

**EATING DISORDERS  
AND  
PSYCHOSOCIAL DEVELOPMENT  
An Application of Eriksonian Theory**

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by

**ANN SHUTTLEWORTH  
MA**

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**Declaration**

This work has not been submitted to any other institution  
or for any other qualification

## SUMMARY

This thesis investigates psychosocial development, with a particular emphasis on Identity formation, in women sufferers of eating disorders (Anorexia Nervosa &/or Bulimia Nervosa). It consists of three sections;

Section 1 comprises a literature review. Literature on Identity formation is reviewed, with a particular emphasis on the work of Erik Erikson. Current understandings of eating disorders, including those looking at the socio-cultural context, are presented. Finally, issues pertaining to Identity and to eating disorders are brought together and a relationship is suggested in which Identity issues act as a mediating factor between current cultural conditions in Western society and the rising incidence of eating disorders.

Section 2 comprises the research report. The study is described which was carried out to investigate the psychosocial development of women suffering from eating disorders. In particular issues of Identity development were addressed. Three control groups were included in the study - two involving women suffering from psychological distress and one comprising 'psychologically healthy' women. Levels of psychological distress were measured using the Brief Symptom Inventory (BSI) (Derogatis, 1982). Psychosocial development was investigated within an Eriksonian framework using the Hawley's (1988) Measures of Psychosocial Development self-report inventory (MPD). The results demonstrated that the Eating Disordered group showed significantly poorer outcome on the majority of the stages of psychosocial development, including greater Identity confusion and less successful resolution of the Identity 'crisis', according to participants' self-reports. The Eating Disordered group also reported experiencing greater psychological distress than all of the control groups.

Section 3; comprises a critical appraisal of the research process. Information is included on background and practical issues related to carrying out the project as well as reflections regarding the process and personal impact of the work.

## ACKNOWLEDGEMENTS

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**SECTION 1:**

**LITERATURE REVIEW**

**A MISSING LINK ?**

**IDENTITY FORMATION AND THE SOCIO-CULTURAL CONTEXT:  
IMPLICATIONS FOR THE DEVELOPMENT OF  
EATING DISORDERS AMONGST WOMEN**

## **ABSTRACT**

This review focuses on issues pertaining to the development of eating disorders in women, looking specifically at the issue of identity within the socio-cultural context.

Literature on identity formation is reviewed, including Erikson's theory of psychosocial development. Criticisms of such theories for being models of male development are considered, concluding that they do have a *male bias*, as opposed to being unapplicable to women. Literature pertaining to current cultural conditions for women in western cultures is reviewed, and evidence is presented which suggests women are being expected to fit into 'male norms' within society. Links are made between this and the impact on female identity development. Literature relating problematic identity formation and psychopathology is reviewed.

Demographic details pertaining to eating disorders are presented, and the review goes on to critique some current understandings of these conditions. Work relating eating disorders to issues of identity is reviewed. Most of the identity work in this area is speculative, but empirical work that has been done has produced promising findings. Literature identifying eating disorders as 'culture-bound' syndromes are considered.

Finally, the literature regarding eating disorders and identity are brought together. Factors pertaining to both issues are highlighted, and an association is suggested in which identity acts as a mediating factor between socio-cultural conditions and the development of eating disorders. Suggestions for future research are presented.

**Throughout this review the condition Anorexia Nervosa will be referred to as anorexia, and the term Bulimia Nervosa will be referred to as bulimia. The term 'eating disorders' will be used to apply to the conditions anorexia nervosa and bulimia nervosa collectively.**

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## **INTRODUCTION**

Eating disorders have been described as a 'Western Epidemic' (Dolan, 1993). Indeed the prevalence of eating disorders has seen a remarkably large increase in the Western world over the last 30 years (Raphael & Lacey, 1994; Halmi, 1995). With regards to treatment, eating disorders can be difficult to treat, but shorter duration of illness is associated with better outcome (Wood, Waller & Gowers, 1994). These facts point to the need for a better understanding of eating disorders so that treatment can be improved and better still, preventative measures can be taken. The marked female gender bias in prevalence, typically teenage onset, dramatic increases in prevalence over the past three decades and association with 'western' cultures, suggest that to gain a better understanding of eating disorders it may prove fruitful to look at developmental tasks occurring around the age of onset, gender issues and the cultural context. This review will restrict its consideration of eating disorders to anorexia nervosa and bulimia nervosa.

Developmental approaches have given insight to many areas of psychological functioning ranging from cognitive development (Piaget, 1936) to the development of emotion (Cole, Michel and Teti, 1990). In this review theories of identity development are considered, focusing specifically on the work of Erik Erikson. The relevance of identity formation to eating disorders will be considered.

The socio-cultural context is central to many developmental theories. It is seen both as a cause and effect of development, and it provides a reference point for specific cultural norms. Development can be understood as an interaction between socio-cultural, biological and psychological (Damon, 1983; Erikson, 1968) forces. Developmental theories in psychology offer a great deal. They provide a framework for understanding atypical development in the context of typical development (Cole, Michel & Teti 1990) and have constructive implications for the restoration of psychological well being.

## **THE DEVELOPMENT OF IDENTITY**

### **Concepts of Identity Formation**

Although mentioned as early as 1900, identity formation is a relatively recent concept. Interest in identity rose in the 1960s in line with the influential work of Erik Erikson. Currently identity is a central theme in modern day America, probably due to the current lack of shared meaning and community traditions, leaving people with an ambiguous self-definition (Kroger, 1996).

There is no consensus about the phenomenon that identity refers to, and at times the term is used in an ambiguous and undefined way. In general, it is used to describe the balance between self and other (Kroger, 1996) - a balance between the internal forces of the 'inner core' (Rangell, 1994) and external sociocultural forces. Kroger (1996) describes this as an 'internal balancing and rebalancing of boundaries between self and other to produce more differentiated subjective experiences of identity at various life stages'. Damon, (1983) talks of identity as involving a separation from important others such as family and authority figures, while still retaining a fundamental belief that one is connected to others in society.

Many theorists identify identity formation as being a life-long task. The sense of being a unique individual starts with the infant's first individuation from the mother - child unit (Mahler, 1975, cited in Rangell, 1994). There is general consensus that the search for identity reaches its height in adolescence, but there is confusion as to whether the identity formed at this time is a static end point. For example, Damon, (1983) refers to the outcome of adolescence as an 'established and consolidated sense of self', suggesting stability, but also describes identity formation as a lifelong process, evolving especially at times of crises, when one's existing identity is challenged.

Psychodynamic theories of identity development focus on the role of the ego, defining identity as the integrative and attuning efforts of the ego (Graafsma, 1994). The ego needs to integrate the demands of both internal (id and superego) and external (environmental) demands. When a balance is achieved a sense of stability, connection

and mutuality is experienced. This largely unconscious process only comes into conscious awareness at times of crisis, which may be intrapsychic or psychosocial (Graafsma, 1994). Loevinger (cited in Kroger, 1994) refers to the ego as an organising framework for one's orientation to oneself and the world. Development involves progress through a series of stages in which one develops increasingly more complex ways of perceiving oneself, the world and one's relationships in it. Blos (1967, cited in Kroger, 1996) also focuses on the relational function of the ego during adolescence, changing the intrapsychic arrangements of that which had been considered self (parental introjects), and other. These theories suggest qualitative change in identity over time, so that it is transformed into something which is *related* to what was there previously, but *different*. There is inconsistency amongst psychoanalytic theorists as to whether identity is a conscious or unconscious entity - at times it is referred to an unconscious process, at others as a *subjective* awareness (Graafsma, 1994). There is also a lack of clarity regarding what elements (intrapsychic or external) the ego is integrating, and confusion regarding whether identity is a process or a structure. Some authors refer to identity existing only as a positive concept - for example, as a positive sense of wellbeing, while others allow its existence as a negative concept as well, for example Marcia's (1987) 'Identity Diffusion' category. All these conceptual reasons make identity a difficult concept to measure. However Marcia has attempted to operationalize measurement of identity using his Identity Status Paradigm (1966), which is based upon, and extends Erikson's concepts. It is to an Eriksonian concept of identity that we will now turn.

## **Erikson's Theory of Identity Development**

Erikson conceptualised a theory of ego development throughout the lifespan. Following in the footsteps of Freud, he built upon psychosexual theory, but shifted the focus to psychosocial development and encompassed the whole lifespan. Erikson saw the role of the ego as balancing the individual's changing sense of individuality and communality. Identity formation, which reaches its crisis at adolescence, involves the 'selective repudiation and mutual assimilation' of childhood identifications and introjections and their absorption into a new configuration (Erikson, 1968). Although a largely unconscious process, Erikson suggested that successful identity formation is experienced subjectively as a "sense of psychological well being....of being at home in one's body, a 'sense of knowing where one is going', and an inner assuredness of anticipated recognition from others who count" (Erikson, 1968). This process of development creating a new functional whole, different from, but arising out of previous parts was named the 'Epigenetic Principle' (Erikson, 1968). 'Crisis' periods are crucial periods of increased vulnerability and heightened potential, during which particular aspects of the ego come to the fore in this process. Each crisis involves two seemingly contrary dispositions, called syntonic and dystonic. Successful outcome involves achieving a balance between these two polarities (Erikson, 1968). Identity achievement involves a balance between identity and role confusion. Successful outcome results in fidelity - a commitment to a certain occupational role, ideology and sexual identity. Blasi and Milton (1991) have criticised Erikson for restricting the domains of identity to these three. The identity stage is followed in sequence by intimacy versus isolation, the successful outcome of which is love. Erikson's theory involves ever more complex ways



of relating to self and other, but he has been criticised for not giving enough explanation to the central concept of interpersonal connection and attachments or explaining the dynamics of how people become both attached *and* individuated (Franz and White, 1985).

Erikson refers to the time between childhood and adoption of a coherent identity as a psychological 'moratorium' during which societal pressures are held off and the individual can experiment with their identity. His theory has been criticised for the presumption of such a period, making it only applicable to middle-class, western males who have this luxury.

Erikson was one of the first theorists to address the interplay of biological, psychological and social influences on ego identity development. The *biological* aspect is seen as a predisposition, which can then be shaped and given meaning by *society*. The *psychological* aspect involves the individual's particular life history and the integrative functions of the ego, concerned with directing action, integrating competing urges within the self and coping with the external world. The concept of identity and the communal culture will be explored in the next section.

Erikson can be criticised for his somewhat imprecise and differing use of the term identity. He himself wrote that the more he wrote about the subject the more it became a term for something 'as unfathomable as it is all pervasive' (1968). He wrote that 'at one time it (identity) refers to a sense of individual uniqueness, at another, to an unconscious striving for continuity of experience and at a third, as a solidarity with a groups' ideals'

(1968). Erikson's theory is highly subjective, based upon his own observations of clients and cultures (Stevens, 1983). However, attempts to operationalise identity into a measurable concept have provided a great deal of support for Erikson's theory. Marcia elaborated on Erikson's concept of identity and developed the 'Identity Status Paradigm' (1966). This involves a semi-structured interview, the outcome of which places an individual within one of four identity statuses according to their degree of exploration and subsequent commitment within the domains of occupational choice, ideological beliefs and sexual-interpersonal beliefs. *Identity diffusion* individuals (the least developmentally advanced of the status) are uncommitted to any definite direction in their lives. *Foreclosures* remain committed to childhood values (usually parental), and have undergone very little identity exploration. *Moratorium* status individuals are actively in the process of identity exploration, but as yet with only vaguely formed commitments. Highest of all developmentally are *Identity Achievement* individuals - they have gone through a period of exploration and have made well-defined commitments as a result (Marcia, 1987). Many studies have found construct identity for these identity status, and by extension, for Erikson's notion of identity formation (Marcia, 1987; Archer, 1989). Some researchers have developed scales which look at a selection of Erikson's stages. For example Constantinople's Inventory of Psychosocial Development (1969), which measures the first six stages. This has been widely used, but has been criticised for its psychometric properties. Few scales have attempted to assess all eight stages, and these typically have had limited validity, have been used for only clinical purposes and have tended to focus almost exclusively on adolescents (Domino & Affonso, 1990). Exceptions are the Inventory of Psychosocial Balance (IPB) (Domino & Affonso, 1990), and the Measures of Psychosocial Development (MPD) (Hawley

1988). Both were designed to translate the constructs of Erikson's theory across the lifespan into an objective measure. They are both self report and use a 5-point Likert response format. The IPB comprises 120 items, which the respondent must rate from 'strongly agree' to 'strongly disagree'. These items break down into eight outcome scales reflecting Erikson's eight developmental stages. The MPD comprises 112 self descriptive statements which are rated on a scale from 'very much like me' to 'not at all like me'. The MPD inventory comprises 27 scales which reflect the attitudes and dynamics outlined by Erikson. It breaks down into eight positive scales to assess the positive attitudes, eight negative scales to assess the negative attitudes, eight resolution scales and three total scales. The resolution scales tap the degree and direction of resolution existing between the two attitudes for each stage conflict. Thus it gives much more comprehensive outcome measures than the IPB. The whole instrument takes between 15 and 20 minutes to complete. Normative data is available for the MPD based on a sample of 2,480 individuals comprising men (37.9%) and women (62.1%) ranging in age from 13 to 86 years. The majority of the sample (91.7%) were of 'White' ethnic origin. Percentiles and normalised *T* scores are provided separately for males and females for each of four age groups (13 - 17 yrs; 18-24 yrs; 25-49 yrs; 50+ yrs).

Taken as a whole, studies support Erikson's theory of psychosocial development, and the hypothesis that the frequency of identity achieved individuals increases with age, while frequencies in the diffusion status decrease. However, much research in this field can be criticised for restricting their research to white middle-class adolescent males.

## **Identity and the Socio-Cultural Context**

Few authors have emphasised the role of culture and the historical epoch in individuals' identity formation as strongly as Erikson. He believed that identity is located in the core of the individual and of the communal culture, and that for a sense of identity to be achieved society must offer the individual 'something to search for.... and be true to' (Erikson, 1968). Each generation has the responsibility of providing an ideology for the next generation which will change throughout generations. Erikson also identified effects of *changes* in society on the formation of individual identity. For example, he suggests that periods of rapid societal change lead to defensiveness, rigidity, and a sense of alienation which he calls 'identity-vacua' (Erikson 1964; cited in Kroger 1993).

Other authors have recognised the role of society and societal changes on individuals' identity formation. Kroger (1996) argues that in earlier historical epochs such as the medieval period, identity was defined by the rank and kinship one was born into, and thus the issues of creating an individual identity were not salient. Wilson (1988) in a paper on the impact of cultural changes on the internal experience of the adolescent acknowledges that 'there is little doubt that the impact of cultural forces on the personality of the individual is far reaching'. Unfortunately he fails to explain how these effects may come about. Raskin (1989) points out that the college 'culture' stimulates identity movement. Movement from the foreclosure position is especially stimulated if the environment is heterogeneous and challenges parental assumptions.

Despite speculation on the effects of cultural change, there is little empirical research regarding the impact of culture on individuals' identity status. Two noteworthy exceptions to this are Marcia's studies in Canada (in press; cited in Kroger, 1993) which found an increase in numbers of late adolescent diffusion subjects. He suggests these findings may be linked to the effects of political changes including reduced funding for education and health, privatization of social services and resulting high unemployment. Kroger (1993) herself has carried out a cross-sectional study to investigate the effects of similar political changes in New Zealand on late adolescents attending undergraduate courses over a six year time period since the mid-1980s. Two samples (n= 140) and (n=131), comprising approximately half and half males and females were assessed using Marcia's Identity Status Approach interview and were asked which domains were most important to their self definition - occupation, religion, politics or sexual role beliefs. The first sample was interviewed in 1984, and second in 1990. The results for women show a trend towards a decrease in numbers in the identity achievement category and an increase in the foreclosure category. No significant changes were found for changes in category for men. Kroger argues that this change for women reflects the failure of society to support their new found opportunities forged by the women's movement in the 1970s, thus restricting their identity defining option and resulting in rigidity and a return to familiar parental roles. It should be pointed out that this movement was only a trend and not statistically significant. Kroger does not reflect on the lack of change in status for men. Interestingly, she found that at both time periods occupation was the most important category for self-definition for men and women. This supports Erikson's view (1968) that the issue of vocation most captures the identity concern of late adolescents. Kroger fails to point out that this seemingly runs contrary to an increase

in foreclosure groups of females, which one might expect to be associated with more traditional sex-role typed beliefs around being a wife and mother, rather than getting a sense of identity from occupation.

### **Identity Development and Gender Issues**

Traditional models of identity development have been criticised for their presumption of sexual neutrality while, critics say, they in fact depict male development. A consequence is that we are educated to see the world through men's eyes (Gilligan, 1982), and that variations from this 'norm' are used as evidence of women's 'deviant' development. Gilligan (1982) regards women's identity development as different to men's in salient ways, and that this difference should be acknowledged and celebrated, rather than judged as deviant. She criticises Erikson's description of successful identity development in terms of a sense of separateness and agency, detachment of self from others, and a growing sense of autonomy. While there will be aspects of these features in female identity development (Mellor, 1989), Gilligan argues that the female experience of identity development is essentially different. Women (Gilligan 1982; Brown & Gilligan, 1992) develop a sense of identity through relationship with others - through attachment and connection. A woman knows herself 'as she is known through relationships with others' (Brown & Gilligan, 1992). Thus, the ordering of Erikson's stages, with identity preceding intimacy, may reflect the process of male development, but not women's, for whom identity and intimacy are essentially reversed or go hand-in-hand. Gilligan understands these gender differences to be rooted in childhood socialisation norms outlined by Chodorow (1974); being raised, primarily by a female care giver, children of different gender come to develop their identity differently - little

boys realising they are different from their mother develop their self definition in terms of separation and difference. This involves boys curtailing their primary love object in a 'defensive firming of their ego boundaries'. In contrast little girls develop an identity through being *the same as* their mothers, thus fusing their identity with issues of attachment, connection, and maintaining an empathic tie. Thus, at the time of adolescence, males and females go into this 'second individuation' (Blos 1967, cited in Gilligan, 1982) phase from different perspectives. Although Gilligan comments on the patriarchy of contemporary society, she can be criticised for her lack of speculation regarding possible effects of societal change since Erikson's time, such as the greater involvement of women in the work place, which may have an effect on their identity formation. We will return to this point later in the review.

Other authors agree that Erikson's theory does not adequately address female development. Hodgson and Fisher (1979) and Morgan and Farber (1982; cited in Horst 1995) criticise Erikson for his lack of attention to sex differences, and failure to address women's experience accurately. Most of this criticism has been speculative, but there some empirical work which supports the notion of gender differences in identity development. Noddings (1983) in a cross-sectional study of male and female children, adolescents and adults, found gender differences with regard to self-other relationships, within the framework of moral development. Josselson (1994) and Brown & Gilligan (1992) in their interviews with women, found that *relationships with others* lay at the core of their self-definition. However, Josselson, like Erikson, can be criticised for carrying out research on one gender only.

Despite these criticisms, Erikson's views on female development are in fact difficult to decipher, being often ambiguous and contradictory. He said that 'anatomy is destiny' (1968), but also, that gender should be 'neither denied, nor given exclusive emphasis'. He argued a woman's sexual identity cannot be resolved until she has found a man to fill her 'inner space' (1968), but that need not delay her identity achievement within other domains. There is some acknowledgement that women's development may be different to men's in some respects, but he does not adapt his model accordingly.

Despite these claims of gender difference, there is a body of empirical research supporting *similarity* between the sexes with regard to identity development. Archer (1982), using Marcia's Identity Status Interview in a cross-sectional study involving 160 early and mid adolescents, found no significant gender differences in identity development according to grade level, either globally or within the specific domains of the interview (occupational, religious, and political). She concluded that males and females proceed through the identity formation in a similar manner. Likewise, a longitudinal study over a 3 year period by Streitmatter (1993) showed no significant difference between boys and girls in their progress through the identity status. Streitmatter measured identity status using The Extended Measure of Ego Identity Status (Grotevant & Adams, 1984) which measures across the domains of religion, occupation, politics, philosophy and social contexts. However, neither this measure nor Archer's use of Marcia's Ego Identity Status Interview tapped into the sex-role/gender identity domain - the domain in which Erikson suggested gender differences - and this could account for these gender similarity findings. Kroger (1990) addressed this by



adding a sex role domain to her use of Marcia's measure in a study of 73 male and female 19-22 year olds. However, despite this addition, she too found no effect for gender across identity development, concluding that the sexes may be more similar than different in the process of ego structuralisation. However her results were limited by a skewed distribution towards identity achievement across the group. Mellor (1989) found similarity between the sexes in terms of their self definition. He found that overall both male and female adolescents, described themselves in terms of connection with others, and this was associated with a positive resolution of identity formation. Within the results, *trends* in the data suggested that connected self-definition is a more distinctive mode for females than for males. Mellor and Streitmatter (1993) conclude from their findings, that both males and females use self-other separation *and* connection in self-definitions to resolve identity crises. This points to a two-strand model of identity development involving both independence and connection dimensions for *both* males and females - with males being more biased towards independence, and females towards connection within particular domains, but not to the exclusion of either dimension (Horst, 1995). Thus males and females may develop along complimentary, *not* conflicting, pathways, which would explain the research findings.

Horst (1995) in an excellent discussion of these issues argues that feminist criticism of Erikson's theory has involved a fundamental misreading of his work; Erikson's theory involves the 'epigenetic' principle which states that aspects of each stage conflict will be pre-worked and re-worked within each new stage - issues of the eight stages are dealt with both sequentially and concurrently. Thus issues of intimacy (Erikson's 6th stage) will be an integral part of the identity (5th stage) crisis. Therefore, rather than seeing the

tasks of identity and intimacy as involving opposite dimensions (separation and individualisation verses connection), as many critics have done, Horst (1995) suggests that both these aspects are integral to each stage. Josselson (1987, cited in Horst, 1995) illustrates this understanding of the identity dynamic in describing the theme of separation-individuation not in purely in terms of separateness and selfhood, but in terms of 'becoming different and maintaining connection at the same time'. Thus, in conclusion, there is evidence to support the view that both males *and* females are involved in self definitions involving connection/attachment *and* separation/autonomy in their resolution of identity formation, with males and females showing biases, but not the exclusion of either end of the pole. Within particular socio-cultural contexts the position taken between these polarities may alter according to societal demands. In the next section I will consider the role of women in current Western societies and possible effects on identity formation.

