SHAME & PSYCHOLOGICAL DISTRESS IN OBESITY

A thesis submitted in partial fulfilment of the requirements for the degree of Clinical Psychology Doctorate

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Firstly, I would like to thank all of the participants who agreed to take part in this study, particularly since some of the issues involved are of a personal nature. Without the willingness and openness of the participants involved, this project would not have been possible. I would also like to thank both Dr Delia Cushway and Dr Eve Knight for supervising the project. They offered me the advice and support I needed and raised questions which prompted me to consider the relevant issues. Their help in reading draft versions of papers was invaluable. I am grateful to David Giles for being available to answer my queries regarding statistical analysis. I would also like to acknowledge all those who showed interest in the project along the way, for their stimulating conversations and ideas.

DECLARATION

This research thesis was conducted under the supervision of Dr Delia Cushway and Dr Eve Knight. Authorship of any papers will be shared with these supervisors. The thesis is my own work. The thesis has not been submitted for a degree to any other university.

SUMMARY

The following research thesis discusses issues relevant to shame and psychological distress in women who are overweight or obese.

The literature review summarises current knowledge regarding the relationship between binge eating and depression in obesity. Although largely based upon literature from the field of psychiatry, the review is intended to provide an overview for clinical psychologists. The literature is critically evaluated in terms of methodologies and theoretical approaches, and ideas for further research are suggested. In the final section, the clinical implications of the literature for clinical psychologists working with clients who are overweight and who binge eat are discussed.

The brief paper explores the factor structure of an extended version of the "Experience of Shame Scale" (E.S.S.) and the reliability of the extended scale in a community sample of women. Principal components analysis revealed that a three-factor solution was appropriate for this sample, demonstrating that the salient factors of shame in women are:- characterological shame, behavioural shame and bodily shame. To the author's knowledge, this is the first study to measure shame in a community sample of women.

The main paper investigates shame and psychological distress in a community sample of women who are overweight or obese. The study compares four groups of women, categorized according to Body Mass Index. The results demonstrated that women who were severely obese experienced significantly higher levels of shame and psychological distress than all other groups. They received significantly higher scores on all four subscales of the E.S.S (characterological, behavioural, bodily and eating shame) and also had significantly lower self esteem.

The reflective review discusses issues arising from the research which may be of benefit to other applied and professional psychologists. It is divided into five sections - personal reflections on the research process, ethical considerations, methodological issues, empowerment in research and the use of psychiatric terminology in this study.

CHAPTER 1: LITERATURE REVIEW

ARE INDIVIDUALS WHO ARE OBESE AND WHO BINGE EAT DEPRESSED?

This paper has been prepared for submission to
Clinical Psychology Review

(See Appendix P – Instructions to Authors)

WORD COUNT: 6,904

ARE INDIVIDUALS WHO ARE OBESE AND WHO BINGE EAT DEPRESSED?

1.1 A NOTE ON THE USE OF PSYCHIATRIC TERMINOLOGY IN THIS REVIEW

To date, research into binge eating in obesity has largely been conducted by medical researchers and/or psychiatrists, leading to an emphasis upon a medical perspective. The literature review which follows employs the language and terminology used by the authors concerned, in order to maintain consistency of terms. However, the author believes that whilst an understanding of this literature is important in moving research forward, psychologists conducting research may wish to consider the implications of using the various diagnostic categories and language discussed here. For example, it may be difficult to categorise individuals' problems if they fall along a continuum. Diagnosing in such a way may result in important information being missed, particularly since there is no current consensus on what exactly constitutes a 'binge'. The use of the label 'obese binge eater' to describe individuals may seem insensitive and disrespectful, to some, since the term seems to imply a characteristic trait indistinguishable from one's identity, which may lead to stigmatization and discrimination.

1.2 INTRODUCTION

Since Stunkard first reported a distinct pattern of eating in a subgroup of the obese population in his paper "Eating Patterns and Obesity" in 1959, the precise nature and definition of 'binge eating' has caused controversy and confusion. However, in the last ten to fifteen years, a surge of interest has led to a plethora of research into binge eating and its associated clinical features. Currently, binge eating is defined in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; APA, 1994) as:- "eating, in a discrete period of time, an amount that is larger than most others would consume in similar circumstances, accompanied by a sense of loss of control over what or how much one is eating". Binge Eating Disorder (BED) is listed in DSM-IV as an Eating Disorder Not Otherwise Specified (EDNOS) and is defined as, "recurrent episodes of binge eating in the absence of the regular use of inappropriate compensatory behaviours characteristic of Bulimia Nervosa". A diagnosis of BED may be made when binge eating occurs more than twice weekly and is accompanied by behavioural indicators of loss of control and distress.

Prevalence studies estimate that 25-50% of individuals in weight control programmes in the US may binge eat (e.g. Telch, Agras & Rossiter, 1988; Marcus, Wing & Lamparski, 1985; Loro & Orleans, 1981). Within community samples, 2-3% of the adult population and 8% of the obese adult population are estimated to suffer from binge eating problems. (e.g. Bruce & Agras, 1992; Spitzer, Devlin, Walsh, Hasin, Wing, Marcus, Stunkard, Wadden, Yanovski,

Agras, Mitchell, & Nonas, 1992; Spitzer, Yanovski, Wadden, Wing, Marcus, Stunkard, Devlin, Mitchell, Hasin, & Horne, 1993). Studies have shown that whilst obesity per se is not linked to psychopathology, binge eating is consistently associated with a variety of measures of psychopathology (e.g. Yanovski, Nelson, Dubbert & Spitzer, 1993; Antony, Johnson, Carr-Nangle & Abel, 1994). The most common comorbid diagnosis is major depressive disorder (e.g. Marcus, Wing & Hopkins, 1988; Kuehnel & Wadden, 1994), although rates of anxiety disorders, alcohol use disorders and personality disorders are also elevated in these individuals (e.g. Specker, de Zwaan, Raymond & Mitchell, 1994; Wilfley et al, 2000).

It is important for us to examine whether obese individuals are depressed, since this has important implications for research, prevention and treatment. Stice, Agras, Telch, Halmi, Mitchell & Wilson (2001) argue that there may be two distinct subgroups of obese binge eating individuals – a 'dietary restraint' subgroup (ie: those who binge eat as a compensation following prolonged dietary restraint) and a 'depressed-restraint' subgroup (ie: those who are depressed and may be binge eating in an attempt to regulate negative affect). Should this distinction exist, clinicians may need to design treatments that take account of differences between the two subgroups since interventions need to be targeted towards individuals' needs. Treatment for those who are depressed may, for example, require a specific focus upon negative affect, whilst treatment for those who are not depressed may be more effectively treated by focusing upon aspects of the binge eating.

1.3 THE AIMS OF THIS REVIEW

The current review aims to:-

- summarise the findings to date concerning depressive symptomatology and lifetime prevalence rates of depression in individuals who binge eat
- examine the methodological problems and limitations of these studies
- discuss the implications for research, prevention and treatment of binge eating and obesity

The literature search was carried out using the PsycINFO, MEDLINE and BIDS International Bibliography of the Social Sciences (IBSS) databases. The review focuses mainly upon the literature published since 1985.

1.4 THE ASSOCIATION BETWEEN BINGE EATING AND DEPRESSION

Descriptive Studies

A few studies have described characteristics of individuals with binge eating problems without using a comparison group. Telch and Agras (1994) found that obesity and scores on measures of psychiatric symptomatology were unrelated in a population of obese females seeking treatment. However, when participants were divided into moderate or severe bingers, according to scores on the Binge Eating Scale (Gormally, Black, Daston & Rardin, 1982), a significant positive relationship was found between binge eating severity and level of depressive

symptoms, as measured by the Beck Depression Inventory (BDI; Beck, 1987) and the Symptom Checklist-Revised (SCL-90-R; Derogatis, 1983).

Studies Comparing Binge Eaters and Non-Binge Eaters

Some studies have compared individuals who binge eat with those who do not binge eat. Several demonstrate that obese binge eaters score significantly higher on depression than obese non-binge eaters (e.g. Rees, 1997; Lazarus & Galassi, 1994; Kuehnel & Wadden, 1994). One study found that those diagnosed with Binge Eating Disorder were more likely to eat in response to negative emotions (Kuehnel & Wadden, 1994). Marcus et al (1988) found that binge eaters reported significantly more depressive symptomatology and psychological distress than non-binge eaters prior to treatment. These significant differences in affect between the two groups persisted even after behavioural treatment. In addition, those classified as 'severe' binge eaters were significantly more depressed, had increased psychiatric symptoms and lower self-esteem than the 'moderate' binge eaters. This finding was replicated in a study by Telch and Agras (1994). They showed that it was the severity of binge eating, not the degree to which individuals were overweight, that was associated with psychological distress. A study by Antony et al (1994) provides further evidence suggesting that severity of binge eating is an important variable, since individuals within the 'subclinical' group scored lower on a measure of depression than those diagnosed with Binge Eating Disorder. In another study, obese binge eaters seeking weight-loss treatment were found to suffer more depressive symptoms than obese non-binge eaters (Auerbach-Barber, 1998).

Prather and Williamson (1988) found that the treatment-seeking obese groups exhibited significantly greater psychopathology compared to non-treatment seeking obese and normal weight controls. (It is unclear whether the individuals in this study were seeking treatment for weight loss, psychological problems or other difficulties.) The 'binge-purge' group showed the highest levels of psychopathology and the binge eaters and clinical obese showed significantly more distress than the two control groups. A subsequent study compared the prevalence of psychiatric disorders among obese binge eaters with obese non-binge eaters of similar age and weight. Using a diagnostic interview procedure, 60% of binge eaters met the criteria for one or more psychiatric disorders compared with 28% of those who did not binge eat. Differences were most apparent in affect disorder. Binge eaters reported significantly more symptoms of depression.

Several studies demonstrate a higher lifetime prevalence of depression amongst obese binge eaters compared to obese controls (e.g. Spitzer et al, 1993; Specker et al, 1994; Yanovski et al, 1993). A recent study employed a structured clinical interview to investigate comorbidity. The researchers found that of the individuals diagnosed with BED at an eating disorder clinic, 22% had concurrent mood disorders. Over a lifetime, 61% met the criteria for mood disorders (Wilfley, Dounchis, Stein, Welch, Friedman & Ball, 2000).

Telch and Stice (1998) investigated a community sample of women with BED. A significantly higher proportion of the BED participants had received psychiatric treatment in the past (75%) compared with the non eating disordered

controls (53%). Those diagnosed with BED had a higher lifetime prevalence rate of major depression (49%) and a lifetime history of any Axis I diagnosis (59%) compared to the controls (28% and 37% respectively). The women with BED were about twice as likely to receive a lifetime diagnosis of major depression or any Axis I disorder than the controls. They demonstrated a higher level of general psychiatric symptoms and higher depression scores on the Beck Depression Inventory relative to controls. However, the groups did not differ in terms of *current* diagnosis of major depression, bipolar disorder or dysthymia. Another community study found that women with BED differed from both healthy controls and from women with bulimia nervosa in terms of greater exposure to risk factors for general psychiatric disturbance and obesity (Fairburn, Doll, Welch, Hay, Davies & O'Connor, 2000).

Consistent with the results of previous studies, Striegel-Moore, Wilson, Wilfley, Elder and Brownell (1998) found that amongst a community sample of individuals who were obese, those who received a diagnosis of BED had significantly greater psychiatric comorbidity and psychopathology than those who did not binge. In addition, they also reported significantly lower self esteem than all comparison groups – a finding which has been consistently reported in the literature (e.g. de Zwaan, Mitchell, Seim, Specker, Pyle, Raymond & Crosby, 1994; Lowe & Caputo, 1991). Those who fulfilled the full criteria for BED reported significantly more sadness and lower self esteem than those classified as 'subthreshold' cases who overate but did not report loss of control. The distress of those in the subthreshold group was in turn elevated compared to controls. The researchers argue that this suggests a continuum of

vulnerability, with a higher frequency of binge eating reflecting greater severity, rather than a sharp demarcation between the full syndrome and subthreshold groups. A study by Wolf & Crowther (1983) reported similar findings. Low self esteem strongly predicted binge eating severity independent of weight.

Studies Comparing Binge Eaters with Other Eating Disordered Groups and/or Normal-Weight Controls

Some studies have compared individuals who binge eat with those who meet the criteria for bulimia nervosa. McCann, Rossiter, King & Agras (1991) found that female obese binge eaters were similar to women with bulimia nervosa on lifetime prevalence of major depression. Another study demonstrated obese binge eaters to have substantial lifetime prevalence rates of major depression or dysthymia (64%), based on DSM-III-R criteria (Schwalberg, Barlow, Alger & Howard, 1992). Marcus, Smith, Santelli & Kaye (1992) found that obese binge eaters had considerable depressive symptomatology and had similar levels of eating disorder psychopathology to those diagnosed with bulimia nervosa. Spitzer et al's (1992) field trial of BED included normal weight individuals as well as those who were obese. Higher body mass index (BMI) was associated with BED diagnosis.

1.5 LACK OF ASSOCIATION BETWEEN BINGE EATING AND DEPRESSION

A minority of studies (e.g. Crisp & McGuinness, 1976; Wadden & Stunkard, 1987) have found no difference in prevalence of psychiatric illness when

comparing mildly obese participants with normal weight populations. However, these studies fail to take account of severity of binge eating, which may be a salient factor in the psychologically distressed obese population. These studies belong to what Friedman and Brownell (1995) classify as the 'first generation' of studies – early studies which can be criticized for using small samples, using samples which did not represent the general obese population and employing single measures of only one aspect of psychopathology.

More recently, Stice et al (2001) found that whilst overweight individuals with BED and comorbid depression were between 1.4 and 4.2 times more likely to suffer a lifetime risk of any Axis I disorder than those who were not depressed, there was no agreement between the cluster subtype (depressed versus non-depressed) and *current* diagnosis of major depression.

1.6 METHODOLOGICAL PROBLEMS

Although much of the research is suggestive of a link between depression and binge eating in obesity, some of the findings are conflicting, making it difficult to draw definite conclusions. However, the inconsistencies may be due in part to the variety of different methods employed in the research to date.

As the definition of 'binge eating' remains unclear, research studies - particularly those conducted prior to 1992 - define 'binge eating' in different ways. This has meant that different measuring scales have been employed and participant inclusion criteria has varied considerably between studies. Some of

the measures used include the "Binge Eating Scale" (Gormally et al, 1982), the "Questionnaire on Eating and Weight Patterns" (QEWP; Spitzer et al, 1992; 1993), the "Bulimia Test" (Smith & Thelen, 1984), and the "Eating Disorder Examination" – Questionnaire and Interview Versions (Fairburn & Cooper, 1993). Other studies (e.g. Yanovski et al, 1993) have used structured clinical interviews based on the third, revised edition of the Diagnostic and Statistical Manual for Mental Disorders (DSM-III-R - SCID I and II; Spitzer, Williams, Gibbon & First, 1990a; 1990b) to make a diagnosis. Studies may have confused 'non-purging bulimia' with what is now recognised to be a distinct form of overeating, Binge Eating Disorder (BED), since the distinction is not always clear. Current knowledge suggests whilst individuals with 'non-purging bulimia' do not purge by vomiting or by taking laxatives, for example, they may be compensating in other ways, such as taking excessive exercise, hence defining them from those with BED who do not compensate for overeating at all. Of the obese women in Marcus et al's (1988) study, 34.5% reported vomiting and/or use of laxatives and diuretics, suggesting that this study did not exclude those with a diagnosis of bulimia nervosa. Since 1992, when the preliminary criteria were developed for a new eating disorder diagnosis of Binge Eating Disorder (Spitzer et al, 1992), a more consistent approach to the definition and study of binge eating has been adopted in some of the research. Many researchers, for example, have employed the criteria outlined in DSM-IV as a basis for participant inclusion in studies (e.g. Wilfley et al, 2000), although one recent study (Bulik, Sullivan & Kender, 2002) has used a simple gate question at interview to exclude those who reached the criteria for bulimia nervosa. At present, BED remains a syndrome, with controversy continuing

over what constitutes an 'objectively large' consumption of food within a two hour period. Even when employing the DSM criteria, studies may use the *number of days* bulimic episodes occurred rather than the *number of objective bulimic episodes.* As Fairburn and Wilson (1993) argue, there may be many forms of overeating, each of which requires more extensive research in order to delineate subcategories.

