s Exact Test (2-tailed) = 0.05.

3.5.3 Attachment Status and Bulimic Symptoms

One adolescent did not complete the Bulimic Inventory Test, Edinburgh (BITE), so $n=24$ for analysis of bulimic symptoms and attachment status. Analysis of Variance was carried out to compare means of Bulimia Inventory Test, Edinburgh (BITE) scores by attachment status. 2-way (secure – insecure) and 3-way (D, E, F) groupings did not yield significant differences between mean BITE scores. However, using independent t-tests to compare 2-way groups as unresolved to loss/trauma (U) and not unresolved (not U), on mean BITE scores, did show significant differences, as shown in the table below.

Table 9: Adolescents' BITE scores compared according to resolution status on the AAI

BITE scores	AAI Status Unresolved or not	N	Mean BITE scores (standard deviation)	Independent t-test	
				t	p-value
BITE Total	Unresolved	11	35.27 (13.78)	3.54	<0.01
	Not U	13	17.04 (11.44)		
BITE Symptoms	Unresolved	11	21.64 (9.22)	2.48	0.02
	Not U	13	13.15 (7.57)		
BITE Severity	Unresolved	11	13.64 (6.12)	4.54	<0.01
	Not U	13	3.92 (4.35)		

The means and t-tests shown in Table 9 indicates that those classified as unresolved scored significantly higher than those who were not unresolved on BITE total score and BITE subscales. The most obvious difference was between the two groups on levels of severity of bulimic symptoms, with the unresolved group scoring significantly higher.

This analysis was repeated comparing only those adolescents who were unresolved to trauma (n=6) with those who were not unresolved (n=13), so the unresolved to loss group were excluded from the analysis. The results remained fairly similar, with highly significant differences between the two groups on BITE total and subscale mean scores. (BITE total $t=3.8$, $p<0.01$; BITE symptoms $t=3.02$, $p<0.01$; BITE severity $t=4.54$, $p<0.01$.)

3.5.4 Attachment Status and Eating Disorder Inventory (EDI) Scores

2-way attachment groupings of adolescents as secure or insecure were compared on the mean scores of EDI scales using t-tests. Two out of the eight EDI scales (25%) were significantly associated with attachment secure/insecure status in adolescents, which is more than expected by chance. Those adolescents categorised as insecurely attached scored significantly higher than securely attached adolescents on the Ineffectiveness scale ($t=21.0$; $p<0.05$) and on Interpersonal Distrust scale ($t=20.78$; $p<0.01$).

Using t-tests, the 8 EDI mean scores were compared between adolescents categorised as Unresolved or not unresolved to loss/trauma. The only significant difference between the two groups was on the EDI bulimia scale, with the Unresolved group scoring significantly higher, $t=2.23$ ($df=21$) $p<0.05$.

3.5.5 Attachment Status and Depressive Symptoms

No significant differences were found between attachment groups – 2-way (secure/insecure), 3-way (D, E, F) and 2-way resolved/unresolved - on mean Beck Depression Inventory scores.

3.5.6 Attachment Status and Self-Harming Behaviour

Table 10: Cross-tabulation of adolescents' 2-way attachment status and self-harm, showing observed and expected frequencies

Adolescents Attachment Status	No self-harm	Self-harm	TOTAL
Insecure (Ds,E)	8 (10.6)	11 (8.4)	19
Secure (F)	6 (3.4)	0 (2.6)	6
TOTAL	14	11	25

Note: Expected frequencies in parentheses.

Table 10 shows that of the 6 adolescents classified as secure, there was no evidence of self-harming behaviour, whereas 11 (58%) of the insecure group engaged in some type of self-harming behaviour. So all secure adolescents did not engage in self harming behaviour, when chance alone would predict that only 56% of secure

adolescents would not self-harm. $\chi^2 (1, n=25) = 6.20, p<0.01$, (Fisher's Exact Test (2-tailed)=0.02), showing a significant difference between the observed and expected frequencies in table 10, and indicating a significant association between security status and self-harming behaviour. Of the eleven insecure adolescents who self-harmed, eight were classified as dismissing and three were preoccupied.

Self-harming behaviour was compared by resolution status on the AAI in unresolved and not-unresolved groups, and showed a trend, which did not reach significance, of more unresolved adolescents engaging in self-harming behaviour, $\chi^2 (1, n=25) = 3.07, p=0.08$.

No associations were found between maternal attachment status (secure/insecure) or resolution status (U/notU) and adolescents' self-harming behaviour.

3.5.7 Attachment Status and Drug/alcohol use

No associations were found between adolescents' attachment status or resolution status and drug/alcohol use, or between maternal attachment & resolution status and adolescents' drug/alcohol use.

3.6 Dissociation and Eating Disorders

Table 11: Dissociative Experiences Scale - II (DES): Mean Scores (& Standard Deviation) for Adolescents with Eating Disorders

Dissociative Experiences Scale - II	Total Sample (n=20)	Anorexic Restrictors (n=8)	Anorexic-bulimic type (n=4)	Bulimia Nervosa (n=8)
DES Total Scores	27.80 (17.15)	25.35 (8.95)	21.00 (5.86)	33.65 (25.11)
Absorption & imaginative involvement	35.60 (18.29)	32.08 (12.07)	29.97 (11.80)	41.92 (25.0)
Amnestic dissociation	15.56 (13.39)	14.37 (11.55)	14.68 (4.71)	17.19 (18.41)
Depersonalisation & derealisation	26.58 (21.77)	23.73 (14.22)	11.65 (13.83)	36.89 (27.27)

Table 11 shows the mean scores of the adolescents who completed the Dissociative Experiences Scale-II (DES). Of the total sample (n=25), 20 adolescents completed the scale. Taken from other studies which have employed the DES, means of the total DES scores of non-clinical late adolescents range between 11.8 (Coons et al, 1989) to 23.8 (Carlson et al, 1993), and from 16.1 to 17.8 for patients diagnosed with eating disorders (Carlson & Putnam, 1993). This indicates that this sample, with a mean of 27.8, scored higher on dissociative experiences than other non-clinical adolescents and individuals diagnosed with eating disorders.

There is a large range of DES scores within the sample, as shown by the large standard deviations. The table indicates that those adolescents diagnosed with bulimia nervosa scored higher on the DES than the anorexic groups. However, analysis of variance indicates that these differences on mean DES scores between the diagnostic groups do not reach significance.

Although the subscale scores of the DES have been shown in table 11, Carlson & Putnam (1993) indicated that it is not possible to tell whether subscale scores really measure sub-components of dissociation, and that only the total DES score more reliably measures a general dissociation factor. Therefore, all further analyses using DES-II scores have used the total DES scores.

Using the cut-off score of 30 and above, the adolescents were split into two groups of high and low scores on the DES. A cut-off score of 30 was used because previous studies have indicated that this cut-off is expected to identify those who might have a dissociative disorder, or a disorder with a considerable dissociative component (Bernstein Carlson & Putnam, 1993). Out of the 20 adolescents who completed the DES-II, 7 (35%) scored above 30. Using the two group diagnostic system – anorexic restrictors and anorexic bulimic type in one group and bulimics in the other group, diagnostic groups were compared by high/low dissociation scores, as shown in table 12.

Table 12: Cross-tabulation of adolescents' 2-way diagnosis and dissociation scores – high or low, showing observed and expected frequencies

Dissociative Experiences Scale-II	Anorexia: Restricting & Bulimic Subtypes	Bulimia Nervosa	TOTAL
DES <30	10 (7.8)	3 (5.2)	13
DES >30	2 (4.2)	5 (2.8)	7
TOTAL	12	8	20

Note: Expected frequencies in parentheses

Table 12 shows that of the 12 adolescents diagnosed with anorexia (restricting and bulimic types) only 2 (16.6%) scored above the cut-off point of 30 on the DES-II, when 35% of anorexics would be expected to score above 30 by chance alone. In comparison, 5 of the 8 bulimics (62.5%) scored over 30, when only 35% of bulimics would be expected to score over 30 by chance alone. The difference between the observed and expected scores is significant, $\chi^2 (1, n=20) = 4.432, p<0.05$, Fisher's Exact Test, 1-tailed=0.05, indicating an association between diagnosis and high or low dissociative experiences scores.

3.6.1 Dissociative Experiences and Bulimic Symptoms

Using t-tests, two groups of high and normal scorers (30 cut off score) on the DES were compared on mean scores on the BITE (total score, symptoms and severity scores).

Table 13: Comparison of mean scores on the Bulimic Inventory Test, Edinburgh (BITE) between groups categorised as high or within the normal range on the Dissociative Experiences Scale-II

BITE	DES-II High or Normal	N	Mean (s.d.)	t-value; (df=18)
BITE total score	Normal <30	13	20.38 (14.9)	2.52
	High >30	7	36.14 (9.5)	p<0.05
BITE Symptoms	Normal <30	13	14.15 (8.8)	2.51
	High >30	7	23.29 (5.1)	p<0.05
BITE Severity	Normal <30	13	6.23 (7.3)	2.06
	High >30	7	12.86 (5.8)	p=0.05

Table 13 shows that the group scoring more than 30 on the DES-II, indicating high level of dissociative experiences, tended to report higher levels of bulimic symptoms

and severity of bulimic symptoms, as measured by the BITE. The means between the two groups (high and normal DES scores) were compared on BITE total and subscale scores using independent t-tests, which indicated significant differences between the means of the two dissociation groups, as shown in table 13.

3.6.2 Dissociative Experiences and Self-harming behaviour

Chi-square analysis did not yield significant associations between level of dissociation (high/low) and self-harming behaviour (self-harms or not). However, as it has been suggested that the role of cutting and self-mutilation may differ from a single suicide attempt (van der Kolk, Perry & Herman, 1991), so adolescents who made one suicide attempt were excluded from the self-harming group (leaving those who cut/self mutilate in the self-harm group), and Chi-square analysis was repeated.

Table 14: Cross-tabulation of adolescents' self-harming (cutting & self-mutilation) and dissociation scores – high or low, showing observed and expected frequencies

Dissociative Experiences Scale-II	No self-harm	Self-harm: cutting, self-mutilation.	TOTAL
DES <30	10 (7.8)	3 (5.2)	13
DES >30	2 (4.2)	5 (2.8)	7
TOTAL	12	8	20

Note: Expected frequencies in parentheses

The table shows that of the 7 adolescents who scored high on dissociation (>30), 5 (71%) of them self harmed by cutting or other self-mutilation (e.g. sticking pins in body), when only 2-3 (40%) of those scoring high on dissociation would be expected

to self-harm by chance alone. Of the 13 adolescents who did not indicate high levels of dissociative experiences, only 3 (23%) engaged in self-harming behaviour, when at least 5 (39%) would be expected to by chance alone. $\chi^2 (1, n=20) = 4.43, p<0.05$, shows that there was a significant difference between the observed and expected frequencies, and indicated an association between self-harm (cutting and other self-mutilation only) and reported high levels of dissociation.

3.6.3 Dissociative Experiences and Drug/alcohol Use

Chi square analysis did not yield significant associations between level of dissociation (high/low) and drug/alcohol use.