### **The Position of Women in the Current Western Socio-Cultural Context**

The end of the twentieth century has been an era of unprecedented social and cultural change in the West. Erikson acknowledged the effects of cultural change on identity formation, and thus the historical relativity of any one era. Contemporary Western societies reward separation (Gilligan, 1982), value the individual above the social and the private above the public (Leung, 1997). Despite the advances made by women, society still values typically male attitudes such as personal autonomy and individual success, over more 'feminine' attributes such as the ability to care and sensitivity to others needs (Gilligan, 1982).

Women's roles in society have changed greatly; Vianello and Siemienska (1990) in a large cross cultural study looking into gender inequality in Italy, Canada, Poland and Romania concluded that women's and men's worlds are now less separate and distinct than ever before. Women are involved in the work force more heavily, and in comparison to their predecessors, have a longer period of 'moratorium', before committing to marriage. However, despite the changes for women in the 20th century, gender stereotypes still flourish, giving the ambiguous message to women that they should continue to run the home and carry out domestic chores, as well as have careers (Follett, 1994). Despite changing roles for women in society, the research shows that society has not changed to value the attributes women bring to such roles (Brown and Gilligan, 1992), and a system of patriarchy persists. Brown and Gilligan (1992) in their conversations with girls attending an American high school over a five year period argue that in this unaccepting context, young women dismiss their experience and silence their voices so as not to risk losing relationships and feeling further alienated - thus continuing the cycle of patriarchy. Their study can be criticised on the grounds that they interviewed a select, middle/upper class sample of girls, all of whom were achieving well both psychologically and educationally, and such a group may not reflect the views of women as a whole. The researchers may also have been biased with regards to aspects of the girls' conversations they attended to. Brown & Gilligan along with others may also be criticised for their somewhat speculative exposition of society today without providing the reader with more concrete examples of change. However, the research by Vianello and Siemienska (1990) has confirmed sexual inequality is rife. Rossilli (1997) in her review of the European Community's policy on the equality of women has

confirmed that legislation on gender equality is weak, and poorly operationalised, and indirect discrimination still flourishes. Women's abilities are less valued than men's, they receive less pay for equivalent jobs, and suffer from higher rates of unemployment. Rossilli argues that patriarchy is embedded in Western social structures and beliefs, and that changes that have come about for women have not reached this deep. The result is a silencing of women's experience, and at times a rejection, by women of their own femininity (Silverstein et al., 1990). Leung (1997) illustrates this point in her analysis of two cultural icons- Madonna and Margaret Thatcher. She argues that in many respects these two icons have aligned themselves with male values, in contrast to furthering the interests of women. Both distanced themselves from other women, have played down some traditionally feminine traits, and Thatcher even voiced objections to being seen as a woman.

In summary, society gives women ambiguous messages, does not value their attributes and expects them to conform to male norms. Consequently, women are becoming silenced and may even reject the feminine aspects of themselves. Erikson viewed any society that emphasised either male or female identifications above the other, at risk of hindering 'psychic wholeness' in either gender. This could be applied to the West's over identification with male values today. What is clear is that Western society is failing to provide adolescent women with 'something to be true to', and this would suggest that women may struggle to gain an optimum sense of their own identity.

## **Identity Development and Pathology**

Various views have been made regarding the effect of problems with identity issues. Successful identity formation gives one a 'subjective sense of well being', and allows one to be 'vitaly involved' in the process of life (Erikson, 1986). However, authors agree that identity achievement partly determines normality or pathology. While psychological problems often have their roots in childhood, they are often first seen at adolescence (Brandt 1991). Most of the writing about the effects of a weak identity are speculative, and range from views on the different personality types associated with Marcia's (1983) four identity status, through to its association with particular clinical syndromes. Brown & Gilligan (1992) referred to 'crises' in women's lives as being associated with difficulties achieving connection in adolescence, but do not elaborate on the form of these crises. Rangell (1994) outlines clinical syndromes thought to involve serious identity disturbance including fugue states, psychogenic amnesia and multiple personality disorder (now know as dissociative identity disorder). Erikson (1986) himself wrote of problems occurring as a result of a failure to successfully balance the two dispositions involved within each stage - the syntonic (positive dimension) and dystonic (negative dimension). Erikson proposed that a bias towards the more syntonic end of the scale would result in neurotic maladaptation, and could be relatively easily rectified, while a trend towards the dystonic end would be more malignant and would present as more 'psychotic'. This goes against common presentation of some psychotic symptoms which *can* be associated with extremes of more 'positive' behaviours. With regard to identity formation, Erikson suggested that imbalance would result in fanaticism at the syntonic end and repudiation at the dystonic end.

Research on the effect of active identity exploration, while in a period of unformed identity, has been carried out by Kidwell, Dunham et al. (1995). In their study of 82 high school children aged 14-17 years, they found that active exploration at the heart of the identity crisis was significantly associated with reduced ego strength, symptoms related to ego defenses, impulsivity, acting-out and increased physical and somatic complaints. This may provide evidence that unformed identity is associated with various forms of psychopathology.

This review will now go on to consider eating disorders and the possible role of identity in their presentation.

## **UNDERSTANDINGS OF EATING DISORDERS**

### **Prevalence, Classifications, and Gender Issues**

There are varying estimates of the prevalence rate for anorexia and bulimia. Estimates for full syndrome anorexia include 0.5 - 1.0% (American Psychiatric Association, 1994) and 0.2 - 0.5% in young women (Hoek, 1993). For full syndrome bulimia estimates include 1-3% (American Psychiatric Association, 1994), and 1-1.5% for young women (Garfinkel, 1995). Dancyger & Garfinkel, (1995) suggest that about 1.5% of young women have an eating disorder (anorexia &/or bulimia) in its full form, with an additional 7% to 10% showing partial symptomatology (Dancyger & Garfinkel, 1995; Wrate, 1996). Eating disorders generally develop in the late teenage years or early twenties (Tobin, Molteni & Elin, 1995).

Various different systems have been used to classify anorexia nervosa and, more recently, since it was given its own categorisation in 1979, bulimia nervosa. A widely used diagnostic criteria used clinically today is the American DSM system (American Psychiatric Association, 1994). The DSM IV classification for anorexic nervosa is;

- i) A refusal to maintain body weight at or above a minimally normal weight for age and height.
- ii) An intense fear of gaining weight or becoming fat even though under weight.
- iii) Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.
- iv) Amenorrhea in postmenarcheal females - ie. the absence of at least three consecutive menstrual cycles.

The DSM has included bulimia nervosa in its classification system since 1980. The DSM IV criteria for classification are;

- i) Recurrent episodes of binge eating, characterised by eating within a 2 hour period, an amount of food that is definitely larger than most people would eat during a similar period of time under similar circumstances.

- ii) Recurrent inappropriate compensatory behaviour in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas or other medications; fasting; or excessive exercise.
- iii) Both the above occurring on average, at least twice a week for three months.
- iv) Self-evaluation is unduly influenced by body shape and weight.
- iv) the disturbance does not occur exclusively during periods of anorexia nervosa.

Classification systems such as these can be useful in providing some shared understanding of eating disorder symptomatology. However none are ideal (Freeman & Barry, 1990); some can be criticised on account of their variability in stringency (Slade, 1982), others, such as Russell's (1979) criteria for bulimia, for omitting any measure of severity for diagnosis. A major problem in much of the research done in the area of eating disorders is the over-inclusive and imprecise use of diagnostic categories and of assessment instruments to assign subjects to an eating disorder group (Schupak-Neuberg & Nemeroff, 1993; Smolak & Levine, 1993).

The distinction between anorexia and bulimia is not always clearly differentiated. Indeed, features of anorexia and bulimia are often found together in the same individual, there is considerable 'switching' between the two conditions (Kennedy & Garfinkel, 1992), and many bulimia sufferers have a history of anorexia (Garner, Garfinkle et al., 1985).

Eating disorders are far more prevalent in women than men, women accounting for approximately 90% of all cases (Fallon & Rozin, 1985; Crisp, 1995). Estimates suggest that for anorexia the ratio is 1 male to every 10 - 20 female sufferers (Bryant & Bates,



1985), and for bulimia 1 male for every 10 females (American Psychiatric Association, 1994). There is a scarcity of research into eating disorders in men; the majority of research studies include only women (Smolak & Levine, 1993; Wood, Waller & Gowers, 1994), or *do* include men, but in such small numbers they cannot be considered as a separate group (Herzog, 1982), or fail to comment on gender of subjects completely (Schupak-Neuberg & Nemeroff, 1993).

### **Current Understandings of Eating Disorders**

Understandings of eating disorders are highly varied. Some theories focus more on individual features associated with the syndromes, while others emphasise external triggers.

There are various estimates of comorbidity of anorexia and/or bulimia with depression ranging from 10 to 80% (Herzog, 1982; Strober & Katz 1988; Bellodi et al 1992). However, many of the studies are limited to correlations, and there is debate as to whether they are a cause or consequence of depression (Beeb 1994). Fairburn & Cooper (1989) point out that while many of the features associated with eating disorders improve when a normal weight is restored, depressive features often persist.

Cognitive theories have focused on the individual's overvalued ideas regarding shape and weight and errors in reasoning, leading to strict and inflexible dietary rules (Fairburn & Cooper, 1989). This work can be criticised for its exclusive emphasis on cognitions to

do with eating, weight and food, and current work by Waller (1996) has shown high levels of fear of abandonment, unloveability, and shame & vulnerability cognitions in bulimics.

Other studies have show similarities between anorexia and obsessive compulsive symptomatology (Bellodi et al., 1992; Rothenberg, 1990), high co-morbidity of anorexia and bulimia with personality disorders (Piran et al, 1988) and co-morbidity of bulimia with substance abuse (Kennedy & Garfinkel, 1992). These studies can be criticised for being purely correlational and having no predictive power.

Slade (1982) proposed a functional analysis of anorexia and bulimia including, as antecedents, low self-esteem, perfectionist tendencies and need for control. This model included speculative elements and was not entirely grounded in research findings. Wood et al (1994) carried out a prospective study to look at the predictive validity of eating attitudes and self-esteem in the development of eating psychopathology. They concluded that abnormal eating attitudes at baseline predicted both unhealthy eating attitudes and partial syndrome eating disorder at follow up and that self-esteem at base line correlated with abnormal eating, but did not reliably predict a partial syndrome eating disorder. However, the sample was small (n=33), a biased population (private school girls) and at the two year follow up, none had gone on to develop full symptomatology thus limiting the scope of the findings. A large (n=397) prospective study carried out by Button et al. (1996) has show that girls with low self-esteem at age 11-12 years were more likely to have developed eating problems by later adolescence (15-16 years) than those with higher self-esteem.

Analytic approaches have tended to focus on both individual issues and the external effects of family and culture. Bruch (1976) understands anorexia as symptomatic of a struggle around independence and autonomy. She links it closely with issues of separation and individuation (which are addressed later in this review) and with the mother-infant relationship. Orbach (1985) suggests food is used to personify the mother, who is rejected or accepted through it. Dana & Lawrence (1988) understand the bulimic's relationship with food as a metaphor for their struggles in the realm of social, psychological and relationship issues. These writings are largely speculative and not grounded by the authors in research findings. Taking eating disorders into the family context, Minuchin et al (1978; cited in Bryant & Bates, 1985) developed the idea of anorexia as the manifestation of a family illness in families that were typically enmeshed, overprotective, rigid and showed a lack of conflict resolution. Looking further beyond the family, eating disorders may also be understood from a socio-cultural perspective, which shall be addressed in this review. Firstly we will consider the role of identity in eating disorders.

### **Eating Disorders and Identity**

As we have seen, issues of separation and individuation are central to identity development. Erikson (1968) describes identity achievement as the presence of an "I" who has evolved as an autonomous individual, capable of initiating and completing tasks, and sensitive to its own needs. Identity is often described in terms of agency, self-assertion and separateness (Josselson, 1994). Connections between eating disorders and identity have been suggested by several writers and researchers. Many have looked at

the relationship between aspects of identity (outlined above), and eating disorders, but few have looked at identity as a whole concept. As early as 1976, Boskind-Lodahl (cited in Schupak-Neuberg & Nemeroff, 1992) suggested a weak sense of identity plays a role in the aetiology of eating disorders. Bruch (1976) describes the anorexic's 'paralysing sense of ineffectiveness' and 'lack of a sense of self'. Chernin (1986) understands eating disorders as the manifestation of crisis in identity development. She draws attention to the (current) struggle of the first generation of women who have the social and psychological opportunities to surpass the life choices of their mothers, finding themselves in a 'man's world'. Separation-individuation issues within the realm of the mother-daughter relationship are problematic for these women - the guilt they experience in rejecting the shared identity with their mothers, is turned inwards and manifests in their relationship with food - a medium through which mother-daughter bonding is enacted throughout childhood (Chernin, 1986). While having face validity, these theories are speculative and are not backed by these authors with empirical research.

There is a body of empirical work regarding identity, identity-related issues, and eating disorders. Levitt and Hart (1991) investigated the development of self-concept in 14-19 year old anorexic girls, and found them to be significantly immature in relation to issues concerning volition as compared to a group of adolescents with physical, but no psychological disturbance, and to normal controls. This, they suggest reflects a developmentally immature conceptual framework with regards to self-understanding, typical of anorexic girls. However, they found no significant differences on other dimension of self-understanding, including 'definition of self' and 'individuality'. Had the

researchers investigated these developmental issues in older subjects, in whom one would expect such developmental issues to be resolved, instead of involving subjects who would be expected to be in the midst of identity issues, they may have found more discrepancies between the groups. Williams, Chamove & Millar (1990), in a study involving both anorexic and bulimic women aged between 15 and 35 years, found that they perceived themselves as significantly less able to assert themselves, more externally controlled and in families who showed little encouragement of independence as compared to dieting and normal control groups. However differences were not found in comparison to a psychiatric control group, suggesting these issues may not be specific to eating disorders. This study also suffered from the limitations of being self-report; the perceptions of the eating disordered group may have been affected by their illness. Both this and Levitt and Harts' study lack predictive validity for the development of eating disorders. Armstrong and Roth (1989) found significant differences between an eating disorders group (comprising 11 anorexic, 12 bulimic and 4 'atypical eating disordered' subjects), and normative groups in attachment style and separation issues - 96% of the eating disordered group showed an anxious attachment style, and 85% manifested extreme separation depression. Attachment issues are thought to be related to identity issues (Josselson 1994). However, Armstrong and Roth, by comparing their group to normative data regarding identity and attachment measures, conclude that their eating disordered group demonstrated attachment disruptions that exceeded the reactions of individuals involved in identity formation. Schupak-Neuberg & Nemeroff (1992) have carried out a study which looks directly at identity issues in bulimics, binge eaters and normal controls. The authors suggest that the underlying problem for bulimics is a lack of identity, and this being so, they utilise their physical bodies as a means of self-

definition. They assessed identity in young women aged 17-26 years by investigating subjects' stability in view of themselves over time, their degree of confusion and inconsistency in ideas of who they are, and experience of identity as enmeshed. In line with the hypotheses, bulimic subjects showed significantly greater scores for identity confusion, perception of their identity as enmeshed with others' and inconsistency with how they view themselves over time in the domain of moral and interpersonal categories. For all these factors they were most different from the normal controls, and less, but still significantly differentiated from binge eaters. Weinreich et al. (1985) looked into identity issues for both anorexics and bulimics. They found that both had significantly lowered self-image in comparison with psychiatric and normal controls, but that anorexics typically showed a plummeting identity as compared to previous levels, while bulimics typically had a more sustained identity crisis. This study and Schupak-Neuberg & Nemeroffs' involved analysis looking at group differences and therefore lack predictive power. However they provide interesting findings which suggest that identity may be an important factor in eating disorders. It should be noted that many of these studies measure aspects typically associated with male identity formation, such as separation, individuality and personal effectiveness, and fail to acknowledge that such an emphasis on this end of the separation-individuation scale may not reflect a normative model for women's development. Thus, while eating disorders may be associated with these difficulties, the masculine bias of this work, should be acknowledged. Instead these authors have fallen into the error of taking the masculine experience as the norm. An exception is a study by Carpman, Perlick & Perdue (1990) who investigated gender identity, sex-role aspirations and disordered eating in female university students. They found, in line with their hypothesis, that women who aspire to non-traditional sex roles,

and women who experience conflict or ambivalence towards being female were more likely to report bingeing and purging than those who did not have these aspirations and conflicts. A limitation of this study is the use of non-diagnostic and non-validated assessment of disordered eating.

### **Eating Disorders and the Socio-Cultural Context**

DiNicola (1990) describes anorexia as a 'culture bound syndrome', by which he means a collection of symptoms which are restricted to a particular culture, by reason of particular psychosocial features. Anorexia and bulimia are rarely found outside Western cultures (King 1993); indeed they have been referred to as a 'Western epidemic' (Dolan, 1993). Eating disorders are associated with industrialised, affluent, Western societies, in which thinness represents control and prosperity (Smuts, 1991). Within these cultures risk factors for developing eating pathology include being female, and upper-middle class (DiNicola, 1990), although, as predicted by Theander (1970; cited in Iancu et al., 1994) anorexia at least, is becoming more evenly distributed across classes as the higher classes' attitudes concerning body weight, achievement and control filter across all sectors of society. Interestingly, it is suggested that the prevalence of eating disorders will increase in Eastern countries as they take on Western values (Dolan, 1993). At present this can only be speculative due to a lack of comparable epidemiological studies in the East, and the comparatively recent nature of the changes in Eastern Europe (Dolan, 1993; Ratner et al., 1995).

Eating disorders are also associated with cultures that are going through a period of rapid change. For example, Morin (1988, cited in DiNicola, 1990) argues that the increase in eating disorders among Francophones in Quebec between 1970 and 1988 was related to rapid socio-cultural change. Likewise, Iancu et al. (1994) pointed out that changes in Kibbutz communities in Israel over the last 15 years parallels a 400% increase in the annual incidence of anorexia. Changes involved adoption of more Western ideas, and an increased affluence. DiNicola fails to point out the unprecedented social and cultural shifts that are occurring in contemporary Western societies (Lyon, 1994), at an extremely rapid rate (Wilson, 1988), and that this parallels a huge increase in prevalence levels of eating disorders in the West.

A final aspect to note in relation to eating disorders and the socio-cultural context is the high prevalence of eating pathology in immigrants to the West. Eating pathology in young Asian (Pakistani) immigrants to the U.K has been estimated as higher than among Caucasians living in the U.K, and Asians living in Pakistan (Mumford, 1992, cited in McCourt & Waller, 1996). Mumford et al. (1991) note that eating disorders were more common amongst the immigrants who had significantly higher scores related to holding onto traditional beliefs from their country-of-origin than other Asian girls, and Bryant-Waugh & Lask (1991) reported that they had only seen anorexia present in Asian children whose families had *not* exchanged its traditional culture for a more Western lifestyle. Mumford can be criticised for lack of attention to cultural and language biases in assessing the immigrant population, and their use of assessment tools validated on Western populations.



Thus it seems that culture is an important factor involved in eating disorders. Despite addressing this association, few authors suggest conclusive reasons for this link. Suggestions have included that the rise in eating disorders in Western cultures is to do with societal demands for thinness in women (DiNicola, 1990; Iancu et al., 1994), the conflicting demands and complex roles being placed on women (Iancu et al. 1994; Vandereycken & Hartley, 1996), associated changes in family configuration (DiNicola, 1990) or a rebellion against the continuation of societal 'male' suppression (Vandereycken & Hartley, 1996). However, these suggestions leave one feeling that there is a 'missing link' between women in western societies and the development of eating pathology - none of the suggestions explain why it is that some women in society develop eating disorders while others do not, or why such issues should manifest specifically as an eating disorder as opposed to any other form of psychopathology.

I suggest, on the ground of the literature covered in this review, that the 'missing link' is problematic identity formation. The next and final section attempts to explain and support this thesis.

## **DISCUSSION**

### **Identity - A missing link in the formation of Eating Disorders within the Western Socio-Cultural Context ?**

It is clear from the literature reviewed that eating disorders are culture-bound syndromes, typically found in Western industrialised cultures, in which the rate of societal change is rapid. Within such cultures young women, especially from higher classes (although this distinction is becoming less pronounced), and immigrants whose families hold onto traditional values from their country of origin, are particularly at risk.

The literature also suggests that cultural conditions play a crucial role in the development of identity. Society needs to recognise and validate individuals' identity (Kroger, 1996), give people something to be 'true to' (Erikson, 1968), and provide an environment in which one 'feels in place' (Erikson, 1964). This literature is largely speculative, but has been backed up by some empirical evidence. Rapid change in societies has an effect on identity formation (Erikson, 1964, cited in Kroger, 1993; Kroger, 1993), and Erikson suggests that any society that over identifies with one gender over the other leads to problems.

The review has also considered literature regarding current conditions for women in Western society. Women, starting amongst higher-middle classes, but now filtering across the classes have successfully ventured into what were traditionally considered men's domains - higher education, and the work place, and having a period of 'moratorium' before settling on their identity. However, society still operates on a

fundamentally patriarchal system (Brown & Gilligan, 1992) and despite the movement of women, attitudes have not changed. Women are being expected to conform to male norms, typically 'feminine' characteristics are not valued, and women are given mixed messages about their role in society. As a result some women, especially those valuing non-traditional female roles, identify with male gender norms and deny their femininity (Carpman, 1990; Leung, 1997). Erikson and Kroger note the importance of occupational roles in the formation of both male and female identity, but as we see, current cultural conditions in the West are failing to provide the conditions required for women to gain an optimum sense of identity, especially within the occupational domain. In general women are being expected to fit into a male model of identity formation, which gives greater weight to the separation end of the separation-connection continuum. It would follow, in line with the identity literature, that many women under these conditions, especially those more exposed to environments in which women are involved in more non-traditional roles would experience a struggle around successful identity formation. Catina et al. (1996) in a preliminary study involving 35 German and 20 Bulgarian female students, investigated the connection between culture and gender identity. They found support for their hypothesis, that different economic development in countries will be associated with different social ideals, and that women living in wealthier economically developed countries will perceive the social ideals as less supportive of their gender identity. One would also expect immigrants to Western countries with families who hold onto traditional values to experience problems with identity formation due to the conflicting messages provided by their different environments.