Studies do not always include a measure of binge eating severity. Yet several studies indicate that symptom severity is an important correlate of psychological distress. Telch & Agras (1994), for example, found that severity of binge eating was related to levels of psychopathology on a variety of scales including the Beck Depression Inventory. Measuring simply the presence or absence of binge eating may mean that important differences between individuals are obscured or misleading conclusions made. Although the Binge Eating Scale (Gormally et al, 1982) does not provide a cut-off score, it is possible to divide binge eating scores into the meaningful categories of 'little or no problem', 'moderate problem' and 'serious problem'.

Experts agree that Body Mass Index (BMI) is a valid and reliable measure of obesity (e.g. Bray, 1986). Yet BMI data are not always reported in the binge eating literature, making it difficult to examine whether participants are normal weight, underweight, overweight, obese or severely obese. Those studies concerning binge eating that *do* report participants' BMIs/weights often combine participants of varying degrees of overweight. Whilst some compare women who are obese (ie: BMI 30) with those who are not, other studies do

not control for adiposity. Although binge eating may be a common problem amongst the obese, the problem is not restricted to the obese. There may be important differences between those who binge eat and are obese and those who binge eat and maintain a weight within the healthy range. Marcus (1993) argues that those who maintain normal weight whilst binge eating may be compensating in other ways, such as taking excessive exercise, for example. It may be that such compensatory behaviours for binging buffer individuals from high levels of distress.

In the treatment studies described in the literature, it is not always clear for what problem(s) participants are seeking treatment. Whilst some individuals may have the goal of losing weight (e.g. Marcus et al, 1988), others may wish for a reduction in binge eating severity, or be seeking psychological treatment for depression, for example. Similarly, recruitment methods are an important consideration since some individuals may be more likely to take part in a research study if a financial incentive is provided, as in Stice et al's (2001) study. When participants are not randomly selected, it is not possible to generalise findings to a wider BED population. Treatment may consist of medical interventions such as drugs or surgery, or may consist of psychological approaches or perhaps a combination of methods. Sampling bias is evident in some of the literature (e.g. Yanovski et al, 1993) since only participants who seek, for example, surgical treatment, or who are attending specialist obesity clinics are included in some studies. Some research (e.g. Wilfley et al, 2000) excludes those receiving other forms of treatment, such as anti-depressant medication or psychotherapy, for example, whilst others take no account of this.

Researchers in this field need to clearly outline the approach taken, since any differences in terms of psychiatric comorbidity and the consequences for treatment outcome may be overlooked when combining treatment methods.

Studies measure current symptoms of depression in different ways. Some (e.g. Telch & Stice, 1998; Prather & Williamson, 1988) have employed the Beck Depression Inventory – a self-report questionnaire – while others (e.g. Bulik et al, 2002; Wilfley et al, 2000) have used structured clinical interviews (SCID I & II) based on the criteria outlined in the DSM, leading to a psychiatric diagnosis. Whilst questionnaires may facilitate ease of administration and provide a less time-consuming process, some would argue that questionnaires are a less valid method than in-depth interviews, conducted by expertly-trained, experienced clinicians. Both, however, rely upon the willingness, ability and motivations of participants to provide data that is as valid and reliable as possible. It may be preferable to include data from others' experience, for example, rather than relying solely on self report data, particularly since disclosure of such personal information may be shame-invoking for some. With interviews, however, experienced clinicians who interview participants may be better placed to screen for potential participants who do not fit the inclusion criteria, for example, those with psychotic difficulties. Further research is needed to see if findings based on SCID interviews based on DSM-III-R criteria are replicated when employing the updated DSM-IV criteria.

Whilst some researchers have based their work upon a continuum of severity – from those who deny binge eating to those who fulfil the BED criteria (e.g.

Antony et al, 1994) – others have simply categorized individuals as 'binge eaters' or 'non-binge eaters' (e.g. Marcus et al, 1988). Mitchell & Mussell (1996) stress the importance of not basing all research around the DSM-IV criteria for BED whilst the validity of these diagnostic criteria remains unclear. Future research may demonstrate that these criteria require adaptation.

1.7 LIMITATIONS

Our knowledge of binge eating in individuals who are obese is limited to the largely quantitative studies conducted on treatment-seeking samples. Whilst this is, of course, extremely useful to clinicians it is also important for us to discover whether obese individuals in the community suffer to a comparable degree. Whilst estimates suggest lower prevalence rates in community samples, only a few studies have examined the degree to which these individuals suffer psychological distress, depressive symptoms and current/past lifetime rates of depressive disorder. Similarly, our knowledge is largely confined to populations in the United States, leading clinicians in the UK to wonder whether cultural factors play a part in binge eating. To date, there is little data to either support or disconfirm theories. The majority of studies do not control for gender, socioeconomic status or ethnicity, making it difficult to know whether binge eating disorder in the obese is a phenonmenon predominantly seen in Caucasian women of lower socioeconomic status. One study found no differences between women from ethnic minority groups and their Caucasian counterparts in terms of eating disorder symptoms and general psychopathology (le Grange, Telch & Agras, 1997) although replication studies are needed to confirm this finding.

Similarly, there are few reports in the literature on age differences in binge eating. Future research may discover age to be an important variable worthy of further investigation.

Many studies (e.g. Striegel-Moore et al, 1998) rely upon self-report data to diagnose BED, despite conflicting evidence to suggest that questionnaires may vary in reliability and validity. Whilst Spitzer et al (1993) found good agreement between the Questionnaire and Weight Patterns and a structured clinical interview, Stunkard, Berkowitz, Wadden, Tanrikut, Reiss and Young (1996) reported considerable disagreement between self-report measures and clinical interviews. Further research is required to determine the validity of the various self-report measures.

Qualitative approaches to the study of binge eating may be invaluable, particularly in the search to delineate subcategories of overeating. Interviews and focus groups, for example, may enable researchers to gain greater depth and quality of information whilst taking into account individuals' narratives. It is clear that individuals who binge eat and who are obese are not a homogenous population. Perhaps with the introduction of qualitative methodologies, we would come closer to understanding individuals' accounts, thereby developing more accurate definitions of subcategories.

Waller (2002) suggests a range of research methods, such as naturalistic, correlational and experimental, in the search for greater understanding of BED. He argues that functional analysis may provide an overarching framework from

which to understand the interlinking cognitive, affective, behavioural and interpersonal systems. Perhaps an even wider perspective may be useful, given the complexity of the problem. Cross-cultural studies, for example, may further our understanding of onset and development of the problem. It would not be surprising to find that in cultures where a rounder, fatter body type is valued and seen as attractive, healthy and desirable, women experience less of a need to control or deny their appetites, leading to an increased sense of freedom, power and control over their lives.

Current theories do not adequately explain the relationships between variables. In particular, they lack explanation of the mediators and moderators of the relevant links. Whilst correlational research provides an important contribution to understanding, longitudinal data is required in order for causality to be established. It is not likely that a simple linear relationship exists between cause and effect. At present, research findings do not help us to understand whether distress predisposes some to binge eating, or whether binge eating leads individuals to feel out of control, anxious or depressed, or whether there is another factor which contributes to both binge eating and emotional distress, such as childhood sexual abuse, for example. Kolotkin, Revis, Kirkley and Janick (1987) have suggested that there may be a reciprocal feedback loop where, in the absence of flexible coping strategies, emotional distress increases negative feelings and the need for rigid control. Much more remains to be learned about the factors which explain onset, development and maintenance as well as those which influence the strength of the link.

As the findings presented in this review suggest, emotional factors seem to be important for a subgroup of individuals who binge eat. Yet it is not known whether the depression predates the binge eating or whether individuals become depressed as a result of binging. Further research is also needed to investigate the differences between those who binge eat and those who resort to other 'blocking' strategies such as self-harming behaviour or drinking alcohol, for example. It would, however, be difficult to draw conclusions, given the co-existence of such behaviours. As Lacey (1993) suggests, an underlying "multi-impulsive" syndrome may contribute to the comorbidity seen in bulimia nervosa and other disordered eating patterns. Large scale multi-site studies using large sample sizes may be the best way forward.

1.8 IMPLICATIONS

The findings discussed here may add to our understanding of the aetiology of BED. At present, models of BED centre around dieting and negative affect regulation. The dietary restriction model (Polivy & Herman, 1985) proposes that restriction of food intake leads to a greater risk of binge eating since binging is an attempt to counteract the effects of caloric deprivation. Disinhibited eating may result from abstinence violation. The negative affect model (McCarthy, 1990) proposes that heightened emotional disturbance increases the likelihood of binge eating since individuals believe that food will provide comfort and distract from the negative emotions. Stice and Agras (1998) have argued for a dual pathway model where both play a role. However, recent research by Stice et al (2001) suggests that affective disturbances occur

only in a subset of cases. These authors found two distinct patterns – a cluster characterised by elevated dieting and affective disturbance and a cluster of moderate dieters without affective problems. Before conclusions may be made, however, longitudinal data are required, which may help to further our understanding of the dual pathway model.

Research studies may also help us to identify those at risk of developing binge eating disorder and/or obesity. It is important for us to be able to predict who is the most likely to be psychologically distressed so that the most urgent cases can be prioritised. Several studies have demonstrated that higher levels of psychological distress and depressive symptomatology are associated with other psychopathological features. Kolotkin et al (1987) found that the more severe the binge eating, the greater the degree of depression, overall distress, somatic preoccupation, anger, impulsivity, hypersensitivity, anxiety, alienation and social withdrawal. In a more recent study, women who scored highly on measures of negative affect also demonstrated more objective binge eating episodes, greater levels of weight, shape and eating concerns, greater eating and weight preoccupations and rituals and greater social maladjustment in the domains of family and leisure (Stice et al, 2001). These authors suggest that since there was no difference in adiposity between the two groups that might explain differences in weight and shape concerns, it may be that negative affect is associated with biases in perception.

The findings discussed here have important implications for the treatment of binge eating and obesity. Women with binge eating clearly do not form a

homogenous group. For some individuals, affective disturbance may impede daily functioning and lower the ability to cope effectively with life stressors. It may be that the lack of attention to affect in treatment explains why research studies typically demonstrate poor treatment outcome with individuals with BED (e.g. Keefe et al, 1984). One study has shown that current treatments for BED are not effective for approximately 40% of clients (Stice, 1999). Despite improvements in binge eating, most treatment outcome studies report no changes in depression (e.g. Agras, Telch, Arnow, Eldredge et al, 1995). Failure to address depression may explain the high attrition rates, low weight loss and maintenance in weight loss programmes. (Foreyt et al, 1982). Those who are depressed may find it more difficult to lose weight. They may require a different form of treatment than those who are obese but not depressed. Marcus et al (1988) found that when compared to obese non-binge eaters, the binge eaters were more likely to drop out of treatment and they regained significantly more weight than non-binge eaters at six-month follow up. Marcus (1993) argues that even when treatment studies have demonstrated promising results, the effects of the treatment have been modest (e.g. Smith et al, 1992; McCann & Agras, 1990b). In one study, binge eating typically returned to baseline levels after the antidepressant was withdrawn (McCann & Agras, 1990b). Gormally et al (1980) found that although those with binge eating lost weight in the short term, maintenance in a behavioural programme was poor. Marcus et al's (1988) study showed that whilst women on a weight control programme lost weight, they showed no improvement in mood. The binge eaters demonstrated higher levels of depressive symptomatology and psychological distress at pre-

treatment and at all further assessments when compared with the non-bingers. They were also more likely to drop out of treatment.

Mitchell & Mussell (1996) have suggested that perhaps interventions developed to treat depression, such as cognitive-behavioural therapy, antidepressant medication or interpersonal psychotherapy, may be of benefit in the treatment of comorbidity. Yet Stice et al (2001) argue that whilst cognitive-behavioural treatments may reduce the frequency of binge eating, they may fail to address affective difficulties and accompanying social impairment. Cluster analysis conducted by these authors suggests a distinction between 'dietary' and 'dietary-depressive' subtypes of binge eating. In their study, standard treatment was significantly less effective for those with affective disturbance, when episodes of binge eating were used as an outcome measure. Should further research demonstrate this distinction to be a valid subtype scheme, treatment for those with depressive symptomatology may need to be adapted to incorporate a greater affective component. It is only by identifying individuals' needs that treatment outcome may be improved.

1.9 CONCLUSIONS

A considerable body of research exists which provides evidence of an association between binge eating and depressive symptomatology. Individuals who are obese and who binge eat are typically more depressed and show greater psychological distress than those who do not binge eat. Individuals with a diagnosis of BED are more likely than those without to have a lifetime

prevalence of an Axis I or Axis II diagnosis, and a significantly higher lifetime rate of major depression. It seems that as binge eating severity increases, so does psychological disturbance. However, a minority of studies fail to demonstrate this association and this may be due to methodological problems in carrying out the research, such as the variation in criteria used to define binge eating. It may also be that women who binge eat are not a homogenous population and that research to date has obscured differences between subtypes of binge eaters.

The findings discussed here highlight the importance of examining binge eating when treating individuals who are obese, since binge eating is associated with depression. They may also help to explain why treatment does not work for some. Should the 'dietary' and 'dietary-depressive' subtype distinction prove to be a valid one, treatment will need to be adapted in order to take account of individuals' needs. It is clear that emotional issues need to be dealt with in treatment, not just behaviours and thoughts. It is important for subgroups to be identified, described and evaluated, since this will impact positively upon treatment efficacy. Further research is required to examine the relationship between binge eating and psychopathology amongst individuals of different races, cultures, gender and ages, since our knowledge in these domains is extremely limited. Whilst a few studies have reported that gender differences in binge eating are not statistically significant (e.g. Barry, Grilo & Masheb, 2002; Jackson & Grilo, 2002), it would be unwise to draw conclusions based on such a paucity of research. In addition, longitudinal data are needed to establish causal links. In carrying out this research, it is important for a consistent

approach to the study of binge eating in obesity to be adopted in order for findings to be adequately compared. It may be possible to improve consistency by employing the same definitions, measures, inclusion criteria and research design across studies.

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CHAPTER 2: BRIEF PAPER

FACTOR STRUCTURE AND RELIABILITY OF AN EXTENDED VERSION OF THE "EXPERIENCE OF SHAME SCALE" IN A COMMUNITY SAMPLE OF WOMEN

This paper has been prepared for submission to
British Journal of Clinical Psychology

(See Appendix O – BJCP: Instructions to Authors)

WORD COUNT: 2,106 (including references)

THE FACTOR STRUCTURE & RELIABILITY OF AN EXTENDED VERSION OF THE "EXPERIENCE OF SHAME SCALE" IN A COMMUNITY SAMPLE OF WOMEN

OBJECTIVES: To explore the factor structure and report on the reliability of an extended version of the Experience of Shame Scale (E.S.S) in a community sample of women.

METHOD: 147 women recruited from the community completed the E.S.S.