3.7 Dissociative Experiences and Attachment Status

Adolescents were split into two groups of high and low according to their DES-II total scores, using a cut-off score of 30, and groups were compared by attachment status using Chi-square analysis. Using the 3-way (D, E, F) attachment categories, and 2-way (secure/insecure) attachment categories, there were no significant associations between levels of dissociation and attachment category. However, when using the two-way unresolved/not unresolved (U/not-U) categories, a significant association between levels of dissociation and attachment category was found.

Table 15: Association of level of dissociative experiences with Adolescents' Resolution Status in the AAI

Dissociative Experiences Scale-II	Unresolved to loss/trauma	Not unresolved	TOTAL
DES <30	4 (6.5)	9 (6.5)	13
DES >30	6 (3.5)	1 (3.5)	7
TOTAL	10	10	20

Note: Expected scores in parentheses.

Table 15 shows that of the 7 adolescents who scored above the cut-off of 30 on the Dissociative Experiences-II Scale, 6 (86%) were classified as unresolved to loss/trauma on the AAI, when only 3.5 (50%) would be by chance alone. Of the adolescents who were not unresolved, only one scored over 30 on the DES-II. Of the 13 who scored less than 30 on the DES-II, 9 (69%) were not unresolved on the AAI. Chi-square analysis yielded significant associations between resolution status on the AAI and dissociative experiences, $\chi^2 (1, n=20) = 5.50, p<0.05$.

3.7.1 Adolescents' Dissociative Experiences and Mothers' Resolution Status

In relation to a transgenerational hypothesis of dissociation and attachment, associations between mothers' unresolved status and daughters' DES scores were analysed. The numbers for this analysis were quite small (n=17) because some of the daughters did not complete the DES-II, and some of the daughters who completed the DES-II did not have their mothers participate.

Table 16: Cross-tabulation of Adolescents' level of Dissociative Experiences with Mothers' Resolution Status in the AAI

Dissociative Experiences Scale-II (daughters' scores)	Mothers Unresolved to loss/trauma	Mothers Not unresolved	TOTAL
DES <30	4 (5.8)	7 (5.2)	11
DES >30	5 (3.2)	1 (2.8)	6
TOTAL	9	8	17

Note: Expected scores in parentheses.

Table 16 shows that of the adolescents who scored high (>30) on the DES, 5 out of 6 (83%) had mothers who were unresolved to loss/trauma, when by chance alone only 3 (53%) adolescents scoring high on dissociation would be expected to have unresolved mothers. For those adolescents whose mothers were not unresolved to loss/trauma, 1 out of 8 (12.5%) reported high dissociative experiences (>30), when by chance alone we would expect 2-3 (35%) adolescents with mothers who were not unresolved to score high on dissociation. $\chi^2 (1, n=17) = 3.44, p=0.06$, which shows that the difference between the observed and expected frequencies almost reaches significance. As the number of mother-daughter pairs for this analysis is fairly small ($n=17$), and there was a hypothesised association between adolescents' high dissociation and unresolved status in mothers, I used Fisher's Exact (1-tailed) =0.08. This indicates that there is a trend towards an association between mothers being unresolved to loss/trauma and daughters' dissociation scores.

3.8 Summary of Results

- 1) Eating disordered adolescents generally reported high levels of eating disorder and depressive symptoms (EDI, BITE, BDI). Self-harming and use of drugs/alcohol were associated with bulimic symptoms, rather than anorexia.
- 2) 76% of the eating disordered adolescents were classified as insecurely attached. On three-way category, 52% were dismissing. When unresolved classification was included, 44% of adolescents were unresolved to loss or trauma.
- 3) 60% of the mothers were classified as insecurely attached. When unresolved Classification was included, 55% of mothers were unresolved to loss or trauma.
- 4) There was a concordance in attachment patterns between mothers and daughters. On two-way insecure-secure categories there was an 80% match, and a significant association on three-way attachment categories (D, E, F).
- 5) There was a concordance in AAI resolution status (70% match) between mothers and daughters.
- 6) Adolescents and their mothers were generally low on reflective-self functioning, and comparable with the eating disorders sample in Fonagy et al's (1996) study.
- 7) Diagnostic groups did not differ by attachment category. However, insecure attachment was associated with self-harming and higher scores on EDI Ineffectiveness and Interpersonal Distrust scales.
- 8) High levels of bulimic symptomatology were associated with unresolved status on the AAI.
- 9) The mean Dissociative Experiences Scale score was higher than published means of non-clinical adolescents and eating disorder samples. High levels of

dissociative experiences were associated with bulimia and high levels of bulimic symptomatology (BITE), and associated with self-harming behaviour.

- 10) There was a significant association between adolescents' reported high levels of dissociative experiences and unresolved status on the AAI. There was a trend towards an association between mothers' lack of resolution status and daughters' reported high levels of dissociative experiences.

4. DISCUSSION

4.1 Overview

This section aims to discuss the findings of the study by working through the ten-point summary of results (section 3.8) in relation to the proposed hypotheses (section 1.5) and theories outlined in chapter 1. It begins by describing general observations of the psychopathology of the adolescents who participated in this study. This is followed by an interpretation of the attachment findings in this adolescent sample, in relation to ideas about the role of attachment disturbances in the development of eating disorders. The attachment findings in the group of mothers, and the concordance between mother-daughter attachments are compared with published studies, and discussed in the context of attachment theory. Comments upon Reflective-self Functioning in adolescents are made, specifically on its relationship with attachment organisation; and possible reasons for the lack of concordance between daughters' and mothers' RSF are explored.

Following this more general discussion of attachment findings, associations between insecure attachment and specific symptoms are discussed, and this leads on to a discussion of the findings which indicated a link between adolescents being unresolved to trauma, high levels of dissociation and bulimic symptoms. These results are related to theories that account for the development of dissociation as a defense, and the function of bulimic and other impulsive behaviours in escaping aversive awareness. Ideas about the transgenerational transmission of attachment organisation are discussed in relation to Liotti's (1995) notion of the daughters'

vulnerability to use dissociation. This leads to the proposal of a model, which is an elaboration on existing models, and attempts to account for associations between bulimic behaviours, attachment (and resolution) status and dissociation. Implications for therapy are suggested, and the last part of this section critically discusses methodological issues relevant to this study, and areas for improvement. Finally, the central findings are summarised and areas for further research are suggested.

4.2 General Observations

In general, the adolescents' symptoms were quite severe; they tended to report high levels of eating disorder psychopathology. This could be explained by the fact that all these participants were recruited from tertiary services, i.e. they had been seen by their local child/adolescent services before being referred on to these specialist services. While the sample was not all from London, all had come to be treated by specialist services in London because there are very few specialist eating disorder units for adolescents in the country. In order to increase the sample size I approached another specialist eating disorders unit and adolescent unit, which does not specialise in eating disorders, but had some adolescents with eating disorders in their care. There was a difference in age between the patients recruited from each clinic. Participants from the two eating disorder clinics age ranged between 13 to 18 years, and were a mix of anorexics and bulimics, whereas those from the adolescent unit were all between 17 and 19 years old, tended to be bulimic (one was anorexic bulimic subtype).

Although the average Body Mass Index in the anorexic groups are within the 'underweight' band, not 'morbidly underweight', as one might expect given the diagnosis, this is due to the fact that when I interviewed them they had already put on weight during the in-patient treatment programme. For example one participant had a Body Mass Index of just 11.5 when she was hospitalised and was nasogastrically fed, but when she was interviewed her body weight had increased substantially.

The differences between diagnostic groups (AN-R, AN-B & BN) on bulimia scales, with bulimics scoring significantly higher were expected, and could be seen as a confirmation of the current diagnosis. However, these diagnostic labels are probably not as reliable as looking at the cluster of symptoms the individual is exhibiting because it is common for eating disordered patients to pass from one diagnostic category to another, i.e. for a restricting anorexic (AN-R) to develop bulimic symptoms (AN-B), and put on weight but retain her bulimia (BN), or the other way round, which is less common. In this sample 3 bulimics had a previous history of anorexia, and one anorexic had a previous history of bulimia. Two adolescents were passing between diagnostic categories during the study. Therefore, it seemed more appropriate to look at the current symptoms rather than diagnostic category.

The high levels of depression that were reported by this sample are not unusual within eating disorder populations (Cooper & Fairburn, 1986). Bulimia, more than anorexia, has been associated with depression, but there were no significant differences between the diagnostic groups on reported level of depressive symptoms in this sample. The fact that many bulimics in this sample reported high levels of

depressive symptoms is compatible with “escape theory” (Heatherton & Baumeister, 1991). If binge eating is motivated by the desire to escape from unpleasant emotional states that are associated with negative views of the self, then evidence of depression in bulimia is consistent with this theory. Inpatients tended to report more depressive symptoms than outpatients did. With predominantly insecure attachments, separation from family may have been difficult for these adolescents and manifest in low mood. Indeed a few reported feeling “homesick”. Also, anorexic inpatients might have been finding it very distressing to be putting on the weight so rapidly (which was part of their treatment programme), initially responding with low mood.

Obtaining information about the feelings and thoughts of eating disordered patients and trusting their reports has been of concern to clinicians and researchers. Anorexics are known for their secrecy and often refuse to concede that they suffer from an eating disorder, and do not wish to change. The anorexic is often motivated to falsify self-report to protect themselves, because if they admit their fears they may have to face up to them and gain weight, which would be disastrous. On the other hand, the bulimic may deny or distort symptoms because they are embarrassed and ashamed of their behaviour (Bemis Vitousek, Daly & Heiser, 1991). However, Vitousek (1991) commented that when she emphasised to her participants that the research was separate from therapy, and the results would be confidential from the participant’s treatment, some commented on the relief for the chance for “confession without consequences”. As the participants in the current study reported high levels of eating disorder psychopathology, it may be that they felt more able to disclose their thoughts, feelings and behaviour because it was emphasised that their participation

was separate and confidential from their therapy. Also, perhaps the fact of being seen in a specialist service, and for some, hospitalisation, mitigated against the tendency for eating disordered adolescents to deny that they are in distress and have problems.

4.3. Attachment Patterns in Eating Disordered Adolescents

Just over three-quarters of the adolescents in this sample were insecurely attached on 3-way attachment categorisation. Although, as predicted, this rate of insecurity is much higher than non-clinical adolescent and young adult samples (44%; van Ijzendoorn & Bakermans-Kranenburg, 1996), it is not as high as Rosenstein and Horowitz's (1996) sample of 60 psychiatrically hospitalised adolescents (only 3% autonomous). This difference could be accounted for by the fact that many of the eating disordered adolescents in the present study may not have been as severely symptomatic as the Rosenstien and Horowitz's sample of adolescents, because only 40% of this eating disorder sample were inpatients. This is supported by the fact that all inpatients in the present sample were insecurely attached; so it seems that this inpatient group were more similar to Rosenstien & Horowitz's adolescent sample. Furthermore, during the study two of the insecurely attached adolescents who were seen (and therefore categorised) as outpatients, soon became inpatients at another unit. It is not possible to state whether a secure attachment organisation could be a protective factor in the severity of illness, but it would be of interest to compare outcome in therapy by attachment status. The larger Maudsley study intend to look at attachment status and therapeutic outcome in a further study. This outcome study would only be possible with the Maudsley Hospital sample, as most were interviewed within the first few weeks of starting family therapy, whereas at the

other clinics some of the adolescents had been in therapy for longer when they were interviewed.