Thus, what is becoming clear is that the same societal conditions pertaining to problematic identity formation are also those in which we find women suffering from eating disorders and that women who are most exposed to societal conditions which are unsupportive of successful identity formation are those in which we find the highest rates of eating pathology. What is also clear is that eating disorders generally develop during early adulthood, during which time identity formation is generally at its peak. Following this, I hypothesise that it is the problems around identity formation that women experience in current Western societies that is a 'missing link' in the relationship between culture and eating disorders. The literature provides speculative theories supporting a connection between problematic identity formation and eating disorders and there is some empirical research which provides support for the connection between *aspects* of identity (generally masculine biased attributes) and eating disorders (Levitt & Hart, 1991; Williams, Chamove & Millar, 1990). However, there are few studies which research the global concept of identity and eating disorders and I have found none that involve a cultural dynamic in the identity eating disorders hypothesis, although one has been proposed by Catina et al. (1996). The hypothesis of identity as the missing link between culture and eating disorders helps to explain why it is that some, but not all women that succumb to eating problems; identity formation as outlined by Erikson, involves biological and psychological, as well as social aspects, and has roots in childhood separation-individuation issues. Thus some women may be more *vulnerable* than others to cultural effects, as they venture into the world during adolescence.

This hypothesis leaves a question regarding the underlying mechanism involved in this link between identity issues and eating disorders. Schupak-Neuberg & Nemeroff (1993) suggest that with a disturbed sense of identity the body becomes a concrete representation of the self and comes to be used as a means of self-definition and regulation, as in eating disorders. Levitt & Hart (1991) suggest that the eating disorder gives individuals the sense of identity they have failed to achieve developmentally, and that it gives them a feeling of control when their delayed psychological development is leaving them feeling out of control and unable to cope with environmental demands. I suggest that a weak sense of identity leaves individuals more sensitive to societies' dictates regarding how one as a woman 'should be' (thin), and more vulnerable to aspiring to these norms.

### **Clinical Implications**

This hypothesis has important clinical implications. If a weak sense of identity is central to the development of eating disorders it follows that effective treatment should involve helping the client to move on, developmentally, towards greater resolution of the tasks of psychosocial development including identity formation. This suggests that approaches which focus on behaviour and/or cognitions involving only food would have little effect, at least in the long run, as the client's relationship with food is understood as secondary to their identity issues. In addition, approaches such as force-feeding (for anorexics), could be extremely detrimental, furthering their view of the world as hostile, controlling, unresponsive to their psychological needs, and unable to provide the facilitating environment required to attain a sense of identity. Therapy should focus on the here and

now of the client's self awareness, and assist them in building respect and belief in their own thoughts and feelings. This would help clients develop more internal autonomy and self-validation, thus strengthening their identity and reducing their dependence on external validation. Therapy should also aim to enable the client to tolerate the uncertainty which is central to identity exploration, thus enabling them to experiment with their identity without becoming overwhelmingly distressed and feeling further out of control. This could be achieved through the dynamic of 'containment' (Casement, 1985). The therapist should create a facilitative environment in which the client receives a positive reflection of their developing identity. A Rogerian approach (Rogers, 1961) of 'unconditional positive regard' and 'accepting other' would be appropriate. It may be helpful to explore the client's feelings about the future, thus allowing them to work through fears and to experience greater autonomy regarding their lives. Clients with more fragmented identities are likely to have experienced developmental delays and failures earlier in their lives. These clients may well struggle with issues of basic trust, and the therapist may need to spend a long period of time simply building up their relationship with the client through adopting a consistent and well boundaried approach. Individuals could be encouraged to appreciate the role of the environment on the way they feel about themselves, and be given support to change, or move away from, detrimental conditions. Group therapy could be beneficial if the group acted as a positive sharing environment in which all members felt fundamentally accepted. In this way the group could provide the recognition and validation required for individuals to achieve a sense of identity. Throughout work around identity development the therapist should caution against the possibility of the client adopting the identity of patient (Erikson 1968, cited in Kroger, 1996). Relapse could be understood as a negative shift in identity status,

with the same implications for treatment. Preventive work would need to be targeted at key developmental periods in the identity formation process. Again, it should aim to facilitate successful identity development in the ways outlined above.

### **Areas for Future Research**

The area of eating disorders continues to be poorly understood, and they continue to be notoriously difficult to treat. Better understandings are required to improve treatment, and causal links need to be established so that preventative work can be done.

The proposed link between culture, identity and the development of eating disorders, with its implications both for treatment and preventative work, may provide important understandings. Research needs to be carried out to provide empirical evidence for the effect of the socio-cultural context on women's identity, especially in the light of the male bias to which women are being expected to conform. This could be extended to look more specifically at the effects on identity of women occupying different roles in society, and with different expectations upon them.

Research also needs to address the relationship between identity and eating disorders. At present much work in this area is speculative, and needs to be supported with empirical evidence. Where possible, studies should be designed to allow them to test the predictive value of problematic identity formation in the development of eating disorders. This would help to inform preventive work. Taking a developmental approach to identity formation across the lifespan would provide important information regarding

the age at which developmental delays or arrests start, and thus about the age at which preventive work should be targeted. Measures of development which encompass the whole lifespan would be appropriate to this end. The inclusion of clinical control groups would give important information regarding whether identity issues are specific to eating disorders or to more general psychological issues.



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**SECTION 2:**

**RESEARCH REPORT**

**EATING DISORDERS  
AND  
PSYCHOSOCIAL DEVELOPMENT  
An Application of Eriksonian Theory**

## ABSTRACT

This study was carried out to investigate the psychosocial development of women currently suffering from an eating disorder (Anorexia Nervosa &/or Bulimia Nervosa). Levels of psychological distress were also investigated. The study involved 4 groups of women - one comprising women currently suffering from an eating disorder, and 3 control groups. Women completed self-report questionnaires. The Eating Attitudes Test (EAT26) (Garner & Garfinkel, 1979) and questions taken from DSM IV were used as measures of eating pathology. Psychosocial development was measured within an Eriksonian framework using Hawley's (1988) Measures of Psychological Development inventory (MPD). This measures the stage attitudes and attributes of personality associated with each of Erikson's 8 developmental stages. Levels of psychological distress were measured using the Brief Symptom Inventory (BSI) (Derogatis, 1982).

The responses of the participants indicated that the Eating Disordered group had significantly poorer outcome than any of the control groups for the majority of the psychosocial stages. Of particular interest was that the Eating Disordered group showed significantly greater Identity Confusion and poorer resolution of the Identity stage conflict than any of the other groups. They also reported significantly higher levels of psychological distress than the control groups. Overall level of psychological distress, and Identity development were all significant predictors of eating problems as measured by the EAT26.

Consideration is given to these findings in the light of previous work investigating eating disorders, issues of psychosocial development (including identity) and comorbidity of eating disorders with other forms of psychological distress. Suggestions for future research are made, and implications of the findings of the study regarding therapeutic and preventative work, are discussed within the developmental framework of Erikson's theory

## INTRODUCTION

The prevalence of eating disorders has seen a remarkably large increase in the Western world over the last 30 years (Raphael & Lacey, 1994; Halmi, 1995). Dancyger & Garfinkel (1995) suggest that about 1.5% of young women have an eating disorder (anorexia &/or bulimia) in its full form. Eating disorders are notoriously difficult to treat, often running a chronic course (Wrate, 1996). The longer the duration of the illness, the poorer the outcome of treatment (Kennedy & Garfinkel, 1992), and the greater the demand on physical and mental health services.

Current understandings of eating disorders are highly varied. There is a general consensus that biological, psychological and social factors may all play a role in determining their development (Button, 1996). However, some theorists tend to focus predominantly on individual features associated with the syndromes, while others emphasise external triggers. Various estimates of comorbidity of anorexia and/or bulimia with other forms of psychological distress have been suggested. For example, estimates of comorbidity of eating disorders with depression range from 10 to 80% (Herzog, 1982; Strober & Katz 1988; Bellodi et al 1992).

***Note:*** Throughout this report the condition Anorexia Nervosa will be referred to as anorexia, and the condition Bulimia Nervosa will be referred to as bulimia. 'Anorexics' will be used to describe individuals suffering from the condition anorexia nervosa, and 'bulimics' will be used to describe individuals suffering from bulimia nervosa. The term 'eating disorders' will be used to apply to the conditions anorexia nervosa and bulimia nervosa collectively.

Many of the studies are limited to correlations, and there is debate as to whether eating disorders are a cause or consequence of depression (Beeb 1994). Fairburn & Cooper (1989) have pointed out links between eating disorders and anxiety / depression, and suggest that depression often persists even after normal weight and eating patterns are restored. Other studies have shown similarities between anorexia and obsessive compulsive symptomatology (Bellodi et al., 1992; Rothenberg, 1990), high co-morbidity of anorexia and bulimia with personality disorders (Piran et al, 1988) and co-morbidity of bulimia with substance abuse (Kennedy & Garfinkel, 1992). Bemporard (1992) has found an association between eating disorders and problems forming interpersonal relationships. These studies provide interesting findings, but can be criticised for being purely correlational and having no predictive power.

Cognitive theories of eating disorders have focused on the individual's overvalued ideas regarding shape and weight and errors in reasoning, leading to strict and inflexible dietary rules (Fairburn & Cooper, 1989). Waller (1996) has shown high levels of cognitions concerning shame and fear of abandonment in bulimics. Nathanson (1992) makes a theoretical link between eating disorders and shame, suggesting that eating pathology is a way of managing the shame affect. Other researchers have suggested that low self-esteem plays a role in the development of eating disorders (Slade, 1982; Wood et al., 1994). A recent prospective study by Button (1996) has demonstrated that low self-esteem in 11-12 years old girls is a vulnerability factor for the development of more severe signs of eating disorder by the age of 15-16 years. Psychoanalytic approaches have tended to focus on both individual issues and the external effects of family and

culture. Bruch (1976) understands anorexia as symptomatic of a struggle around independence and autonomy, especially within the mother-daughter relationship. A detailed study of 67 eating disordered clients by Bemporad et al. (1992), found that they typically remembered the early maternal relationship as lacking warmth and failing to meet their needs. Empirical support was also found for eating disordered individuals having pronounced difficulties in trusting others and for having not formed age appropriate friendships in childhood. Similarly, O'Flynn (1994) has linked the emergence of self-destructive behaviours, such as eating disorders, with early childhood deprivation. She claims that this deprivation results in a lack of basic trust and problems forming relationships with others. Taking eating disorders into the family context, Minuchin et al. (1978; cited in Bryant & Bates, 1985) developed the idea of anorexia as the manifestation of a family's illness in families which are typically enmeshed, overprotective and rigid.

Many of these accounts of eating disorders involve issues which can be understood as related to developmental dysfunction, although few researches have placed them within a life span developmental context. However, developmental processes are often associated with identity formation and some theorists have considered a link between problematic identity formation and eating disorders. As early as 1976, Boskind-Lodahl (cited in Schupak-Neuberg & Nemeroff, 1992) suggested that a weak sense of identity plays a role in the aetiology of eating disorders. Bruch (1976) describes the anorexic's 'paralysing sense of ineffectiveness' and 'lack of a sense of self' and Chernin (1986) understands eating disorders as the manifestation of a developmental crisis in identity formation. Many of these theories are speculative, but empirical research that has been



carried shows some support for an association between identity, identity-related issues, and eating disorders. Levitt and Hart (1991) in an investigation of self-concept in 14-19 year old anorexic girls, found them to be significantly immature in relation to issues concerning volition as compared to controls. A study involving both anorexic and bulimic women aged between 15 and 35 years (Williams, Chamove & Millar, 1990) found that they perceived themselves as significantly less able to assert themselves and more externally controlled as compared to dieting and normal control groups. Schupak-Neuberg & Nemeroff (1992) found bulimic subjects showed significantly greater scores for identity confusion, perception of their identity as enmeshed with others' and inconsistency with how they view themselves over time. Weinreich et al. (1985) looked into identity related issues for both anorexics and bulimics. They found that both had a significantly lowered self-image in comparison with psychiatric and normal controls. Anorexics typically showed a plummeting identity compared to previous levels, while bulimics typically had a more sustained identity crisis. These studies lack any predictive power but they do provide some interesting findings which suggest that identity may be an important factor in eating disorders. Many of these studies have measured aspects traditionally associated with male identity formation, such as separation, individuality and personal effectiveness, and thus it seems that it is the concept of identity as measured by this more masculine bias that women with eating disorders struggle with.

There is also research which indicates that eating disorders are associated with particular socio-cultural conditions. Anorexia has been described as a 'culture bound syndrome' (DiNicola, 1990); eating disorders are associated with industrialised, affluent, Western societies, in which thinness represents control and prosperity (Smuts, 1991). They are

also associated with cultures that are going through a period of rapid change. For example, Morin (1988, cited in DiNicola, 1990) argues that the increase in eating disorders among Francophones in Quebec between 1970 and 1988 was related to rapid socio-cultural change. Likewise, unprecedented social and cultural shifts that are occurring in contemporary Western societies (Lyon, 1994), at an extremely rapid rate (Wilson, 1988), parallel a huge increase in prevalence levels of eating disorders in the West. This increase has mainly involved young women; eating disorders are far more prevalent in women than men, with women accounting for approximately 90% of all cases (Fallon & Rozin, 1985) and the age of onset for eating disorders is typically late teens and early twenties (Tobin, Molteni & Elin, 1995).

The themes that have been outlined above regarding age of onset, gender biases, and socio-cultural conditions are common to both issues of identity development and eating disorders, and they may provide a rationale for the suggested relationship between identity and eating disorders. This rationale will be outlined in the following sections, focusing on Erik Erikson's theory of identity development.

Erikson's lifespan approach to psychosocial development gives us an understanding of the development of identity from its childhood roots. His theory proposes that every individual goes through eight developmental stages in the course of their lifespan, which involve ever more complex ways of relating to self and other. Each stage has its own particular 'crisis' time - a period of increased vulnerability and heightened potential, at which time particular aspects of the ego come to the fore, resulting from the dynamic interaction of *biological*, *psychological* and *cultural* forces. Identity reaches its principle

time of crisis during adolescence. Each crisis involves a dynamic tension between the disposition of the 'syntonic' and 'distonic' poles. Successful outcome involves achieving a *balance* between these two polarities (Erikson, 1968). Identity achievement involves gaining a successful balance between identity versus role confusion. Successful outcome results in fidelity - a commitment to a certain occupational role, ideology and sexual identity.

Briefly, the eight stages and their crises are:

1. Early Infancy - *Trust versus Mistrust*
2. Later Infancy - *Autonomy versus Shame and Doubt*
3. Early Childhood - *Initiative versus Guilt*
4. Middle Childhood - *Industry versus Inferiority*
5. Adolescence - *Identity versus Role Confusion*
6. Early Adulthood - *Intimacy versus Isolation*
7. Middle Adulthood - *Generativity versus Stagnation*
8. Late Adulthood - *Ego Integrity versus Despair*

Few authors have emphasised the role of culture and the historical epoch in individuals' identity formation as strongly as Erikson. He believed that identity is located in the core of the individual and the communal culture, and that for a sense of identity to be achieved society must offer the individual 'something to search for.... and be true to' (Erikson, 1968). Erikson has also identified effects of *changes* in society on the formation of individual identity. For example, he suggests that periods of rapid societal change lead to defensiveness, rigidity, and a sense of alienation which he calls 'identity-vacua' (Erikson, 1964; cited in Kroger, 1993). Empirical research finds support for these

ideas. A trend towards decreasing numbers of female identity achievement adolescents and an increase in the number of Marcia's 'foreclosures' category has been found by Kroger (1993) in a study of undergraduates in New Zealand over a six year period. She argues that this change for women reflects the failure of society to support the new found opportunities forged by the women's movement in the 1970s, thus restricting their identity defining option and resulting in rigidity and a return to familiar parental roles.

Consideration of the position of women in contemporary Western society in the light of Erikson's views on the role of the cultural context in identity formation, suggests that many women in Western societies today might struggle to gain an optimum sense of identity. This could be especially so as they are being expected to conform to more masculine biased identities involving independence and autonomy; despite advances made by women in becoming more heavily involved in the work place and often having an extended period of moratorium before committing to marriage, society still values traditionally male attributes such as personal autonomy and individual success, over more traditionally feminine attributes such as the ability to care and sensitivity to others' needs. In addition to this, women are given the ambiguous message that they should continue to run the home and carry out domestic chores as well as have careers (Follett, 1994). Western society appears to be failing to provide young women venturing out into the world with a clear and attainable role in society, 'to be true to.' (Erikson, 1968).

Critics of Erikson's theory claim that his model of psychosocial development, especially concerning identity, does not reflect female development (Gilligan 1982). They argue that his emphasis on separateness, autonomy and agency, and his ordering of identity

achievement prior to intimacy reflects the process of male, but not female, identity formation. Women instead gain their sense of identity through intimacy and connection with others (Gilligan, 1982; Brown & Gilligan, 1992). In fact, as Horst (1995) points out, issues of intimacy and connection are integral to Erikson's identity stage. Erikson's 'epigenetic' principle states that aspects of each stage conflict will be pre-worked and re-worked within each new stage - issues of the eight stages are dealt with both sequentially and concurrently. Therefore issues of intimacy (Erikson's 6th stage) will be an important part of the identity (5th stage) crisis. Erikson's theory may be considered to have a masculine *bias* towards identity development, putting greater emphasis on separation and individuation than on connection. However, this is precisely the bias towards which many women appear to be expected to conform to in Western society today, and which may be at the root of problematic identity formation.

We have seen that conditions in which one might expect to find problematic identity formation are also those in which we see large numbers of women suffering from eating disorders. Thus it follows that identity issues may be a missing link between the change in cultural conditions for women and the substantial increase in prevalence of eating disorders over the last 30 years. This hypothesis helps to explain why it is that some, but not all women succumb to eating problems. Erikson's theory encompasses biological, psychological and social forces, and thus some women may be particularly vulnerable to problems around identity formation, for example if they have had particular life experiences, have been exposed to certain environmental demands, or have a particular biological predisposition.

This hypothesis leaves a question regarding the underlying mechanism involved in this link between identity issues and eating disorders. Schupak-Neuberg & Nemeroff, (1993) suggest that with a disturbed sense of identity the body becomes a concrete representation of the self and comes to be used as a means of self-definition and regulation, as in eating disorders. Levitt & Hart (1991) suggest that the eating disorder gives individuals the sense of identity they have failed to achieve developmentally, and that it gives them a feeling of control when their delayed psychological development is leaving them feeling out of control and unable to cope with environmental demands. I suggest that a weak sense of identity leaves individuals more sensitive to societies' dictates regarding how one as a woman 'should be' ie. thin, and more vulnerable to aspiring to these norms.

As outlined previously, some studies have looked at identity and eating disorders and have supported a link between the two. However, these studies have been limited by their lack of predictive power, limited conceptualisations of identity and some methodological flaws such as imprecise definitions of eating disorders (Silverstein et al., 1990). Few researchers have investigated the role of identity in relation to eating disorders within a developmental context. There is also a lack of research looking more broadly at the different tasks of psychosocial development in relation to eating disorders. The literature suggests that many issues involved in psychosocial development - such as issues of shame and inferiority, and problems with basic trust and forming relationships - are related to eating disorders. However, these studies have looked at specific items in isolation rather than considering them in the context of psychosocial development. Taking a lifespan approach to psychosocial development would allow research to

consider at what stage in the life cycle problems in development arise, and whether problems are related only to factors such as identity development or to a broader range of psychosocial tasks. Developmental models also have important implications for treatment. They suggest that individuals can move on developmentally if they are provided with facilitating conditions, and have implications for the stage in the life cycle at which interventions should be introduced.

### *Aim of the Present Study*

The present study was designed to look at the tasks of psychosocial development from an Eriksonian perspective, in women suffering from eating disorders (Anorexia Nervosa &/or Bulimia Nervosa), with particular interest in identity development. Self-report questionnaires were completed by a sample of women currently suffering from an eating disorder (anorexia &/or bulimia). There were 3 control groups in total, 2 involving women suffering from psychological distress, but without any eating pathology, and 1 group of 'psychologically healthy' women. Stringent criteria were employed to ensure that all members of the eating disordered groups were currently clear cases of anorexia and/or bulimia, and that members of the control groups did not suffer from any eating pathology. Inclusion of psychologically distressed controls allowed consideration of whether any effects were specific to people suffering from eating disorders or to those suffering more generally from psychological distress. Measures of eating pathology included questions taken for DSM IV, and the 26 item Eating Attitudes Test (EAT26) (Garner, Olmsted, Bohr & Garfinkel, 1982). The Brief Symptom Inventory (BSI) (Derogatis, 1982) was used to measure psychological distress. Psychosocial

development was measured using Hawley's (1988) 'Measure of Psychosocial Development' (MPD), a 112 item inventory, based upon Erikson's theory. Group differences were investigated by analysis of variance (ANOVA statistic), and regression analysis was used to look at predictors of eating pathology.

The specific hypotheses of this study were that;

- 1) The Eating Disordered group would show markedly less successful outcome on the psychosocial task of Identity formation than the control groups.
- 2) The Eating Disorder group may be delayed on other specific tasks of psychosocial development compared to the control groups.
- 3) The Eating Disorder group, along with the Psychiatric Outpatient and High Psychological Distress ('High BSI') control groups, will show higher levels of psychological distress than the Low Psychological Distress ('Low BSI') control group.
- 4) To explore whether Identity development and also the severity of psychological distress are predictive for the presence of an eating disorder



## **METHOD**

### **Participants**

All participants in this study were females of 16 years or over.

### **Experimental Group**

#### *Eating Disordered Group*

Forty-five service users, currently being treated for an eating disorder (anorexia &/or bulimia), were identified by staff from a community mental health eating disorders service, a higher education student counselling service and a residential treatment centre for anorexia. All completed the questionnaire package. Of these, **30** fulfilled diagnostic criteria for anorexia &/or bulimia as defined by selected questions from DSM IV, and by scoring 20 or above on the 26 item Eating Attitudes Test (EAT26) (Garner, Olmstead et al. 1979). These 30 comprised the eating disordered group (ED) (27 from the community mental health eating disorders service, 2 from the university counselling service and 1 from the residential centre). The strict screening for this group was designed to ensure that all subjects involved were currently clear cases for anorexia and/or bulimia. The mean age for the group was 25 years, (SD = 7.14), with a range from 16 to 47 years. The mean duration for an eating disorder was 7 years (SD = 6.3), and ranged from 1 - 29 years.