RESULTS: Principal Components Factor Analysis followed by oblique rotation suggested that a three-factor solution was appropriate for this sample. The extended scale demonstrated high internal consistency ($\alpha = 0.97$)

CONCLUSIONS: The results suggested that the three additional items proposed, related to shame around eating, could be grouped together with characterological shame. Factor analysis resulted in a three-factor solution indicating at least three salient components of shame in a community sample of women – characterological shame, behavioural shame and bodily shame. Further research is required to investigate the appropriateness of this solution amongst clinical samples of women with eating disorders and obesity.

2.1 INTRODUCTION

The Experience of Shame Scale (E.S.S.), developed by Andrews, Qian & Valentine, is a 25-item questionnaire which includes:-

- 12 items measuring characterological shame
- 9 items measuring behavioural shame, and
- 4 items measuring bodily shame.

An additional 3 items, measuring shame around eating, were added to this questionnaire for the purposes of the present study.

The E.S.S. was based on Andrews and Hunter's (1997) shame interview and was originally developed to assess bodily shame (Andrews, 1995, 1997), although it was later extended to include other sources of shame (Andrews & Hunter, 1997). The measure asks direct questions about whether the respondent has felt ashamed about the body, personal characteristics and character. Responses are rated according to the intensity, frequency and specificity of the comments. The measure does not assume globalised shame, but asks about specific areas in which shame might be felt.

The E.S.S measures four areas of characterological shame (shame of personal habits, shame of manner with others, shame of the sort of person (you are) and shame of personal ability. It also includes three areas of behavioural shame (shame about doing something wrong, shame of saying something stupid and shame of failing in competitive situations). In addition, two areas of bodily shame are included (feeling ashamed of (your) body or any part of it, and

avoidance of mirrors). For each of the eight shame areas covered, there are three related items addressing the experiential component, a cognitive component and a behavioural component.

Andrews et al (2002) explored the psychometric properties of the E.S.S in an undergraduate student population. The scale had high internal consistency (Cronbach's alpha = 0.92) and test-retest reliability (r (88) = 0.83). It demonstrated good construct and discriminant validity. Internal consistency for the subscales was:- 0.90, 0.87 and 0.86 (Cronbach's Alpha) and test-retest reliabilities were r (90-93) = 0.78, 0.74 and 0.82, respectively, over 11 weeks. Confirmatory factor analysis confirmed the hypothesized 3-factor model.

In the present study, in view of recent findings regarding the relevance of shame around eating in individuals with eating disorders (eg: Frank, 1991; Santfner et al, 1995; Burney & Irwin, 2000; Webb, 2000; Swan, 2000), three additional items have been added to the original scale to measure this hypothesized construct. These items are: 1) Have you felt ashamed of your behaviours around eating? 2) Have you worried about what other people think of your behaviours around eating? 3) Have you tried to hide or conceal your behaviours around eating?

Participants respond to the questionnaire according to how they have felt in the past year. Items are rated on a 4-point scale, ranging from 1 (not at all) to 4 (very much). With the additional 3 items added for the purpose of this study, possible scores range between 28 and 112.

2.2 AIMS OF THE PRESENT STUDY

The main aim of the present study was to search for and define the fundamental constructs assumed to underlie the concept of shame in women. Three additional items were added to the original E.S.S. developed by Andrews et al (2002). The study investigated whether these additional items measured a construct distinct from the three factors already identified. The study explored whether the scale could be condensed into a smaller set of composite dimensions without loss of information. Another aim of the study was to report on the reliability of the extended scale.

2.3 METHOD

Participants

Female participants were recruited from a variety of sources in the community, including: commercial weight-loss programmes, church-based community groups, leisure clubs, universities and obesity support groups on the internet. Participants' ages ranged from 18 to 63 (mean = 38.46, S.D 12.07). 94% of the sample were white.

Procedure

147 women completed a questionnaire pack as part of a larger study (Brown et al, 2003) which included the Experience of Shame Scale (E.S.S; Andrews et al, 2002). The original questionnaire was extended to include three additional

items measuring shame around eating. (*The full questionnaire is given in Appendix J*). The results were analysed using principal components factor analysis (R-type) followed by oblique rotation. Reliability of the scale was examined using Cronbach's alpha.

2.4 RESULTS

Data Exploration

Exploration of the data revealed that the data were not normally distributed for the variables of:- Body Mass Index (BMI), total shame, characterological shame, behavioural shame and shame around eating.

The following Table 1 shows the mean scores obtained with this sample:-

Table 1: Mean Scores Obtained on an Extended Version of the "Experience of Shame Scale" with a Community Sample of Women (n = 147)

	n	mean	S.D.
E.S.S. Total Scale	147	49.97	18.93
E.S.S. Characterological Shame	147	19.29	8.42
E.S.S. Behavioural Shame	147	17.83	6.77
E.S.S Bodily Shame	147	8.59	3.72
E.S.S Eating Shame	147	4.27	2.55

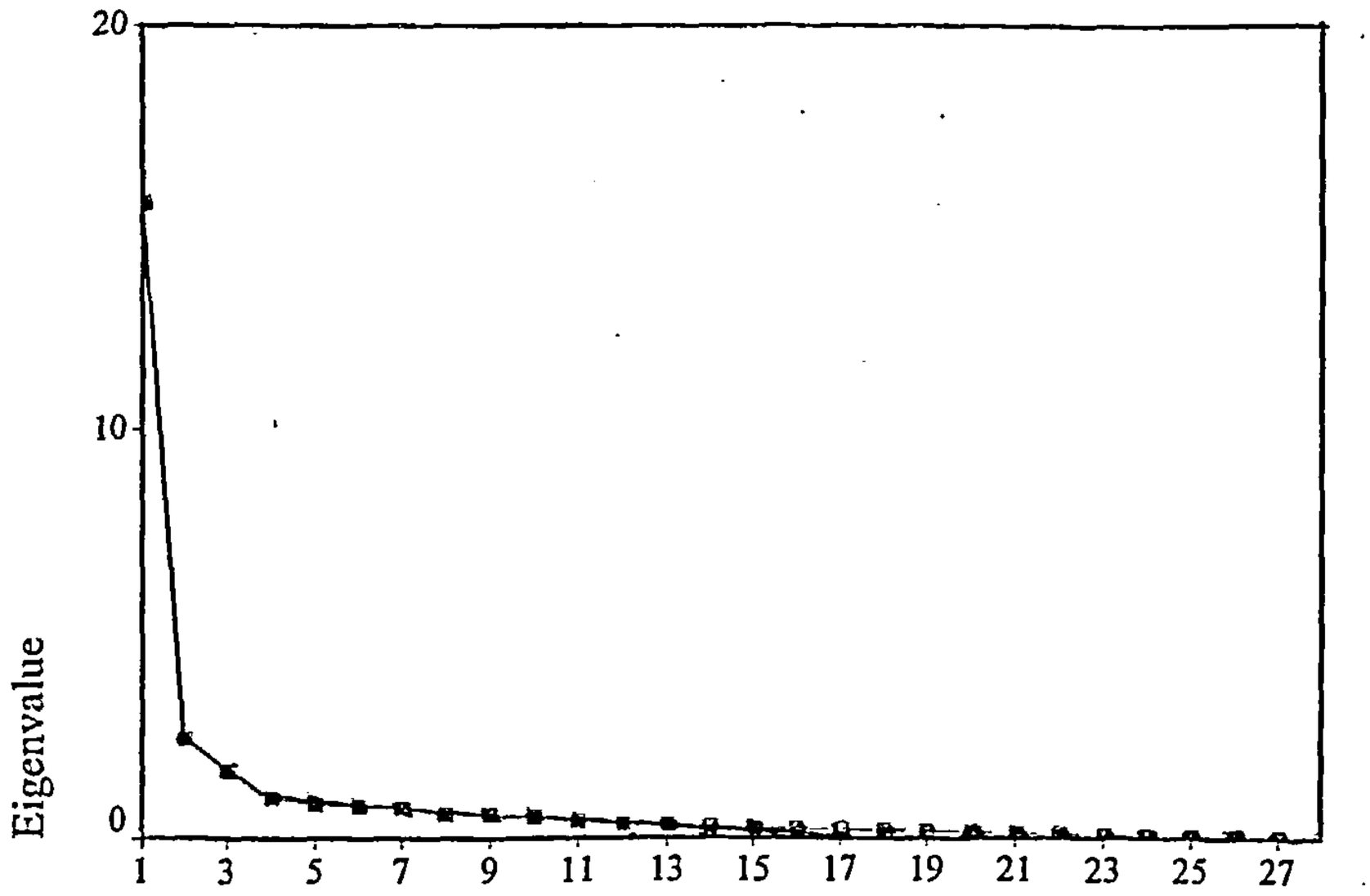
Reliability of the Extended Version of the E.S.S.

The alpha coefficient of 0.97 demonstrated high internal consistency for the extended 28-item version of the E.S.S.

Analysis of Factor Structure

In the first step of the analysis, the relationships between the twenty-eight items were analysed interdependently. The sample size of 147 provided an adequate basis for calculation of the correlations between variables. 87.5% of the correlations were statistically significant at the .01 level. The KMO Measure of Sampling Adequacy (0.92) also confirmed that the sample was adequate for factor analysis to proceed. The number of components to be retained for further analysis was selected by examining the screen plot (Cattell,1978), as shown below:-

Figure 1: Scree Plot of Eigenvalues



The scree plot indicated that three factors may be appropriate. Oblique rotation (Direct Oblimin with Kaiser normalisation) then followed to establish item loadings on each factor. Oblique rotation was chosen as the factors were likely to be correlated. The cut-off point for interpretation of factor loadings was set at 0.4. Items which did not load clearly on any factor were discarded.

The following Table 2 shows the resulting factor loadings:-

Table 2: Factor Loadings from Rotated Factor Pattern Matrix (n = 147)*

	Item	Factor 1	Factor 2	Factor 3
1.	Personal habits (experience)	.63		
2.	Personal habits (cognition)	.66		
3.	Personal habits (behaviour)	.71		
4.	Manner with others (experience)	.63		
5.	Manner with others (cognition)	.61		
6.	Manner with others (behaviour)	.81		
7.	Sort of person (you are) (experience)	.69		
8.	Sort of person (you are) (cognition)		-.49	
9.	Sort of person (you are) (behaviour)	.76		
10.	Ability to do things (experience)	.68		
11.	Ability to do things (cognition)	.57		
12.	Ability to do things (behaviour)	.76		
13.	Doing something wrong (experience)		-.64	
14.	Doing something wrong (cognition)		-.77	
15.	Doing something wrong (behaviour)	.53		
16.	Saying something stupid (experience)		-.73	
17.	Saying something stupid (cognition)		-.82	
18.	Saying something stupid (behaviour)		-.49	
19.	Failure (experience)		-.72	
20.	Failure (cognition)		-.76	
21.	Failure (behaviour)	.48		
22.	Body (experience)			.76
23.	Body (cognition)			.58
24.	Avoidance of mirrors (behaviour)			.57
25.	Body (behaviour)			.80
26.	Eating (experience)	.84		
27.	Eating (cognition)	.84		
28.	Eating (behaviour)	.86		

* Loadings < .4 have been deleted

The pattern matrix demonstrated that eleven of the twelve items which related to characterological shame loaded on Factor 1. 54% of the variance was explained by this first factor. Seven of the nine items relating to behavioural shame loaded on Factor 2. All four of the items relating to bodily shame loaded on Factor 3. The additional items related to shame around eating loaded onto Factor 1, suggesting that these items were not measuring a fourth factor. The three factors retained represented 67.25% of the variance. This structure was consistent with the three-factor model proposed by Andrews et al (2002).

Table 3 shows the cumulative percentage of variance explained by the three-factor solution:

Table 3: Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total
1	15.606	55.737	55.737	15.280	54.571	54.571	13.711
2	2.454	8.763	64.500	2.166	7.735	62.306	10.436
3	1.672	5.972	70.472	1.385	4.945	67.251	5.330

2.5 DISCUSSION

The application of factor analysis to this new sample confirms the three factor structure previously reported by Andrews et al (2002), suggesting that there are at least three salient dimensions of shame in this community sample of women. These were: (in order) characterological shame, behavioural shame and bodily shame. The additional items created to measure the hypothesized dimension of shame around eating loaded on Factor 1 (characterological shame), suggesting that shame around eating is not a construct distinct from characterological shame in this community population.

It may be, however, that eating-related shame is a construct worthy of further investigation amongst clinical samples, particularly women with eating disorders or obesity. The subgroups of women with obesity, binge eating disorder or bulimia nervosa in this sample were not large enough to satisfy the cases-per-variable ratio required for factor analysis in this study. A sample size of one hundred or larger is usually considered appropriate in order to minimize the chances of 'overfitting' the data. Researchers and clinicians should not dismiss the dimension of shame around eating until further studies either replicating or disconfirming these results have helped us to arrive at satisfactory conclusions.

It is interesting to note that the undergraduate students in Andrews et al's (2002) study received higher mean scores for all three areas of specific shame, as well as higher levels of total shame overall, than the women in this study.

(See Appendix S for the table comparing mean scores between the two studies.)

Although it is not clear at this stage whether these differences are statistically significant, it is interesting to speculate on the reasons why this may be so. The students in Andrews et al's sample were both male and female. The results could perhaps be suggesting gender differences in shame. Alternatively, age could be an important variable to consider, since the average age in the current sample was 38.5 years, compared to a mean age of 23.9 years in Andrews et al's study. Differences in shame may also be accounted for by the increased risk of failure in a competitive situation amongst the students. Researchers in the future may wish to consider comparing the type of shame that is important in different populations.

2.6 CONCLUSIONS

The results of this study demonstrated that the three-factor model produced a good fit using the data from a community sample of women. The E.S.S is a suitable measure of characterological, behavioural and bodily shame in this population. However, further research is required to investigate whether a four-factor model would be appropriate with a clinical sample of women with eating disorders and obesity.

2.7 REFERENCES

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CHAPTER 3: MAIN PAPER

SHAME AND PSYCHOLOGICAL DISTRESS IN OBESITY

This paper has been prepared for submission to the
British Journal of Clinical Psychology

(See Appendix O – BJCP: Instructions to Authors)

WORD COUNT: 6,790 (including references)

3.1 ABSTRACT

OBJECTIVE: To explore the profile of shame and psychological distress in a community sample of women who are overweight or obese.

DESIGN: 147 women participated in a questionnaire study.

METHOD: Participants ranging from healthy weight to severely obese were compared according to their responses on a number of measures, including: an extended version of the Experience of Shame Scale, the General Health Questionnaire and the Rosenberg Self Esteem questionnaire. The specific focus of shame and the relationship between shame and psychological distress in obesity were explored.

RESULTS: Women who were *severely* obese were significantly more psychologically distressed and had significantly higher levels of severe depression than those who were mild-moderately obese, overweight or within the healthy weight range. Their levels of shame in the specific areas of characterological shame, bodily shame and eating shame were significantly higher. They also had significantly lower self esteem. Women with mild-moderate obesity did not differ significantly from those in the healthy weight group on the majority of measures.

CONCLUSIONS: Psychological treatment for obesity in women should prioritise those with a BMI of 35 or over and those with a diagnosis of Binge

Eating Disorder, since these two subgroups of women are significantly more distressed than those with mild-moderate levels of obesity or healthy weight controls. Their distress is associated with high levels of total shame as well as the specific areas of characterological, bodily and eating-related shame. Further research is needed to investigate the efficacy of shame-focused psychological therapy in this population.