4.4 Attachment Organisation and Eating Disorders

4.4.1 Dismissing Attachment

Over half of all the adolescents were dismissing in relation to attachment. The proportion of eating disordered adolescents with a dismissive attachment strategy was not as high as Cole-Detke and Kobak's (1996) study (reviewed in section 1.4.2), which found 67% of participants reporting only eating disorder symptoms were Dismissing. However, their sample were not diagnosed with clinical eating disorders; they had reported eating pathology but they may not have met diagnostic criteria, and therefore may not be an appropriate comparison group for the present study.

This predominantly dismissing attachment pattern could be understood in terms of Cole-Detke and Kobak's notion that the individual's focus on her body allows her to dismiss the importance of family, and avoid the anxiety involved in separation from family, so prevent making changes in attachment relationships. Adolescents whose attachment organisation was dismissing seemed to rely on a strategy of defensive exclusion from awareness of information which portrayed attachment relationships in a negative light. Half of the dismissing group had very little memory for early attachment experiences (classified as D1), and their interviews were very short. For example, when returning to the adjectives produced to describe her early relationship

with her mother (all of which were positive), and asking for specific memories of incidents:

You said caring, can you think of a particular memory of a time that you can think of for when you were younger when she was caring?

Um (6 second pause) I'm sure there was, but I can't remember them particularly.

This exert from one interview was a common way of responding among the adolescents, a pattern of responses contributing to the high incidence of dismissing interviews.

This strategy of giving very positive adjectives to describe their early relationships with parents, and the lack of memories to support them, could be explained in terms of Guidano's (1987) concept of eating disordered adolescents keeping their perceptions of a attachment figure as idealised. He considered that reappraisal of that overly positive model by the adolescent would be experienced as a disappointment, and would question one's established sense of self. Such reappraisal would require the adolescent to reflect on their own thoughts and feelings, and those of their parents, but the low scores on Reflective-self functioning indicate that most of these adolescents were not able (or perhaps willing) to do this.

4.4.2 Preoccupied Attachment Status

Two of the five adolescents who had a preoccupied attachment organisation were categorised as "angrily preoccupied" (E2), indicating that they showed high involving anger at their parents at the time of the interview. For one adolescent this

anger seemed to be related to what Guidano (1987) has described as her mother's way of being "extremely attentive to formal aspects of life". This adolescent seemed to be aware of her mother as coming across as entirely dedicated to her (daughter's) well being, but this being more for her mother's image as a good parent rather than fulfilling her (daughter's) need for emotional support. In describing her early relationship with her mother this anorexic adolescent said:

I suppose . . . probably overprotective of me um . . .um . . I think . . . she spent a lot of time worrying about us but um not really trying to get to know us, if you see what I mean.

And in response to asking for a particular memory of this, she responded:

I mean when she discovered that I was asthmatic. We had all the literature about asthma and everything but she was never really interested in it being *me*, you know (mmn), interested in talking to me about it or anything. It was like it was some like little project for her to do. Um, and I don't know. But it seemed like she was just not really interested in me as a person. I was just something that she had to look after. Do you see what I mean?

The AAIs of other Preoccupied adolescents' (3) were given the rare "fearfully preoccupied" classification (E3) because aspects of trauma invaded their speech. For example, one 17-year-old anorexic was particularly preoccupied around her experiences of growing up with a mother who was suffering with a mental illness, and currently angry with her mother. These experiences were brought into the interview spontaneously, and she continued to try to please her mother. In this exert she recalled as a child trying not to upset her mother:

Well like you know when normal kids are like playing and being naughty and she'd say "you're making my nerves bad, you'll cause me to go back into (hospital)" which is the local mental hospital. She'd say "you'll make me have a nervous breakdown if you're naughty all the time (mm) you're not doing my nerves any good".

In this interview, as in many preoccupied AAIs, role reversal was evident. In fact in three out of four of the interviews categorised as preoccupied, the mother-daughter roles seemed reversed so that the daughters were caring for their preoccupied mothers. This type of parent-child relationship deprives the child of childhood and forces upon them a role they ought not have to assume, and one they are likely to (later) deeply resent as they struggle for autonomy.

4.5 Autonomy and Separation

The development of autonomy and separation anxiety have been described (in section 1.2.) as core difficulties in adolescents with anorexia nervosa (Bruch, 1978; Masterson, 1977). In interviewing some adolescents with anorexia their anxieties about separating from their parents and becoming more independent were quite evident. This is illustrated by extracts from two anorexics' transcripts:

Example 1

Has your relationship with your parents changed much since early childhood till now, till as you are now at 17?

Um -- they don't treat me like an adult. . . . I don't want them to either, I feel like I'm leaving them if they started treating me like an adult but I think I -- I think I've got closer to them (mm) since I've grown up especially now anyway. (mm) --

Example 2

.... I feel I missed out, I myself missed out some of my childhood, probably through my own reasons, not anyone else's fault (*sure*) but because I wanted to be like the others. I definitely feel that I missed out in that way, and now I think I'm trying to make up for it, but I suppose its probably just a way of coping with school as well, you sort of go mad sometimes like I still enjoy doing some things that I enjoyed doing as a very young child. I'm quite immature really, but I'm just sick of being an adult at times, I just get fed up with it.

It could be hypothesised that for some adolescents their anorexia maintains a close relationship with their parents, as their parents become more involved in their lives because of the severity and their illness. Similar examples were not so evident in interviews with adolescents diagnosed with bulimia. However, from this study we cannot know whether groups of non-clinical, or other psychiatric groups of adolescents, would also discuss separation difficulties in a similar way, which highlights the need for an appropriate control group matched for age and other demographic factors for comparison. Perhaps adolescents' perceptions on separation difficulties could be explored further in future qualitative research.

4.6 Mothers' Attachment Patterns

On a three-way classification only 40% of the mothers were classified as secure, which is much lower than previous studies of non-clinical mothers (van IJzendoorn et al, 1996). The proportion of mothers classified as preoccupied (on 3-way classification, 45%) in the present study is more similar to that of a clinical sample than non-clinical mothers. However, when the sample of mothers in the present study is compared with the mothers of psychiatrically hospitalised adolescents who participated in Rosenstein and Horowitz's (1996) study, on 3-way attachment classification, a higher proportion of the mothers in the present study were classified as Secure. Also, of the 27 mothers in Rosenstein and Horowitz's (1996) study, 16 (59%) were Preoccupied in attachment status (on 3-way classification), which is more similar to the smaller sample of mothers in the present study.

Preoccupied status has been associated with depression (van Ijzendoorn & Bakermans-Kranenburg, 1996), and it could be the case that some of the mothers were suffering with depression. Symptomatology in mothers was not assessed in the present study, as it was not clearly related to the research questions. However, it would be interesting to know about whether or not mothers were depressed at the time of the interview. This information could be obtained for most of the mothers using the Hamilton Rating Scale (Hamilton, 1960), because their interviews were videotaped. This information will probably be used in the larger Maudsley study.

Another explanation for this higher than expected number of preoccupied mothers and few dismissing mothers could be related to sampling methodology. These mothers agreed to participate in the study and gave consent for their daughters to participate (if under 16 years), while some others who were approached refused. Those mothers who wished to participate might have been more willing to have the opportunity to talk about their childhood because of their preoccupied status. Indeed preoccupied and secure mothers tended to try to be more reflective during the interview than dismissing mothers, who tended to not want to do this, often responding in a hostile way to questions that required this kind of reflective process.

On four-way classification 55% of the mothers were unresolved to loss or trauma, which is considerably higher than non-clinical mothers (19%) in van Ijzendoorn et al's (1996) meta-analysis, and more similar to the clinical samples included in their study. The attachment and resolution status of mothers of eating disordered adolescents in the present study suggests that they are similar to the mothers of

psychiatrically hospitalised adolescents in a recent study (Rosenstein & Horowitz, 1996).

4.7 Transgenerational Attachment Patterns

The results of this study have confirmed our hypothesis that there would be a concordance in attachment patterns between mothers and daughters. The results indicate that for a daughter to be securely attached, the mother had to be securely attached, so that in this sample no mothers of secure adolescents were insecure. In relation to insecure attachments being transferred from one generation to the next, DeLozier (1982) explained that “since parents, as children, never had had their own needs met, they were unable to meet the needs of their offspring. This reported breakdown occurred not in the mechanical sense, but in the “motherliness”, which involves sensitive, empathic interaction with the child” (p. 97). For example, one mother who was preoccupied in her attachment status, continued to be angry with her parents. Her anger about her needs not being met by her parents was evident in the discussion about trying to be a different parent from how she perceived her parents were with her. When asked what effect she thought her childhood relationships and experiences with her parents has had on her she responded:

um -- A huge determination not to go down the same road (mm) and yer I suppose the fact that because of that experience I don't come, I'm probably not a spontaneous mother because I'm also thinking about that, I think that stops me. But I actually getting better at that as I get older, as being more spontaneous.

It seems that this mother is trying to convey what DeLozier (1982) described as the lack of “motherliness” with the child, which is similar to Guidano’s (1986) description of the parent(s) of girls prone to eating disorders (section 1.4.1)

On 3-way attachment classification, association between mother and daughter attachment status (48%) was lower than the association between mothers and psychiatrically hospitalised adolescents (81%) in Rosenstien and Horowitz’s (1996) study. In the present study, if a mother was preoccupied in her attachment status, then the daughter was always insecure, and most of those were dismissing.

In Rosenstein and Horowitz’s sample, analysis of mismatched mother-adolescent pairs showed that dismissing attachment in the adolescent was associated with Preoccupied status of the mother, which is fairly consistent with the findings in the present study. They found three out of four of the dismissive interviews were also unresolved and the adolescents seemed to be “holding back from discussing painful experiences they wished they had forgotten. They were passively compliant with the interview, answering questions only minimally” (Rosenstein and Horowitz, 1996; p.251). This description seems to fit three interviews of adolescents’ interviews in the present study, who had experienced trauma (sexual &/or physical abuse) and were classified as Unresolved to the trauma and dismissing in attachment status, and their mothers were preoccupied. It has been suggested that these adolescents may have a combination of dismissing and preoccupied attachment comparable to the avoidant-ambivalent classification found in a sample of maltreated infants (Crittenden, 1988), and classified as “cannot classify” (Rosenstein & Horowitz, 1996).

Alternatively, it could be that for the adolescents in the present study who were not categorised as “cannot classify”, unresolved is the predominant category, and their dismissing style is more related to a ‘dissociative’ feature in their interviews. Cutting-off from the interview may not only occur when talking specifically about trauma, but where the adolescent is reminded of traumatic experiences when asked more generally about her childhood, so purposefully gives short answers which comes across as Dismissive in the transcript. As these adolescents experienced abuse by attachment figures as young children, it is likely that they were, at times, disorganised in attachment as infants (see section 1.3.1). In relation to Liotti’s (1995) hypothesised association between disorganised attachment and dissociative states, these adolescents, as disorganised infants, may have been more prone to use dissociation, which then developed as a coping response to trauma (section 1.3.2). Their dismissing style now may be more related to their continued reliance on dissociation (which is triggered when asked about traumatic memories in the AAI), rather than the more traditional type of dismissive interview, which is evident in other adolescents in this sample who were not unresolved to trauma.