## **Control Groups**

Subjects were excluded from the 3 control groups if they fulfilled any of the following exclusion criteria;

- scored positively for a diagnosis of anorexia or bulimia on the basis of questions taken from DSM IV.
- Scored 20 or above on the Eating Attitudes Test (EAT26)
- Had a Body Mass Index (BMI) of 27 or above which is suggestive of being overweight (Fairburn & Wilson, 1993).
- Had a past history of suffering from an eating disorder.

These relatively stringent exclusion criteria ensured that subjects in the control groups did not suffer from any significant eating pathology.

## High Psychological Distress Control Groups

Subjects in these two control groups all fulfilled criteria for caseness for psychological distress as measured and defined by the Brief Symptom Inventory (BSI) (Derogatis 1993).

### *Psychiatric Out Patient Group*

Fifty-five current users of community mental health services completed the questionnaire package. Of these, 51 of the questionnaires returned were fully completed. All participants reached caseness for psychological distress on the Brief Symptom Inventory (BSI). Forty-three percent (N=22) were screened out of the sample on the basis of the exclusion criteria. The remaining **29** comprised the psychiatric outpatient control group. The mean age for this group was 33 years, (SD = 10.79), with a range from 18 to 54 years.

### *High BSI Group*

One hundred and ninety two questionnaires were handed out to women attending a community health family planning clinic. Of these, 87 (45.3%) were returned, but 4 could not be used because they were not completed sufficiently. Of the remaining 83, 53 (64%) were excluded from the sample on the basis of the exclusion criteria and/or failing to reach caseness for psychological distress on the Brief Symptom Inventory (BSI). This included 15 people (18%) who fulfilled one or more of the exclusion criteria. The remaining 30 high psychological distress subjects comprised the High BSI control group. The mean age for this group was 24 years, ( $SD = 7.72$ ), with a range from 16 to 46 years.

These two control groups were separated on the grounds that it was not known if members of the High BSI Group were currently receiving help from mental health services or not.

### Low Psychological Distress Control Group

#### *Low BSI Group*

One hundred and ninety two questionnaires were handed out to women attending a community health family planning clinic. Of these, 87 (45.3%) were returned but 4 could not be used because they were not completed sufficiently. Of the remaining 83, 48 (58%) were excluded on the basis of the exclusion criteria and/or for reaching caseness for psychological distress as defined by the Brief Symptom Inventory (BSI). This included 15 people (18%) who fulfilled one or more of the exclusion criteria. The

remaining 35 low psychological distress subjects comprised the Low BSI control group. The mean age for the group was 27 years, (SD = 8.23), with a range from 18 to 51 years.

None of the subjects in the study had a known history of, or were known to be currently suffering from psychosis or organic brain disorder.

### **Measures** (see appendix 1)

All subjects filled in a questionnaire booklet comprising the following:

#### **Demographic Details**

Participants completed questions pertaining to demographic information. These consisted of questions about ethnic background, education, employment, family background, current family status and occupation of father. Social class by occupation was measured for both the participant and the participant's father. It was obtained using the Office of Population Censuses & Surveys' Standard Occupational Classification (1995) and the Office for National Statistics' Simplified List of Social Class Based on Occupation: Excluding Employment Status (1996). For the subjects themselves, it was based on current occupation or, if not currently working, last occupation within the last 10 years. Paternal social class was based paternal occupation, whether currently working or not.

## **Questions to Measure Weight and Eating Pathology**

Body Mass Index (BMI), diagnostic questions taken from DSM IV and the Eating Attitudes Questionnaire (EAT26) were used as an indication of whether subjects suffered from eating pathology.

### *Body Mass Index (BMI)*

Subjects were asked to state their current weight and height. The BMI is calculated as follows;

$$\text{BMI} = \text{Weight (kg)} / \text{Height (m)}^2$$

This is a widely used classification, and enables people to be grouped according to how over or underweight they are. Fairburn & Wilson (1993) suggest that a BMI of between 20 and 26 (inclusive) indicates a healthy weight, while a score of 27 or above suggests being overweight. This cut off score was used as a guide to screen people out from the control groups whose weight might suggest problems around eating.

### *Questions Taken From DSM IV*

Subjects answered Yes or No to 5 questions taken from DSM IV relating to anorexia (questions 1. & 2.) and bulimia (questions 3. & 4). These specific questions, shown below, were chosen to supplement the Eating Attitudes Test (EAT26), to ensure against false positives.

The questions were as follows;

1. Have you experienced the absence of at least 3 consecutive periods?
2. Are you currently taking the contraceptive pill ?
3. Have you found yourself recently;
  - (a). eating, within any 2 hour period, an amount of food that is larger than you think most people would eat during a similar period of time under similar circumstances?
  - (b). If YES, has this occurred at least twice a week for the last 3 months?
4. Have you recently found yourself recently;
  - (a) using laxatives, diuretics, enemas, other medications, fasting, vomiting or doing a large amount of exercise to prevent yourself gaining weight?
  - (b) If YES, has this occurred at least twice a week for the last 3 months?

In addition, subjects were asked to state if they considered themselves to have an eating disorder at present, or in the past. If they answered Yes, they were asked to state their age when they first developed the disorder, the nature of the eating disorder and if any major life events had occurred in the year prior to developing the disorder.

### *The Eating Attitudes Test (EAT26)*

Participants completed the 26-item version of the Eating Attitudes Test (EAT26; Garner, Olmsted, Bohr & Garfinkel, 1982). This instrument was developed from Garner & Garfinkels' original 40-item EAT (1979). It has been used extensively as a screening questionnaire for eating problems. A cut off of a total score of 20 or above has been used as an indicator of possible eating disorder. The EAT26 breaks down into 3 factors. These are Dieting (the avoidance of fattening foods and preoccupation with being thinner), Bulimia and Food Occupation (items which reflect thoughts about food as well as those indicating Bulimia) and Oral Control (self-control of eating and perceived pressure from others to gain weight). The EAT26 is presented in the form of 6-point, forced-choice Likert scales. The subject has to rate whether each item applies 'always', 'usually', 'often', 'sometimes', 'rarely' or 'never'. The questionnaire has encompassed the idea of reversed scales to protect against the effect bias due to response style. Subjects find it easy to complete, and most do so in under 5 minutes (Freeman & Barry 1990).

The EAT26 has been shown to have acceptable criterion related validity. It classified 83.6% of female anorexic subjects correctly on the basis of the total EAT26 score (Garner, Olmsted et al. 1982). The reliability (internal consistency) for the EAT26 has been reported as high (Cronbach's alpha = 0.90) for a sample of 120 female anorexic patients (Garner, Olmsted et al. 1982).

The EAT26 was chosen for several reasons. It has been widely used, has good face validity and encompasses the majority of features used for diagnosis by DSM IV for anorexia and bulimia. Unlike other eating disorders questionnaires, it provides a cut-off

score. It is also short and quick to complete. The EAT26 has been criticised for presenting false positives (including the obese, and dieters without marked eating disorder symptoms (Button, 1996)). This was protected against in the present study by screening for obesity, adding diagnostic questions from DSM IV, and the fact that all members of the eating disorders group were being treated by a clinician for an eating disorder.

### **Measurement of Psychological Symptomatology**

*The Brief Symptom Inventory (BSI)* (Derogatis, 1982) was used to measure the psychological symptom status of participants. The BSI is essentially a brief version of the SCL-90-R (Derogatis, 1975). It is a self-report questionnaire which is estimated to take an average of 8-10 minutes to complete. Subjects rate each of the 53 items on a 5-point scale ranging from 0 (not at all) to 4 (extremely) to describe how much they were distressed or bothered by each symptom in the last 7 days, including today. The BSI is scored in terms of 9 primary symptom dimensions and 3 global indices of distress. The 9 primary symptom dimensions are

Somatization

Obsessive-Compulsive

Interpersonal Sensitivity

Depression

Anxiety

Hostility

Phobic Anxiety

Paranoid Ideation

Psychoticism.



The global indices are;

1. The Global Severity Index (GSI). This combines information on the numbers of symptoms and the intensity of perceived distress. It is considered the best indicator of current distress levels, and should be utilised where a single summary measure is required (Derogatis, 1983)
2. The Positive Symptom Total (PST). This is a simple count of the number of symptoms the subject reports experiencing to any degree.
3. The Positive Symptom Distress Index (PDSI). This is an intensity measure for the items the subject has reported distress for.

Normative data and standardised T scores are provided for the BSI, developed from 4 normative samples (adult psychiatric outpatients, adult nonpatients, adult psychiatric inpatients and adolescent nonpatients). Separate norms are provided for men and women. The BSI's operational rule for caseness states that if the respondent has a GSI score greater than or equal to a T score of 63, or if any two primary dimension scores are greater than or equal to a T score of 63 (on adult nonpatient norms) they will be considered a positive diagnosis or 'case'.

The BSI has been used widely and has been tested for its reliability and validity. Internal consistency reliability coefficients have been established by Derogatis (1983) on a sample of 1,002 out patients using Cronbach's coefficient alpha. Alpha coefficients for all 9 dimensions, ranged from .71 for the psychoticism dimension to .85 for the depression dimension. Similarly, Boulet & Boss (1991) report Cronbach's alpha coefficients ranging from .75 for psychoticism to .89 for depression. The BSI has showed good test-retest

reliability with coefficients ranging from .68 for somatization to .91 for phobic anxiety (Derogatis, 1983). The 9 dimension scales show high convergent validity with the Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & McKinley, 1983, cited in Boulet and Boss, 1991), (Derogatis, 1983), and with the SCL-90-R, from which the BSI was derived. Tests for construct validity using a principle components analysis indicate a strong match between empirically and theoretically derived factors .

Several features made the BSI suitable for use in this study. It is a self-report measure which has been well validated and is widely used. It is reasonably short, and attention has been given to using the simplest words possible to convey the meaning of the test items, making it amenable to a wider selection of people than some other tests. It gives 9 different dimension scales which allows for psychological symptomatology to be analysed more specifically than scales which give only global ratings, and it offers an operational definition for caseness.

### **Measurement of Psychosocial Development**

Psychosocial development was measured by *Measures of Psychosocial Development (MPD)* (Hawley, 1988). This inventory is based on Eriksonian constructs and assesses adolescent and adult personality development. It consists of 112 self-descriptive statements which are rated on a 5-point scale ranging from 'very much like me' to 'not at all like me'. The MPD has 27 scales representing the attitudes and dynamics described by Erikson. There are eight positive scales which assess the positive attitudes of each stage and eight negative scales assessing the negative attitudes of each stage. The eight resolution scales indicate the degree and direction of resolution existing between the two

attitudes for each stage conflict. They are calculated by subtracting the score for each negative stage from the score for the corresponding positive stage. There are 3 total scales which indicate overall scores for the positive and negative scales and for overall degree of resolution. The MPD is a self-report instrument and takes 15-20 minutes to complete. It is written in clear explicit statements, using Erikson's own descriptions wherever possible. Normative data has been collected for the measure based on a sample of 2,480 male and female adolescents and adults.

Items for the MPD were selected from a pool by a team of 'expert judges' on the basis of which items most accurately reflected the domains of Erikson's theory. Test-retest reliability coefficients for the MPD on a sample of 108 adolescents tested 2 - 13 weeks apart were high, ranging from .67 (inferiority) to .91 (identity versus identity confusion resolution scale) (Hawley, 1988). Internal consistency for each sub-scale was evaluated on a sample of 372 male and female adolescents and adults using alpha reliability coefficients. The coefficients ranged from .65-.84 for the positive scales and .69-.83 for the negative scales. The coefficient for identity was .73, and for identity confusion was .83. Thus support has been found for the conceptual base underlying the items selected for the MPD (Hawley, 1988). The convergent and divergent validity of the MPD was assessed by looking at its relationship with two established self-report measures designed to assess the same constructs (*The Inventory of Psychosocial Development* - IPD - Constantinople, 1969 and 1966, 1980, and the *Self-Descriptive Questionnaire* - SDQ - Boyd, 1966, cited in Hawley, 1988). Different and same traits were compared across the measures to test for both convergent and discriminant validity. Results showed strong support for the convergent validity of the MPD; correlation coefficients for the

MPD and IPD ranged from .56 to .78 for the positive scales and from .46 to .78 for the negative scales. Coefficients for the MPD and SDQ ranged from .44 to .65 for the positive scales and .28 and .58 for the negative scales. The MPD shows strong support for the discriminant validity of the MPD's positive scales and moderate support for the discriminant validity of the negative scales. Coefficients for different traits but same pole (ie both positive or both negative) items for the MPD and IPD ranged from .19 to .71, and for different traits on different poles (ie., positive and negative) ranged from .13 to -.64. Coefficients for the MPD and SDQ ranged from .13 to .59 for different traits on the same pole, and between .08 and -.52 different traits on different poles.

The MPD was selected for this study as one of the few questionnaires that have been developed to operationalise measurement of Eriksonian constructs. The design and constraints on the study warranted the use of a self-report measure. The MPD is a comparatively short and quick inventory to complete, and can be scored easily. It has a rich output, providing information about both positive and negative attitudes and degree of resolution for each stage, as well as three general scores. The MPD was also selected because it assess psychosocial development across all eight of Erikson's stages, unlike many other measures, enabling a wide variety of aspects to be investigated.

## **Procedure**

### *Recruitment For the Eating Disordered (ED) Group and the Psychiatric Outpatient Control Group.*

Women attending community mental health services (and for the eating disorders group, also women attending the higher education student counselling service or the residential unit for anorexics) were asked either by their therapist, or by the researcher, if they would be interested in taking part in a research study investigating psychological difficulties in adults. Women were approached only once the client's clinician agreed, and confirmed that their client did not have a known diagnosis of psychosis or organic brain disorder. The researcher introduced herself to the potential participant in the waiting area when they were waiting for their appointment, and spoke to them in a private room to explain what participation would involve. Clinicians who invited their clients to participate did so at the beginning or end of a session. A protocol was provided to ensure that the same information was given to all potential participants. Women who agreed to participate were given a questionnaire package to complete in their own time, and to return to the researcher by post.

### *Recruitment For the High BSI and the Low BSI Control Groups*

Women attending a community family planning service were informed by the receptionist that a psychology researcher was present who would like to invite them to participate in some research. If the woman agreed, the researcher introduced herself to the woman in the waiting area and explained that they were carrying out a study to investigate psychological difficulties in adults. It was explained to the women what participation in

the study would involve, and that information was being collected both from women who were currently experiencing psychological difficulties and those who were not. The same information was given to all potential participants. Women who agreed to participate were given the questionnaire package to complete in their own time and return by post.

The questionnaires returned from the different groups were screened for inclusion/exclusion criteria.

### **Design and Overview of Analysis**

The study was quasi-experimental. It was a simple between subjects design with four groups; an eating disorders group, two psychologically distressed groups and a psychologically healthy group. A power calculation (see appendix 2) suggested that a sample size of 30, with 4 groups in total, would give a power of over 90% to detect a large effect, and a power of 61% to detect a medium effect on the MPD. The data was analysed using the software package, SPSS (Statistical Package for the Social Sciences). Frequencies and contingency tables were used to describe the samples. Group differences were looked at using the chi-square statistical test, Kruskal-Wallis one-way ANOVAs and one-way analysis of variance (ANOVAs). Post hoc testing was carried out using Tukey's HSD test, which uses the 0.05 level of significance. This test is relatively conservative, thus reducing the possibility of Type 1 errors. Predictors for the presence of eating disturbance were investigated using regression analysis.

### **Ethical Considerations**

Prior to participation it was explained to potential participants that completing the questionnaire was likely to take between 25 and 35 minutes. Each participant was given an information sheet about the study (see appendix 3) explaining what participation would involve, and answering particular ethical questions which might arise. They each completed a consent form (see appendix 3). Participants could indicate a name and address to send a summary of the findings to should they wished to know the results of the study. It was explained that information would be treated as confidential and anonymous, and that there would be no further contact from the researcher following participation (except for overall written feedback if requested). The number of a health information help-line and a contact number for the researcher were provided in the package. The study was given full ethical clearance, details of which are given in appendix 4.

## RESULTS

### *Overview of Results*

The results are presented in seven sections. Firstly group demographic characteristics are given together with any differences between groups. Specific features of the eating disordered sample are outlined. Reliability checks are presented for the two main outcome measures (BSI and MPD). Next, group differences are examined in terms of levels of psychological distress as measured by the BSI. These are followed by a section on group differences regarding psychosocial development, as measured by the MPD, with a specific section looking at differences regarding Identity formation. Finally, the results of a regression analysis looking at predictors of eating pathology (as measured by the EAT26) are presented. All reports of group differences by post hoc testing (using Tukey's Honestly Significant Difference (HSD) test) are at the 0.05 level of significance.

### *Demographic Details: Group Characteristics and Differences*

Demographic characteristics of each of the groups are given in Tables 1. and 2. Table 1. shows the age characteristics for each of the 4 groups. A difference for age between groups was shown by ANOVA, ( $F(3, 120) = 7.01, p < .0001$ ). Post hoc testing using Tukey's (HSD) test showed that the Psychiatric Outpatient group was significantly older than each of the other groups, but that none of the other groups differed significantly from each other.



**Table 1. Age Characteristics of each of the Four Groups**

<b>GROUP</b>	<b>Mean</b>	<b>Range</b>	<b>S.D</b>
<b>Eating Disordered</b>	25	16 - 47	7.14
<b>Psychiatric Outpatient</b>	34	18 - 54	10.79
<b>High BSI</b>	24	16 - 46	7.72
<b>Low BSI</b>	28	18 - 51	8.23

Sample characteristics of the groups are given in Table 2. The majority of participants described themselves as being of 'White' or 'White European' ethnic origin. In addition, information is given regarding educational qualifications, employment status, social class, birth order in family, number of siblings, family composition when the participant was between the ages of 12 and 18 years, current relationship status, number of children and current living circumstances.

**Table 2.** Sample Characteristics for each of the Four Groups.

	<b>Eating Disordered</b>	<b>Psychiatric Outpatient</b>	<b>High BSI</b>	<b>Low BSI</b>
<b>Ethnic Origin</b>				
White	93.3% (28)	86.2% (25)	90.0% (27)	85.7% (30)
White European	6.7% (2)	10.3% (3)	10.0% (3)	8.6% (3)
Black Caribbean	0	0	0	2.9% (1)
Black Other	0	3.4% (1)	0	0
Chinese	0	0	0	2.9% (1)
<b>* Highest Qualification to Date</b>				
None	6.9% (2)	23.1% (6)	3.3% (1)	0
O'level/GCSE/A'level & Equivalent	86.2% (25)	50.0% (13)	83.3% (25)	65.7% (23)
Graduate & above	6.9% (2)	26.9% (7)	13.3% (4)	34.3% (12)
<b>* Employment Status</b>				
Student or Employed	70.0% (21)	53.8% (14)	96.6% (28)	88.2% (30)
Not Working	30.0% (9)	46.2% (12)	3.4% (1)	11.8% (4)
<b>* Social Class by Occupation</b>				
Class 1 or 2	7.1% (2)	39.1% (9)	34.6% (9)	48.4% (15)
Class 3, 4, or 5	64.3% (18)	47.8% (11)	46.2% (12)	35.5% (11)
Student	28.6% (8)	13.0% (3)	19.2% (5)	16.1% (5)
<b>Social Class by Paternal Occupation</b>				
Class 1 or 2	60.0% (12)	38.1% (8)	50.0% (12)	57.1% (16)
Class 3, 4, or 5	40.0% (8)	61.9% (13)	50.0% (12)	42.9% (12)
<b>Number of Siblings (including subject)</b>				
Only Child	10.3% (3)	17.2% (5)	16.7% (5)	25.7% (9)
One of two	31.0% (9)	31.0% (9)	50.0% (15)	22.9% (8)
One of three	41.4% (12)	37.9% (11)	30.0% (9)	25.7% (9)
One of 4 or more	17.2% (5)	13.8% (4)	3.3% (1)	25.7% (9)
<b>Birth Order Amongst Siblings</b>				
First Born	39.3% (11)	41.4% (12)	36.7% (11)	28.6% (10)
A Middle Child	14.3% (4)	10.3% (3)	6.7% (2)	22.9% (8)
Last Born	35.7% (10)	31.0% (9)	40.0% (12)	22.9% (8)
Only Child	10.7% (3)	17.2% (5)	16.7% (5)	25.7% (9)

% values are given for each group. Values in parentheses are actual numbers of subjects.

\* Category for which group differences were demonstrated

Table 2. continued

	Eating Disordered	Psychiatric Outpatient	High BSI	Low BSI
<b>Family Composition when participant was between 12 &amp; 18 yrs</b>				
Both Parents	70.0% (21)	65.5% (19)	76.7% (23)	74.3% (26)
Single Parent	13.3% (4)	13.8% (4)	20.0% (6)	11.4% (4)
One parent + stepparent	6.7% (2)	20.7% (6)	0	14.3% (5)
Other	10.0% (3)	0	3.3% (1)	0
<b>* Relationship Status at Present</b>				
Single	70.4% (19)	39.3% (11)	37.9% (11)	14.7% (5)
In Stable Relationship	29.6% (8)	60.7% (17)	62.1% (18)	85.3% (29)
<b>* Number of Children</b>				
None	80.0% (24)	34.5% (10)	96.7% (29)	82.9% (29)
One	10.0% (3)	17.2% (5)	0	8.6% (3)
Two	10.0% (3)	37.9% (11)	3.3% (1)	8.6% (3)
Three	0	3.4% (1)	0	0
Four or more	0	6.9% (2)	0	0
<b>Current Living Circumstances</b>				
Alone	13.3% (4)	17.2% (5)	10.0% (3)	11.4% (4)
With Friends/Flatmates	30.0% (9)	6.9% (2)	23.3% (7)	20.0% (7)
With Partner/Partner & Children	30.0% (9)	58.6% (17)	26.7% (8)	51.4% (18)
With Family of Origin	26.7% (8)	17.2% (5)	40.0% (12)	17.1% (6)

% values are given for each group. Values in brackets are actual numbers of subjects.