3.2 INTRODUCTION

3.2.1 WHY STUDY OBESITY?

The World Health Organisation (1998) has referred to obesity as a 'world wide epidemic'. The prevalence of obesity in England alone has doubled over the last twenty years, with 17% of women and 20% of men classified as obese in 1999 (British Nutrition Foundation Task Force). Obesity can cause detrimental and dangerous effects upon an individuals' health. The National Priorities Guidance for the National Health Service (NHS Executive, 1999/00 – 2001/2) stresses the importance of treatment and prevention of obesity, given its links with coronary heart disease and mental ill health. It is crucial for us to identify the specific factors associated with psychological distress in obesity in order for effective preventative and treatment strategies to be developed.

3.2.2 PSYCHOLOGICAL DISTRESS IN OBESITY

There is increasing recognition of the importance of psychosocial factors in the development and maintenance of obesity, although the first generation of comparative studies between obese and non-obese groups demonstrated inconsistent results. These earlier studies typically used small samples, did not represent the general obese population and used single measures of only one aspect of psychopathology (Friedman & Brownell, 1995).

In view of these inconsistencies, the second generation of research has aimed to identify factors responsible for the variation in individuals who are obese in order to explain why some individuals suffer negative psychological consequences and others do not. Several factors have been identified which make it more likely that an obese individual will experience psychological distress. These risk factors include demographic variables, (eg: age, gender, race, social class), social/environmental factors (eg: societal pressure to be thin, history of teasing or discrimination, interpersonal relationships), weight history (eg: age of onset of obesity, weight cycling), cognitive factors (eg: body image dissatisfaction, self concept, global attributions toward life events) and eating/dieting behaviours such as dietary restraint and binge eating (Friedman & Brownell, 1995).

3.2.3 BINGE EATING IN OBESITY

Marcus (1993) argues that binge eating is a common and serious problem in individuals with obesity. It is defined in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders as: "eating, in a discrete period of time, an amount that is larger than most others would consume in similar circumstances, accompanied by a sense of loss of control over what or how much one is eating". The diagnosis of Binge Eating Disorder (BED) may be made when binge eating occurs more than twice weekly and is accompanied by behavioural indicators of loss of control and distress.

(*See Appendix M for DSM-IV Research Criteria for BED*).

Research consistently suggests that individuals who are obese and who binge eat suffer higher levels of psychological distress and psychiatric symptomatology than those who are obese and do not binge eat (eg: Marcus, Wing & Hopkins, 1988; Prather & Williamson, 1988; Yanovski, Nelson, Dubbert & Spitzer, 1993). Depressive disorder, in particular, is elevated in those individuals seeking treatment (eg: Gormally, Black, Daston & Rardin, 1982). (It is not known whether the individuals in these studies were seeking treatment for weight control, binge eating, psychological distress, depression, or any other psychological or physical problem, as the literature does not make this clear).

Recent research suggests that there may be two distinct subgroups of individuals who are obese and who binge eat – a 'dietary restraint' subgroup and a 'depressed-restraint' subgroup, the latter suffering significantly higher

levels of depression (Stice, Agras, Telch, Halmi, Mitchell & Wilson, 2001). Whilst further research is necessary to demonstrate the validity of this distinction, it is clear that binge eating must be acknowledged as a clinically important variable to be considered when researching psychological distress in obesity. It may be that, for some, binge eating may be an attempt to regulate negative emotion, whilst for others, binge eating may be a consequence of prolonged dietary restriction. If, for some, binge eating is an attempt to regulate negative emotion, it may be that shame is an important emotion to consider in obesity, particularly since recent studies have highlighted the role that shame may play in eating disorders.

3.2.4 SHAME AND EATING DISORDERS

Burney & Irwin (2000) found that specific shame (eating and bodily), not shame in general, was related to eating pathology in a non-clinical sample. Shame has recently been demonstrated to be significantly associated with eating disordered psychopathology in women who are currently experiencing or recovering from an eating disorder (Troop, Connan, Las Hayas & Treasure, 2001a; Troop, Allan, Serpall & Treasure, 2001b; Gee & Troop, 2001). Women with a current eating disorder reported the highest levels of shame, those who had recovered or were in remission from an eating disorder received an intermediate score and non-eating disorder controls had the lowest shame scores.

More recently, Swan (2000) investigated shame using the Experience of Shame Scale (Andrews, Qian & Valentine, 2002) in groups of women with restricting anorexia, binge/purging anorexia and bulimia nervosa. The author found that eating disorder groups had significantly higher scores on all measures of shame than controls, including bodily, behavioural, characterological and eating shame, as well as total shame. There was a significant correlation between shame scores and depressive symptomatology. Eating disorder status could be predicted from characterological shame, shame around eating and total shame scores. Swan (2000) suggests that shame variables act as mediating factors between childhood psychological maltreatment and later eating disorder.

Individuals who are clinically obese and seeking support with weight management from dieticians have been shown to experience marked psychological distress and high internal and external shame proneness, at a level comparable with patients with an eating disorder diagnosis (Webb, 2000). In this study, Body Mass Index was not associated with psychological distress. Eating disorder beliefs, binge eating behaviour, negative social comparisons, submissive behaviours and shame were all found to be associated with psychological distress.

To the author's knowledge, there are no studies which investigate shame in a non–treatment seeking sample of women who are overweight or obese.

3.2.5 WHAT IS SHAME?

Despite a dramatic increase in the number of studies investigating issues related to shame over the past ten to fifteen years, controversy still exists over the nature of shame. Cognitive-Affect theories view shame as associated with particular types of appraisals. Gilbert (1998) acknowledges that humans are likely to have at least two systems for reaching decisions about important events:- the experiential system (eg: Epstein, 1994), where heuristics enable short cuts to be taken to reach decisions quickly, based upon earlier experience and conditioned emotional responses, and the 'fast track' mode of processing (eg: Bailey, 1987) based on primitive, evolved appraisal-response systems encoded in limbic and sublimbic areas of the brain. Gilbert argues that in the experience of acute shame, it is likely that fast-track, emotional and involuntary processing occurs, making it difficult for individuals to control. In addition, statements of belief such as "I am worthless" may also activate affect and memories associated with experiences of being rejected or shamed.

3.2.6 SUMMARY

Research to date suggests that obesity per se is not associated with psychological distress. However, there may be factors which predispose individuals who are obese to psychological distress. Women who are obese and who binge eat may be one such subgroup of individuals at risk. Stice et al (2001) have proposed two further subcategories amongst those who binge eat:- a 'dietary restraint' subgroup and a 'depressed-restraint' group, suggesting that

whilst some may binge eat as a compensation for prolonged dietary restriction, others may be depressed and may be binge eating in an attempt to regulate negative emotions.

Given that the role of shame in obesity has been neglected in the literature, the current study aims to increase knowledge in this under-researched area by exploring shame in a community sample of women who are overweight or obese. It may be that there is a subgroup of women who are overweight and who are depressed and/or ashamed. Should the current study demonstrate that women who are overweight and are psychologically distressed show high levels of global and/or specific shame, it may be that this specific population of women should be targeted in the psychological treatment of obesity. It may be important in treatment to focus upon shame and/or depression rather than binge eating in treatment.

3.2.7 AIMS & HYPOTHESES

The main aim of this paper is to explore the profile of shame and psychological distress in women in the community who are overweight or obese. Since this is the only study known to the author to explore issues of shame in this population, the study is exploratory in nature. However, based on the literature on obesity, the following tentative hypotheses are put forward:-

1. Severity of obesity is associated with increased psychological distress.
2. Women who are obese have significantly higher levels of psychological distress than those who are overweight and those whose weight is within the healthy range.
3. Shame is positively correlated with psychological distress in women.
4. Women who are obese experience higher levels of total shame than women who are overweight and women whose weight is within the healthy range.
5. Women who are obese experience higher levels of shame about their character, their behaviours, their bodies and their eating, than women who are overweight and those whose weight is within the healthy range.
6. Women who are obese have significantly lower self esteem than women who are overweight or women whose weight is within the healthy range.

3.3 METHOD

3.3.1 PILOT STUDY

Following approval from Coventry University Ethics Committee (*Appendix N*), a questionnaire pack was initially piloted on a small sample of 10 volunteers in the community to ascertain the suitability of the measures. This enabled the author to ensure that the terminology used was appropriate and that the length of time taken to complete the questionnaires was not excessive. Based on the feedback obtained from the volunteers, the wording of some of the questionnaire items was altered to facilitate comprehension.

3.3.2 PROCEDURE

Volunteers were recruited from a variety of sources in the community, including:-

- self-help weight-management programmes (eg: Slimming World)
- obesity support groups on the internet (eg: Association for Morbid Obesity Support)
- churches and church-based community groups (eg: Overeaters Anonymous)
- Coventry and Warwick universities (staff and students)
- Leaflets distributed at various GP surgeries, libraries and gym clubs

Advertisements *(Appendix A)* informed potential participants that volunteers aged 18+ were requested for a research study investigating feelings around weight, shape and body. Other potential participants, some known to the author, were contacted directly and asked for their assistance in the study. A further group of potential participants were informed of the study via the author's attendance in person at community groups (eg: Slimming World, Overeaters Anonymous). Those who showed interest were either given or sent by post a questionnaire pack including the following:-

- An introductory letter *(Appendix B)*
- A participant information sheet *(Appendix C)*

- A consent form *(Appendix D)*
- A Free Prize Draw Form *(Appendix E)*
- Contact details for local and national organisations that may be able to provide help and support *(Appendix F)*
- A questionnaire pack, including:- a Background Information sheet together with an adapted version of the Questionnaire on Eating and Weight Patterns (Revised) *(Appendix G)*, the Eating Disorder Examination - Questionnaire version *(Appendix H)*, the General Health Questionnaire *(Appendix I)*, the Experience of Shame Scale *(Appendix J)* and the Rosenberg Self Esteem Scale *(Appendix K)*
- A stamped addressed envelope for the free return of the questionnaires.

A total of 400 questionnaire packs were sent out to potential volunteers. The response rate was 48%, with 191 of the 400 questionnaires being returned. A total of 44 respondents were excluded as they did not fulfil the criteria; 7 had a BMI of less than 20, 23 were male, 5 were either under 18 or over 65, and 9 had considerable missing data.

(A section of the Raw Data Table is included in Appendix Q)

3.3.3 PARTICIPANTS

The final sample consisted of 147 women aged between 18 and 63 with a Body Mass Index of 20 or over. A wide variety of occupations were represented,

including students, unemployed, unskilled manual workers, skilled workers and professionals, suggesting variability in socioeconomic status.

All participants were female. Mean overall age was 38.46 (S.D 12.07, range 18-63 years). The majority of the sample were white (94%), with 1.7% black, 3.4% Asian and 0.9% mixed race. When the sample was divided into 4 groups, according to BMI, 72 women (49%) were within the healthy weight range (BMI 20–24.9). This was the modal group. 42 participants (28.6%) were overweight (BMI 25-29.9) and 33 (22.4%) fell within the obese category. 20 (61%) of the women in the obese category were severely obese.

The groups were significantly different in age, number of years overweight and BMI. Women in the severely obese group had been overweight for a mean number of 27.26 years, compared to 13.38 in the obese group, 8.98 years in the overweight group and 4.21 years in the healthy weight group. Women in the healthy weight group were significantly younger than those in all other groups ($F(3,35) = 6.28$, $p \leq 0.01$).

There were no significant differences in frequencies between the groups in terms of nationality, ethnicity, help-seeking behaviour from professionals or presence of bulimia (either purging or non-purging type). Women in the severely obese category were more likely to be diagnosed with BED, according to their responses on the QEWP-R (Pearson Chi Square = 12.547, $p \leq 0.01$). Demographic and background information are summarised in Table 1 (as follows) and in Table 2 (Appendix R).

Table 1: Participants' Age, BMI and Number of Years Overweight: Mean Scores

	HEALTHY WEIGHT			OVERWEIGHT			OBESE			SEVERELY OBESE			
	n	mean	SD	n	mean	SD	n	mean	SD	n	mean	SD	Sig.
AGE	72	34.28	11.28	42	42.31	12.73	13	43.38	10.69	20	42.05	9.79	**
BMI	72	22.42	1.30	42	26.86	1.38	13	32.45	1.14	20	44.47	8.06	**
NUMBER OF YEARS OVERWEIGHT	19	4.21	5.11	37	8.15	8.98	13	13.38	8.68	19	27.26	11.93	**

** $p \leq 0.01$

3.3.4 MEASURES

Body Mass Index

Body Mass Index (BMI) is employed in this study as a measure of obesity. Kraemer, Berkowitz and Hammer (1990) consider BMI to be the best indirect measure of obesity, since it is convenient, reliable and valid. Moreover, the measure has clinical validity; it is able to predict morbidity and mortality rates consequent on the diagnosis of obesity.

BMI is calculated by dividing weight (in kilograms) by height (in metres squared). The following BMI criteria, as recommended by the World Health Organisation (WHO; 1998) have been used in this study:- BMI < 20 (underweight), BMI 20 – 24.9 (healthy weight), BMI 25 – 29.9 (overweight), BMI ≥ 30 (obese) and BMI ≥ 35 (severely obese).

***Background Information Sheet** (Appendix G)*

Additional questions regarding demographic information were combined with the Questionnaire on Eating and Weight Patterns – Revised. These invited participants to provide information regarding their sex, age, weight and height (for computation of Body Mass Index), ethnic background, perceived weight range, ideal weight, whether they were currently attempting to lose weight, details of their past and current efforts to lose weight, and the approximate number of years/months overweight, if appropriate. It is interesting to note that

26% of those in the healthy weight range perceived themselves to be overweight.

Questionnaire on Eating and Weight Patterns – Revised (Appendix G)

(QEWP-R; Spitzer, Yanovski & Marcus, 1993)

The QEWP-R contains 28 items. It is a criterion–based instrument that assesses the essential diagnostic criteria for purging and non-purging bulimia as well as the proposed DSM-IV research criteria for binge eating disorder *(See Appendices L & M for DSM Criteria for Bulimia Nervosa & B.E.D).* Reliability tests demonstrate the scale to have internal consistency (Cronbach's Alpha 0.75 for weight control samples and 0.79 for community samples). Individual items correlate with the total summation of scores from 0.50 to 0.66 in the weight control samples and from 0.55 to 0.71 in the community samples. Data demonstrate predictive validity of the measure based on clinical interviews and self-report. In Spitzer et al's (1993) study, good agreement was obtained between the clinical evaluation and the self-report questionnaire based on 44 obese participants in a weight control study (kappa = 0.60). The questionnaire is well organised, examines eating and weight patterns over a discrete period (six months), enables respondents to skip questions that are not applicable and generally takes less than five minutes to complete.

***Eating Disorder Examination – Questionnaire Version** (Appendix H)*

(EDE-Q; Fairburn & Beglin, 1994)

The EDE-Q contains 38 items and measures eating pathology. It derives from the Eating Disorder Examination Interview (EDE; Fairburn & Cooper, 1993). The questionnaire focuses upon the past 28 days to assess both the behavioural and attitudinal components of eating disorders. The four subscales – Restraint, Eating Concern, Weight Concern and Shape Concern – have been demonstrated to have acceptable reliability and validity (Black & Wilson, 1996; Fairburn & Beglin, 1994).

***The General Health Questionnaire** (Appendix I)*

(GHQ-28;Goldberg & Hillier, 1979)

The GHQ-28 is an abbreviated version of the General Health Questionnaire (GHQ) (Goldberg & Hillier, 1979). It is a widely used, self-report screening instrument which was designed to measure mental health problems associated with impaired work and family functioning. The measure has four robust factors: somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. Participants respond to one of four response categories, according to whether a symptom is present or absent. The GHQ may be scored in two ways. One method is to sum the scores. This provides an indication of severity of psychological disturbance on a continuum. Individuals with a score of 5 or higher are said to screen positive for psychiatric disorder (Goldberg & Hillier,

1979). Alternatively, responses may be scored from 0-3, providing a mean value for each of the four factors.