As the interviewer, there seemed to be a difference in the whole style of the interview (not just when talking about the trauma) with an adolescent who was unresolved to trauma and categorised as primarily dismissing, usually D2 (derogation of attachments), compared with those who were dismissing but not unresolved to trauma. This “felt” difference as the interviewer does not seem to come across in the transcripts, and perhaps this is information that is important, but lost in the transcript.

It may be that from watching the videos of these interviews, this difference would be picked up. Until now all AAIs have only been classified based on the transcript, but further information, particularly in relation to the interviewer-interviewee relationship may be gained from the videos. As most of the interviews were video-recorded, this is an issue that may be investigated further in the wider Maudsley-based study.

4.8 Reflective-self Functioning

4.8.1 Adolescents' Reflective-self Functioning

As predicted, Reflective-self Functioning in eating disordered adolescents was low, and comparable with the small sample of patients with eating disorders in Fonagy et al's (1996) study. Armstrong and Roth (1989) suggested that one reason for the difficulty in assessing attachment and separation issues in an eating disordered population could be that there is a characteristic denial of interpersonal neediness, and difficulty in talking about one's inner world. The denial which they noticed seems to describe a Dismissing attachment strategy, which, as previously mentioned, over half of the eating disordered adolescents in this study exhibited. The ability to talk about one's inner world could be describing the capacity to reflect on their own thoughts and feelings – which is one aspect of reflective-self functioning (RSF). The other part of RSF is the ability to try to understand the thoughts and feelings behind the behaviour of others. Indeed the results show that this eating disordered sample generally scored very low on RSF.

It could be argued that adolescents scored low on RSF because some, particularly the younger participants, may not have yet be at a level of cognitive development where they are able to speculate and hypothesise, i.e. formal operational thought. However, there was no association between age and RSF, and in the age range of 13 to 19 years would expect to show some differences if cognitive developmental level accounted for the low RSF scores. In order to dismiss this argument there is the need for age-matched controls as a comparison group. As yet the RSF scale has not been applied to non-clinical adolescents' AAIs, but this seems to be a necessary study if the RSF scale is to be used in clinical adolescent populations.

4.8.2 Reflective-self Functioning and Transgenerational Attachment

Although mothers' mean RSF was as low as the daughters' RSF, there was no significant association between mothers and daughters RSF scores, which does not support the original hypothesis. This lack of statistical association between mothers and daughters' RSF scores could be due to the fact that most scores were within a small range (2 to 4). Alternatively the finding that mothers' and daughters' RSF were not concordant could be related to the idea that there are many routes to the development of reflective functioning, only some of them directly deriving from the mother's level of reflective stance. It could be that for these adolescents their RSF scores would be more concordant with their fathers than mothers, but also the range of routes of development of RSF increases with age because of the introduction of other influences, such as school, peers, community, therapists, etc., so by

adolescence, the chance of RSF being totally derived from the primary attachment figure is low.

Theory predicts that mothers with a secure attachment status and high RSF would be more able to provide the emotional containment required for the child to develop the capacity to mentalise (section 1.3.8). But no associations were found between mother's attachment status and daughter's RSF. Again the small range of daughter's RSF scores could account for this. But as the RSF scale is derived from the same measure as attachment status (and is measuring something very similar), and there was a lack of concordance between mother and daughter's RSF scores, it is not surprising that there was no significant association between mother's attachment status and daughter's RSF.

4.9 Attachment Organisation and Eating Disorder Diagnosis

No significant differences were found between attachment status (on 2-, 3-, & 4-way categories and diagnosis (AN-R/AN-B & BN). As previously mentioned, these diagnostic labels are not as reliable as looking at the cluster of symptoms the individual is exhibiting. So further analyses focused on reported symptoms rather than diagnostic categories. The prediction that attachment patterns would be associated with levels of symptomatology was partly supported, as insecure attachment was associated with more feelings of ineffectiveness and interpersonal distrust, and self-harming behaviour. Also unresolved status was associated with higher levels of bulimic symptoms. Each of these findings are discussed below.

4.10 Insecure Attachment - Ineffectiveness and Interpersonal Distrust

Insecure attachment was associated with reported feelings of ineffectiveness. Insecure adolescents reported more feelings of general inadequacy, insecurity, worthlessness, emptiness and lack of control over their lives, than securely attached adolescents did (Garner, 1990). This relates to Bruch's (1973) description of the "overwhelming sense of ineffectiveness" as the underlying disturbance in eating disorders. In addition to insecure adolescents having more feelings of ineffectiveness, they indicated higher levels of Interpersonal Distrust, i.e. a general feeling of alienation and reluctance to form close relationships, and to express thoughts or feelings to others (Garner, 1990). These would be predicted to be more evident in insecurely attached individuals, particularly dismissing style of attachment.

In comparing those Dismissing adolescents who were classified as D1, because of the lack of memories of early attachment experiences, with those classified as D2, because they tended to be derogatory towards their attachments, it was the D2 adolescents who scored considerably higher on the scale of Interpersonal Distrust. For these D2 adolescents their responses on the EDI indicated a reluctance to form close relationships, which seems to be a reflection of their attachment style in which they are dismissive of or derogate their attachment relationships. Furthermore, Garner (1990) reported that the need to keep others at a distance has been described as an important factor in the development and maintenance of some cases of eating disorders, and this seems to be related to a D2 style of attachment.

4.11 Attachment Organisation and Drug/Alcohol Use

There was no significant association between drug use and attachment status. This is different from Allen, Hauser and Borman-Spurrell's (1996) findings – that insecure adolescents were more likely to engage in drug abuse, and Rosenstien and Horowitz (1996) findings that those adolescents diagnosed as 'substance abuse' were more likely to have a dismissing attachment organisation. However, in the present study very few adolescents admitted to using drugs, and the reliability of this information is questionable. It is not unusual for adolescents to experiment with drugs, and some who reported drug use may have tried drugs on just one occasion, whereas there were others in the sample who were regularly using a mixture of substances. For example, one bulimic adolescent was binge-drinking since the age of 12, and now at 19 she used multiple drugs. She described her drug use as a way of cutting off from disturbing thoughts and feelings, which is in line with Lacey's (1986) notion of the multi-impulsive bulimic, and Heatherton and Baumeister's (1991) description of bingeing and use of drugs/alcohol as a way of escaping from awareness.

4.12 Attachment Organisation, Dissociation and Self-Harm

Of the small proportion of secure adolescents in the sample, none engaged in self-harming behaviour, whereas over half of the insecure adolescents self-harmed. This finding is relevant to Van der Kolk, Perry and Herman's (1991) results in their exploration of the relationship between childhood trauma, disrupted attachment and

self-destructive behaviour. They found that parental neglect was the most powerful predictor of self-destructive behaviour, and they concluded - “although childhood trauma contributes to the initiation of self-destructive behaviour, lack of secure attachments maintains it.” (p.1669). In the present study, of those adolescents who engaged in self-harming behaviour, most (70%) had experienced sexual and/or physical abuse, and were insecure in attachment organisation.

Self-harming as a category in the present study included cutting and suicide attempts. However, van der Kolk et al (1991) in their analysis of the role of dissociation in self-destructive behaviour, suggested that cutting differs from suicide attempts. Their findings indicated that ongoing dissociation was directly associated with cutting. Therefore, those who made one suicide attempt were excluded from the self-harm group, and re-analysis yielded a significant association between self-harm (cutting and other self-mutilation) and high levels of dissociation. For these adolescents cutting seems to serve to regulate internal affective states, allowing them to terminate this dysphoric state of mind.

4.13 Resolution Status, Dissociation and Bulimic Symptoms

Forty four percent of the adolescents were unresolved to trauma or loss. This is higher than those classified as unresolved (20%) in adolescent and young adult non-clinical populations, and more similar to adult clinical populations (40%) in Van Ijzendoorn and Bakermans-Kranenburg (1996) meta-analysis. Four of the adolescents discussed experiences of childhood sexual (and physical) abuse, and

three reported physical abuse, so 28% of the sample reported physical or sexual abuse (or both). This may be slightly lower than rates that have generally been reported in studies with adults with eating disorders (Connors & Morse, 1993). However, the present study used a relatively small sample, and comparisons with other studies are difficult because of different definitions of abuse, and because most have included adult samples, not adolescents.

The results showed no associations were found between levels of symptomatology on three-way attachment categories. But when four-way categories were analysed a striking association was found between increased bulimic symptoms and unresolved status. When only those unresolved to trauma (which included sexual and/or physical abuse) were compared to those who were not unresolved, the unresolved group still showed significantly higher levels of bulimic symptoms. Unresolved status was also associated with high levels of dissociative experiences. These results are in line with Everill, Waller and Macdonald's (1995a) sample of women with eating disorders - those who reported experiences of sexual abuse also reported more frequent bulimic symptoms (binge-eating) and greater reported levels of dissociation. This is discussed further in figure 5, which is based on Everill and Waller's (1995) proposed model of the association between trauma, dissociation and bulimic behaviours. As with Everill et al's (1995a) findings, the present study showed no differences between diagnostic categories on reported levels of dissociation.

4.14 Unresolved to Trauma and Dissociation

In relation to maltreatment in childhood, those adolescents who reported high levels of dissociation, may have used dissociation as a defense to detach themselves from the unbearable situations as a child. Over time dissociation could have become relied upon to deal with stressors, particularly when these stressors act as triggers of the trauma. For example, this 19-year-old adolescent had just described in the interview experiences of physical, emotional and sexual abuse from the age of ten to fifteen.

Do you think any aspects of your experiences that you've told me about have been a set-back in your development?

. (9 second pause, interviewee looking blank.) Sorry can you repeat that I was miles away.

There is a clear lapse in the monitoring of discourse, suggesting that she has entered into a special state of mind (see section 1.3.5). Indeed in the interview she seemed disorientated and quite cut off from the interview situation. It would have been interesting to ask this participant more about this “dissociative experience” in the interview, but this would have violated the Adult Attachment Interview protocol.

4.15 Unresolved to Trauma and Reflective-self Functioning

In order to come across as resolved to experiences of loss or trauma the individual should feel free to speak of the trauma and have the freedom not to speak of it. So she would be able to acknowledge it as part of her experience but that it does not have to adversely influence her at present or in the future. The adolescents who were unresolved to trauma tended to show a lack of reflectiveness or took a distinctively anti-reflective stance toward their own thoughts and feelings, and those of their

parents. For example, in response to asking what effect her experiences with her parents had on her now, one adolescent who had reported a history of physical and sexual abuse said with marked coldness:

“I don’t know. I really don’t. I wish I did.”

And when asked why she thought her parents behaved the way they did when she was a child, she responded -

“Because both my parents were sexually abused. And my mum was anorexic. And my dad’s just fucked up.”

This overall reluctance to reflect (accompanied by outright hostility) may have developed from avoiding thinking about the minds of her attachment figures who were apparently frightening a child, thus inhibiting the development of mentalising function. Fonagy et al (1996) explained that individuals with experiences of severe maltreatment in childhood often respond by inhibiting mentalising function, and so are less likely to resolve the abuse, and more likely to show ‘borderline psychopathology’. In their study they were describing a group of adults diagnosed with borderline personality disorder (BPD). Although all of the participants in the current study had a primary diagnosis of eating disorder, it seems that a subgroup of bulimics who tended to be multi-impulsive (i.e. use drugs/alcohol, self-harm, sexually promiscuous), may also manifest borderline psychopathology. However, clinicians did not diagnose the adolescents with personality disorders, so this is an observation I have made based on clinical notes and reported symptoms. Some of the adolescents who were abused may have coped by cutting off from the experiences (perhaps through dissociation, as they reported high levels of dissociation) and successfully avoided thinking about their parent’s wish to harm them. Fonagy et al (1996) believe that this avoidance of thinking about their thoughts and feelings and

those of others becomes generalised to all subsequent intimate relationships, and lack of reflective functioning becomes a core part of their psychopathology.