\* Category for which group differences were demonstrated

Differences between groups regarding demographic features were investigated using the chi-square statistic, Kruskal-Wallis K sample test (Tables 3. and 4.), and one-way ANOVAs (Table 5.). There were no group differences for parental social class, number of siblings, birth order amongst siblings, parental composition of families (between the age of 12 and 18 years) or in terms of who they were currently living with. Groups did differ in terms of the level of qualification participants had achieved, current employment status, relationship status at present and number of children, all at the  $p < .001$  level of significance. They also differed significantly for social class at the  $p < .05$  level.

It should be noted that, in order to calculate the differences presented in Table 3., nominal categories were meaningfully combined, where possible, to increase the sample size in cells. However, due to occasional small sample sizes in cell, it is possible that some significant differences were not detected.

**Table 3.** Differences Between Groups for Demographic Variables (Chi Square Statistic)

VARIABLE	VALUE	df	SIGNIFICANCE
Highest Level of Qualification Attained	22.06	6	.001 **
Employment Status	17.94	3	.000 **
Social Class by Occupation	12.75	6	.047 *
Parental Social Class by Occupation	2.47	3	.481
Birth Order Amongst Siblings	7.93	9	.542
Family Composition between 12-18 yrs	14.45	9	.107
Relationship Status at Present	19.62	3	.000 **
Current Living Circumstances	14.46	9	.107

\*  $p \leq 0.05$     \*\* $p \leq 0.001$

**Table 4.** Differences Between Groups for Demographic Variables (Kruskal-Wallis One-Way ANOVA - corrected for ties).

VARIABLE	Eating Disordered	Psychiatric Outpatients	High BSI	Low BSI	Chi-Square	df	Significance
Mean Number of Siblings (including subject)	2.66	2.48	2.20	2.51	3.67	3	.299
Mean Number of Children	0.30	1.31	0.07	0.26	35.33	3	.000**

\*\*p < 0.001

Significant difference between groups on the EAT26 was demonstrated by ANOVA ( $F(3, 117) = 191.64, p < .001$ ). Tukey's HSD post hoc testing confirmed that the eating disordered group scored significantly higher on the EAT26 than all the other groups. The other 3 groups did not differ significantly from each other and scored well within the non-pathological range.

**Table 5.** Group Differences for EAT26 Scores using One-Way ANOVA and Tukey's HSD Test.

	Eating Disordered	Psychiatric Outpatients	High BSI	Low BSI	F - Ratio	df	P
Eating Attitudes Test (EAT)	40.40 <sup>b</sup> (13.39)	3.27 <sup>a</sup> (2.99)	4.83 <sup>a</sup> (4.27)	2.85 <sup>a</sup> (2.83)	191.64	3, 117	.0001**

Mean scores are shown. Standard Deviations in parentheses.

\*\*p < 0.001

Note; <sup>abc</sup> superscripts - Different letter subscripts reflect statistically different means (at the .05 level); same letter superscripts reflect no significant difference between means. Superscripts are used in alphabetical order, with <sup>a</sup> representing the lowest mean(s) amongst the groups, <sup>b</sup> representing the next lowest that is significantly larger, and so forth.

Body Mass Index (BMI) scores showed a significant difference between groups ( $F(3, 114) = 4.03, p < .01$ ). The Eating Disordered group had the lowest mean BMI score of all groups (Mean = 20.30, SD 4.24), and also the largest range (12 - 32). Their mean score was significantly lower than the Low BSI group's (Mean = 22.52, SD 2.35) and the Psychiatric Outpatient group's (Mean = 22.53, SD 2.09).

#### *Characteristics of the Eating Disordered Group*

Within the eating disordered group, 20.0% (n=6) of the group described themselves as currently suffering from anorexia, 73.3% (n= 22) from bulimia, and 6.7% (n=2) from a combination of anorexia and bulimia. In terms of diagnosis based upon answers to the questionnaire, 13.3% (n=4) fulfilled criteria for anorexia, 76.7% (n=23) for bulimia and 10% (n=3) for anorexia with bulimia (anorexia - binge eating/purging type). This small discrepancy between self diagnosis and diagnosis by questionnaire involved 2 participants who described themselves as anorexic, one of whom scored for symptoms of bulimia without anorexia, and the other who scored for characteristics of both anorexia and bulimia. In terms of the history of their eating disorder, 51.7% (n=15) of the groups described themselves as having a history of anorexia, 34.5% (n=10) of bulimia, 10.3% (n=3) of both anorexia and bulimia and 3.4% (n=1) of compulsive eating. Eight participants had moved from a self-diagnosis of anorexia to a self-diagnosis of bulimia over the course of their illness, and 2 from a self-diagnosis of anorexia to a self-diagnosis of a combination of anorexia and bulimia. There was no movement from

bulimia to anorexia, but 2 people had moved from a combination of anorexia and bulimia to bulimia. The mean age of onset was 17 years (Range 10 - 26, SD 4.66), and the mean duration of suffering from an eating disorder was 7.26 years (Range 1 - 29, SD 6.27).

Analysis of variance was performed to investigate if there were any differences between the subdivisions of the Eating Disordered group (as defined by the questionnaire) on the main outcome variables. No significant differences were demonstrated.

Of the eating disordered group, 53.3% (n = 16) indicated that they remembered experiencing a major life event in the year immediately prior to them developing an eating disorder. Of these 94% (n = 15) people indicated the nature of these events. Events identified by participants included interpersonal difficulties (marital breakdown, being bullied), puberty, bereavement, transitions (moving house, leaving home or school and starting university), parents arguing, separating or moving abroad, the birth of a daughter, having an operation and a near death experience.

Results of the EAT26 for the Eating Disorders sample are displayed in Table 6. The mean total score on the EAT26 was 40.40 (Range 20 - 72, SD 13.39). All participants scored within the range that is suggestive of an eating disorder (20 or above), and the majority scored well above this. A breakdown of the EAT26 scores on the 3 factors are shown. The group scored proportionally higher for factor 1 - 'Dieting' (avoidance of fattening food and preoccupation with being thinner) and factor 2 - Bulimia and Food

Occupation' (thoughts about food and indications of bulimia), than for factor 3 - 'Oral Control' (self control of eating and perceived pressure from others to gain weight). This reflects the fact that the majority of the Eating Disordered group were suffering from bulimia.

**Table 6.** Characteristics of the Eating Disordered Sample - EAT26 Scores

<b>VARIABLE</b>	<b>MEAN</b>	<b>RANGE</b>	<b>S.D</b>
Eating Attitudes (78) Test (EAT26)	40.40	20 - 72	13.39
Factor 1 (39) (Dieting)	23.20	7 - 38	8.16
EAT-Factor 2 (18) (Bulimia & Food Occupation)	11.57	5 - 18	3.20
EAT-Factor 3 (21) (Oral Control)	5.53	0 - 17	6.06

Values in parentheses indicate highest possible total score on that dimension



*Internal Consistency Reliability Checks for the BSI and MPD*

Cronbach's alpha coefficients were calculated for the BSI and MPD scales, and demonstrated good internal consistency. They are presented in Table 7(a) and (b) respectively. Alpha coefficients for the BSI ranged from .54 to .91, with all but one scale (Psychoticism) at .84 or above. With the exception of the Psychoticism scale, all coefficients obtained were higher than those reported by Derogatis (1982, 1983), who also found Psychoticism to show the lowest alpha coefficient of all the scales. Cronbach's alpha coefficients for the MPD positive scales ranged from .67 to .87. These are similar to those reported by Hawley (1988). Coefficients for the negative scales ranged from .71 to .87, and were consistently higher than those reported by Hawley (1988).

**Table 7(a). Cronbach's Alpha Reliability Coefficients for the Brief Symptom Inventory (BSI)**

Somatization	.87
Obsessive-Compulsive	.91
Interpersonal Sensitivity	.85
Depression	.86
Anxiety	.88
Hostility	.84
Phobic Anxiety	.85
Paranoid Ideation	.84
Psychoticism	.54

**Table 7(b). Cronbach's Alpha Reliability Coefficients for the Measures of Psychosocial Development (MPD)**

<i>Positive Scales</i>		<i>Negative Scales</i>	
P1 - Trust	.80	N1 - Mistrust	.87
P2 - Autonomy	.79	N2 - Shame & Doubt	.82
P3 - Initiative	.74	N3 - Guilt	.71
P4 - Industry	.87	N4 - Inferiority	.72
P5 - Identity	.80	N5 - Identity Confusion	.86
P6 - Intimacy	.83	N6 - Isolation	.83
P7 - Generativity	.67	N7 - Stagnation	.77
P8 - Ego Integrity	.80	N8 - Despair	.85

*Psychosocial Development: Group Differences on the MPD*

Groups differences for psychosocial development were analysed by ANOVAs followed by post hoc Tukey HSD tests. The results are summarised in Tables 9 (a) - (d). High scores on the Negative scales and low scores on the Positive, and Resolution scales are indicative of poor psychosocial development. Groups showed significant differences on all scales other than Generativity (P7), for which all groups showed a similar outcome ( $F(3, 120) = 2.47, p = .07$ ).

The Eating Disordered groups showed the highest score of all the groups on all the Negative scales (including the Total Negative scale- MDPTN) and the lowest score of all the groups on the Positive and Resolution scales (including the Total Positive MDPTP- and Total Resolution- MDPTR). This was with the exception of Autonomy (P2), Initiative (P3) and the Resolution score of Initiative versus Guilt (R3). On these scales the Psychiatric Outpatient group showed less successful outcome than the Eating

Disordered group, but only *significantly* so for Initiative (P3). On this scale the Eating Disordered, High BSI and Low BSI groups did not differ significantly from each other. For all scales the Eating Disordered and Psychiatric Outpatient groups were followed in terms of least successful outcome by the High BSI and Low BSI groups respectively.

**Table 8(a). Comparison of Measures of Psychosocial Development (MPD) Total Scores across the Four Groups (One-Way ANOVA)**

VARIABLE	Eating Disordered	Psychiatric Outpatient	High BSI	Low BSI	F - Ratio	P
<b>TOTAL SCALES</b>						
Total Positive Scores (MPDTP)	99.70 <sup>a</sup> (25.40)	105.00 <sup>a</sup> (30.56)	136.00 <sup>b</sup> (26.61)	146.86 <sup>b</sup> (22.05)	24.6	.0001*
Total Negative Scores (MPDTN)	137.43 <sup>d</sup> (28.67)	109.93 <sup>c</sup> (32.99)	84.90 <sup>b</sup> (26.48)	59.74 <sup>a</sup> (24.68)	44.8	.0001*
Total Resolution Scores (MPDTR)	-37.73 <sup>a</sup> (42.29) <i>-134 - 29</i>	-4.93 <sup>b</sup> (57.95) <i>-108 - 166</i>	50.70 <sup>c</sup> (48.61) <i>-54 -140</i>	87.11 <sup>d</sup> (40.19) <i>0 - 206</i>	44.4	.0001*

*df* (3, 120) for all scales. Mean scores are shown . Standard Deviations are in parentheses.

Range is shown in italics for MDPTR scale which encompasses negative scores.

\**p*< 0.001

*Note*; <sup>abc</sup> superscripts . - For each scale, different letter subscripts reflect statistically different means; same letter superscripts reflect no significant difference between means. Superscripts are used in alphabetical order, with <sup>a</sup> representing the lowest mean(s) for groups on the scale, <sup>b</sup> representing the next lowest that is significantly larger, and so forth.

Significance was assessed by Tukey's hsd test at the .05 level of significance.

The Eating Disordered groups showed *significantly* less successful outcome than any of the other groups on 5 of the 8 Negative scales (Mistrust, Shame and Doubt, Identity Confusion, Stagnation and Despair), on 2 of the 8 Positive Scales (Trust and Intimacy), on 4 of the Resolution scales (Trust versus Mistrust, Identity versus Identity Confusion, Intimacy versus Isolation and Ego Integrity versus Despair) and for the Total Negative and Total

Resolution scales. Thus the Eating Disordered group were in a class of their own on these scales. In contrast to this, the Eating Disordered group had *similar* results to the Psychiatric Outpatient group for the Negative scales of Guilt, Inferiority and Isolation, on the Positive scales of Autonomy, Industry, Identity and Ego Integrity, for the Resolution scales of Autonomy versus Shame & Doubt, Initiative versus Guilt, Industry versus Inferiority and Generativity versus Stagnation, and for the Total Positive scale. For all these scales (except Isolation (N6)), the Eating Disordered and Psychiatric Outpatient groups both showed significantly poorer outcome than the High BSI and Low BSI groups. It follows from these results that the Eating Disordered group were significantly less successful than the High BSI control group on all scales other than Generativity (for which there were no group differences) and Initiative (for which the only group that differed significantly from any other was the Psychiatric Outpatient group).

It is interesting to note that the less successful outcome of the Psychiatric Outpatient group in comparison to the High BSI group was a significant difference for approximately half the scales. However, they showed significantly poorer outcome than the low BSI group on all scales (except Generativity). The High and Low BSI groups differed significantly on approximately half the scales. Thus it seems that the High BSI group was an intermediate group between the Psychiatric Outpatient and Low BSI groups.

**Table 8(b). Comparison of MPD positive Scales Across the Four Groups  
(One -Way ANOVA)**

VARIABLE	Eating Disordered	Psychiatric Outpatient	High BSI	Low BSI	F - Ratio	P
<b>POSITIVE SCALES</b>						
P1- Trust	13.27 <sup>a</sup> (4.36)	15.72 <sup>b</sup> (4.35)	19.37 <sup>c</sup> (4.13)	20.37 <sup>c</sup> (3.05)	21.5	.0001*
P2- Autonomy	13.23 <sup>a</sup> (4.83)	12.45 <sup>a</sup> (4.33)	17.83 <sup>b</sup> (4.78)	18.51 <sup>b</sup> (3.65)	15.6	.0001*
P3- Initiative	12.67 <sup>b</sup> (4.67)	9.72 <sup>a</sup> (4.42)	14.37 <sup>b</sup> (4.61)	15.03 <sup>b</sup> (3.07)	8.93	.0001*
P4- Industry	15.07 <sup>a</sup> (5.38)	15.28 <sup>a</sup> (5.31)	19.63 <sup>b</sup> (4.61)	21.20 <sup>b</sup> (3.76)	13.4	.0001*
P5- Identity	9.43 <sup>a</sup> (3.80)	11.55 <sup>a</sup> (5.36)	15.70 <sup>b</sup> (3.99)	18.09 <sup>b</sup> (3.47)	28.1	.0001*
P6- Intimacy	13.40 <sup>a</sup> (4.77)	16.31 <sup>b</sup> (5.42)	19.07 <sup>bc</sup> (4.78)	20.97 <sup>c</sup> (4.05)	15.4	.0001*
P7- Generativity	12.93 <sup>a</sup> (5.07)	12.48 <sup>a</sup> (4.60)	14.00 <sup>a</sup> (3.40)	15.20 <sup>a</sup> (4.28)	2.47	0.07
P8- Ego Integrity	9.70 <sup>a</sup> (4.17)	11.48 <sup>a</sup> (4.66)	15.63 <sup>b</sup> (4.39)	17.49 <sup>b</sup> (3.75)	23	.0001*

*df*(3, 120) for all scales .Mean scores are shown . Standard Deviations are in parentheses.

\**p*<0.001

*Note*; <sup>abc</sup> superscripts - for each scale, different letter superscripts reflect statistically different means; same letter subscripts reflect no significant difference between means.

Superscripts are used in alphabetical order, with <sup>a</sup> representing the lowest mean(s) for groups on the scale, <sup>b</sup> representing the next lowest that is significantly larger, and so forth.

Where 2 superscript letters are shown, means do not differ significantly if they share at least one letter. Significance assessed by Tukey's hsd test at the .05 level of significance.

**Table 8 (c). Comparisons of MPD Negative Scale Scores across the Four Groups  
(One-Way ANOVA)**

VARIABLE	Eating Disordered	Psychiatric Outpatient	High BSI	Low BSI	F - Ratio	P
<b>NEGATIVE SCALES</b>						
N1- Mistrust	18.03 <sup>c</sup> (5.54)	14.00 <sup>b</sup> (5.74)	11.50 <sup>b</sup> (4.69)	6.57 <sup>a</sup> (3.68)	30.8	.0001*
N2- Shame & Doubt	19.50 <sup>c</sup> (4.70)	15.82 <sup>b</sup> (5.09)	13.33 <sup>b</sup> (3.84)	8.86 <sup>a</sup> (4.18)	32.5	.0001*
N3- Guilt	17.67 <sup>b</sup> (4.16)	15.69 <sup>b</sup> (4.51)	10.80 <sup>a</sup> (3.18)	9.77 <sup>a</sup> (3.65)	29.9	.0001*
N4- Inferiority	15.60 <sup>c</sup> (4.10)	13.59 <sup>c</sup> (3.89)	9.73 <sup>b</sup> (4.37)	7.14 <sup>a</sup> (3.26)	30.3	.0001*
N5- Identity Confusion	19.67 <sup>c</sup> (4.91)	14.31 <sup>b</sup> (6.20)	13.00 <sup>b</sup> (4.97)	7.63 <sup>a</sup> (3.65)	32.3	.0001*
N6- Isolation	17.23 <sup>c</sup> (4.65)	13.66 <sup>bc</sup> (5.45)	10.63 <sup>ab</sup> (5.60)	8.20 <sup>a</sup> (8.93)	11.4	.0001*
N7- Stagnation	14.83 <sup>c</sup> (4.62)	11.21 <sup>b</sup> (4.86)	7.93 <sup>a</sup> (3.41)	6.83 <sup>a</sup> (4.34)	21.7	.0001*
N8- Despair	14.90 <sup>d</sup> (5.42)	11.66 <sup>c</sup> (4.68)	8.00 <sup>b</sup> (4.08)	4.74 <sup>a</sup> (3.24)	32.4	.0001*

*df*(3, 120) for all scales. Mean scores are shown . Standard Deviations are in parentheses.

\**p*< 0.001

Note; <sup>abc</sup> superscripts - for each scale, different letter superscripts reflect statistically different means; same letter superscripts reflect no significant difference between means.

Superscripts are used in alphabetical order, with <sup>a</sup> representing the lowest mean(s) for groups on the scale, <sup>b</sup> representing the next lowest that is significantly larger, and so forth.

Where 2 superscript letters are shown, means do not differ significantly if they share at least one letter. Significance assessed by Tukey's hsd test at the .05 level of significance.

*Identity Formation: Group Differences on the MPD Identity Scales*

The hypothesis that the eating disordered group would show less successful outcome for

### *Identity Formation: Group Differences on the MPD Identity Scales*

The hypothesis that the eating disordered group would show less successful outcome for Identity formation was analysed by ANOVAs and post hoc testing using Tukey's HSD test using the three identity scales of the MPD - Identity (P5), Identity Confusion (N5) and Identity Resolution (R5). The results are summarised in Tables 9(b), 9(c), and 9(d). Group differences were found for each on these scales; (Identity,  $F(3, 120) = 28.1$ ,  $p < .0001$ ; Identity Confusion,  $F(3, 120) = 32.3$ ,  $p < .0001$ ; Identity Resolution,  $F(3, 120) = 39.6$ ,  $p < .0001$ ). In line with the hypothesis, the eating disordered group showed the highest Identity Confusion (N5), and the lowest Identity (P5) and Identity Resolution (R5) of all the groups. For all three identity scales, the eating disordered group was followed in order of least successful outcome by the Psychiatric Outpatient, High BSI and Low BSI groups respectively. The Eating Disordered group showed *significantly* greater Identity Confusion than any other group. The Psychiatric Outpatient group and High BSI groups showed the next highest levels of Identity Confusion and did not differ significantly from one another, but scored significantly higher than the Low BSI group. For the Identity (P5) scores, the Eating Disordered group did not differ significantly from the Psychiatric Outpatient group, but both showed less successful Identity outcome than either of the BSI control groups. All groups showed significant differences for Identity Resolution scores, with the Eating Disordered group showing the least, and the Low BSI showing the most successful resolution.

**Table 8(d). Comparisons of MPD Resolution Scale Scores across the Four Groups  
(One-Way ANOVA)**

<b>VARIABLE</b>	<b>Eating Disordered</b>	<b>Psychiatric Outpatients</b>	<b>High BSI</b>	<b>Low BSI</b>	<b>F - Ratio</b>	<b>P</b>
<b>RESOLUTION SCALES</b>						
R1- Resolution: Trust-Mistrust	-4.77 <sup>a</sup> (7.90) <i>-19 - 8</i>	1.72 <sup>b</sup> (8.94) <i>-19 - 23</i>	7.87 <sup>c</sup> (7.15) <i>-6 - 21</i>	13.80 <sup>d</sup> (5.56) <i>4 - 24</i>	37.2	.0001*
R2- Resolution: Autonomy - Shame & Doubt	-6.27 <sup>a</sup> (7.82) <i>-21 - 13</i>	-3.38 <sup>a</sup> (8.48) <i>-19 - 23</i>	4.50 <sup>b</sup> (7.37) <i>-9 - 20</i>	9.66 <sup>c</sup> (6.51) <i>-4 - 26</i>	30	.0001*
R3- Resolution: Initiative-Guilt	-5.00 <sup>a</sup> (6.88) <i>-23 - 8</i>	-5.97 <sup>a</sup> (7.14) <i>-20 - 16</i>	3.57 <sup>b</sup> (7.09) <i>-13 - 17</i>	5.26 <sup>b</sup> (6.48) <i>-6 - 23</i>	22	.0001*
R4- Resolution: Industry-Inferiority	-0.53 <sup>a</sup> (7.04) <i>-12 - 11</i>	1.69 <sup>a</sup> (7.69) <i>-15 - 15</i>	9.90 <sup>b</sup> (7.90) <i>-12 - 22</i>	14.06 <sup>c</sup> (5.76) <i>4 - 28</i>	29.8	.0001*
R5- Resolution: Identity-Identity Confusion	-10.23 <sup>a</sup> (6.86) <i>-25 - 6</i>	-2.76 <sup>b</sup> (10.16) <i>-22 - 28</i>	2.73 <sup>c</sup> (8.30) <i>-13 - 18</i>	10.46 <sup>d</sup> (5.96) <i>1 - 28</i>	39.6	.0001*
R6- Resolution: Intimacy-Isolation	-3.83 <sup>a</sup> (8.43) <i>-19 - 13</i>	2.66 <sup>b</sup> (10.15) <i>-16 - 24</i>	8.43 <sup>bc</sup> (9.43) <i>-11 - 22</i>	12.77 <sup>c</sup> (11.01) <i>-40 - 26</i>	17.2	.0001*
R7-Resolution: Generativity- Stagnation	-1.90 <sup>a</sup> (8.17) <i>-17 - 13</i>	1.28 <sup>a</sup> (8.09) <i>-13 - 19</i>	6.07 <sup>b</sup> (5.81) <i>-9 - 16</i>	8.37 <sup>b</sup> (7.00) <i>-6 - 26</i>	12.7	.0001*
R8- Resolution: Ego Integrity- Despair	-5.20 <sup>a</sup> (7.74) <i>-21 - 8</i>	-0.17 <sup>b</sup> (8.14) <i>-19 - 21</i>	7.63 <sup>c</sup> (7.80) <i>-14 - 24</i>	12.74 <sup>d</sup> (5.92) <i>2 - 28</i>	36.8	.0001*

*df* (3, 120) for all scales. Mean scores are shown. Standard Deviations are in parentheses. Range is shown in italics.