Research demonstrates good concurrent validity within general health care and community settings. Internal consistency was found to be 0.95 using a split-half reliability technique. The correlations between subscales ranged from 0.33 to 0.61, with five of the six correlations above 0.44. The subscale to total score correlations range from 0.69 to 0.79. Test-reliability after 6 months has been demonstrated to be 0.90 (Goldberg, 1972). Discriminant validity has been demonstrated via comparisons with other measures, such as the Clinical Interview Schedule. Median sensitivity and specificity calculations (i.e. the probability that those without the disorder are correctly identified) has been shown to be 0.86 and 0.82. However, care must be taken when interpreting scores given by those with physical illnesses since physical symptoms may be elevated. Bridges and Goldberg (1986) suggest setting a higher threshold score for these individuals to reduce the possibility of falsely identifying psychiatric disorder.

***Experience of Shame Scale** (Appendix J)*

(ESS; Andrews, Qian & Valentine, 2002)

The ESS is a 25-item questionnaire (ESS) based on Andrews and Hunter's (1997) shame interview. It measures 4 areas of characterological shame:- shame of personal habits, shame of manner with others, shame of the sort of person (you are) and shame of personal ability. It also measures 3 areas of behavioural

shame:- shame about doing something wrong, shame of saying something stupid and shame of failure in competitive situations. Bodily shame is the third area measured and includes items regarding feeling ashamed of the body or any part of it. For each of the 8 shame areas covered, there are 3 related items addressing the experiential component, a cognitive component and a behavioural component. There is also an extra item to ask about avoidance of mirrors, for bodily shame. The author added 3 additional items regarding shame around eating, since recent research by Swan (2000) and Frank (1991) suggests that this construct is particularly important when investigating the thoughts and feelings of women with disordered eating. Participants respond according to how they have felt in the past year. Items are rated on a 4-point scale, ranging from 1 (not at all) to 4 (very much). This gives scores within a range of 25-100. Research by Andrews et al (2002) has demonstrated high internal consistency (Cronbach's alpha = 0.92) and good test-retest reliability over 11 weeks (r(88) = 0.83). Internal consistency for the subscales was:- 0.90, 0.87 and 0.86 (Cronbach's Alpha) and test-retest reliabilities were r (90-93) = 0.78, 0.74 and 0.82, respectively, over 11 weeks. Significant regression coefficients via confirmatory factor analysis confirms the hypothesized 3-factor model. ESS total scores and subscale scores were significantly and substantially correlated with the TOSCA shame scale, providing evidence for construct validity. Discriminant validity of the scale was provided by significant (although lower than the correlations between the ESS and the TOSCA shame scale) correlations among the ESS total score and subscales and the TOSCA guilt scale.

***Rosenberg Self Esteem Scale** (Appendix K)*

(RSE; Rosenberg, 1965)

The RSE has 10 items and aims to measure global self-esteem. It is the most widely used self-esteem measure. Respondents rate the 10 items on a 4-point Likert-type scale from 'strongly agree' to 'strongly disagree'. Lower scores indicate greater self-esteem. Research has demonstrated the validity and reliability of the scale (Demo, 1985; Rosenberg, 1965). Correlation coefficients have been reported for different samples, all demonstrating alphas ranging from 0.82 to 0.87. Validity studies provide support for the RSE as a unidimensional scale (Blascovich & Tomaka, 1991). Using a multitrait-multimethod matrix for a sample of high school students in Canada, Byrne and Shavelson (1986) have reported convergent and discriminant validity coefficients suggesting that the RSE is one of the most valid measures of global self-esteem.

3.3.5 DATA EXPLORATION

Exploratory procedures confirmed average values, measures of dispersion and distribution shape. By constructing histograms, stem-and-leaf plots and boxplots, it was possible to identify any peculiarities or possible errors in the data file. 5% trim figures reported the means when the most extreme 10% of the scores were omitted from the calculations; this enabled extreme scores to be omitted where necessary. Normality plots revealed normally distributed data in terms of age, but skewed distribution in terms of body mass index. Data for all shame measures were skewed. Although preliminary exploration of the data

demonstrated that the data were not normally distributed and that homogeneity of variance could not be assumed, parametric statistics were employed in this study as several authors (e.g. Howell, 1997) argue that these are robust to violations of their assumptions.

3.4 RESULTS

3.4.1 BETWEEN GROUP COMPARISONS

Four groups of women, classified according to the BMI categories recommended by the World Health Organisation, were compared ('healthy weight', 'overweight', 'obese' and 'severely obese'). One-way ANOVA tests were carried out to investigate differences between the mean scores obtained on these measures, and the Tukey HSD post-hoc test was used to localise these differences. The results will be discussed under the appropriate hypothesis headings.

The following Table 3 summarises the mean scores found on the measures EDE-Q, GHQ-28, ESS and RSE for the four independent groups.

(*See Appendices T & U for Tables 4 & 5: Results of ANOVA and Tukey Post-Hoc Test)*

Table 3: Means and Standard Deviations for the 4 BMI Groups, for the EDE-Q, GHQ, ESS and RSE & their subscales

	HEALTHY WEIGHT			OVERWEIGHT			OBESE			SEVERELY OBESE			
	n	mean	SD	n	mean	SD	n	mean	SD	n	mean	SD	Sig.
EDE-Q - Global	72	0.24	0.21	42	0.35	0.36	13	0.42	0.22	20	0.57	0.23	***
Restraint	72	1.26	1.34	42	1.74	1.34	13	2.14	1.07	20	2.70	1.54	***
Weight Concerns	72	1.41	1.37	42	1.90	1.19	13	2.77	1.19	20	3.84	1.44	***
Shape Concerns	72	1.95	1.49	42	2.30	1.38	13	3.18	1.35	20	4.29	1.28	***
Eating Concerns	72	0.50	0.79	42	0.49	0.76	13	0.85	1.27	20	2.29	1.86	***
GHQ - Total	72	21.82	10.85	42	17.38	8.71	13	19.15	10.31	20	32.45	19.20	***
Somatic symptoms	72	6.06	3.58	42	4.81	3.43	13	4.62	2.50	20	8.00	4.45	**
Anxiety/Insomnia	72	6.38	4.42	42	4.69	3.79	13	5.77	4.13	20	9.00	5.97	**
Social Dysfunction	72	7.64	2.92	42	7.05	2.13	13	7.54	2.85	20	9.55	4.74	*
Severe Depression	72	1.90	3.41	42	1.40	3.43	13	1.23	2.16	20	5.85	7.06	***
ESS – Total	72	48.43	16.45	42	44.14	13.18	13	50.08	16.59	20	67.65	27.94	***
Character shame	72	19.06	7.23	42	16.86	6.05	13	18.85	8.16	20	25.55	13.17	**
Behavioural shame	72	17.97	6.53	42	16.10	5.74	13	17.54	4.63	20	21.15	9.48	*
Bodily shame	72	7.65	3.32	42	7.81	2.71	13	9.23	3.47	20	12.60	4.67	***
Eating shame	72	3.75	1.75	42	3.45	1.27	13	4.46	2.57	20	7.75	3.96	***
RSE	72	18.85	5.89	42	18.36	5.45	13	19.75	5.23	20	26.15	7.71	***

* $p \leq 0.05$ ** $p \leq 0.01$ *** $p \leq 0.001$

3.4.2 HYPOTHESES

Hypothesis 1: Severity of obesity is associated with increased psychological distress

Since scatterplots suggested a linear relationship, Pearson's correlation coefficient was calculated. The results demonstrated a positive correlation between BMI and psychological distress ($r = 0.251$, $p \leq 0.01$). Further analysis also revealed a relationship between BMI and BED status ($r = 0.264$, $p \leq 0.01$), indicating that as weight increased, the likelihood of receiving a diagnosis of BED increased.

However, when 'caseness' was examined according to scores on the GHQ, those in the healthy weight range were more likely to have a psychiatric disorder. 59% of the 'cases' were women belonging to the healthy weight group compared to 27% of women in the severely obese category. Women with severe obesity were more likely to screen positive for severe depression, however, with 63% of cases arising from this group. Overall caseness for this community sample of women was 28%.

Other factors associated with psychological distress were explored using Pearson's correlation. The results demonstrated a relationship between the number of years overweight and psychological distress, with those being overweight the longest experiencing the most distress ($r = 0.304$, $p \leq 0.01$). There was also a positive correlation between the length of time overweight and the degree of shame experienced, both generally ($r = 0.397$, $p \leq 0.01$) and in the

specific areas of characterological ($r = 0.299$, $p \leq 0.01$), behavioural ($r = 0.312$, $p \leq 0.01$), bodily ($r = 0.510$, $p \leq 0.01$) and eating-related shame ($r = 0.448$, $p \leq 0.01$).

The Pearson Chi-Square Test was used to explore nominal data. Psychological distress was not associated with ethnicity, past or present attendance at a slimming club, current attempts to lose weight or having been overweight as a child. Distress *was* associated with seeking professional help (0.186, $p \leq 0.05$) and having a diagnosis of Binge Eating Disorder (0.401, $p \leq 0.001$).

Hypothesis 2: Women who are obese have significantly higher levels of psychological distress than those who are overweight and those whose weight is within the healthy range

Women with a BMI of over 35 were significantly more distressed than all other groups, including those who fell into the 'obese' range but had less severe obesity ($F(3,146) = 7.676$, $p \leq 0.01$). Women with mild-moderate obesity did not differ significantly from those in the healthy weight group.

Hypothesis 3: Shame is positively correlated with psychological distress in women

Pearson's correlation was used to investigate the relationships between variables (interval data). Shame, as measured by total scores on the extended version of the E.S.S, was highly correlated with psychological distress in this sample ($r = 0.693$, $p \leq 0.001$).

Hypothesis 4: Women who are obese experience higher levels of total shame than women who are overweight and women whose weight is within the healthy range

There were no significant differences in terms of total shame between the healthy weight, overweight and obese groups. However, women who were severely obese reported experiencing significantly higher levels of shame than all other groups – healthy weight, overweight and obese ($F(3,146) = 8.415$, $p \leq 0.01$).

Hypothesis 5: Women who are obese experience higher levels of specific shame (about their character, their behaviours, their bodies and their eating) than women who are overweight and those whose weight is within the healthy range.

Those in the severely obese group demonstrated significantly higher levels of characterological ($F(3,146) = 5.320$, $p \leq 0.01$), bodily $F(3,146) = 12.028$, $p \leq 0.010$ and eating-related shame $F(3,146) = 20.933$, $p \leq 0.01$) when compared with the other three groups Women in the mild-moderate obesity range were not significantly different from healthy weight controls. Shame of behaviours only differed significantly between the overweight and the severely obese groups ($F(3,146, p \leq 0.05)$.

Hypothesis 6: Women who are obese have significantly lower self esteem than those who are overweight or within the healthy weight range

Women in the severe obesity group had significantly lower self esteem than those in all other groups, according to scores on the Rosenberg Self Esteem

Scale ($F(3,145) = 8.886$, $p \leq 0.01$). There were no significant differences between those who were mild-moderately obese, those who were overweight and those whose weight was within the healthy range.

3.4.3 PREDICTING PSYCHOLOGICAL DISTRESS

Stepwise multiple regression was carried out to investigate the factors which best predicted psychological distress in this sample. The results are summarised in Table 6.

Table 6: Predicting Psychological Distress: Results of Stepwise Multiple Regression (n = 147)

	Model	R	Adjusted R Square	Std. Error of the Estimate	Standardized Coefficients Beta	t	Sig.
1	Self Esteem	.709	.497	9.804	.709	9.274	**
2	Self Esteem	.750	.552	9.250	.418	3.721	***
	E.S.S. (character)				.381	3.391	**
3	Self Esteem	.771	.579	8.971	.394	3.602	**
	E.S.S (character)				.392	3.595	**
	Prof Help				.177	2.512	**

* $p \leq 0.05$ ** $p \leq 0.01$ *** $p \leq 0.001$

Inspection of Table 6 revealed that the Multiple R figure in the first line of the model summary (0.709) – which added 'self esteem' into the predictive equation - improves to 0.771 with the addition of both 'characterological

shame' and 'seeking professional help'. The results therefore suggest a 3-factor model, where psychological distress can be predicted from measures of self esteem, characterological shame and seeking professional help. All other variables entered stepwise were excluded as they added nothing to the prediction of psychological distress.

3.4.4 SUMMARY OF RESULTS

When compared with all three of the other groups, the women who were *severely* obese were significantly more psychologically distressed and had significantly higher levels of severe depression. Their levels of total shame, bodily shame and eating shame were significantly higher. They also had significantly lower self esteem.

In comparison, the women with mild-moderate obesity did not differ significantly from those in the healthy weight group on the majority of measures. Although they were more concerned about their eating, their weight and their shape than those in the healthy weight group, they were no more distressed or depressed. Equally, there were no significant differences in terms of somatic symptoms, total shame, shame about their bodies or shame related to eating, compared to those within the healthy weight range.

Psychological distress in this sample was associated with:- low self esteem, total shame, characterological, bodily and eating-related shame, BMI, the number of years overweight, seeking professional help, having had gastric

surgery and diagnosis of binge eating disorder. Distress was not associated with:- age, ethnicity, diagnosis of bulimia nervosa, attendance at a slimming club, current attempts to lose weight or having been overweight as a child. The best predictors of psychological distress in this sample were:- self esteem, characterological shame and seeking professional help.

3.5 DISCUSSION

Theoretical Considerations

The present study furthers knowledge in the field of obesity by investigating the link with shame. This is the only study, to the author's knowledge, to investigate shame in a community population of women who are obese. The results showed that women classified as severely obese had significantly higher levels of shame than all other groups. This finding is consistent with studies which have demonstrated a link between shame and eating disorder symptomatology (eg: Burney & Irwin, 2000; Sanftner et al, 1995; Swan, 2000) and obesity in a treatment-seeking sample (Webb, 2000). Shame scores were also significantly higher in women with BED than in those without BED, irrespective of BMI, suggesting that those with BED form an equally important subgroup worthy of further investigation.

The results of the present study demonstrate the importance of classifying participants in terms of severity of obesity when conducting research, since it is clear from the results that women who are obese are not a homogenous population. This may explain why previous studies exploring psychological

distress in obesity have found inconsistent results. The women with severe obesity in this sample could be distinguished from those with mild-moderate obesity in terms of overall distress, symptoms of depression, low self esteem and levels of total and specific shame. Women with mild-moderate obesity, on the other hand, did not differ significantly from healthy weight controls.