With the use of dissociation as a defense, traumatic memories would not be easily processed, and therefore the individual would be more likely to remain unresolved to the trauma. In continuing to use dissociation as a way of cutting off from these unresolved painful memories, the individual is prevented from processing the cognition and affect together to be able to come to terms with their past. They may continue to use dissociation as a defense when confronted with distressing thoughts, and have a limited capacity to reflect on their thoughts and feelings behind behaviours and those of others.

There is some evidence to support the notion that stress hormones, which are released when individuals with previous trauma are re-exposed to stimuli reminiscent of earlier traumas (triggers), play a role in altering their state of consciousness (van der Kolk, 1987). Further research may find that dissociation, and related bulimic and self-harming behaviours, are mediated by hormones that are released by reminders of early traumatic experiences.

4.16 Transgenerational Attachment and Dissociation

In the context of Liotti's (1995) hypothesis that patients with dissociative disorders should be more likely to have parents who suffered unresolved grief (see section 1.3.7), mothers' status as unresolved to loss/trauma was predicted to be associated with high levels of daughter's dissociation. A trend towards an association between

mothers being unresolved to loss/trauma and daughters reporting high levels of dissociative experiences was found, but this did not quite reach significance. However, the numbers were small, and it could be that some of the mothers in this sample who were unresolved to loss or trauma experienced the loss more recently, rather than around or before the birth of their daughter, so were not in an unresolved state during the early attachment process. Therefore, the parent would not be perceived as frightening, and the infant would be less likely to be disorganised in attachment with the mother. The AAI coding for lack of resolution does not distinguish the time of the trauma or loss, but if unresolved status was for abuse, then it can be assumed that the mother's unresolved status was operative in the daughter's early attachment. The timing of losses to which the mothers were unresolved could probably be ascertained by going through each of the mothers' transcripts.

One can speculate that during the formative early years some of those dissociation-prone adolescents' fathers were unresolved to loss or trauma, and were therefore perceived as frightening to the infant, so the infant's disorganised state would have been more related to her attachment with father than her mother. For the adolescents who were unresolved to trauma and experienced high levels of dissociative experiences, their reported sexual and/or physical abuse tended to be primarily from the father. Although some childhood physical abuse was at the hands of a mother, the adolescents often described themselves as feeling more afraid of their fathers than mothers. A further study could include administering the AAI to fathers of adolescents, and look for an association between attachment and resolution status in fathers and daughters, and dissociation status in daughters. This idea of including

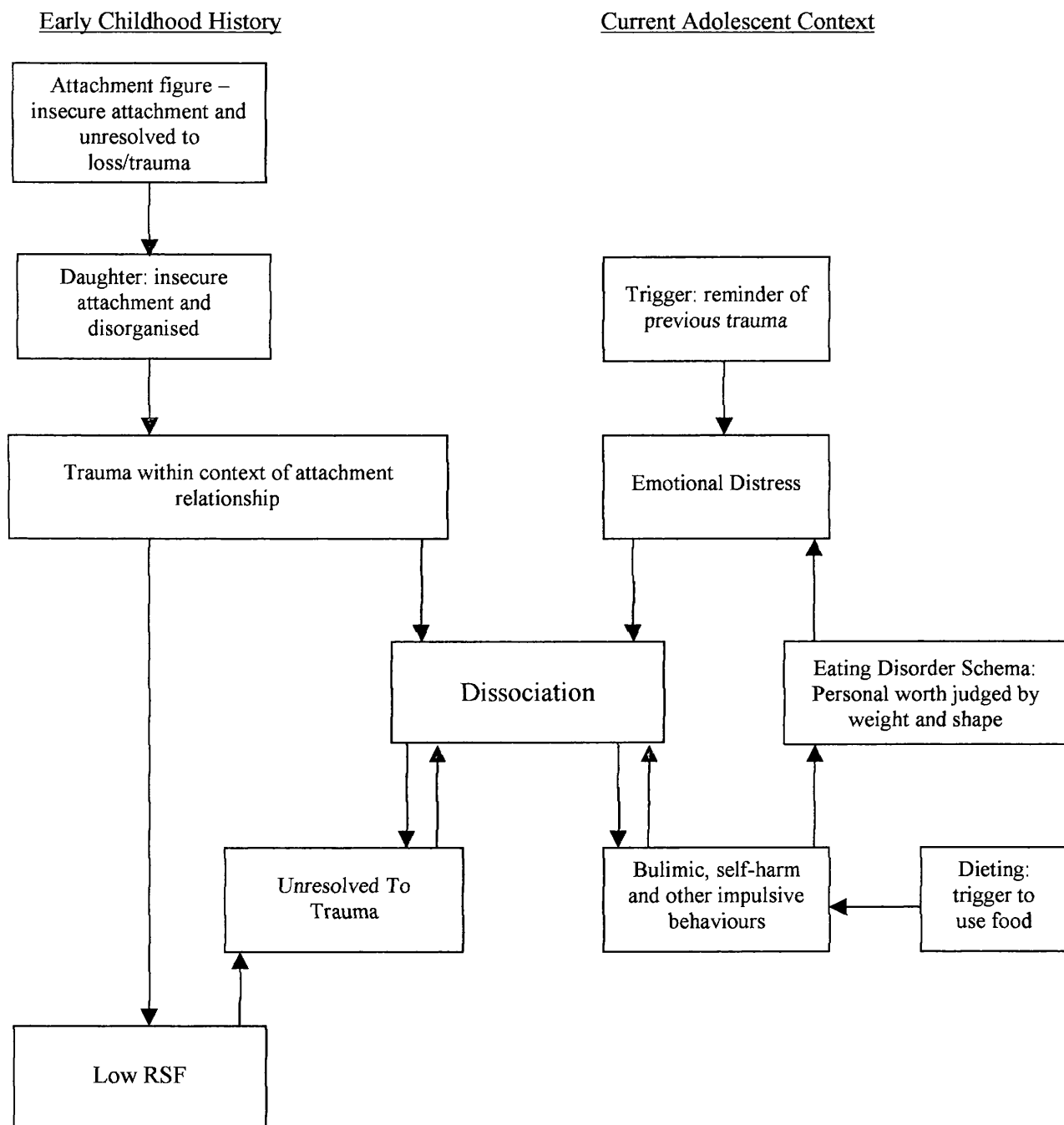
fathers is represented in a model (figure 5) which aims to link some concepts from attachment theory with existing theoretical models about the roles of trauma and dissociation in the development of bulimic and other tension-reducing symptoms.

Finally, the hypothesis that patients with dissociative disorders should be more likely to have a parent who suffered unresolved grief, is based on the assumption that high levels of dissociation in adolescents is related to being disorganised with an attachment figure as an infant. But information about the adolescents' attachment patterns as infants is not available, so we do not know whether any of these adolescents were in fact disorganised during infancy. Only a longitudinal study looking at attachment in infancy and dissociative experiences in later life would be able to indicate this.

4.17 A model of the relationship between attachment, dissociation, and bulimic behaviours

Figure 5 is based on Everill and Waller's (1995, p.136) proposed model of the relationship between trauma, dissociation and symptomatology, and attempts to include some ideas about attachment and reflective-self functioning which have been explored in the present study. Although this proposed model refers to bulimic symptoms, it should be noted that not all bulimic adolescents in our sample reported high levels of dissociative experiences or engaged in self-harm or other impulsive behaviours. Therefore, this model relates to a subgroup of adolescents with bulimia, whose bulimic behaviour tends to be more severe and is associated with self-harm and other impulsive behaviour.

Figure 5: Proposed model linking Attachment, Dissociation and Bulimic Behaviour



The left-hand side of figure 5 introduces concepts from attachment theory about the predisposition of infants to use dissociation, and the restricted development of reflective-self functioning which seems to have a role in the maintenance of symptoms, and is relevant for therapy. The results of present study showed a trend indicating an association between unresolved status in mothers and daughters' high dissociative experiences. The model has included Liotti's (1995) hypothesis about the relationship between unresolved mothers and disorganised status in infants, with the addition of the influence of the attachment and resolution status of fathers, or other important attachment figures. Some adolescents had various primary attachment figures during childhood who were not mother/father (e.g. grandparent, foster parent, step-parent), so the top left-hand box includes insecure attachment status (with their own caregiver) and unresolved status of "attachment figure".

In the context of the intergenerational transmission of insecure attachment patterns, the model shows that the daughter is likely to be insecurely attached, and sometimes disorganised with an attachment figure who is perceived as frightening, which may be due to the attachment figure being unresolved to loss or trauma (see section 1.3.7). Liotti (1995) hypothesised that being disorganised with an attachment figure as an infant could predispose some children to use dissociation as a defense later in life, particularly if she experiences trauma (e.g. sexual/physical abuse). Here dissociation is an adaptive mechanism to cut-off from the painful traumatic experiences. Also trauma within the context of an attachment relationship is thought to discourage the development of reflective-self functioning (Fonagy et al, 1995), as the child avoids thinking about the minds of her attachment figure who is frightening to her. The

model indicates that the continued use of dissociation prevents the traumatic memories from being integrated, so they remain out of awareness until activated by a trigger which is reminiscent of the previous trauma. As these memories remain out of awareness they are not processed further, remaining in their original form and not thought about in a reflective way, so she tends to remain unresolved to the trauma (arrow from RSF in figure 5).

The right-hand side of figure 5, taken from Everill and Waller's (1995) proposed model, suggests that bulimic behaviour (or other impulsive behaviour such as self-harm) develops following a "trigger" that is in some way reminiscent of the original trauma and evokes feelings associated with the original trauma. Stressors that rouse feelings associated with the trauma, which seem innocuous to others, may act as a trigger for someone who has experienced abuse. The powerful feelings created by this trigger may become too strong for the individual to block, and could cause her to become extremely distressed, to a level that she does not have the mechanisms to cope. Dissociation is used (as it had been previously used as a child during trauma) to cut-off from the distress. Lacey (1986) suggests food and its manipulation is a readily available coping mechanism, particularly if the individual is already focusing on food through previous dieting.

The present study showed that other impulsive behaviours such as self-harm and drug/alcohol abuse were associated with bulimic symptoms. Bingeing, self-harming, and substance abuse all seem to have a common feature – that the impulsive behaviour temporarily reduces tensions. It therefore receives immediate positive

reinforcement, which may contribute to the development of a vicious cycle. If tension reduction is an essential underlying function of bulimic symptoms, substance abuse and self-harming, then it would seem that each of these behaviours could be easily substituted by another impulsive behaviour. Often bulimics have described their bingeing and cutting as being totally absorbed in the behaviour and not knowing what was going on around them. However, it is not possible to know whether the impulsive behaviour occur because the individual is in a dissociated state, so she is not fully aware of her behaviour (Heatherton and Baumeister's (1991) conceptualisation), or whether the individual learns the behaviour as a way of cutting off from distress (i.e. she totally focuses on food so is able to cut-off from other thoughts/feelings, as in Lacey's (1986) formulation). This is indicated by the double arrows in the model from dissociation to bulimic behaviours.