\* $p < 0.001$

*Note*; <sup>abc</sup> superscripts - for each scale, different letter superscripts reflect statistically different means; same letter superscripts reflect no significant difference between means. Superscripts are used in alphabetical order, with <sup>a</sup> representing the lowest mean(s) for groups on the scale, <sup>b</sup> representing the next lowest that is significantly larger, and so forth. Where 2 superscript letters are shown, means do not differ significantly if they share at least one letter. Significance assessed by Tukey's hsd test at the .05 level of significance.



### *Psychological Distress: Group Differences on the BSI*

BSI scores were converted into standard T score norms based upon normative data for 974 adult female non-patients (Derogatis, 1982).

Analysis of Variance and post hoc Tukey HSD tests were used to test the hypothesis that the Eating Disordered group, along with the Psychiatric Outpatient and High BSI groups would show higher levels of psychological distress than the Low BSI group. The results are presented in Table 8. Significant differences between the groups on all dimensions, with the Eating Disordered, Psychiatric Outpatient and High BSI groups all showing significantly higher levels of distress than the Low BSI group. For all dimensions the Eating Disorders group reported the highest levels of distress, followed by the Psychiatric Outpatient, the High BSI and Low BSI groups, respectively. The general pattern amongst the groups was for the Eating Disordered group to show significantly greater levels of distress than the Psychiatric Outpatient group, for the Psychiatric Outpatient and High BSI groups to show similar levels of distress to each other, both scoring significantly higher than the Low BSI group. This pattern was found on all the global indices of distress, and for the Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Paranoid Ideation and Psychoticism dimensions. The Eating Disordered group did not differ significantly from the Psychiatric Outpatient group on the Anxiety and Phobic Anxiety dimensions, but both groups reported significantly more distress on these dimensions than the High and Low BSI control groups. With regards to Hostility, the Eating Disordered, Psychiatric Outpatient and High BSI groups all indicated similar levels of distress, which was significantly higher than that of the Low BSI group.

**Table 9. Comparison of Brief Symptom Inventory (BSI) scores across the Four Groups (One-Way ANOVA)**

VARIABLE	Eating Disordered	Psychiatric Outpatient	High BSI	Low BSI	F - Ratio	P
<b>GLOBAL SCORES</b>						
Global Severity Index (BSI)	74.37 <sup>c</sup> (5.75)	68.03 <sup>b</sup> (5.13)	65.03 <sup>b</sup> (6.56)	49.80 <sup>a</sup> (7.46)	89.07	.0001*
Positive Symptom Total (BSI)	41.97 <sup>c</sup> (8.56)	34.38 <sup>b</sup> (8.75)	29.93 <sup>b</sup> (9.69)	12.57 <sup>a</sup> (6.87)	71.47	.0001*
Positive Symptom Distress Index (BSI)	2.60 <sup>c</sup> (.58)	2.03 <sup>b</sup> (.45)	1.86 <sup>b</sup> (.59)	1.23 <sup>a</sup> (.27)	43.23	.0001*
<b>BSI DIMENSIONS</b>						
Somatization (BSI)	65.90 <sup>c</sup> (10.52)	58.55 <sup>b</sup> (8.34)	57.47 <sup>b</sup> (8.76)	47.46 <sup>a</sup> (6.69)	24.54	.0001*
Obsessive-Compulsive (BSI)	71.93 <sup>c</sup> (8.12)	65.21 <sup>b</sup> (9.98)	63.30 <sup>b</sup> (9.00)	50.74 <sup>a</sup> (7.23)	35.05	.0001*
Interpersonal Sensitivity (BSI)	72.47 <sup>c</sup> (4.14)	66.48 <sup>b</sup> (7.55)	65.07 <sup>b</sup> (6.40)	51.86 <sup>a</sup> (8.78)	50.72	.0001*
Depression (BSI)	71.20 <sup>c</sup> (4.94)	65.72 <sup>b</sup> (6.20)	62.70 <sup>b</sup> (6.92)	48.83 <sup>a</sup> (6.80)	75.85	.0001*
Paranoid Ideation (BSI)	70.50 <sup>c</sup> (8.51)	63.07 <sup>b</sup> (9.57)	64.30 <sup>b</sup> (8.90)	51.20 <sup>a</sup> (7.12)	29.63	.0001*
Psychoticism (BSI)	74.93 <sup>c</sup> (6.73)	66.75 <sup>b</sup> (8.40)	65.07 <sup>b</sup> (8.30)	51.20 <sup>a</sup> (6.43)	57.29	.0001*
Anxiety (BSI)	69.00 <sup>c</sup> (6.52)	66.28 <sup>c</sup> (5.88)	59.77 <sup>b</sup> (7.76)	49.29 <sup>a</sup> (7.88)	49.88	.0001*
Phobic Anxiety (BSI)	66.87 <sup>c</sup> (9.2)	63.79 <sup>c</sup> (9.08)	54.73 <sup>b</sup> (9.07)	48.40 <sup>a</sup> (5.61)	33.3	.0001*
Hostility (BSI)	67.40 <sup>b</sup> (8.56)	61.76 <sup>b</sup> (7.96)	63.90 <sup>b</sup> (10.57)	51.00 <sup>a</sup> (8.78)	21.8	.0001*

Mean scores are shown . Standard Deviations in parentheses. *df*(3, 120) for all scales. \**p*<0.001

Note; <sup>abc</sup> superscripts . - For each scale, different letter subscripts reflect statistically different means ; same letter superscripts reflect no significant difference between means. Superscripts are used in alphabetical order, with <sup>a</sup> representing the lowest mean(s) for groups on the scale, <sup>r</sup> representing the next lowest that is significantly larger, and so forth. Significance was assessed by Tukey's hsd test at the .05 level of significance.

### *Predictors of Eating Pathology*

Multiple Regression analysis was performed to investigate whether identity and severity of psychological distress could be used to predict eating pathology. EAT 26 scores were used as a measure of eating pathology which clearly distinguished between the Eating Disordered and the three control groups. Because a significant difference was found between the groups regarding age, age was included in this analysis to see if it acted as a confounding variable between eating pathology, identity and psychological distress.

Simple correlations between EAT26 scores and variables are shown in Table 10. Significant correlations were found as shown, for Age, Global Severity Index (BSI global score), Identity (P5) and Identity Confusion (N5).

**Table 10.** Correlations of Outcome Variables with EAT26 Scores

	AGE	GLOBAL SEVERITY INDEX (BSI)	IDENTITY (P5)	IDENTITY CONFUSION (N5)
EAT	-.175 p=.027	.549 p=.001	-.435 p=.001	.535 p=.001

Two parallel regression analyses were performed so that the effect of Identity (P5) and Identity Confusion (N5) could be considered independently. Each regression analysis involved three variables entered simultaneously - Age, the Global Severity Index and an Identity variable. The results are presented in Tables 11 and 12, which show the beta weights for the two regression analyses. Each beta weight shows the independent contribution of the variable holding the other two constant. Identity Confusion (N5) and the Global Severity Index were both predictive of eating pathology at the  $p < 0.01$  level of significance and Identity (P5) was predictive at the  $p < 0.05$  level. These variables were

significant predictors even when controlling for age. Thus age was not acting as a confounding variable in the relationship that was found between both identity issues and psychological distress and eating pathology. Age in itself was not a good predictor of eating pathology, failing to reach significance with Identity Confusion (N5) and the Global Severity Index held constant. In addition age only just reached significance at the  $p < 0.05$  level when the Global Severity Index and Identity (P5) were held constant.

**Table 11.** Regression Analysis Showing Predictive Ability of Identity Confusion, Global Severity Index and Age on EAT26 Scores.

	R <sup>2</sup>	Beta	Sig T
	.36		
Identity Confusion (N5)		.30	.005
Global Severity Index (GSI)		.33	.002
Age		-.12	.103

**Table 12.** Regression Analysis Showing Predictive Ability of Identity, Global Severity Index and Age on EAT26 Scores.

	R <sup>2</sup>	Beta	Sig T
	.34		
Identity (P5)		-.21	.024
Global Severity Index (GSI)		.41	.001
Age		-.15	.046

## **DISCUSSION**

### **Discussion of the Research Findings and their Relationship to Existing Literature**

The study was designed to investigate the tasks of psychosocial development in women suffering from eating disorders, with a particular interest in their Identity development. Levels of psychological distress were also investigated. The investigation was carried out by making comparisons between the Eating Disordered and three control groups, the hypotheses being that the Eating Disordered group would show significant differences from the control groups on the outcome variables. The control groups consisted of one psychologically healthy group of women, and two groups of women who reported high levels of psychological distress. The latter two groups enabled investigation as to whether any effects were specific to women suffering from eating disorders, or whether they would be found in women with similar levels of psychopathology. Finally predictors of eating problems (as measured by the EAT26) were investigated.

This discussion first considers the design of the study regarding planned differences between groups according to the inclusion criteria. This is followed by a discussion of the specific characteristics of the Eating Disordered group and consideration of group comparisons on demographic variables. Next, results pertaining to the hypotheses of the study and their relationship to literature regarding eating disorders, issues of psychosocial development and psychological distress are discussed. Limitations to the current study and areas for future research are identified and, finally, the clinical implications of the findings of the study are suggested.

Stringent criteria were used to recruit participants to the groups to ensure the Eating Disordered group consisted of women who were clear cases for eating disorders, and that members of the control groups did not have any past or present eating problems. In terms of eating pathology, EAT26 scores showed that the Eating Disordered sample in this study did indeed suffer from a high degree of eating disorder symptoms. Their mean EAT26 score of 40.40 was slightly higher than those found by Garner et al. (1982) in a group of 160 female anorexia patients (half of whom also showed symptoms of bulimia), who had a mean EAT26 score of 36.1. All of the control groups involved in the current study scored well below the pathological range on the EAT26, thus clearly distinguishing them from the Eating Disordered group with regard to eating pathology. As planned, no members of the control groups had a Body Mass Index (BMI) score which would suggest they were overweight. The Eating Disordered group had the largest BMI range, which would be expected given that the group included underweight anorexics as well as bulimics who's weight is typically within the normal range, but who may be slightly under or overweight (American Psychiatric Association 1994).

It is interesting to note the high percentage (43%,  $n = 22$ ) of women from community mental health services who were not currently being treated for an eating disorder but who had to be excluded from the sample because of past or current eating problems (anorexia and bulimia, obesity, compulsive eating and high EAT26 scores). Only 3 clients reached diagnostic levels, but this finding suggests that a level of eating distress is very common amongst this population and may be going undetected, especially as

many of these women did not report having an eating disorder. Amongst the women attenders at the community family planning clinic, the percentage was much lower at 18% (n = 15).

Demographic characteristics of the Eating Disordered group suggested that this sample was comparable with samples of people with eating disorders found in other studies in terms of age of onset, social class and natural course of their illness; the mean age reported for when participants first developed an eating disorder was 17 years, which is in keeping with other research findings (Hindler, Crisp et al. 1994). Social class by parental occupation showed a reasonably even distribution across the class groupings. This is consistent with current research which suggests that, contrary to popular belief, eating disorders (especially anorexia) are not found predominantly amongst people from high socioeconomic status groups, but are in fact found across the class spectrum (Gard & Freeman, 1996).

Movement from anorexia to bulimia or to a combination of anorexia and bulimia over the course of their illness was reported by 10 participants, and reflects a common finding that individuals with bulimia often have a history of anorexia and that features of anorexia and bulimia are often found together in the same individual (Garner and Garfinkle, 1985).

Anorexics and bulimics were considered together as one group in this study. Results of an analysis of variance between the subdivisions of the eating disordered group (anorexia, bulimia and anorexia-binge eating/purging type) did not show any differences

between them on the main outcome variables but, with such small and unequal numbers involved, the results of this analysis are not statistically meaningful. Although differences between anorexics and bulimics regarding personality and behaviour have been suggested in some of the literature, more recent research does not support this hypothesis. In fact many researchers have found no significant differences on psychological constructs between people suffering from anorexia and bulimia (Dancyger & Garfinkle, 1995). Waller (1993) has stated that differences between diagnostic groups are generally very small relative to the differences between them and normal comparison groups, and researchers and theorists often consider them as a homogenous group (McCourt & Waller, 1996).

A discrepancy was found for 2 participants regarding self-diagnosis of their eating disorder and diagnosis according to their answers on the questionnaires. Both these participants indicated that they showed symptoms of bulimia, but described themselves as anorexic. Although no conclusions can really be based upon the responses of only 2 participants, it is interesting to speculate that their response may reflect the secrecy and shame that is often associated with bulimia (Herzog, 1982), and the virtuosity that is associated with the anorexic's self-discipline (American Psychiatric Association 1994) amongst people suffering from eating disorders.

Just over half the group reported life events in the year prior to the onset of their eating disorder. Their responses should be considered with caution as they may simply reflect a retrospective search for meaning by participants. That said, it is interesting to note that the majority of events reported involved unsupportive and/or changing environmental



conditions, which have implications for psychosocial development (Erikson, 1968). Puberty was also reported by several participants as a life event in the year prior to developing the illness. It is widely recognised that eating disorders frequently emerge within the context of, or following the biological process of puberty (Crisp, 1995).

With regards to group comparisons on demographic variables, groups did not differ in terms of reports of their ethnic origin, social class according to their fathers' occupation, current living circumstances or on variables pertaining to their reports of family characteristics during childhood. However differences between groups were found for reports of current employment status, of qualification levels achieved, current relationship status and number of children. The groups also differed in terms of age with the Psychiatric Outpatient group being older than all the other groups. This difference in age may account for some of the other demographic differences found between groups. Because of the possible effect of age in psychosocial development it was important to take this into account within the regression analysis and this point will be returned to later in the discussion. It is important to recognise the demographic differences that were found between the groups and the possible implications they have for the interpretation of the results on the outcome variables. For example, it is possible that group differences found were due to their demographic differences rather than their differences according to eating disturbance.

Comparisons between the Eating Disordered and control groups regarding Identity development supported the hypothesis that the Eating Disordered group would show less successful Identity development than the control groups. The Eating Disordered group had a significantly poorer outcome than the Low BSI group for all three measures of Identity

development (Identity, Identity Confusion and Identity Resolution). In addition, the Eating Disordered group showed a poorer outcome than the Psychiatric Outpatient and High BSI groups on the Identity measures. This difference was at a significant level (with the exception of the difference between the Eating Disordered and Psychiatric Outpatient groups on the Identity scale). Thus, while poor Identity development may be found amongst people reporting general psychological distress, it seems that it is to a lesser extent than that found amongst people with eating disorders. The poor Identity resolution in people with eating disorders is suggestive of a struggle around integrating a central Identity. It suggests they had little idea of who they are, where they were going and what their basic goals and values were, and that they experienced a discrepancy between who they are and who they would like to be. It also suggests that they were unsure of their basic convictions and place in life (Hawley, 1988).

The results also demonstrated that the Eating Disordered group were delayed on other specific tasks of psychosocial development in comparison to the control groups. The Eating Disordered group showed significantly poorer overall psychosocial development than the Low BSI groups for all psychosocial stages (with the exception of Initiative and Generativity) thus suggesting that women with an eating disorder have significantly poorer overall levels of psychosocial development than psychologically healthy women. In addition, the Eating Disordered group differed significantly for overall levels of psychosocial development from the High BSI group. With regards to comparison between the Eating Disordered and Psychiatric Outpatient groups, the Eating Disordered group showed significantly poorer outcome on the majority of the Negative scales and half the Resolution scales. These groups differed less from each other on the Positive scales. The results

suggest that poor psychosocial development distinguishes between people with an eating disorder and people with low psychological distress and also between people with eating disorders and people with high psychological distress who may not be in touch with mental health services. In addition, the results suggest that people suffering from an eating disorder show significantly greater Negative pole attributes and personality characteristics than psychiatric outpatients (without eating problems) and are also less successful than psychiatric outpatients, although to a lesser extent, on the Positive pole characteristics associated with psychosocial development. These results suggest that the magnitude of poor psychosocial resolution was specific to people with an eating disorder, rather than just being part of the picture of more general psychological distress.

The results of the Resolution scores suggest that people with eating disorders have particular difficulties resolving issues of Trust and Mistrust, Intimacy and Isolation, Identity and Identity Confusion and Ego Integrity and Despair. Poor resolution of Trust and Mistrust suggests a struggle to get a basic sense of trust in oneself, in others and in one's needs being met. Instead the world is seen as inconsistent, painful and threatening (Hawley, 1988). Poor resolution of Intimacy and Isolation relates to a struggle to share with and care for another person without losing one's identity in the process, and a consequent tendency to remain alone and self-absorbed because of fear of ego loss (Hawley, 1988). Identity Resolution has been discussed above. Problematic resolution of Ego Integrity and Despair reflects a dissatisfaction with one's life so far, feeling that it has not had meaning, but instead has been filled with misdirected energies, and a feeling despair with human kind in general (Hawley, 1988).

As predicted, the Eating Disordered group reported significantly higher levels of psychological distress than the normal controls (Low BSI group) across all domains. What is also of interest is that, in addition, the Eating Disordered group reported significantly higher levels of psychological distress than both the High BSI and Psychiatric Outpatient group (other than for distress from Anxiety, Phobic Anxiety and Hostility). This finding suggests that overall levels of psychological distress may be significantly higher in people suffering from eating disorders than amongst a psychiatric outpatient population without eating problems.

The last hypothesis involved an exploration of the predictive ability of Identity issues and psychological distress of eating pathology as measured by the EAT26. The results demonstrated that global levels of psychological distress, Identity Confusion and Identity were highly predictive of eating pathology. Their predictive ability was found to be independent of any effect of age, thus demonstrating that the age differences between groups did not effect outcome finding on these variables.

The results of this study will now be discussed in the light of previous literature regarding psychosocial development, issues associated with eating disorders and levels of psychological distress. Most previous studies have considered eating disorders in the light of issues associated with particular stages of psychosocial development, such as Identity, without putting them within a life span perspective of psychosocial development. The results of this study suggest that psychosocial issues, which according to Erikson's theory reach their peak at particular stages in the life cycle, may be important factors associated with the development of eating disorders. Within an Eriksonian model of psychosocial

development, the eating disordered group were shown to develop problems as early as the first psychosocial 'crisis' which involves a struggle to achieve a balance between a healthy level of Trust, balanced by an appropriate level of Mistrust (Erikson, Erikson & Kivnick, 1986). Although issues of Trust must be reworked throughout the life span, according to Erikson's theory, such a fundamental delay is likely to have its roots in the Trust crisis in infancy, and may be related to unsupportive environmental and emotional conditions at this stage in the life cycle (Erikson, 1950, 1963). Trust issues in people suffering from eating disorders reflect the findings of Bemporard et al., (1992), who reported that eating disordered patients typically remembered the early maternal relationship as lacking in warmth and failing to meet their needs, and that they reported profound difficulties in trusting others. The anecdotal reports of O'Flynn (1994) also describe regarding eating disorders, early childhood deprivation and corresponding lack of trust in others. In addition, it also relates well to research involving Bowlby's Attachment Theory (Bowlby, 1977), the results of which suggest that attachment disturbances are evident in women with eating disorders and that anxious and insecure attachments, fear of abandonment and difficulties with autonomy differentiate between young women with an eating disorder and their non-eating disordered contemporaries (O'Kearney, 1996). Problems at this early developmental stage would have implications for the success with which subsequent psychosocial tasks could be resolved; according to Erikson, the success with which subsequent psychosocial crises can be resolved depends upon the individual's age-appropriate balancing of earlier psychosocial tensions (Erikson et al., 1986). Indeed the Eating Disordered group showed poor psychosocial development throughout all the developmental stages.

The next stage for which the eating disordered group were especially delayed on in comparison to controls was the Identity crisis, which, according to Erikson (1968), reaches its peak during adolescence. The mean age that was reported by the eating disordered sample for the onset of their eating disorder (17 years) reflects a time at which the Identity struggle would have been at its peak, thus adding weight to the idea that eating disorders may develop as a result of this particular developmental struggle. The results of this study with regard to Identity issues support other findings which suggest, for example, that individuals with eating disorders experience themselves as being more externally controlled and less able to assert themselves than dieting and normal controls (Williams, Chamove & Millar, 1990), and that bulimics show high levels of Identity Confusion and of perception of self as enmeshed with others (Schupak-Neuberg & Nemeroff, 1993). However previous studies have not looked at these issues within the framework of earlier psychosocial developmental delays.

The finding that the eating disordered group also struggled with issues of Intimacy and Isolation in comparison to control groups comes as no surprise in the light of the problems already identified with issues of Trust and Identity. This also links with Bemporard et al's (1992) finding of high interpersonal sensitivity amongst people with eating disorders. The Eating Disordered group also showed poor resolution of Ego Integrity versus Despair. These issues generally reach their 'crisis' at the end of the life cycle, but in line with Erikson's theory (Erikson et al., 1968) these issues will, in addition, be pre-worked prior to the crisis period. This suggests that without appropriate intervention, people with eating disorders may be at risk of continued poor psychosocial development across the life cycle.