In our culture, women who are severely obese might be expected to experience higher levels of shame and psychological distress, given the pressures upon women to conform to the 'thin ideal' and the stereotypical attributions of blame towards those who do not conform. Women are assumed to have control over their weight and shape and those who fail to maintain the thin ideal are often perceived to be 'lazy', 'greedy' and 'weak'. However, this does not explain why the women in this study who were mild-moderately obese did not show elevated levels of psychological distress and shame when compared with those within the healthy weight range. One possible explanation might be that women who are overweight or mild-moderately obese, unlike those with more severe obesity, compensate for their concerns about shape, weight and eating by restricting their food intake or taking exercise, for example. It may be that these compensatory (or coping) strategies lower levels of distress and reduce feelings of shame. Alternatively, it could be that women who are severely obese lack the skills to regulate negative emotions, as some theories of binge eating suggest. Andrews (1995) suggests that adverse experiences such as emotional neglect, physical or sexual abuse, may predispose some individuals to 'pathological' shame. It could be that those in the severely obese group may have been shamed in childhood, perhaps within their family systems, as Fossum and Mason (1986)

propose. Whilst the current study did not ask participants about past adverse experiences, it is possible that the women in this group may have suffered more intense, early shame-invoking experiences than those with less severe obesity. This would be consistent with cognitive-vulnerability models of shame which, as Gilbert (1998) explains, view shame as an internalized emotionally conditioned response. It may also explain the association between the number of years overweight and severe obesity found in this sample. Although the association between severe obesity and having been overweight as a child was not statistically significant in this study, the results showed a trend in this direction. Further research would be required to investigate this in greater depth, however.

The results of this study do not help us to understand how, why or when shame develops in women with BED and/or obesity. Theoretical models of obesity and binge eating, at present, take little or no account of shame. Yet it seems likely that shame is an important factor, at least for those who are severely obese and/or those who fulfil the current research criteria for BED. Despite the links made in this study, it is only possible to speculate upon the causal relationships between these factors. Distress, depression, low self esteem and shame may predate the overeating or may alternatively arise as a consequence of overeating. Since our understanding of the role shame plays in obesity/binge eating is extremely limited, studies investigating causal links are required. It may be that shame moderates the effects of factors such as childhood abuse by increasing risk in those who are vulnerable to psychological distress and depression, as has been shown in women with bulimia nervosa (Andrews,

1995). This study has shown that characterological, eating and bodily shame are all important aspects to be considered in future research in severe obesity.

The results of this study confirm the importance of assessing the severity of binge eating in obesity. Although only 6% of the current sample were classified as having BED (according to their responses on the QEWP-R) these women, regardless of BMI, had higher levels of psychological distress and shame than those without a BED diagnosis. The association between BED and BMI would be expected since those with BED are, by definition, not compensating for their overeating by using methods such as taking laxatives or vomiting or taking excessive exercise, and are therefore more likely to be obese. Half of the sample who fulfilled the BED criteria in this sample were severely obese. However, three women reported their weight to be within the healthy range, consistent with the view that BED is not only a problem seen amongst those who are overweight. Although this study did not allow for further exploration of issues relating to BED status, it would be interesting to explore how these women were managing to keep within the normal weight range, since the diagnostic criteria for BED suggest that they are not compensating in any way for their uncontrolled overeating. It could be that the current BED research criteria are lacking in some important criterion which requires further investigation.

Whilst exploring the mean differences between groups according to responses on the GHQ revealed that those in the healthy weight group were significantly less psychologically distressed overall than those in the severely obese group, analysis of caseness indicated that women in this group were more likely to

have a psychiatric disorder. Upon further inspection of these data, it seemed that women within the healthy weight range were more likely to report somatic symptoms, anxiety, insomnia and social dysfunction, whereas those in the severely obese group reported significantly greater levels of severe depression. These findings were somewhat surprising. Replication studies using larger sample sizes and appropriate statistical tests should aim to explore these findings further.

Methodological Considerations

This study aimed to investigate a sample representative of the general female population in the UK. However, as participants were not randomly selected and those receiving treatment were not excluded from the study, bias in this sample must be acknowledged. The severely obese group contained a higher proportion of women seeking help from professionals. Different results may have been found if these women had been excluded from the study although this may have resulted in few, if any, participants within the severely obese range being included. Ideally, future research should compare those seeking treatment with those not seeking treatment, if such a population exists. It may be that those seeking treatment are the most in need of help; that is, they may be more depressed, suffer more symptoms and dysfunction, and experience higher levels of shame. Alternatively, it could be that those with the highest levels of depression, symptoms, dysfunction and shame are the least likely to seek treatment, since by their very nature, these factors imply withdrawal and isolation. The current sample was also biased with regards to age. Those in the

healthy weight group were significantly younger than those who were overweight or obese. Future research should aim to partial out such differences between groups in order to ensure that the results found are not due to these variables.

A substantial proportion (52%) of those who received questionnaire packs in this study did not complete and return the questionnaires. There could be several reasons for this. One possible explanation might be that these were individuals with high levels of shame who feared disclosure. Alternatively, some individuals may have felt that the personal nature of some of the questions was intrusive. However, these possibilities are only speculative.

There were clear advantages to using questionnaires in this study to investigate the topic of shame in this population. The reliability and validity of the measures had been previously demonstrated in research, and the methods used enabled those with high levels of shame to participate anonymously, with less risk of experiencing further shame. However, the use of self-report measures may be considered by some researchers to be problematic, since the results are based upon the assumption that shame is an emotion which can be consciously accessed. Gilbert (1998) argues that if shame is processed through implication reasoning, as Power and Dalgleish (1999) propose, it may be difficult to report upon preconcious material. Future researchers may wish to consider qualitative methods, such as focus groups and interviews, in addition to quantitative measures. Although these do not avoid the problem of self-report, they may at

least facilitate more in-depth, detailed analysis of the relevant issues, as well as providing further validation for previous research.

A number of women in this study claimed to eat "within any 2-hour period what most people would regard as an unusually large amount of food", although they could not be categorized as having 'binge eating disorder' since they did not report being unable to stop eating or control how much they were eating. Whilst the current study did not focus upon this subgroup of women, it may be useful in future research to compare this group with those who fulfil the BED criteria, as this may provide support for (or evidence against) a continuum of severity of overeating. It could be that important differences have been overlooked in this study or that other 'disordered' eating patterns, such as 'night eating syndrome' or 'grazing' behaviours, for example, have been missed.

Treatment Implications

The results of this study have important implications for the treatment of those who are severely obese and/or fulfil the research criteria for BED. Treatment for those who are severely obese may need to take a different focus than treatment for those for whom weight is less of a concern. Wilfley, Schwartz, Spurrell and Fairburn (2000) argue that help may be required to place less importance on weight and shape in how they value themselves. They may need to learn to define their self worth in ways other than by shape and weight. Self esteem and shame-related issues may need to be addressed in psychological therapy. The failure to do so may explain why current treatments are only effective for some.

Focusing upon the specific areas of characterological, eating and bodily shame may be particularly effective, although outcome studies would need to establish the validity of any such methods. The results here indicate that women who are severely obese are ashamed of their personal habits, their manner with others, the sort of person they are and their personal abilities. They feel significant shame about their bodies, or a part of them, and may avoid mirrors. They are also ashamed of their eating, although we cannot tell from these results which aspects of their eating provoke the most shame.

Equally, the impact of shame upon the therapeutic relationship needs to be addressed. The shame of belonging to a stigmatized group (Gilbert, 1998) may inhibit some in seeking treatment in the first place. Since research has demonstrated that shame is highly correlated with feelings of self-consciousness, inferiority, helplessness and fear of negative evaluation (Gilbert, Pehl & Allan, 1994), it would not be surprising to find that shame affects the way individuals act and feel in treatment with a therapist. Shame may affect an individual's willingness to disclose thoughts, feelings, behaviours or experiences to a therapist, since the individual may fear the therapist's reaction or its consequences, such as rejection. Shame may also be the result of any such disclosure (Roesler & Wind, 1994). Women with severe obesity may be more likely to present a 'false self', to conceal their true thoughts and feelings. They may under-report the degree to which they are suffering or the degree to which they overeat, for example. Therefore, sensitivity is required on the part of the therapist in encouraging individuals to acknowledge and face their shame. As Lindsay-Hartz (1984) argues, the therapist has an important role to play in

facilitating clients to feel comfortable with the emotion of shame in order to encourage self-disclosure.

Future Research Directions

Future research should focus upon the two populations of women identified in this study as having particularly high levels of shame and psychological distress: those with severe obesity and those with binge eating disorder. Since so little is known about shame in these populations, much more remains to be learned about the aetiology, development and maintenance of shame. Studies should aim to further our understanding of its mediating/moderating role, thereby improving upon existing theoretical models of binge eating and obesity. Investigators should aim to improve upon the methodological limitations of this study by using larger sample sizes and controlling for the effects of variables such as age, severity of binge eating and treatment-seeking. It is hoped that with the introduction of longitudinal studies, the causal links between shame and obesity may be further understood.

3.6 CONCLUSIONS

The present study makes a contribution to current knowledge, demonstrating the importance of shame-related issues in women who are severely obese. It is the first study to explore both total shame and specific shame (ie: characterological, behavioural, body and eating-related shame) in relation to psychological distress in a community sample of women who are obese. The findings here

have important implications for research, prevention and treatment of binge eating and obesity. Treatment should prioritise those who have a BMI of 35 or over and those who have a diagnosis of BED, since this study has found these two subgroups to suffer the highest levels of psychological distress and shame.

Further research is required to investigate the mediating/moderating role of shame in those who are obese. Replication studies are required to validate these findings, including much larger samples of women representing the full range of overeating problems. Until research establishes clear diagnostic criteria for BED, it is important to keep an open mind as to the range of possibilities along a continuum of severity. It is hoped that with improvements to the conceptual and methodological limitations of studies conducted to date, we may arrive at a greater understanding of the relationship between shame and obesity. Most of all, it is hoped that this knowledge will ultimately benefit our clients.

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CHAPTER 4: REFLECTIVE REVIEW

REFLECTIVE REVIEW

WORD COUNT: 2,337

REFLECTIVE REVIEW

4.1 INTRODUCTION

This paper focuses on issues arising from the research which may be of benefit to other applied and professional psychologists. The paper is divided into five sections:- personal reflections on the research process, ethical considerations, methodological issues, empowerment in research and the use of psychiatric terminology in this study.

4.2 A PERSONAL RESPONSE TO THE RESEARCH PROCESS

In addition to receiving quantitative data for analysis, both for the Brief and Main Paper, I have felt fortunate to have received qualitative comments and feedback from participants involved in this study. Whilst I expected participants to make suggestions for improvement and/or criticize the methodology, I was unprepared for how much I would learn regarding individuals' personal circumstances and stories. Receiving these mini biographies has forced me to consider the inadequacies of my research and the minimal impact the findings may have on individuals' lives. I have been made aware of the suffering some individuals experience, particularly, it seems, in those who are severely obese and who are vulnerable to the experience of social isolation, stigma and re-traumatisation.

I have become increasingly aware of how simply inviting participants to take part may force issues of weight, shape and body into the forefront of people's minds, perhaps leading to – in some cases – a degree of psychological distress. For some, I am sure that completing the questionnaires has been quite an arduous task and I have had to manage my own concern about the impact this research may have upon some individuals. I often balance these thoughts with reminders that in fact the questionnaires may lead some individuals to seek help which they might otherwise not have sought. For this reason, I was careful to ensure that the research pack I sent out to potential participants included contact details of self-help organisations.

4.3 ETHICAL CONSIDERATIONS

4.3.1 Responding to Participants' Needs

As psychologists, we need to be responsible and accountable, since the questions we ask and the language in which we phrase them may cause emotional pain, nightmares, or physical symptoms, for example. For this reason, I have prepared myself to honour my contract with participants by maintaining boundaries, providing supportive responses, answering questions and making suggestions for obtaining further help. Whilst inviting participants to tell their stories inevitably has consequences, I recognise that as clinical psychologists we can consider and discuss these in supervision in order to protect ourselves and our participants.

I have reflected upon the various ways in which I may be able to respond to participants who have asked specifically for my help. Whilst some individuals have simply asked questions regarding the research or shown an interest in hearing about the findings, others have expressed the desire to discuss their own circumstances and stories. In some instances, I have sent an empathic personal response to individuals, particularly when I have felt that the individual requires this acknowledgement. On other occasions, I have directed individuals towards people or organisations that might be able to offer the kind of help they are seeking.

Needing to respond in this way to participants' requests has forced me to consider the dual-role relationships and the 'researcher-therapist' dual role in particular. Whilst I recognise that within the role of researcher, I am unable to become involved in therapeutic work with participants, I know that carrying out clinical research on human beings' lives, thoughts and feelings may often result in ethical dilemmas. The roles may overlap, often unintentionally, and have wondered about the guidance clinical psychologists receive in day-to-day practice. The British Psychological Society produces ethical guidelines regarding dual-role relationships but I have wondered whether these are sufficient, since they largely focus upon "unethically intimate relationships" or "those in which the psychological is acting in at least one other role besides a professional one" rather than the 'researcher-therapist' dual role.

In general, I believe that it is unadvisable to research one's own clients since the motivations of the researcher do not lie with helping the individual client.

However, in clinical practice, treatment process and outcome research, for example, may be best understood by taking into consideration therapeutic variables such as the nature and quality of the therapeutic relationship, which may at times involve the clinicians concerned. If we consider researching clients, we need to consider how our expectations may differ between roles. The potential for harm increases as our loyalties are divided and we may become less objective. The potential to exploit clients/participants is undoubtedly greater. As the BPS states in the Code of Conduct for Psychologists, I believe that we need to "hold the interest and welfare of those in receipt of their services to be paramount at all times". We can do this by adhering to ethical guidelines such as, for example, keeping the information we gather from both sources confidential.

4.3.2 Adhering to the British Psychological Society (BPS) Code of Conduct / Ethical Principles for Conducting Research with Human Participants

I have sought to "establish the highest ethical standards" (Code of Conduct for Psychologists, BPS) in my research by seeking ethical approval, minimising the risk of harm, analysing the potential impact of the research and obtaining informed consent, for example. The data has been "treated with confidence and respect" (Ethical Principles for Conducting Research with Human Participants, BPS, 1992).

I believe that the majority of the participants in this study will have willingly cooperated with the research on the understanding that the purpose of the study

is to further knowledge in the field rather than meet individuals' needs. I have deliberately asked potential participants to take away, read and consider the information given before consenting to take part in order to ensure that participants have not felt under pressure to be involved.

Participants in this study have been given the opportunity to complete and return questionnaires with relative anonymity. However, for those who have provided their personal details for the Prize Draw, it would be possible for the identification numbers to be matched up with Prize Draw forms. For some, this may have been a concern, whilst for others, the opportunity to be identified may have been a positive consideration, that is, they may have considered the possibility of receiving further help following their questionnaire return.

We should be aware of our responsibilities as researchers. BPS guidelines state that, "An investigator may obtain evidence of psychological or physical problems of which a participant is, apparently, unaware" (BPS Ethical Principles, 1992). Having read the guidelines prior to conducting the research, I was prepared for this situation to arise and considered whether participants in this study were aware of the other physical or psychological problems relevant to their lives. I was glad to have received clinical training since this helped me to feel confident in dealing with such situations. In a minority of instances, I encouraged individuals to seek support or help from various agencies, although in each case participants were already aware of the issues at hand.

Throughout the process, I was keen for participants to have as much opportunity to ask questions about the research as possible, although I am aware that I have not fully revealed all details of the study. I have considered whether in fact this has deceived participants and have concluded that whilst I have retained some details, it is in both the interests of the research and of the individuals taking part to provide only as much as is necessary. Too much information may prove off-putting, time-consuming to read, and perhaps even overwhelming for some. I feel confident that by offering the opportunity for interested individuals to contact me, I have satisfied all those concerned. Participants are able to contact me within "a reasonable time period following participation should stress, potential harm, or related questions or concern arise despite the precautions…." (BPS Ethical Principles, 1992).