Everill and Waller (1995) describe the bulimic behaviour as initially restoring a sense of predictability, as life may seem confusing, particularly if the bulimic is experiencing dissociative episodes. But this sense of predictability would last only a short time after a binge/purge episode. The use of bulimic and other tension-reducing behaviours, plus the reliance on shape and weight to judge self-worth (Vitousek and Hollon, 1990), can lead to a poor self-image. This poor self-image which causes increased emotional distress, could act as another trigger for the impulsive behaviours. This cycle maintains a reliance on dissociation and the bulimic and other impulsive behaviours to reduce distress (Everill & Waller, 1995).

The following section discusses ideas about the clinical implications of the findings of the present study.

4.18 Clinical Implications

The picture painted so far of an almost inevitable transmission of attachment patterns through generations is depressing. It assumes that insecure attachments in parents ensure that their child will be insecurely attached. It even seems to suggest that if a parent has experienced trauma then it is likely for the child to experience and remain unresolved to traumatic experiences. However, it is important to remember that Main et al's (1985) original study showed that some children of parents who had traumatic early experiences were securely attached. Further, Steele and Steele (1994) report that 40% of their non-clinical autonomous-secure sample had experienced some significant childhood adversity or trauma. These secure respondents are able to give a clear and understandable account of their childhood with all its ups and downs, and showed the capacity to empathise with the difficulties their parents had in parenting them, and acknowledge their own contribution to some difficulties. This would suggest that it is not necessarily what happened in the parent's own childhood, but what they made of that experience which influences whether or not they can provide a secure base for their own children. So the route to security is often arrived at via a coming to terms with emotional pain. This has implications for therapy; helping an individual to achieve a coherent picture of their past experiences may enable them to provide a better parenting experience for their own child.

Byng-Hall (1995) summarised Ricks' (1985) ideas about the transition from insecurity in one generation to security in the next, which would involve a change in the underlying mental representation of the self and other. This needs to include some emotionally corrective experiences, such as change within the same early

relationships over time, repeated experience in other relationships that disconfirm earlier models, or good experiences within one relationship. This reorganisation could happen at particular points in life, such as when adolescents review their experiences and distance themselves from how their own parents behaved. According to Byng-Hall (1995) this would be a particularly good time for “corrective scripts”¹ to be established, which is relevant to the adolescents in this study. It could be that during individual therapy, a new experience within that relationship allows the adolescent to build a new internal working model of attachment, which would entitle the adolescent to see herself, and herself in relation to others, in a different way. This change would be expected to affect symptomatology, for example she may feel more able to enter close relationships (lower interpersonal distrust), reduced feelings of ineffectiveness (so increasing self-esteem), which have been considered as underlying disturbances in eating disorders (Bruch, 1973; Garner, 1990).

There are early signs that AAI classification has indicated who is most likely to improve in psychotherapy. Fonagy et al (1996) found that dismissing patients showed greatest improvement in psychotherapy, and they argue that it may be easier for someone to think about past relationships as determinants of current difficulties when they have avoided thinking about such issues, than it is to change someone’s rigid beliefs. This initial outcome study is encouraging for the large group of dismissing adolescents in the present study.

¹ A script is the family’s shared expectations of how family roles are to be performed in different contexts. Corrective script refers to changing this way of relating.

In relation to becoming more understanding of their childhood experiences, Byng-Hall (1995) described helping the individual to understand their parents' dilemmas, and see that they struggled in the circumstances. He suggests using genograms to go back to at least as far as understanding the grandparents' background. This task in therapy could help adolescents to think about the way their parents behaved with them, in terms of thoughts, beliefs and experiences of their parents, i.e. being more reflective. In therapy an area to work on would be to aim to increase the individual's level of reflective-self functioning, so that a new story of their past could develop which takes into account the beliefs and perspectives of the other. In this way they may be able to understand and come to terms with their past. In the context of the model in figure 5, becoming resolved to past experiences would be expected to help reduce experiences of distressing emotions in response to reminders of the past, so decreasing the reliance on dissociation and associated tension-reducing behaviours.

Working with Dissociation and Bulimic Symptoms

Fichter, Quadfleig and Reif, (1994) found that multi-impulsive tended to terminate treatment more prematurely than the non-impulsive bulimics, and speculated that they show more avoidance behaviour and more reluctance to deal with relevant personal issues in therapy. They felt that this group had difficulty in building up stable relationships with a therapist. If this impulsive behaviour is framed in the context of dissociation, then their "avoidance" in therapy can be seen as a normal defensive strategy for the individual of cutting off from difficult or painful emotional experiences. In therapy any attempt to undo these dissociative defenses would seem to run the risk of becoming traumatising again. Mollon (1996) advised that any work

involving reconnecting with childhood trauma should be approached very carefully and with appropriate pacing. Therapy needs to clarify how current stresses are experienced as a return of past traumas and small disruptions in relationships as repetitions of abandonment (Van der Kolk et al, 1991).

If dissociation and past trauma are not addressed in therapy, the bulimic behaviours that are being focused on during treatment may just be replaced by other impulsive behaviours, or by increased dissociative tendencies. Kennerley (1996) discussed practical ways in which schema-focused cognitive therapy can be used to work with clients with dissociative symptoms associated with trauma. She described two levels of active intervention: at the point of precipitation of, and reaction to, dissociation, and managing the content of the dissociative experience. Emphasis is placed on building a working alliance and creating a safe environment for therapy.

In research with traumatised children and adults, van der Kolk (1987) suggests that traumatic memories: i) lack verbal narrative context, ii) are encoded in the form of vivid sensations and images, iii) are difficult to assimilate and integrate, in that they are stored differently – often dissociated from conscious awareness and voluntary control, and iv) often remain fixed in their original form and unaltered over time, so remain unresolved to the trauma. In order to re-story events in therapy, they need to already be in a narrative form, but for the adolescents who are unresolved to trauma, and use dissociation to keep these memories and emotions at bay, these memories have never been put in a narrative form. Kennerley (1996) suggests that traumatic images respond well to modification through imagery, especially when unhelpful

beliefs and affect are encoded as images rather than being verbally accessible. In order to use this technique, the client must feel secure in the therapeutic relationship.

The AAI and Family Therapy

The AAI was conducted with mothers and daughters who were currently in family therapy, (some were also in individual therapy). Prior to starting the interview, participants were told that the interviews were not part of their therapy, but that they may feel that some of the issues discussed could be taken into their therapy, and that would be their decision to do so. One family, where the mother and daughter were unresolved to loss of the mother's son who died while she was pregnant with her daughter (identified patient), did bring their experience of the AAI into their family therapy. During family therapy they were able to talk about the loss of the son for the first time, perhaps because the family therapy acted as a secure base from which the family could explore. Byng-Hall (1995) discussed the idea of a family therapist providing a temporary secure base for the family during therapy, with the aim being to improve family network of attachment relationships so that the family can establish itself as a secure base. This would enable them to explore and solve their own problems during and following therapy. It would be interesting to know what it might mean for a family to become a 'secure base' in terms of whether the adolescent becomes secure, or parents become secure, or all together. As the Adult Attachment Interview has been used as an outcome measure for a groups of patients in individual psychotherapy (Fonagy et al, 1996), with attachment security assessed as an index of change, perhaps this could also be applied to measure an index of change in family therapy.

4.19 Methodological Issues

This section discusses some of the methodological issues that have arisen while conducting the study, some of which were not foreseen prior to starting this research.

Design

When this study was devised I aimed to recruit participants from the Maudsley clinic only, at a time when patients had just begun family therapy. But as the research developed it became evident that the sample would be very small because not all referrals to the unit were appropriate, and some of those approached did not wish to participate. I recruited from two additional clinics to increase the sample size, but this also meant that some participants had been seen in family therapy (and some in individual therapy) for up to two months before they were interviewed. In this way the sample was not homogenous. It could be argued that for some individuals in therapy, some changes could have occurred in their working model of attachment through a therapeutic relationship, or through changes in family dynamics. But the results indicate that all of these adolescents were insecure in their attachment patterns when interviewed.

Despite recruiting from three separate clinics, the sample size is fairly small, which limits the power of the results. However, this was designed as an exploratory study only, and the sample size will increase as the Maudsley research team continues to interview new patients in an ongoing study.

One of the limitations of this study is that only mothers were interviewed and not fathers, or other attachment figures. Fathers were not interviewed because it would have been very difficult to recruit fathers with the limited resources. Mothers, rather than fathers, were selected because they tend to be the primary attachment figures, and as previous studies have included only mothers of adolescents (e.g. Rosenstein and Horwitz, 1996) there were more published studies for comparison of results from this study.

Another limitation of this study was the lack of a control group of adolescents matched for age and other demographic factors, and a comparison group of non-eating disordered clinical adolescents. This is particularly important in comparing the RSF in adolescents with a non-clinical sample, because as RSF is a fairly new measure, there are not yet any published studies with adolescent samples for comparison.

Measuring Levels of Dissociation

The DES is not a definite tool for diagnosing dissociative disorders, but is a screening tool to identify those who may have high levels of dissociation (Carlson & Putnam, 1993). In this study a fairly high cut-off score of 30 was used to distinguish those adolescents who had a high level of dissociative experiences. Other studies have selected a lower cut-off scores on the DES, but DES scores and age have been found to correlate weakly, with younger people scoring higher (Bernstein Carlson & Putnam, 1993), so it was important in this study with adolescents as young as 13-14 years old, to use a higher cut-off score.

In the present sample only 20 of the 25 participants completed the scale. Three did not return the postal questionnaire, as they had already been interviewed before I joined the larger Maudsley study. But the other two refused to complete the DES-II because they thought it was related to use of drugs. This could be interpreted as evidence that some adolescents may not have understood some items in the scale. The DES-II was selected because it is relatively quick to complete, and easy to administer, but in the light of evidence that the items could be misinterpreted, it may have been more reliable to use a structured interview. The validity of the individuals' responses may have been increased, if for each item with a score of 20 or more, I would have asked the participant for an example of the dissociative experience. With this method it would have been possible to find out if the participant had understood a question differently than it was intended.

Eating Disorder Symptoms

In the present study information about bulimic behaviours was obtained from a self-report questionnaire, and an average score gave us a level of symptomatology. It probably would have been more informative to use eating diaries which the adolescents could keep for two weeks, as Everill et al's (1995a) sample did, to look at levels of bingeing and vomiting separately. They found that only levels of bingeing were associated with dissociation. However, diary keeping may have interfered with individuals' current treatment, and the completed BITE questionnaires could be further analysed to look for differences in binge/purge behaviour in relation to levels of dissociation.

4.20 Conclusion

Just over three-quarters of eating disordered adolescents were insecurely attached, and insecurity was associated with insecure attachment status in mothers. Although some adolescents were securely attached but nevertheless suffering with an eating disorder, there is evidence to support the idea that the insecurely attached adolescents had more psychopathology – they were more likely to be inpatients and engage in self-harm behaviour, compared with securely attached adolescents in this sample. In this way attachment insecurity could be a factor in severity of illness. Alternatively, as the majority of insecurely attached adolescents were dismissing in their attachment organisation, dismissing attachment style could be seen as one particular predisposing factor for eating disorders. So multi-factoral models of eating disorders (e.g. Slade 1982) could incorporate insecure (dismissing) attachment as a predisposing factor (among others) to the development of an eating disorder. Within this context the attachment strategy may play a role in the development of the disorder, but only in association with other precipitating and maintaining factors.