With regards to eating disorders and high levels of reported psychosocial distress, previous research suggests that high levels of comorbidity with various forms of psychological distress are common amongst sufferers of eating disorders (Rothenberg, 1990; Bemporard et al., 1990; Button et al. 1996). For example eating disorders have been associated with obsessive-compulsive symptomatology (Bellodi et al., 1992; Rothenberg, 1990), depression (Fairburn & Cooper, 1989; Beebe, 1994; Bemporard et al., 1990) and interpersonal difficulties (Bemporard, 1992). However, in contrast to the current study, most studies have not compared levels of psychological distress amongst people suffering from eating disorders with those found in the general psychiatric outpatient population. There are a few exceptions to this; Bulik et al., (1992) found that, in comparison to women suffering from Obsessive-Compulsive disorder, bulimic women showed greater levels of distress from symptoms relating to Somatization, Interpersonal Sensitivity and Psychoticism, but similar levels of distress for Anxiety and Obsessive Compulsive symptomatology. Also Williams et al., (1990) found high levels of inwardly directed Hostility amongst women with an eating disorder, but at a level that was similar to a psychiatric control group. The results of the current study suggest that comorbidity of eating disorders with distress from other psychological issues is high across a range of dimensions and that it is generally at a higher level than that found in the general psychiatric population (with the exception of distress from Anxiety/Phobic Anxiety and Hostility).

## **Limitations of the Study and Areas For Future Research**

The present study can be criticised on the grounds of some methodological issues. For example it could have been improved by matching groups on demographic variables thus giving more certainty that any results were due to the planned differences between groups. Some of the demographic variables that were collected such as 'participant's age when mother/father died' were unsuitable for a study of this size because the results involved such small numbers that any analysis would have been meaningless. The study was subject to the usual limitations of self-report methodology, such as response biases and failure to understand questions. For example, it has been suggested that people often fill in the BSI according to the *presence*, rather than the *severity* of symptoms. With regards to the measures used in the study, the BSI has been criticised on the grounds that the operational rule for 'caseness', which is based on USA norms, is at too low a level for British samples, resulting in people being classified as a 'case' who should not be. For the purposes of this study, an operationalisation of caseness was required, and at present it is the only one available for the BSI; norms based on British samples are currently being collated but were not available at the time of the study. Another measure of psychological distress such as the General Health Questionnaire (GHQ) (Goldberg & Hillier, 1979) for which there are British norms, could have been used. However the GHQ along with most other measures, does not break down psychological distress across different domains as the BSI does. In fact, in this study, the similarity of BSI scores between the Psychiatric Outpatient and High BSI groups suggests that the cut off value may have been suitable for the population in the study. The MPD involves a mixture of items for the participant to rate, some of which are expressed in the first person and others as general statements of belief. This slightly confusing mixed presentation may have been problematic for some participants, although nobody indicated



so on their returned questionnaires. In addition, it would have been interesting to collect data from clinicians regarding numbers of clients who took a questionnaire to complete so that return rates could have been calculated for the Eating Disordered and Psychiatric Outpatient groups.

It is important to note that while this study adopted a developmental model of psychosocial development, the design of the study itself was cross-sectional and that for this reason claims of developmental delay across the lifespan are limited. While the results regarding levels of psychosocial development found in the study may, as Erikson's theory suggests, reflect resolution of psychosocial tasks at particular times in the life span, a longitudinal study would be required to establish with greater certainty at what point in the lifespan particular delays were manifesting. A longitudinal study would also allow causative relationships to be established. In the future, prospective studies which measure psychosocial development throughout childhood, levels of psychological distress and eating patterns might help to identify causal relationships.

An additional qualitative element which was initially planned to investigate eating disordered women's experiences relating to Identity, had to be abandoned due to a lack of women volunteering to be interviewed. In future, presuming this problem could be overcome, it would be interesting to interview women, to gain a more detailed picture of their Identity status and a better understanding of how identity issues are experienced by women. This might be achieved within a qualitative approach, or using a semi-structured interview format such as Marcia's Identity Status Interview (1966).

Many of the conclusions that have been drawn from the current study are set within the context of Erikson's theory of psychosocial development, and depend upon an acceptance of it for their validity. Erikson's theory is widely recognised and accepted. However he has been criticised for presenting a male model of development, especially regarding issues of Identity formation (Gilligan, 1982). This issue has been discussed in the introduction, with the conclusion that his model may indeed show a male bias, and that it is this bias that many women in Western societies today are being expected to conform to. That said, it would be interesting to look at whether women with eating disorders show difficulties with Identity formation according to a more traditionally female model of Identity. At present there appears to be a lack of Identity measures that take a female perspective.

It was beyond the scope of the study to look at the role of the socio-cultural environment in psychosocial development. In future, studies could encompass a socio-cultural perspective to investigate the suggestion that women's Identity struggles are in part due to current Western cultural conditions in which traditionally female identity is not supported. This might be done for example, by investigating eating disordered women's feelings regarding perceived expectations upon them. It would also be interesting to investigate the causative mechanism by which Identity problems may lead to eating pathology, although methodologically this might be problematic. In addition, investigation of relationships between Identity formation and Attachment styles might provide interesting findings . Studies looking at people suffering from anorexia and bulimia separately could help to establish whether psychosocial delays are similar in these two groups. Finally, it would be

interesting to study prevalence rates of undiagnosed and sub-clinical eating distress in users of mental health services, as this study suggests this may be higher than clinicians might suspect.

### **Clinical Implications**

Clearly more effective treatments and preventative interventions are required to improve the currently poor, rates of recovery and high relapse rates found amongst people with eating disorders (Wrate, 1996), and thereby reduce the high cost of this group to the National Health Service.

Taking the findings of the study within a developmental perspective, they suggest that people with eating disorders are significantly delayed in their psychosocial development, especially regarding their Identity development. The study also suggests that psychosocial delays in people with eating disorders may have their origins in early childhood, and this might be especially so for clients showing greater levels of disturbance.

Relapse is common amongst people with eating disorders. This may be due, in part, to any interventions received not facilitating psychosocial movement, or indeed actively hindering it. For example, this might be the case with medical interventions such as force-feeding for anorexics which may serve to reinforce their view of the world as hostile and unable to meet their emotional needs. According to the study, eating disorder relapse in people who have

previously resolved developmental issues to some degree, could be understood as being related to a negative shift of Identity. According to Erikson, individuals' Identity status does not remain static over the life span, and it is not uncommon for shifts of Identity to occur especially at times of stress (Marcia, 1987).

These understandings imply that therapeutic work with first time or relapsed sufferers of eating disorders should aim to facilitate positive psychosocial developmental movement, especially around Identity issues. For clients with more entrenched psychosocial delays, initial work may involve helping them to develop Trust, and subsequent psychosocial issues, prior to, or concurrently with work on Identity development.

These implications provide clinicians with the challenge of finding effective ways of working that facilitate psychosocial development. It may be that it is especially important with eating disordered clients that the therapist ensures a facilitative relationship thus providing a safe environment for the client to address issues of trust in others. A Rogerian approach of 'unconditional positive regard' (Rogers, 1961) may prove helpful to this end. Therapy should also aim to enable the client to tolerate the uncertainty which is central to Identity exploration, thus enabling them to experiment with their identity without becoming overwhelmingly distressed and feeling further out of control. This could be achieved through the dynamic of 'containment' (Casement, 1985). Group therapy could be beneficial if the group acted as a positive sharing environment in which all members felt fundamentally accepted. In this way the group could provide the recognition and validation required for

individuals to achieve a sense of Identity (Erikson, 1968). These are some initial suggestions, and the development of effective interventions is worthy of further investigation.

The study also has implications for preventative work. It suggests that people with eating disorders are likely to have struggled with psychosocial issues prior to their Identity delay. Therefore, clinicians working with children and adolescents who are currently experiencing problems that are suggestive of psychosocial delays could actively work with them on Identity issues with the aim of facilitating successful development through the adolescent period. Likewise educational work could be done with teachers to encourage them to recognise children that are struggling with psychosocial development, so that effective interventions could be targeted before an eating disorder manifests.

In addition, the study suggests that eating disorder sufferers generally report high levels of psychological distress across a variety of domains. Clients may therefore benefit from interventions to help them manage this distress, which may reduce when psychosocial development and disordered eating patterns are improved. The findings also suggest that clinicians should be aware of the high levels of eating problems in the general psychiatric outpatient population, which clients themselves do not seem to acknowledge as such.

As a final point, the research makes a tentative suggestion that clinicians may describe clients' eating disorder in different terms to those used by client themselves. This being so, as always in therapy, it will be important to start where the client's understanding of their difficulties are.

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### **SECTION 3:            CRITICAL APPRAISAL**

#### **ORIGINS OF THE PROJECT AND TIMESCALE**

The subject of this research developed out of both personal and practical interests. Teaching sessions had initially raised my awareness of, and interest in issues concerning eating disorders. However, the opportunity to work with clients within this field had not arisen on my clinical placements, and I saw the research study as an opportunity to increase my understanding and awareness of the complex issues involved.

My initial choice of another topic for which there was a lack of local interest lead me to think about the importance of choosing a topic for which there was interest, enthusiasm and therefore, hopefully, support and access to participants, close at hand. A new city wide specialist eating disorders service was planned and on the brink of opening at the time that I was starting to plan my project. An initial meeting with the head of the new service suggested that there would be support for my project going ahead. I was also concerned to engage in work that would relate directly to clinical practice, and was excited by the idea of learning about a specific theory and applying it to a particular clinical population.

I started developing ideas for the project towards the end of the summer of 1995. As I imagine is typical with most projects, the process of developing ideas initially involved the project expanding in exciting, but rather over ambitious directions. This was followed by a process of reduction and specificity in line with the practicalities of reality. I remember feeling impatient at the time involved it took to initially set up the project, even though I was aware of the absolute essential importance of getting this right at this early stage (Barker, Pistrang & Elliot, 1994). I also took comfort from Hodgson and Rollnicks' (lighthearted) suggestion that "getting started will take at least as long as the data collection" (Hodgson & Rollnick, 1989). In fact this turns out to be true for this project. Over the year I liaised with clinicians and researchers with an interest in eating disorders, developed the methodology and collated a package of suitable questionnaires to answer my research questions. Initially the questionnaire package was far too long, and needed to be reduced to increase the likelihood of participants filling it in. This meant that an initial interest in also investigating the effects of family environment had to be abandoned. A pilot study was carried out using the revised questionnaire booklet, involving women attending a local higher education college. Data collection for the study finally started in October 1996, once Ethical clearance had been received, and continued until May 1997. Getting large enough sample sizes took a lot more time and effort than I had initially imagined, and necessitated involving many more clinicians than expected. Writing up commenced in March 1997, alongside data entry and educating myself regarding statistical packages for analysis. Again, the whole process took me considerably longer than I had anticipated, and this last stage is now being written at the beginning of August 1997.

## **PROCESS ISSUES**

### **General Issues**

Something that I was constantly aware of throughout the setting up and data collection stages was how very dependant I was upon the goodwill of clinicians in both mental and medical health services in order to have access to participants for the study. Everyone who I approached about the study was in fact very enthusiastic and keen to discuss what it involved and how they could help, and this really helped to keep my enthusiasm going. Sometimes the realities of the many demands on clinicians, (as well as the fact that many clients did not fit inclusion criteria or did not wish to participate) meant that the recruitment rate was much lower than I had expected. In comparison to numbers of returned questionnaires from the family planning clinic, the initial number of returns from mental health services, was very disappointing. At the family planning clinic I was handing out questionnaires to potential participants myself, while participants who participated via mental health services were usually approached about the study by their clinician. This felt extremely frustrating, and made me feel that I wanted to go and hand out questionnaires at clinics myself. Taking time to reflect upon this I realise that, aside from the issues of ethics and time that would be involved, working collaboratively with others was also a very important aspect of the research. Finding ways to do this effectively was an important lesson for me and will impact on my future clinical and research working practice. It was invaluable that my supervisor was involved in working with several of the teams involved, and was willing to remind and encourage her colleagues to invite clients to participate. It was also important that I had clear limits on what I felt it was acceptable to ask staff to do; I had wanted to be able to calculate the



questionnaire return rates from the clinical groups, and devised a system of codes to enable me to identify numbers of questionnaires back from particular services. This system fell flat because some clinicians worked across different services and mixed their questionnaires. Also, clinicians were often unsure as to how many questionnaires they had handed out and how many they had left, and it was often very difficult and time consuming to contact them regarding this. Short of making more administration demands upon them, which I personally felt was too much to expect, it was difficult to get the required figures, and so the task was abandoned.

The value of doing groundwork within services prior to accessing patients is highlighted by Barker, Pistrang, and Elliott (1994), in their practical account of carrying out research. I was particularly aware of this at the family planning clinic where I was collecting control data. Ensuring that a good relationship was set up with the main gatekeepers, and also, and very importantly with the 'ground staff' (in this case, reception and nursing staff) proved invaluable in setting up good working relationships, and thereby facilitating the data collection in this team, and making it a pleasurable experience.

Having received around 16 questionnaires back from the clinical groups, the return rates dropped off drastically. It seemed that there were three possible ways this could have been addressed; to contact more mental health clinicians to ask them if they would invite clients to participate, to relax the inclusion/exclusion criteria in order that more of the returns could be used, or to make-do with the numbers attained so far. This coming at a time when I had anticipated that data collection would have finished, and when time

demands were tight, the idea of doing another recruitment drive amongst clinicians felt like a demanding task. It led me to question whether I really did need the numbers I had initially planned or the stringent exclusion criteria, but I was also aware that the research would be weakened by giving into these ideas, and as a result more clinicians were contacted and the numbers rose to the levels that had been initially planned. However, it raised an issue for me regarding the importance of doing research that is meaningful and setting standards, but of also setting realistic limits and boundaries on personal and timescale resources.

### **Obstacles to Progress**

A couple of unexpected obstacles arose during the course of the project. As has been explained, the Eating Disorders service was in the early stage of operating at the time of my data collection. This had many advantages; It was nice to feel, in some way, a part of a new and exciting development within local mental health services, and doing research that could have direct implications for the work going on there. However, there was pressure on the service to justify their existence and an internal audit was being carried out which, like my project, required clients to fill in several questionnaires, two of which overlapped with the ones I utilised. Thus, there were understandable concerns that the internal the audit might suffer if clients became saturated with too many questionnaires. As it was, the problem was overcome in several ways; the clinic and myself shared the results of mutual questionnaires (if prior consent had been given by the client) thus reducing the number of questionnaires for clients to complete. In addition, clients who had entered the service prior to when my data collection started were asked to participate by the clinician they were seeing, as they would have filled in

the audit questionnaires some time previously. Finally, the fact that new patients were being asked to fill in a large number of questionnaires was acknowledged with the client and they were asked to prioritise the audit questionnaires, which I felt, reduced the anxiety in the service regarding this matter. It so happened that many clients said they would be happy to fill in both sets of questionnaires, and did so. The issue of other research going on at the same time was also encountered with one of the community mental health teams. While it is encouraging that research and audits are being done, in retrospect, it would have been wise to investigate and consider this issue in the planning stage of the project.

An additional qualitative element was initially planned for the project, with the aim of exploring women with an eating disorders' experiences relating to identity issues. However, this aspect of the project was abandoned following the lack of women who indicated (in the returned questionnaire package) that they would be willing to be interviewed. This lack of response may reflect the shame that is often associated with eating disorders (Herzog, 1982), making it difficult to talk about, maybe especially so to a 'researcher'. It also raised my awareness of the importance of taking a clinical understanding to planning research, in terms of thinking about likely response rates and obstacles to participation in the particular population under investigation.

## **Maintaining Motivation**

My experience of the research process comprised a mixture of high and low points. For much of the time things ran smoothly, there were interested others and I felt well supported. At other times I felt overwhelmed and exhausted. Doing a project of this scale was a new experience for me, and I felt like I was on an extremely steep learning curve, without time to stop and reflect. It was especially hard when feelings like this coincided with periods when particular and sometime unexpected, demands had to be tackled.

As would be expected, my knowledge of the field of research increased over the period of time that it was going on. I also became more aware of the issues involved in 'setting up' the research effectively. The result of this was that I became aware of both methodological and practical things that I could have been improved upon, but at a time when it was too late to do so. Framing this within the context of it being a 'learning experience', and the inevitability of this process happening helped me to think of these issues in a more constructive way.

At times in the research process I realised that I was being motivated to work by a desire to reduce my high levels of stress. This was a very uncomfortable feeling, and while it had the effect producing lots of adrenaline and helping me to rise to the tasks required, it was at a personal cost.

The endless support, enthusiasm and optimism of my two supervisors was invaluable. Regular meetings were arranged which helped to reduce the isolation I sometimes experienced. It was also able to attend two conferences on eating disorders, over the period of the study, which helped me to feel a part of a bigger picture of research in the field. The informal support network of colleagues going through the research process concurrently provided a supportive context in which experiences could be shared. I was also sustained and fascinated by the huge variety of work that was involved in the research process ranging from written academic work, liaising and negotiating with staff, and becoming familiar with and using statistical computer packages to administration tasks and compiling questionnaire booklets.

### **Personal Impact of the Work**

To some degree, it feels difficult to reflect upon the personal impact of the work, while I am still involved in it, and have not had time to stand back from it and reflect over the last few months of intensive writing up. However, I have been aware of some issues that have had a personal impact over the course of the project. Early in the data collection stage I became aware of high numbers of family planning clinic attenders who were reporting high levels of distress, and also received several questionnaires back from this group from people who clearly were suffering from eating problems. I found it distressing to be in the non-intervention position of a researcher and receiving such information back from people who had not been accessed via mental health services. I was relieved that I had followed the suggestion made to me before I started data collection, that I should include the telephone number of a mental health helpline and information about where to receive help should a participant wish to.

With research of this scale being largely a new experience for me, I often felt a degree of uncertainty about what the next stage would bring. At best this felt new and exciting and at worst it felt uncomfortable and intolerable. As the process developed I was able to reflect on the fact that I was feeling quite similar to how I felt when I started doing clinical work and was finding it difficult to contain my anxiety regarding the uncertainty of what might happen in sessions, and therefore, of not feeling in control. As with clinical work, the solution was not to try to stamp out the uncertainty, but to learn to contain and tolerate not knowing, and to enjoy the creativity of an unravelling process.

An additional personal issue for me was the fact that the women who participated in the study had taken the time and effort to do so. While this was something they had chosen to do, I felt that I had a moral obligation to feed back to them. As a result, they could indicate on their returned questionnaire package if they wished to receive a written summary which will be posted to them. Likewise I am aware of the broader issues regarding dissemination of research findings. In addition to the important issue of furthering knowledge and sharing information that has implications for service provision. I also feel the moral obligation to do so because of the support given by numerous people and the resources in terms of time, money and effort that have gone into the project.

## **SUMMARY AND IMPLICATIONS FOR FUTURE PRACTICE**

In summary, I have experienced the research process as extremely demanding, but ultimately rewarding and I am aware that I have learnt a vast amount (in a relatively short time). As well as learning skills, I have also found that it has involved me utilising clinical and professional skills that I have developed over the course of my clinical training. I feel that I will be able to start future research with somewhat higher levels of confidence than I had at the start of this project, which, I hope, will make it feel a little more comfortable. It would be exciting to follow up some of the directions that the results of the study point to, and when I feel ready for a new challenge, to explore taking a qualitative approach. The process has helped me to develop an awareness of some issues that can arise over the course of a project, and therefore hopefully, better planning and preempting where possible in the future.

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## **APPENDICES**

## **APPENDIX 1**

**Research Questionnaire;**

**Instruction Sheet**

**Demographics Questions**

**Eating Habits & Height/Weight and DSM IV Questions**

**The Eating Attitudes Test (EAT)**

**The Brief Symptom Inventory**

**Measures of Psychosocial Development Questionnaire**

**If you would like to take part in this study please put some time aside  
TODAY to fill in this booklet**

**The booklet includes a consent form and some questionnaires. It  
should not take you more than 35 minutes to complete.**

---

What you need to do

- Please read and sign the consent which is inserted in the front of the booklet if you would like to take part.
- Then, please complete the questionnaires. Some of the questionnaires have instructions at the beginning. Please read these carefully.
- You do not need to write your name on any of the questionnaires.
- Please try to answer all the questions. If you are not able to complete all the questionnaires in one go, you might want to put aside some time later in the day to complete them.
- When you have finished, return the completed forms, sealed in the envelope, either to the person who gave them to you, or mail them back to me in the stamped addressed envelope provided.

**Thank you for taking part in this study.**

**Background Information**

Your Age .....yrs .....mths                      Sex M / F

How would you describe your ethnic background? (please circle appropriate answer below)

White / White European / Black Caribbean / Black African / Black other (please specify.....)  
Indian / Pakistani / Bangladeshi / Chinese / Irish / Greek/Greek Cypriot / Turkish/Turkish Cypriot/  
Filipino / Eritrean / Somali / Yemeni / Mixed parentage / Arab / Other (please specify).....

**Education**

What age were you when you left school? .....yrs

What, if any qualifications did you achieve before you left school? Please list below

Type of Qualification (eg: O'level/ CSE etc)	Number passed

If you have participated in further education since leaving school, please give details of the highest level you studied to below

Type of educational establishment eg. F.E college / university etc	Standard reached/ Exams passed

Are you currently (please circle most appropriate answer)

A student / Unemployed / Working part-time / Working Full-time / Retired / Other (please specify)  
.....

If you are working please state your current occupation .....

If you are not currently working, but have worked in the last 10 years, please state your most recent occupation .....

**Family Background**

Please fill in details of your parents, brothers, sisters and step-relationships in the table below

	Age now or at death	If deceased, your age when s/he died	Current or previous Occupation
Mother			
Father			
(step)Brothers/Sisters <i>please list</i>			

Did you spend *the majority* of time between the ages of 12 and 18, living with (please circle most appropriate answer)

Both parents / A single parent due to separation or divorce / A single parent due to bereavement / A parent and step-parent due to separation or divorce / A parent and step-parent due to bereavement / Other (please specify).....