4.4 REFLECTIONS UPON THE RESEARCH METHODS CHOSEN

Throughout the research process, I have become even more aware of how inadequate the forced-choice questionnaires I have used are in finding out about people's unique, socially constructed stories, and have considered how qualitative methods such as discourse analysis, for example, may be an extremely useful addition to researching the topic of shame in obesity. Qualitative research methods, such as interviews or focus groups, may have allowed for greater depth and quality of information. Face to face contact with participants may have provided them with the opportunity to be put at ease and ask relevant questions at an appropriate time. Interviews may provide benefits for the researcher, and may also lead to substantial gains for participants.

However, it may be that the anonymity and confidentiality of questionnaire methods has enabled some individuals with high levels of shame to express their emotions in a non-threatening manner, without fear of negative consequences. Participants in this study have not had to face disclosing information to an individual with whom they have or will be likely to have a therapeutic relationship in the future. In addition, the questionnaires may have provided some degree of therapeutic release, an opportunity to express (albeit non-verbally) strong emotions and thoughts. As McCracken (1988) has suggested, interviews and questionnaires may allow participants to "make the self the centre of another's attention, to state a case that is otherwise unheard, to engage in an intellectually challenging process of self-scrutiny and even to experience a kind of catharsis". In view of the benefits of both, I have come to the conclusion that both qualitative *and* quantitative methods are invaluable in researching this area.

Potential participants have been free to decide for themselves whether or not to take part, although it has occurred to me that I may have excluded some individuals from participating by providing information only in English and only in written format. From my clinical practice, I have become more aware of the minority populations who have difficulties reading and writing, such as those with learning difficulties or those who come from other cultures and may speak English as a second language. Future research may involve targeting specific populations such as Asians, for example, since my own research may not reflect the reality for the UK's sizeable minority populations.

4.5 EMPOWERMENT IN RESEARCH

Doherty (1994) argues that ideally a research relationship should aim "to dissolve the power differentials which exist between the research and the researched". However, I am aware that in my study, the rules and boundaries have not been negotiated in a collaborative way. I have set up my expectations without consideration of what participants are expecting. I am aware that I have had an agenda and have set the limits. I have been responsible for communicating the structure of the research. Working collaboratively would facilitate empowerment, as Rennie (1994) suggests. Reflecting upon this has led me to recognise that I may not have fully understood the participants' perspective and the context in which they are reporting their shame. An improvement upon this study might be for the researcher to gather multiple descriptions of participants' stories, then reframe and check out understanding with the participants.

4.6 THE USE OF PSYCHIATRIC TERMINOLOGY IN THIS STUDY

Michael White (1992) argues for the importance of giving a problem a name (or label) in order for individuals to have a focus and feel more in control. I have wondered how participants in this study have felt about the language used in the questionnaires. It may be that by receiving a questionnaire which has asked participants to discuss their feelings, thoughts and behaviours around 'obesity' or 'overeating', for example, this has facilitated externalisation of the problem and encouraged individuals to locate sources of problems to within cultural or

interpersonal circumstances, for example, rather than within the self or one's own personality. Guilt and shame, White suggests, may be externalised in this way. However, it is likely that participants would require a greater understanding of the contextual influences upon their eating behaviour before they would be able to adopt a different position in relation to the problem.

Given that the vast majority of the background literature pertaining to psychological distress and obesity has been written from a medical and/or psychiatric perspective, it has been impossible to avoid using psychiatric terminology in this study without substantially altering authors' writings and the meanings implied. I have felt that it would be disrespectful and also unhelpful to change or ignore diagnostic labels such as 'binge eating disorder' or 'obese', for example, since these diagnostic categories may, on occasions, equate to a shorthand which facilitates research. Our knowledge, to date, has been built around clusters of symptoms which have been labelled as psychiatric disorders of one type or another, and clinical psychology training courses still refer to the treatment of "disorders".

However, whilst conducting this research, I have become increasingly aware of the problems which may be created by the use of language. By employing the language of the Diagnostic and Statistical Manual, and by using terminology such as 'obese' and 'disorder', for example, this would suggest that individuals who are 'abnormal' or 'disordered' can be distinguished from those who are 'normal' or do not have a 'disease'. However, it is clear that cultural context must be taken into consideration since there may multiple 'truths' which are

socially constructed rather than simply one stable, global truth waiting to be discovered. Whilst my research has aimed to create knowledge, it may in fact simply be emphasizing difference.

4.7 REFERENCES

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WIN £30 IN A FREE PRIZE DRAW!

Obesity is now considered a "global epidemic". Estimates suggest that 10 to 20% of European men and 10 to 25% of European women are obese. Prevalence has increased by 10-40% in the majority of European countries in the past 10 years. ***The most dramatic increase has been in the UK where it has more than doubled since 1980.***

Obesity is the number two cause of preventable deaths in the USA, with more than 300,000 lives being lost through obesity each year. Overweight and obesity are associated with heart disease, high blood pressure, certain types of cancer, type 2 diabetes, stroke, arthritis, breathing problems, and psychological disorders, such as depression.

We need to improve our nation's health by understanding, preventing and treating obesity. You can help us increase our understanding of this public health crisis by taking part in our study. ***You do not need to be overweight to take part, as people of all shapes and weights are required for this study.*** Taking part will take approximately 15 minutes of your time, and will involve completing questionnaires. Those taking part will be entered into a Free Prize Draw and the winner, selected at random, will receive £30!

For your ***free information pack***, please contact us, leaving your name & an address to which the pack may be sent:-

EMAIL:	or	**TELEPHONE:**	or	**WRITE TO:**
weightstudy@ntlworld.com		**07803 031927**		**Weight Study** **Clinical Psychology Dept** **School of Health and Social Science** **Coventry University, Priory Street, Coventr**

Thank you in advance for your participation!

APPENDIX A

APPENDIX
C

"INVESTIGATING FEELINGS ABOUT EATING, WEIGHT & BODY"

You are being invited to take part in a research study. Before you decide, it is important for you to understand why the research is being carried out and what it will involve. Please take the time to read the following information carefully and discuss it with people if you wish. Please contact me if there is anything that is not clear or if you would like more information. Thank you for reading this.

1. What is the purpose of the study?

I am studying for a Doctorate in Clinical Psychology at the Universities of Coventry and Warwick and I am interested in researching how people feel about themselves, their eating patterns, their weight, their bodies and their lives in general. It is anticipated that the study will be completed by July 2003. The results will be used to inform treatment services for those who want or need to lose weight.

2. Do I have to take part?

It is up to you to decide whether or not to take part. If you agree to take part, please sign the consent form enclosed with this pack. If you do decide to take part, you are still free to change your mind at any time and withdraw without giving a reason. The study is independent of your employment/work/study, and taking part will not affect any treatment you might be currently receiving – either medical or psychological. Your GP will have no involvement in this study.

3. What is involved in taking part?

If you agree to take part, I would like you to fill in the questionnaires enclosed with this pack. These ask questions about your eating patterns, your feelings about your eating, your body and yourself in general. Altogether, this should take about 15 minutes. You may contact me at any time to ask questions. Also enclosed with this pack is a pre-paid envelope for you to return the questionnaires to me in confidence.

4. Are there any drawbacks to taking part?

No. There are unlikely to be any disadvantages involved in taking part. However, some people may find some questions distressing since they ask about personal thoughts and feelings. If you find that this is the case for you, you are under no obligation to complete the questionnaires and you are free to contact me at any time to discuss any concerns you may have. I have also enclosed an information leaflet with this pack which gives details of persons and organisations you may contact for help, should you wish to do so.

5. What are the potential benefits to taking part?

Your participation in this study will help to produce information that will be used to plan prevention and treatment programmes for people requiring support with losing weight. In addition, whilst completing the questionnaires, you may become aware of some of the issues that are important for you. I would be happy to discuss these with you, along with any concerns that you may have, if you so wish. Alternatively, you may decide to contact one of the organisations detailed on the information leaflet enclosed with this pack.

6. Are my replies to the questions confidential?

Yes. The information you give will be kept strictly confidential. Your signed consent form and contact details given on the Free Prize Draw Form will be kept separate from the questionnaires and results. Your identification number is written in red at the bottom of the letter (front page). I will **not** have access to your medical records and the information you give will *not* be passed on to anyone.

7. What will happen to the results of the research study?

This study forms the research component of a Doctorate in Clinical Psychology. In addition, it is anticipated that the findings and implications of the research for the prevention and treatment of weight-management services will be published in relevant journals. It will not be possible toindividually identify participants in any report or publication relating to this study. Once the study is completed, participants will be able to contact me to obtain a copy of the results.

8. Who is organising and funding the research?

The principal investigator in this study is a clinical psychologist in training employed by South Warwickshire Primary Care NHS Trust. This research forms part of a Doctoral qualification. The investigator will not be paid for your involvement in this study.

9. Who has reviewed the study?

The protocol for this study has received ethics approval from the Research Subcommittee of the Doctoral Course in Clinical Psychology at Coventry University. Dr Delia Cushway (Course Director, University of Coventry) and Dr Eve Knight (Academic Tutor, University of Coventry) are supervising this study.

If you have any further questions or require any additional information, please do not hesitate to contact me at the address below:-

Susan Brown
Clinical Psychologist in Training
Clinical Psychology Doctorate Course
School of Health and Social Sciences
Coventry University
Priory Street
Coventry

Tel: 02476 888328 or 07803 031927

THANK YOU FOR YOUR TIME AND YOUR HELP!

APPENDIX
D

"INVESTIGATING FEELINGS ABOUT EATING, WEIGHT AND BODY"

CONSENT FORM

Principal Investigator: Susan Brown

This form should be read together with the "Information for Participants" sheet.

- I agree to take part in the above study as described in the Participant Information leaflet
- I understand that I may withdraw from the study at any time without justifying my decision and without affecting any care or management I may be receiving.
- I have read the participant information leaflet on the above study and have had the opportunity to discuss the details with Susan Brown, the principal investigator, and ask any questions.
- The nature and purpose of the study has been explained to me and I understand what will be required if I take part in the study.

Signature of participant .....

Date .....

Name (in block letters) .....

I.D. NO:

APPENDIX
E

£30 FREE PRIZE DRAW!

If you would like to be entered into the Free Prize Draw for a chance to win £30, please enter your name and contact details below.

This information will be separated from your questionnaires and results, and will not be used for any other purpose other than to contact the prize winner.

Name: .....

Address: .....

.....

.....

.....

Tel No: **(daytime)** .....

(evenings) .....

I.D. NO:

APPENDIX
F

WHO CAN I CONTACT FOR HELP?

ORGANISATION	WHAT DOES THE ORGANISATION DO?	TEL NO. / WEBSITE
LOCAL SLIMMING CLUBS Eg: Weight Watchers, Slimming Magazine Club, Rosemary Conley Diet & Fitness Club	Provide advice & support on healthy eating & exercise, menus, magazines, local meetings, etc.	For local WW meetings, contact 08457 123 000, or see website:- weightwatchers.co.uk, or see local press for details
OVEREATERS ANONYMOUS 140, Tachbrook Street London. SW1	Self Help group with the same set-up as Alcoholics Anonymous.	020 7 498 5505
EATING DISORDERS ASSOCIATION Sackville Place 44, Magdalen Street Norwich, Norfolk NR3 1JU	Provides resources for people with anorexia, bulimia and overeating problems. Provide useful reading material.	01603 621414
BRITISH ASSOCIATION FOR COUNSELLING & PSYCHOTHERAPY	Provides lists of counsellors & therapists in your local area. Also has a Resources Directory of individuals & organisations who provide services.	www.bac.co.uk
THE SAMARITANS	Offers telephone counselling & support to those who are distressed and/or suicidal. Calls are free. Trained volunteers.	08457 90 90 90 www.samaritans.co.uk
COVENTRY RAPE & SEXUAL ABUSE CENTRE P O Box 2464, Coventry, CV1 1EA	Offers advice & support to victims of rape & sexual abuse.	02476 277777
CRUSE – BEREAVEMENT CARE Cruse House, 126 Sheen Road, Richmond	Offers support, advice & resources for individuals who have been bereaved.	Coventry – 02476 670714 Rugby – 01788 574982 L' Spa – 01926 885 977
RELATE	National organisation offering counselling & advice to individuals/ couples with relationship difficulties.	Coventry – 02476 225863 Rugby – 01788 565675

Alternatively, you may wish to speak to:-

* **YOUR GP** * **FRIENDS** * **MEMBERS OF YOUR FAMILY**

APPENDIX G

BACKGROUND INFORMATION

1. **YOUR AGE:** .....years

2. **SEX:** M / F

3. **HEIGHT:** .....foot .....inches (or.....metres .....cms)

4. **CURRENT WEIGHT:** .....stone .....pounds (or .....kgs)

5. **RACIAL BACKGROUND:** .....

6. **WOULD YOU DESCRIBE YOURSELF AS:**

- ❑ Normal weight
- ❑ Overweight
- ❑ Obese
- ❑ Severely obese

7. **WHAT IS YOUR IDEAL WEIGHT?**
(ie: the weight you would most like to be, not the weight you think/have been told you should be):

.....stone .....pounds (or .....kgs)

8. **ARE YOU CURRENTLY ATTEMPTING TO LOSE WEIGHT?**

- ❑ Yes
- ❑ No

9. **WHAT HAVE YOU TRIED IN YOUR EFFORTS TO LOSE WEIGHT** (either currently or in the past)?
(tick all that apply)

- ❑ changing diet
- ❑ attending a slimming group (eg: Weight Watchers)
- ❑ exercising
- ❑ laxatives / diuretics / slimming pills
- ❑ surgery
- ❑ professional help from a dietician
- ❑ professional help from a psychologist
- ❑ professional help from a GP/medical doctor
- ❑ other (please state:.....
.....

10. **IF YOU ARE OVERWEIGHT, HOW LONG HAVE YOU BEEN OVERWEIGHT?**
(If you are not sure, what is your best guess?)

.....years .....months

HAVE YOU ALWAYS BEEN OVERWEIGHT SINCE THIS TIME?

☐ Yes
☐ No

11. a) During the past 6 months, did you often eat within any 2-hour period what most people would regard as an unusually large amount of food?

☐ Yes
☐ No

(IF NO, GO STRAIGHT TO QUESTION 12)

b) During the times when you ate this way, did you often feel you couldn't stop eating or control what or how much you were eating?

☐ Yes
☐ No

c) During the past 6 months, how often (on average) did you have times when you ate this way – that is, large amounts of food <u>plus</u> the feeling that your eating was out of control?
(There may have been some weeks when it was not present – just average those in)

☐ Less than 1 day a week
☐ 1 day a week
☐ 2 or 3 days a week
☐ 4 or 5 days a week
☐ Nearly every day

d) Did you usually have any of the following experiences during these occasions?

i)	Eating much more rapidly than usual?	☐ Yes	☐ No
ii)	Eating until you felt uncomfortably full?	☐ Yes	☐ No
iii)	Eating large amounts of food when you didn't feel physically hungry?	☐ Yes	☐ No
iv)	Eating alone because you were embarrassed by how much you were eating?	☐ Yes	☐ No
v)	Feeling disgusted with yourself, depressed, or feeling very guilty after overeating?	☐ Yes	☐ No

e) Think about a typical time when you ate this way – that is, large amounts of food plus the feeling that your eating was out of control.

i) What time of day did the episode start?

❑ Morning *(8am – 12 noon)*

❑ Early afternoon *(12 noon – 4pm)*

❑ Late afternoon *(4pm – 7pm)*

❑ Evening *(7pm – 10pm)*

❑ Night *(After 10pm)*

ii) Approximately how long did this episode of eating last, from the time you started to eat to when you stopped and didn't eat again for at least 2 hours?