The results of this study suggest that for some adolescents who may have been disorganised in a primary attachment relationship in childhood, within the context of abuse within the attachment relationship, dissociation was probably relied upon as a defense mechanism. This continued use of dissociation seems to have a role in the maintenance of their current bulimic and other impulsive symptoms. A model has been proposed which expands on existing theoretical models, to include ideas about the cross-generational transmission of attachment patterns, dissociation and bulimic behaviours. This has clinical implications for both working with the individual's

symptoms, and for creating a better parenting experience for their own child. However, in order for attachment theory and research to make a significant contribution to the development of eating disorders, there is a need for longitudinal studies exploring attachment behaviour in infancy and childhood and psychopathology in adolescence and adulthood.

Future Directions

In collecting data for this study, information was gathered which was not analysed as part of this study, and will be examined in the wider Maudsley-based study. Of particular interest was that many adolescents described experiences of being “bullied” when they were younger, and some felt these experiences were a set back in their development. It would be interesting to look bullying in relation to RSF, as the capacity to think about the thoughts and feelings behind the behaviour of others may be related to the child’s way of coping with such experiences.

It would also be interesting to look at the AAI scales more thoroughly in this sample of adolescents, particularly the idealisation of parents, and other dimensions as the sample size increases. AAIs are now being administered to adolescents as they are seen in family therapy at the Maudsley Hospital Eating Disorder Clinic. This increasing data could be used to look at attachment status in relation to outcome of therapy. Measurement of outcome could be assessed in terms of improvement in symptoms, drop-out rate, clinicians’ ratings of improvement, etc. Also, the AAI could be repeated at the end of therapy as an index of change.

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Zeanah, C. H., Beniot, D., Barton, M., Hirschberg, M. & Lipsitt, L. (1993) Representations of attachment in mothers and their one year old infants. *Journal of American Academy of Child and Adolescent Psychiatry*, 32, 278-268.

APPENDIX

I - Summary of Adult Attachment Interview questions – prompt sheet

II - Ethical Approval:

- i) The Maudsley Ethical Committee: copies of letters to show initial ethical approval for the wider Maudsley study, and correspondence approval for the addition of the Dissociative Experiences Scale II for this study.
- ii) Barnet Research Ethics Committee copy of letter for approval to recruit participants from the Northgate Clinic.
- iii) Rhodes Farm Clinic: copies of correspondence with Maudsley Ethical Committee to extend ethical cover to recruit participants from Rhodes Farm Clinic.

III – Letter sent to adolescents who had already been interviewed at the Maudsley Hospital, requesting completion of an additional questionnaire – DES-II.

IV – Information Sheets

- i) For adolescents.
- ii) Letters sent to mothers.

V – Consent forms for participants at each clinic.



THE
BETHLEM & MAUDSLEY NHS TRUST

ETHICAL COMMITTEE (RESEARCH)

Our ref: DD/89

25 May 1994

Dr K Pugh
Department of Psychotherapy
OP Dept
The Maudsley Hospital
Denmark Hill
London SE5 8AZ

Please reply to

Bethlem Royal Hospital
Monks Orchard Road
Beckenham
Kent BR3 3BX

Telephone: 081-777 6611
Extension: 4123
Fax: 081-777 1666

Direct Line: 081 776 4123

Dear Dr Pugh

CHILDHOOD EXPERIENCES, EXPRESSED EMOTION AND ADULT ATTACHMENT IN PATIENTS WITH BULIMIA NERVOSA AND THOSE WITH ANOREXIA NERVOSA AND THEIR FAMILIES (89/94)

The Ethical Committee (Research) has approved, from the ethical standpoint, the research project involving investigations on human subjects as set out above, subject to minor amendments. You are asked to provide a separate consent form for members of the family who are not patients. The Committee also felt that Section 4 f) iii) of the application form might cause confusion as to who would receive the £3,000. Please will you let me have a copy of the consent form before the study can begin.

If patients of the Joint Hospital are involved, you may find it helpful to obtain consultant approval by means of the attached proforma letter.

In any further correspondence about this project would you please quote project number 89/94.

Yours sincerely

Dawn Draper

Dawn Draper (Mrs)
Committee Administrator
Chief Executive's Department

Enc

Registered Address: Bethlem Royal Hospital, Monks Orchard Road, Beckenham, Kent BR3 3BX



Patron: HRH Princess Alexandra, the Hon. Lady Ogilvy, GCVO

Maudsley Hospital

Denmark Hill
London
SE5 8AZ

Telephone: 0171 703 6333
Fax: 0171 919 2171

Ethical Committee (Research)

Direct Line: 0171 919 2892

20 March 1996

Dr K Pugh,
Senior Registrar,
Psychotherapy,
Institute of Psychiatry.

Dear Dr Pugh,

Re: Childhood experiences, expressed emotion and adult attachment in patients with bulimia nervosa and those with anorexia nervosa and their families (89/94)

Thank you for your letter of 20 February regarding a proposed amendment to the above study to add a questionnaire. This was considered by the EC(R) when it met on 15 March. The Committee has asked if you could provide a rationale for including this questionnaire in the study.

Yours sincerely,



Clare Armour
Committee Administrator

17.4.96

Dear Ms. Armour

Re: Childhood experiences, expressed emotion and adult attachment in patients with bulimia nervosa and those with anorexia nervosa and their families (89/94).

In response to the request in your letter of 20 March, I now include a rationale for adding the Dissociative Experiences Scale II questionnaire in the above study.

Recent evidence has indicated that eating disordered patients demonstrate higher levels of dissociative psychopathology than control subjects (e.g. Everill and Waller, 1995). There also appears to exist a different profile in pathological dissociative symptoms depending upon whether the eating disordered individual is anorexic or bulimic, with bulimics showing higher levels of dissociation. Binge-eating, a central feature of bulimia, has been likened to a primitive defense mechanism (e.g. Vanderlinden et al, 1993), and is widely perceived as a way of coping with difficult feelings and painful memories. Yet there has been little systematic research measuring dissociative symptoms together with empirical assessments of childhood experiences and family functioning in eating disordered patients. Adding the 28-item Dissociative Experiences Scale II questionnaire, which has been previously validated and shows good test-retest reliability, would achieve this aim. Participants yet to be seen will be asked to complete the questionnaire during their visit to the clinic. Participants who have already been interviewed will be sent the questionnaire by post, and followed up by telephone.

I hope that this makes the addition to our ongoing research possible.

Yours sincerely

Dr. Kate Pych

SR. Psychotherapy

X 2385

ETHICAL COMMITTEE (RESEARCH)

Tel: (0171 919) 2892

4 June, 1996

Dr K Pugh
Dept. of Psychotherapy
Institute of Psychiatry

Dear Dr Pugh

Re: Childhood experiences, expressed emotion and adult attachment in patients with bulimia nervosa and those with anorexia nervosa and their families (89/94)

The Chair of the Ethical Committee (Research) has taken Action to approve the amendment to the above study from an ethical standpoint. Please note that this approval is subject to confirmation by the full committee when it meets on June 21st 1996.

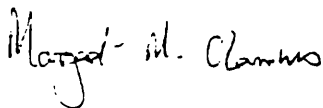
Please note that approval is subject to your completion of progress reports on the study when requested by the EC(R).

Please let me know if you would like to nominate a specific contact person for future correspondence about this study.

Any serious adverse events which occur in connection with this study should be reported to the Committee using the attached form.

Please quote Study No. 89/94 in all future correspondence.

Yours sincerely,



Margaret Chambers
Committee Administrator

Please reply to:

**East Barnet Health Centre
149 East Barnet Road
New Barnet, Herts, EN4 8RB**

**Tel: 0181 440 7417
Fax: 0181 447 0126**



**Barnet Health Authority
Hyde House
The Hyde
Edgware Road
London NW9 6LH
Tel: 0181 201 4700
Fax: 0181 201 4701**

Please ask for:

Direct Dial:

BARNET RESEARCH ETHICS COMMITTEE

Please note that it is essential to quote the protocol reference in all correspondence.

LMS/mas

13 November 1996

Ms. Emma Silver
Clinical Psychologist in Training,
Sub Department of Clinical Health Psychology,
University College London,

Dear Ms. Silver,

Re: 96/41 - Family Experiences & Eating Disorders: Attachment Patterns of Adolescent girls with eating disorders and their mothers

This protocol was considered by the Barnet Research Ethics Committee at its meeting held on Wednesday 6th November 1996. I am happy to issue approval for this study to commence at the Northgate Clinic and I should be grateful if copies of this letter of approval could be sent to both Mr. Jarvaid Khan, Acting Chief Executive, Barnet Health Authority, Hyde House, The Hyde, Edgware Road, London, NW9 and Mr. Murray Duncanson, Chief Executive, Barnet Healthcare NHS Trust, Colindale Hospital, Colindale Avenue, London, NW9 for information.

I should be grateful if you could let me know the date that this study commences and I should like to remind you that approval for this project expires in one year's time and will be reinstated upon receipt of a satisfactory Annual Progress Report.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Linda M Stanton".

**Dr. Linda M Stanton.
Chairperson.**

3rd October 1996

Ms Clare Armour
Committee Administrator
Ethical Committee (Research)
The Bethlem and Maudsley NHS Trust

Dear Ms Armour,

Re: Childhood experiences, expressed emotion and adult attachment in patients with bulimia nervosa and those with anorexia nervosa and their families (89/94)

I am contacting you because of the need to increase numbers in our sample to meet the original targets in the above study. Fortunately, the opportunity has arisen to recruit participants from patients who are currently attending Rhodes Farm Clinic.

Rhodes Farm is a specialist unit in north London for adolescents with anorexia nervosa or bulimia nervosa. There are currently 25 families attending the clinic, who could potentially become participants in this study. I have received approval from Dr Dawson at Rhodes Farm Clinic, and from Consultants and other clinicians involved in the care of patients there, to administer the interviews and questionnaires.

Families attending family therapy at Rhodes Farm would be recruited in exactly the same way as participants at the Maudsley Hospital have been so far in this study. This is described in the original ethics form. The same procedures would be followed, using the same measures as previously described, including consent forms for each participant, which includes a statement allowing participants to drop out of the study if they wish at any time, and that the study has no bearing on their treatment at Rhodes Farm whether they do or do not decide to become involved. The same measures will be taken to ensure confidentiality is maintained.

I hope that this extension to our ongoing research will be possible, and that I may have your confirmation of this at your earliest convenience so that data collection may proceed.

If you have any queries, please do not hesitate to contact me.