Have you ever been married? Yes / No If YES what age were you when you (first) married? .....yrs

Are you Divorced? Yes / No

Are you currently (please circle appropriate answer)

Single / In a stable partnership / Engaged / Married / Separated / Divorced / Remarried / Widowed / Other (please state).....

Do you have any of your own children? YES / NO If YES, how many? .....

Who are you currently living with? (please circle most appropriate answer)

Alone / Friend(s) / Flatmate(s) / Your partner / Family (please list people in terms of their relationship to you eg; mother, son, husband, brother etc.).....

.....

**The next two pages ask you questions about your eating habits.**

1) What is your current Weight? .....st .....lbs / or .....kgs

2) What is your Height? .....' .....'' / or .....meters

3) Do you consider yourself to have an eating disorder at present? YES / NO

IF YES, which eating disorder do you consider yourself to have ? *please circle below*

Anorexia Nervosa/ Bulimia Nervosa/ Other (please specify) .....

4) If you have an eating disorder at present, AND / OR you have had one in the past

a) how old were you when you *first* developed an eating disorder? .....yrs

b) at this age, what eating disorder do you consider yourself to have had? *please circle below*

Anorexia Nervosa / Bulimia Nervosa / Other (please specify) .....

c) Do you recall any major event(s) or changes (good or bad) in the year immediately prior to your developing an eating disorder? YES / NO If YES, please state the type of event/change

.....

5) Have you recently experienced the absence of at least 3 consecutive periods? YES / NO

6) Are you currently taking the contraceptive pill? YES / NO

7) Have you found yourself recently;

a) eating, within any 2 hour period, an amount of food that is larger than you think most people would eat during a similar period of time under similar circumstances? YES / NO

If YES, has this occurred at least twice a week over the last 3 months? YES / NO

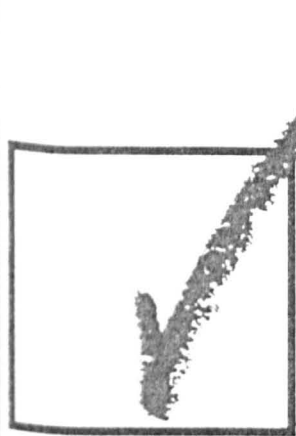
b) using laxatives, diuretics, enemas, other medications, fasting, vomiting or doing a large amount of exercise to prevent yourself gaining weight? YES / NO

If YES, has this occurred at least twice a week over the last 3 months? YES / NO

# The Eating Attitudes Test

Please indicate how much you agree or disagree with the following statements by ticking the appropriate box.

	Very		Some			
	Always	Often	Often	Times	Rarely	Never
I am terrified about being overweight.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am aware of the calorie content of the foods that I eat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have gone on eating binges where I feel that I may not be able to stop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find myself preoccupied with food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I cut my food into small pieces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I avoid eating when I am hungry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I particularly avoid foods with a high carbohydrate content (eg bread, potatoes, rice etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am preoccupied with a desire to be thinner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel extremely guilty after eating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I vomit after I have eaten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that others would prefer it if I ate more	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I avoid foods with sugar in them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think about burning up calories when I exercise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am preoccupied with the thought of having fat on my body	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I take longer than others to eat my meals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other people think that I am too thin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I engage in dieting behaviour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I eat diet foods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel uncomfortable after eating sweets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I enjoy trying new rich foods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like my stomach to be empty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have the impulse to vomit after meals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I give too much time and thought to food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that food controls my life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that others pressure me to eat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I display self control around food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# BSI<sup>®</sup>

## Brief Symptom Inventory<sup>™</sup>

Leonard R. Derogatis, PhD

Last Name	First	MI
ID Number		
Age	Gender	Test Date

### DIRECTIONS:

- ~~1. Print your name, identification number, age, gender, and testing date in the area on the left side of this page.~~
2. Use a lead pencil only and make a dark mark when responding to the items on page 3.
3. If you want to change an answer, erase it carefully and then fill in your new choice.
4. Do not make any marks outside the circles.

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USE ONLY FOR HAND SCORING**



Product Numbr:  
05627



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**INSTRUCTIONS:**

On the next page is a list of problems people sometimes have. Please read each one carefully, and blacken the circle that best describes HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY. Blacken the circle for only one number for each problem and do not skip any items. If you change your mind, erase your first mark carefully. Read the example before beginning, and if you have any questions please ask them now.

	0	1	2	3	4	
						<b>EXAMPLE</b>
						HOW MUCH WERE YOU DISTRESSED BY:
1				<input checked="" type="radio"/>		Bodyaches

---

NOT AT ALL  
A LITTLE BIT  
MODERATELY  
QUITE A BIT  
EXTREMELY

HOW MUCH WERE YOU DISTRESSED BY:

1	0	1	2	3	4	Nervousness or shakiness inside
2	0	1	2	3	4	Faintness or dizziness
3	0	1	2	3	4	The idea that someone else can control your thoughts
4	0	1	2	3	4	Feeling others are to blame for most of your troubles
5	0	1	2	3	4	Trouble remembering things
6	0	1	2	3	4	Feeling easily annoyed or irritated
7	0	1	2	3	4	Pains in heart or chest
8	0	1	2	3	4	Feeling afraid in open spaces or on the streets
9	0	1	2	3	4	Thoughts of ending your life
10	0	1	2	3	4	Feeling that most people cannot be trusted
11	0	1	2	3	4	Poor appetite
12	0	1	2	3	4	Suddenly scared for no reason
13	0	1	2	3	4	Temper outbursts that you could not control
14	0	1	2	3	4	Feeling lonely even when you are with people
15	0	1	2	3	4	Feeling blocked in getting things done
16	0	1	2	3	4	Feeling lonely
17	0	1	2	3	4	Feeling blue
18	0	1	2	3	4	Feeling no interest in things
19	0	1	2	3	4	Feeling fearful
20	0	1	2	3	4	Your feelings being easily hurt
21	0	1	2	3	4	Feeling that people are unfriendly or dislike you
22	0	1	2	3	4	Feeling inferior to others
23	0	1	2	3	4	Nausea or upset stomach
24	0	1	2	3	4	Feeling that you are watched or talked about by others
25	0	1	2	3	4	Trouble falling asleep
26	0	1	2	3	4	Having to check and double-check what you do
27	0	1	2	3	4	Difficulty making decisions
28	0	1	2	3	4	Feeling afraid to travel on buses, subways, or trains
29	0	1	2	3	4	Trouble getting your breath
30	0	1	2	3	4	Hot or cold spells
31	0	1	2	3	4	Having to avoid certain things, places, or activities because they frighten you
32	0	1	2	3	4	Your mind going blank
33	0	1	2	3	4	Numbness or tingling in parts of your body
34	0	1	2	3	4	The idea that you should be punished for your sins
35	0	1	2	3	4	Feeling hopeless about the future
36	0	1	2	3	4	Trouble concentrating
37	0	1	2	3	4	Feeling weak in parts of your body
38	0	1	2	3	4	Feeling tense or keyed up
39	0	1	2	3	4	Thoughts of death or dying
40	0	1	2	3	4	Having urges to beat, injure, or harm someone
41	0	1	2	3	4	Having urges to break or smash things
42	0	1	2	3	4	Feeling very self-conscious with others
43	0	1	2	3	4	Feeling uneasy in crowds, such as shopping or at a movie
44	0	1	2	3	4	Never feeling close to another person
45	0	1	2	3	4	Spells of terror or panic
46	0	1	2	3	4	Getting into frequent arguments
47	0	1	2	3	4	Feeling nervous when you are left alone
48	0	1	2	3	4	Others not giving you proper credit for your achievements
49	0	1	2	3	4	Feeling so restless you couldn't sit still
50	0	1	2	3	4	Feelings of worthlessness
51	0	1	2	3	4	Feeling that people will take advantage of you if you let them
52	0	1	2	3	4	Feelings of guilt
53	0	1	2	3	4	The idea that something is wrong with your mind

# MPD Item Booklet

## Instructions

Begin by finding your MPD Answer Sheet inserted in the back of this booklet.

The next 3 pages are divided into seven sections containing statements or phrases which people often use to describe themselves, their lives, and their experiences. For each statement, fill in the circle on the answer sheet which best represents your opinion, making sure that your answer is in the correctly lettered circle. DO NOT ERASE! If you need to change an answer, make an "X" through the incorrect response and then fill in the correct circle.

Fill in Ⓐ if the statement is *not at all* like you.

Fill in Ⓑ if the statement is *not much* like you.

Fill in Ⓒ if the statement is *somewhat* like you.

Fill in Ⓓ if the statement is *like* you.

Fill in Ⓔ if the statement is *very much* like you.

For example, if you believe that a statement is very much like you, you would fill in the (E) circle for that statement on your answer sheet.

Example
Ⓐ Ⓑ Ⓒ Ⓓ <input checked="" type="radio"/>

Fill in one circle for each statement. Be sure to respond to all of the statements. Please note that the items are numbered in columns.



## *Section 1*

1. Calm, relaxed, easy going
2. Stick to the tried and tested
3. Have worked out my basic beliefs about such matters as occupation, sex, family, politics, religion, etc.
4. Bored
5. Self-sufficient; stand on my own two feet
6. Easily distracted; can't concentrate
7. Warm and understanding
8. Life has passed me by
9. Good things never last
10. Seek out new projects and undertakings
11. Not sure of my basic convictions
12. Like taking care of people and things
13. Easily embarrassed
14. Eager to learn and develop my skills
15. Prefer doing most things alone
16. Believe in the basic dignity of all people



## *Section 2*

17. Generally trust people
18. Can't seem to get going
19. Clear vision of what I want out of life
20. Younger generation is going to the dogs
21. Make my own decisions
22. Give up easily
23. Share my most private thoughts and feelings with those close to me
24. Full of regret
25. It's a cold, cruel world
26. Insist on setting goals and planning in advance
27. A bundle of contradictions
28. Involved in service to others
29. Can't be myself
30. Industrious, hardworking
31. Keep my feelings to myself
32. Believe in the overall wholeness of life



## *Section 3*

33. Optimistic, hopeful
34. Tend to delay or avoid action
35. Stand up for what I believe, even in the face of adversity
36. Not getting anywhere or accomplishing anything
37. Do things my own way, though others may disagree
38. Feel inferior to others in most respects
39. Others share their most private thoughts and feelings with me
40. Wish I'd lived my life differently
41. Others let me down
42. Like to get things started
43. Wide gap between the person I am and the person I want to be
44. Absorbed in the creative aspects of life
45. Stubborn; obstinate
46. Competent, capable worker
47. No one seems to understand me
48. Life is what it should have been



## **Section 4**

49. Good things are worth waiting for
50. Cruel, self-condemning conscience
51. Found my place in the world
52. Self-absorbed; self-indulgent
53. Independent; do what I want
54. Do only what is necessary
55. Comfortable in close relationships
56. A “has been”
57. Generally mistrust others
58. Like to experiment and try new things
59. Uncertain about what I’m going to do with my life
60. Deep interest in guiding the next generation
61. Very self-conscious
62. Proud of my skills and abilities
63. Emotionally distant
64. Life has meaning



## **Section 5**

65. Generous
66. Inhibited; restrained
67. Others see me pretty much as I see myself
68. Uninvolved in life
69. Neither control, nor am controlled by others
70. Can’t do anything well
71. Willing to give and take in my relationships
72. Life is a thousand little disgusts
73. Pessimistic; little hope
74. A real “go-getter”
75. Haven’t found my place in life
76. Doing my part to build a better world
77. Upright; can’t let go
78. Stick to a job until it is done
79. Avoid commitment to others
80. Feel akin to all humankind—past, present, and future



## **Section 6**

81. Trustworthy; others trust me
82. Passive; not aggressive
83. Appreciate my own uniqueness and individuality
84. Stagnating
85. Control my own life
86. Lack ambition
87. Others understand me
88. No hope for solutions to the world’s problems
89. People take advantage of me
90. Adventurousome
91. A mystery—even to myself
92. Trying to contribute something worthwhile
93. Uncertain; doubting
94. Take pride in my work
95. Many acquaintances; no real friends
96. Would not change my life if I could live it over



## Section 7

97. Trust my basic instincts
98. Overwhelmed with guilt
99. Content to be who I am
100. Vegetating, merely existing
101. Feel free to be myself
102. Without my work, I'm lost
103. There when my friends need me
104. Humankind is hopeless
105. On guard lest I get stung
106. Aggression helps me get ahead
107. In search of my identity
108. Finding new avenues of self-fulfillment
109. Easily swayed
110. Productive; accomplish much
111. Wary of close relationships
112. Satisfied with my life, work, and accomplishments

**P.T.O.**

# MPD Answer Sheet

# Form HS

Name \_\_\_\_\_ Sex \_\_\_\_\_ Age \_\_\_\_\_

Education \_\_\_\_\_ Marital Status \_\_\_\_\_ Date \_\_\_\_\_

Ⓐ Not at all like me		Ⓑ Not much like me		Ⓒ Somewhat like me		Ⓓ Like me		Ⓔ Very much like me					
1	Ⓐ B C D E	17	Ⓐ B C D E	33	Ⓐ B C D E	49	Ⓐ B C D E	65	Ⓐ B C D E	81	Ⓐ B C D E	97	Ⓐ B C D E
2	Ⓐ B C D E	18	Ⓐ B C D E	34	Ⓐ B C D E	50	Ⓐ B C D E	66	Ⓐ B C D E	82	Ⓐ B C D E	98	Ⓐ B C D E
3	Ⓐ B C D E	19	Ⓐ B C D E	35	Ⓐ B C D E	51	Ⓐ B C D E	67	Ⓐ B C D E	83	Ⓐ B C D E	99	Ⓐ B C D E
4	Ⓐ B C D E	20	Ⓐ B C D E	36	Ⓐ B C D E	52	Ⓐ B C D E	68	Ⓐ B C D E	84	Ⓐ B C D E	100	Ⓐ B C D E
5	Ⓐ B C D E	21	Ⓐ B C D E	37	Ⓐ B C D E	53	Ⓐ B C D E	69	Ⓐ B C D E	85	Ⓐ B C D E	101	Ⓐ B C D E
6	Ⓐ B C D E	22	Ⓐ B C D E	38	Ⓐ B C D E	54	Ⓐ B C D E	70	Ⓐ B C D E	86	Ⓐ B C D E	102	Ⓐ B C D E
7	Ⓐ B C D E	23	Ⓐ B C D E	39	Ⓐ B C D E	55	Ⓐ B C D E	71	Ⓐ B C D E	87	Ⓐ B C D E	103	Ⓐ B C D E
8	Ⓐ B C D E	24	Ⓐ B C D E	40	Ⓐ B C D E	56	Ⓐ B C D E	72	Ⓐ B C D E	88	Ⓐ B C D E	104	Ⓐ B C D E
9	Ⓐ B C D E	25	Ⓐ B C D E	41	Ⓐ B C D E	57	Ⓐ B C D E	73	Ⓐ B C D E	89	Ⓐ B C D E	105	Ⓐ B C D E
10	Ⓐ B C D E	26	Ⓐ B C D E	42	Ⓐ B C D E	58	Ⓐ B C D E	74	Ⓐ B C D E	90	Ⓐ B C D E	106	Ⓐ B C D E
11	Ⓐ B C D E	27	Ⓐ B C D E	43	Ⓐ B C D E	59	Ⓐ B C D E	75	Ⓐ B C D E	91	Ⓐ B C D E	107	Ⓐ B C D E
12	Ⓐ B C D E	28	Ⓐ B C D E	44	Ⓐ B C D E	60	Ⓐ B C D E	76	Ⓐ B C D E	92	Ⓐ B C D E	108	Ⓐ B C D E
13	Ⓐ B C D E	29	Ⓐ B C D E	45	Ⓐ B C D E	61	Ⓐ B C D E	77	Ⓐ B C D E	93	Ⓐ B C D E	109	Ⓐ B C D E
14	Ⓐ B C D E	30	Ⓐ B C D E	46	Ⓐ B C D E	62	Ⓐ B C D E	78	Ⓐ B C D E	94	Ⓐ B C D E	110	Ⓐ B C D E
15	Ⓐ B C D E	31	Ⓐ B C D E	47	Ⓐ B C D E	63	Ⓐ B C D E	79	Ⓐ B C D E	95	Ⓐ B C D E	111	Ⓐ B C D E
16	Ⓐ B C D E	32	Ⓐ B C D E	48	Ⓐ B C D E	64	Ⓐ B C D E	80	Ⓐ B C D E	96	Ⓐ B C D E	112	Ⓐ B C D E

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## **APPENDIX 2**

### **Power Calculation**



## Power Calculation

$$d = M_{\max} - M_{\min} / SD$$

$$f_1 = d \sqrt{1/2K}$$

**SD** = (common) standard deviation for  
populations

**M<sub>max</sub>** = largest of the standardised  
population means

**M<sub>min</sub>** = smallest of the standardised  
population means

**K** = Number of groups

### For a large effect

$$d = 13 - 4 / 8.5 = 1.06$$

$$f_1 = 1.06 \sqrt{1/8} = 0.37$$

This gives a power of over 90%

### For a medium effect

$$d = 12 - 6 / 8.5 = 0.71$$

$$f_1 = 0.71 \sqrt{1/8} = 0.25$$

This gives a power of 61%

(Ref. Cohen, 1977)

## **APPENDIX 3**

### **Research Consent Form and Information Sheet**

<b>RESEARCH CONSENT FORM</b>	
<b>TITLE OF PROJECT:</b> <b>An Investigation into the Relationship Between Eating Disorders, Anxiety &amp;/or Depression, and Psychosocial Development</b>	
<b>The patient should complete the whole of this sheet herself</b>	<b>Please cross out as necessary</b>
Have you read the Patient Information Sheet?	YES/NO
I understand that all information I give is confidential. Names will not be mentioned in any reports of the study, and individuals will not be identifiable from details of the results of the study	YES/NO
I understand that taking part in the study involves filling in and returning the enclosed questionnaires, and that there is no further involvement beyond this.	YES/NO
Have you received enough information about the study?	YES/NO
Who have you spoken to? Dr/Mr/Ms Do you understand that you are free to withdraw from the study: <ul style="list-style-type: none"> <li>· at any time</li> <li>· without having to give a reason for withdrawing</li> <li>· and without affecting your future medical care</li> </ul>	YES/NO
Do you agree to take part in this study?	YES/NO
Signed.....Date.....	
(NAME IN BLOCK LETTERS) .....	

I would like to receive written feedback about the over all results of this study YES/NO

If YES, please write down the name and address you would like it to be mailed to:

.....  
.....

## **INFORMATION SHEET**

### **The Relationship Between Eating Disorders, Anxiety & Depression and Psychological and Social Development**

We are Psychologists carrying out research in association with Community Health Sheffield and the University of Sheffield. We would like to invite you to help with our study, and hope that you will be interested in sharing your experiences.

#### **What is the Purpose of this study?**

Many people experience psychological difficulties at some point in their lives. Some psychological problems may be associated with difficulties in meeting the psychological and social demands that we all face throughout our lives. We want to look at the association between particular types of psychological distress (eating disorders, anxiety and depression), and particular ways in which people have developed both psychologically and socially in their lives. This will involve collecting information both from women who are currently experiencing psychological difficulties, and those who are not.

Your help will enable us to get a better understanding of the issues associated with psychological health and psychological difficulties. This will help us to improve the therapy offered to people experiencing psychological difficulties.

#### **What will be involved if I agree to take part in the study?**

Taking part in the study involves:

- \* Reading this information sheet
- \* Reading and signing the consent form
- \* Completing the questionnaires enclosed (which will take you approximately 35mins)
- \* Returning the questionnaires to me. They can be handed back to the therapist/receptionist who gave them to you, or, you can mail them back to (please find 1st class stamped addressed envelope enclosed).

#### **Can I withdraw from the study at any time?**

Yes. You may refuse to participate, or to withdraw the information you have provided at any time during the study.

## **APPENDIX 4**

### **Ethical Clearance Letters**

**THE** **Central Sheffield**  
**SOUTH SHEFFIELD RESEARCH CH** **University Hospital**  
**ETHICS COMMITTEE**

*Ethics Office*  
8 Beech Hill Road  
Tel & Fax No: (0114) 271 2394

*Royal Hallamshire Hospital*

Glossop Road, Sheffield S10 2JF • Telephone 0114 271 1900

*Chairman:*  
*Dr P R Jackson*  
*(Please quote the Ethics Reference No in your reply)*

Ref: PRJ/VP

4 October 1996

Dr A Shuttleworth  
Department of Psychology  
Psychology Building  
University of Sheffield  
Western Bank  
Sheffield

Dear Dr Shuttleworth

**96/172 - Eating disorders, anxiety and depression: an investigation into their association with psychosocial development.**

Thank you for your letter dated 29 September 1996 answering the queries raised by the Ethics Committee.

I can now confirm unreserved Ethics Committee approval for this protocol.

Yours sincerely



P R Jackson  
Chairman

**NORTHERN GENERAL**  
HOSPITAL N.H.S. TRUST

Herries Road,  
Sheffield S5 7AU

Telephone  
(0114) 243 4343

Facsimile  
(0114) 256 0472

TAG/SR/SSREC 96172  
Shuttleworth  
(Please quote reference on all correspondence)

Ethics Office: Ext 4011  
Direct Line: (0114) 2714011

16 October 1996

Dr A Shuttleworth  
Trainee Clinical Psychologist  
Department of Psychology  
University of Sheffield  
Western Bank  
SHEFFIELD  
S10 2TP

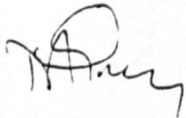
Dear Dr Shuttleworth

Re **RECIPROCAL APPROVAL**  
**Eating disorders, anxiety and depression: an investigation into their**  
**association with psychosocial development**  
**SSREC 96/172**

I can confirm approval of this study under the reciprocal agreement which exists between the South and North Sheffield Research Ethics Committees.

If this study is using patients, equipment or premises of the Northern General Hospital NHS Trust, please agree insurance and indemnity with Mr Kevin O'Regan, Director of Operations at the Northern General Hospital.

Yours sincerely



T A Gray  
CHAIRMAN - RESEARCH ETHICS COMMITTEE  
Consultant in Chemical Pathology

SL 'G'  
1 January 1996  
WP/Letrecip.96