Yours sincerely,

Dr. Kate Pugh
Senior Registrar in Psychotherapy
x 2385

Emma Silver
Psychologist

ETHICAL COMMITTEE (RESEARCH)

Tel: (0171 919) 2892

4 March, 1997

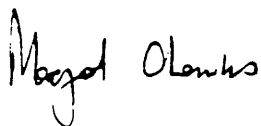
Dr K Pugh
Dept. of Psychotherapy
Institute of Psychiatry

Dear Dr Pugh

Re: Childhood experiences, expressed emotion and adult attachment in patients with bulimia nervosa and those with anorexia nervosa and their families (89/94)

The Ethical Committee (Research) considered the amendment of the above project at its meeting on 21 February 1997. It asked that you specify that children over 16 will give their own consent (please see letter of 12 February 1997) and that you clarify the contractual status of Ms Silver with respect to the Maudsley.

Yours sincerely



Margaret Chambers
Committee Administrator

THE MAUDSLEY

Advancing mental health care.

Maudsley Hospital

Denmark Hill
London
SE5 8AZ

Telephone: 0171 703 6333
Fax: 0171 919 2171

Ms -----
Address

Dear -----,

I would like to thank you for recently participating in the interview for our research: 'Family Experiences in Eating Disorders'. As a further part of the study there is a short questionnaire to be completed, which is enclosed with a pre-paid addressed envelope. I would be very grateful if you could take a few minutes to fill out the questionnaire and send it to me. The information is completely confidential, and you do not have to write your name on the form.

Once again, thank you for participating in our research.

Yours sincerely,

Dr. Kate Pugh
Senior Registrar, Psychotherapy.

Emma Silver
Psychologist.

The Northgate Clinic
Snowdon Drive
Hendon NW9 7RF

INFORMATION FOR PATIENTS

I am writing to tell you about, and invite you to participate in, a research study that I am conducting. I am a Clinical Psychologist in Training in my final year of the Doctorate course at the University College London, and I am currently working with adolescents and families at another clinic in London.

The title of the study is: "Family Experiences in Eating Disorders: Attachment Patterns in Adolescents with Eating Disorders and their Mothers"

Aim of the Study

In general this study is looking at family experiences of adolescents with eating disorders - anorexia nervosa or bulimia nervosa. Symptoms of eating disorders can be distressing to both the individuals and their families, and further insights into family experiences may help us to understand more about eating disorders, and shed light on the practice of therapy. In particular the study aims to look at the adolescents' relationships and their mothers' relationships with those they are or have been close to, i.e. their "attachment patterns", which are thought to influence how we feel about ourselves.

Participation

So far I have interviewed 14 adolescents who have eating disorders and their mothers, who are being seen by therapists at another clinic in London. However, I am looking to involve some more families, and I approached the Northgate Clinic who gave me permission to contact you.

The study involves interviewing mothers and daughters separately. I would like to interview you using a standardised research interview, which has been used safely in many previous studies. The interviews last between 45 minutes and an hour and 15 minutes, and are generally experienced as interesting and potentially helpful. The interview would be audiotaped in order that they may be rated for the purpose of the research, but I can assure you that confidentiality would be maintained and any records would be destroyed at the end of the study, if that is your wish.

If I felt there were issues from the interview that needed to be discussed with staff at the clinic, I would discuss this with you first.

Your decision to participate in this research is yours to make, and refusal to participate will not affect in any way your treatment at the clinic.

I will come to the clinic to answer any queries you might have. If you decide you would like to participate, I will write a letter to your mother explaining the study, inviting her to be interviewed, and asking her consent for your participation.

I look forward to meeting you,

Yours sincerely,

Emma Silver,
Psychologist. Bsc. Hons.



INFORMATION FOR PATIENTS

I am writing to tell you about, and invite you to participate in, a research study that I am conducting. I am a Clinical Psychologist in Training in my final year of the Doctorate course at the University College London, and I am currently working with adolescents and families at another clinic in London.

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Your decision to participate in this research is yours to make, and refusal to participate will not affect in any way your treatment at the clinic.

I will come to the clinic to answer any queries you might have. If you decide you would like to participate, I will write a letter to your mother explaining the study, inviting her to be interviewed, and asking her consent for your participation.

I look forward to meeting you,

Yours sincerely,

Emma Silver,
Psychologist. Bsc. Hons.

The Northgate Clinic
Snowdon Drive
Hendon NW9 7RF

Dear Mrs.

I am writing to tell you about, and invite you to participate in, a research study that I am conducting. I am a Clinical Psychologist in Training in my final year of the Doctorate course at the University College London, and I am currently working with adolescents and families at another clinic in London.

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Participation

So far I have interviewed 15 adolescents who have eating disorders and their mothers, who are being seen by therapists at another clinic in London. However, I am looking to involve some more families, and I approached the Northgate Clinic who gave me permission to contact you.

The study involves interviewing mothers and daughters separately. I would like to interview you using standardised research interviews, which have been used safely in many previous studies. The interviews last between 45 minutes and an hour and 15 minutes, and are generally experienced as interesting and potentially helpful. The interviews would be audio-taped in order that they may be rated for the purpose of the research, but I can assure you that confidentiality would be maintained and any records would be destroyed at the end of the study, if that is your wish.

Your decision to permit or not to permit your involvement in this research is yours to make and will have no bearing upon your family's involvement at the Northgate Clinic.

I will telephone you in a few days to answer any questions you might have.

I look forward to speaking to you,

Yours sincerely,

Emma Silver,
Psychologist, BSc.Hons.



Sub-Department of Clinical Health Psychology

UNIVERSITY COLLEGE LONDON

GOWER STREET LONDON WC1E 6BT

Direct Line: 0171-380 7897

UCL: 0171-387 7050

Code from overseas: +44 171

Fax: 0171-916 1989

Dear Mrs. ----,

I am a Clinical Psychologist in training in my final year of the Doctorate at University College London. I am currently conducting research that looks at the family experiences of adolescents with eating disorders. This involves interviewing mothers and daughter separately. The interviews last about an hour, and are generally experienced as interesting and potentially helpful. Although these interviews have not been used as part of clinical assessments, there have been occasions where clients have chosen to bring their experience of the interview into their therapy. This is by no means required and is in fact separate from any treatment families are receiving. Your decision to permit, or not to permit, your own and/or your daughter's involvement in this research is yours to make and will have no bearing upon your family's involvement at Rhodes Farm. The aim of the research is to further our understanding of eating disorders.

So far I have interviewed fifteen adolescent girls who have eating disorders, and their mothers, who are being seen by therapists at the Maudsley Hospital. However, I am looking to involve some more families, and I recently approached Dr. Dawson who has given me permission to contact you.

I am writing to ask if I would be able to interview you and your daughter separately using standardised research interviews, which have been used safely in many previous studies. Though the interviews would be audio taped, I can assure you that confidentiality would be maintained and any records could be destroyed at the end of the study, if you wished.

I will follow this letter up with a telephone call in a few days so that I may answer any questions you might have. Once I have spoken to you, if I then have your consent to approach ----- about the interviews, I would contact ----- at Rhodes Farm Clinic.

The Research has been approved by the convenors of the research committee at University College London and by the Ethical Committee of the Bethlem and Maudsley NHS Trust.

I look forward to speaking to you.

Yours sincerely,

Emma Silver
Psychologist.

FAMILY EXPERIENCES IN EATING DISORDERS

DR KATHRYN PUGH (SENIOR REGISTRAR) AND
DR CHRIS DARE (SENIOR LECTURER)
PSYCHOTHERAPY SECTION

BARNET HEALTH AUTHORITY

CONSENT FORM

Each member of the family should sign their own consent form

ABOUT THIS RESEARCH

We are interested in how eating disorders affects the whole family.

WHAT THE RESEARCH WILL CONSIST OF

In this research we want to :

1. Interview each member of the family separately (for about one hour).

We will be using standard research interviews that have been used in other studies of families.

The individual interviews will be audio taped and the family interview video taped in order that they may be rated for the purpose of the research.

The tapes will not be used for any other purpose and will be deleted after the research project is completed if that is your wish.

ALL INFORMATION IS COMPLETELY CONFIDENTIAL

CONSENT:

I UNDERSTAND THAT TREATMENT WILL NOT BE AFFECTED BY WHETHER I PARTICIPATE IN THIS STUDY OR NOT

I UNDERSTAND THAT I MAY WITEDRAW FROM THIS RESEARCH AT ANY TIME

I HAVE READ THE ABOVE CAREFULLY AND AGREE TO TAKE PART IN THIS STUDY

SIGNED.....

BARNET HEALTH AUTHORITY

Ref:

Title of Study: Family Experiences in Eating Disorders: Attachment Patterns in Adolescents with Eating Disorders and their Mothers

PARTICIPANT CONSENT FORM

Please ask the patient to complete the following:

Please circle as appropriate

Have you read the information sheet? YES/NO

Have you had an opportunity to ask questions and discuss the study? YES/NO

Have all your questions been answered satisfactorily? YES/NO

Have you received enough information about the study? YES/NO

Who have you spoken to about the study? Dr/Mr/Ms.....

Do you understand that you are free to withdraw from the study

- at any time

- without having to give a reason

- without affecting your future medical care? YES/NO

Do you agree to take part in this study? YES/NO

Signed:
(Participant)

Date.....

Name in capitals:

Witnessed:

Date.....

Signed:
(Researcher)

Date.....

Note: On completion of the trial the signed consent forms must be sent to the Chief Executive of the Barnet Health Authority for storage. This is the responsibility of the researcher.

FAMILY EXPERIENCES IN EATING DISORDERS

Emma Silver, Psychologist and
Dr Kate Pugh, Senior Registrar

PARENTAL CONSENT FORM

Mothers should sign this form to consent to their daughter's participation in this study. Daughters will sign separate consent forms for their own participation.

Name

Name of Daughter

ABOUT THIS RESEARCH

We are interested in family experiences of adolescents with eating disorders. We are inviting you and your daughter to participate in this study.

WHAT THE RESEARCH WILL CONSIST OF

In this study we would like to:

- 1) Interview you and your daughter separately using standard research interviews which have been used in many studies with families. The interviews will last for about an hour.
- 2) Ask your daughter to complete some standard research questionnaires, which have also been used in many studies.

The individual interviews will be audiotaped in order that they may be rated for the purpose of the research. The tapes will not be used for any other purpose and will be deleted after the study is completed, if that is your wish.

ALL INFORMATION IS CONFIDENTIAL.

CONSENT

I understand that treatment will not be affected by whether I participate in this study or not.

I understand that I and/or my daughter may withdraw from this research at any time.

I have read the above carefully and consent for my daughter and myself to take part in this study.

Signed

FAMILY EXPERIENCES IN EATING DISORDERS

Emma Silver, Psychologist and
Dr Kate Pugh, Senior Registrar

CONSENT FORM

Each participant will should sign their own consent form.

Name

ABOUT THIS RESEARCH

We are interested in family experiences of adolescents with eating disorders. We are inviting you to participate in this study.

WHAT THE RESEARCH WILL CONSIST OF

In this study we would like to:

- 1) Interview you and your mother separately using standard research interviews which have been used in many studies with families. The interviews will last for about an hour.
- 2) Ask you to complete some standard research questionnaires, which have also been used in many studies.

The individual interviews will be audiotaped in order that they may be rated for the purpose of the research. The tapes will not be used for any other purpose and will be deleted after the study is completed, if that is your wish.

ALL INFORMATION IS CONFIDENTIAL.

CONSENT

I understand that my treatment will not be affected by whether I participate in this study or not.

I understand that I may withdraw from this research at any time.

I have read the above carefully and I agree to take part in this study.

Signed