.....hours .....minutes

iii) As best as you can remember, please list everything you might have eaten or drunk during that episode. If you ate for more than 2 hours, describe the foods eaten and liquids drunk during the 2 hours that you ate the most. Be specific – include brand names where possible, and amounts as best as you can estimate.
(eg: 7oz Walkers crisps, 1 cup chocolate ice cream, 2 x 8oz glasses of Cola, 2 slices of bread with butter)

iv) At the time this episode started, how long had it been since you had previously finished eating a meal or snack?

.....hours .....minutes

12. In general, during the past 6 months, if you have overeaten, how upset were you by this?
(ie: eating more than you think is best for you)

❑ Not at all

❑ Slightly

❑ Moderately

❑ Greatly

❑ Extremely

13. In general, during the past 6 months, how upset were you by the feeling that you couldn't stop eating or control what or how much you were eating?

- ☐ Not at all
- ☐ Slightly
- ☐ Moderately
- ☐ Greatly
- ☐ Extremely

14. During the past 6 months, how important has your weight or shape been in how you feel about or evaluate yourself as a person – as compared to other aspects of your life, such as how you do at work, as a parent, or how you get along with other people?

- ☐ Weight and shape *were not very important*
- ☐ Weight and shape *played a part in how I felt about myself*
- ☐ Weight and shape *were among the main things that affected how I felt about myself*
- ☐ Weight and shape *were the most important things that affected how I felt about myself*

15. During the past 3 months, did you ever make yourself vomit in order to avoid gaining weight after binge eating?

- ☐ Yes
- ☐ No

If yes, how often (on average) was that?

- ☐ Less than once a week
- ☐ Once a week
- ☐ 2 or 3 times a week
- ☐ 4 or 5 times a week
- ☐ More than 5 times a week

16. During the past 3 months, did you ever take more than twice the recommended dose of laxatives in order to avoid gaining weight after binge eating?

- ☐ Yes
- ☐ No

If yes, how often (on average) was that?

- ☐ Less than once a week
- ☐ Once a week
- ☐ 2 or 3 times a week
- ☐ 4 or 5 times a week
- ☐ More than 5 times a week

17. During the past 3 months, did you ever take more than twice the recommended dose of diuretics (water pills) in order to avoid gaining weight after binge eating?

- ☐ Yes
- ☐ No

If yes, how often (on average) was that?

- ☐ Less than once a week
- ☐ Once a week
- ☐ 2 or 3 times a week
- ☐ 4 or 5 times a week
- ☐ More than 5 times a week

18. During the past 3 months, did you ever fast (not eat anything at all for at least 24 hours) in order to avoid gaining weight after binge eating?

- ☐ Yes
- ☐ No

If yes, how often (on average) was that?

- ☐ Less than one day a week
- ☐ One day a week
- ☐ 2 or 3 days a week
- ☐ 4 or 5 days a week
- ☐ Nearly every day

19. During the past 3 months, did you ever exercise for more than an hour specifically in order to avoid gaining weight after binge eating?

- ☐ Yes
- ☐ No

If yes, how often (on average) was that?

- ☐ Less than once a week
- ☐ Once a week
- ☐ 2 or 3 times a week
- ☐ 4 or 5 times a week
- ☐ More than 5 times a week

20. During the past 3 months, did you ever take more than twice the recommended dose of a diet pill in order to avoid gaining weight after binge eating?

- ☐ Yes
- ☐ No

If yes, how often (on average) was that?

- ☐ Less than once a week
- ☐ Once a week
- ☐ 2 or 3 times a week
- ☐ 4 or 5 times a week
- ☐ More than 5 times a week

APPENDIX H

*The following questions are concerned with the **PAST 4 WEEKS ONLY** (28 days). Please read each question carefully and circle the appropriate number on the right. Please answer all the questions.*

ON HOW MANY DAYS OUT OF THE PAST 28 DAYS.....		**None**	**1-5 days**	**6-12 days**	**13-15 days**	**16-22 days**	**23-27 days**	**Every day**
1.	...have you been deliberately trying to limit the amount of food you eat to influence your shape or weight?	0	1	2	3	4	5	6
2.	...have you gone for long periods of time (8 hours or more) without eating anything in order to influence your shape or weight?	0	1	2	3	4	5	6
3.	...have you tried to avoid eating any foods which you like in order to influence your shape or weight?	0	1	2	3	4	5	6
4.	...have you tried to follow definite rules regarding your eating in order to influence your shape or weight? *(eg: a calorie limit, a set amount of food, or rules about what or when you should eat)*	0	1	2	3	4	5	6
5.	...have you wanted your stomach to be empty?	0	1	2	3	4	5	6
6.	...has thinking about food or its calorie content made it much more difficult to concentrate on things you are interested in? *(eg: read, watch TV, or follow a conversation)*	0	1	2	3	4	5	6
7.	...have you been afraid of losing control over eating?	0	1	2	3	4	5	6
8.	...have you had episodes of binge eating?	0	1	2	3	4	5	6
9.	...have you eaten in secret? *(Do not count binges)*	0	1	2	3	4	5	6
10.	...have you definitely wanted your stomach to be flat?	0	1	2	3	4	5	6
11.	...has thinking about shape or weight made it more difficult to concentrate on things you are interested in? *(eg: read, watch TV or follow a conversation)*	0	1	2	3	4	5	6
12.	...have you had a definite fear that you might gain weight or become fat?	0	1	2	3	4	5	6
13.	...have you felt fat?	0	1	2	3	4	5	6
14.	...have you had a strong desire to lose weight?	0	1	2	3	4	5	6
15.	**OVER THE PAST 4 WEEKS...** On what proportion of times that you have eaten have you felt guilty because of the effect on your shape or weight? *(Do not count binges)* *Circle the number which applies.*	0 None of the times	1 A few of the times	2 Less than half the times	3 Half the times	4 More than half the times	5 Most of the time	6 Every time

16.	Over the past 4 weeks (28 days), have there been any times when you have felt that you have eaten what other people would regard as an unusually large amount of food given the circumstances? *Please put appropriate number in box.*	0 = no 1 = yes
17.	How many such episodes have you had over the past 4 weeks?	
18.	During how many of these episodes of overeating did you have a sense of having lost control over your eating?	
19.	Have you had other episodes of eating in which you have had a sense of having lost control and eaten too much, but have not eaten an unusually large amount of food given the circumstances? *Please put appropriate number in box.*	0 = no 1 = yes
20.	How many such episodes have you had over the past 4 weeks?	
21.	Over the past 4 weeks, have you made yourself sick (vomit) as a means of controlling your shape or weight?	0 = no 1 = yes
22.	How many times have you done this over the past 4 weeks?	
23.	Have you taken laxatives as a means of controlling your shape or weight?	0 = no 1 = yes
24.	How many times have you done this over the past 4 weeks?	
25.	Have you taken diuretics (water tablets) as a means of controlling your shape or weight?	0 = no 1 = yes
26.	How many times have you done this over the past 4 weeks?	
27.	Have you exercised hard as a means of controlling your shape or weight?	0 = no 1 = yes
28.	How many times have you done this over the past 4 weeks?	

	OVER THE PAST 4 WEEKS (28 days):- *(Please circle the number which best describes your behaviour)*	**Not at all**		**Slightly**		**Moderately**		**Markedly**
29.	…has your weight influenced how you think about (judge) yourself as a person?	0	1	2	3	4	5	6
30.	…has your shape influenced how you think about (judge) yourself as a person?	0	1	2	3	4	5	6
31.	…how much would it upset you if you had to weigh yourself once a week for the next four weeks?	0	1	2	3	4	5	6
32.	…how dissatisfied have you felt about your weight?	0	1	2	3	4	5	6
33.	…how dissatisfied have you felt about your shape?	0	1	2	3	4	5	6
34.	…how concerned have you been about other people seeing you eat?	0	1	2	3	4	5	6
35.	…how uncomfortable have you felt seeing your body? (eg: in the mirror, in shop window reflections, while undressing or taking a bath or shower)	0	1	2	3	4	5	6
36.	…how uncomfortable have you felt about others seeing your body? (eg: in communal changing rooms, when swimming or wearing tight clothes)	0	1	2	3	4	5	6

APPENDIX I

We should like to know if you have had any medical complaints and how your health has been in general, **over the past few weeks**. Please answer ALL the questions on the following pages simply by circling the answer which you think most nearly applies to you. Remember that we want to know about **present and recent complaints**, not those that you had in the past.

It is important that you try to answer ALL the questions.

Thank you very much for your cooperation.

HAVE YOU RECENTLY:-

A1	...been feeling perfectly well and in good health?	Better than usual	Same as usual	Worse than usual	Much worse than usual
A2	...been feeling in need of a good tonic?	Not at all	No more than usual	Rather more than usual	Much more than usual
A3	...been feeling run down and out of sorts?	Not at all	No more than usual	Rather more than usual	Much more than usual
A4	...felt that you are ill?	Not at all	No more than usual	Rather more than usual	Much more than usual
A5	...been getting any pains in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A6	...been getting a feeling of tightness or pressure in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A7	...been having hot or cold spells?	Not at all	No more than usual	Rather more than usual	Much more than usual
B1	...lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
B2	...had difficulty in staying asleep once you are off?	Not at all	No more than usual	Rather more than usual	Much more than usual
B3	...felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
B4	...been getting edgy and bad-tempered?	Not at all	No more than usual	Rather more than usual	Much more than usual
B5	...been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
B6	...found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
B7	...been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual

	HAVE YOU RECENTLY:-				
C1	...been managing to keep yourself busy and occupied?	More so than usual	Same as usual	Rather less than usual	Much less than usual
C2	...been taking longer over the things you do?	Quicker than usual	Same as usual	Longer than usual	Much longer than usual
C3	...felt on the whole you were doing things well?	Better than usual	About the same	Less well than usual	Much less well
C4	...been satisfied with the way you've carried out your task?	More satisfied	About same as usual	Less satisfied than usual	Much less satisfied
C5	...felt that you are playing a useful part in things?	More so than usual	Same as usual	Less so than usual	Much less capable
C6	...felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
C7	...been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual
D1	...been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
D2	...felt that life is entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
D3	...felt that life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual
D4	...thought of the possibility that you might make away with yourself?	Definitely not	I don't think so	Has crossed my mind	Definitely have
D5	...found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual
D6	...found yourself wishing you were dead and away from it all?	Not at all	No more than usual	Rather more than usual	Much more than usual
D7	...found that the idea of taking your own life kept coming into your mind?	Definitely not	I don't think so	Has crossed my mind	Definitely has

APPENDIX J

Everybody at times can feel embarrassed, self-conscious or ashamed. These questions are about such feelings if they have occurred <u>AT ANY TIME IN THE PAST YEAR</u>. There are no 'right' or 'wrong' answers. Please indicate the response which applies to you with a tick.

		Not at all	A little	Moderately	Very much
		1	2	3	4
1	Have you felt ashamed of any of your personal habits?				
2	Have you worried about what other people think of any of your personal habits?				
3	Have you tried to cover up or conceal any of your personal habits?				
4	Have you felt ashamed of your manner with others?				
5	Have you worried about what other people think of your manner with others?				
6	Have you avoided people because of your manner?				
7	Have you felt ashamed of the sort of person you are?				
8	Have you worried about what other people think of the sort of person you are?				
9	Have you tried to conceal from others the sort of person you are?				
10	Have you felt ashamed of your ability to do things?				
11	Have you worried about what other people think of your ability to do things?				
12	Have you avoided people because of your inability to do things?				
13	Do you feel ashamed when you do something wrong?				
14	Have you worried about what other people think of you when you do something wrong?				
15	Have you tried to cover up or conceal things you felt ashamed of having done?				

		Not at all 1	A little 2	Moderately 3	Very much 4
16	Have you felt ashamed when you said something stupid?				
17	Have you worried about what other people think of you when you said something stupid?				
18	Have you avoided contact with anyone who knew you said something stupid?				
19	Have you felt ashamed when you failed at something which was important to you?				
20	Have you worried about what other people think of you when you fail?				
21	Have you avoided people who have seen you fail?				
22	Have you felt ashamed of your body or any part of it?				
23	Have you worried about what other people think of your appearance?				
24	Have you avoided looking at yourself in the mirror?				
25	Have you wanted to hide or conceal your body or any part of it?				
26	Have you felt ashamed of your behaviours around eating?				
27	Have you worried about what other people think of your behaviours around eating?				
28	Have you tried to hide or conceal your behaviours around eating?				

APPENDIX K

Please record the appropriate answer per item, depending on whether you strongly agree, agree, disagree, or strongly disagree with it.

1	**=**	**Strongly agree**
2	**=**	**Agree**
3	**=**	**Disagree**
4	**=**	**Strongly disagree**

.....	1. On the whole, I am satisfied with myself.
.....	2. At times, I think I am no good at all.
.....	3. I feel that I have a number of good qualities.
.....	4. I am able to do things as well as most other people.
.....	5. I feel I do not have much to be proud of.
.....	6. I certainly feel useless at times.
.....	7. I feel that I'm a person of worth, at least on an equal plane with others.
.....	8. I wish I could have more respect for myself.
.....	9. All in all, I am inclined to feel that I am a failure.
.....	10. I take a positive attitude toward myself.

APPENDIX
L

DSM-IV CRITERIA FOR BULIMIA NERVOSA

Bulimia Nervosa

A. 'Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
   (1) Eating, in a discrete period of time (e.g., within any two-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time in similar circumstances
   (2) A sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating).
B. Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as: self-induced vomiting; misuse of laxatives, diuretics or other medications; fasting; or excessive exercise.
C. The binge eating and inappropriate compensatory behaviors both occur, on average, at least twice a week for three months.
D. Self-evaluation is unduly influenced by body shape and weight.
E. The disturbance does not occur exclusively during episodes of Anorexia Nervosa.

Purging type: The person regularly engages in self-induced vomiting or the misuse of laxatives or diuretics.

Non-purging type: The person uses other inappropriate compensatory behaviors, such as fasting or excessive exercise, but does not regularly engage in self-induced vomitinng or the misuse of laxatives or diuretics.

APPENDIX
M

DSM-IV RESEARCH CRITERIA FOR BINGE EATING DISORDER

Binge Eating Disorder

A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
   (i) Eating, in a discrete period of time (e.g., within any 2 hour period), an amount of food that is definitely larger than most people would eat during a similar period of time in similar circumstances; and,
   (ii) A sense of lack of control over eating during the episode (e.g., a feeling that one can't stop eating or control what or how much one is eating).
B. The binge eating episodes are associated with at least three of the following:
   (1) Eating much more rapidly than normal
   (2) Eating until feeling uncomfortably full
   (3) Eating large amounts of food when not feeling physically hungry
   (4) Eating alone because of being embarrassed by how much one is eating
   (5) Feeling disgusted with oneself, depressed or feeling very guilty after overeating.
C. Marked distress regarding binge eating.
D. The binge eating occurs, on average, at least two days a week[a] for six months.
E. The disturbance does not occur exclusively during the course of Anorexia Nervosa or Bulimia Nervosa.

[a]The method of determining frequency differs from that used for Bulimia Nervosa; future research should address whether counting the number of days on which binges occur or the number of episodes of binge eating is the preferable method of setting a frequency threshold.

APPENDIX N

COVENTRY UNIVERSITY – SCHOOL OF HEALTH & SOCIAL SCIENCES

STUDENT SUBMISSION TO SCHOOL RESEARCH ETHICS COMMITTEE

1. Student's name: Susan Brown 2. Course Doctorate in Clinical Psychology

3. Title of Project: Shame & Psychological Distress in Obesity

4. Summary of the project in jargon-free language and in not more than 120 words:

Sample: Women in the community

Research Site: University / churches / slimming clubs / internet sites

Design (eg: experimental):

Questionnaire design (postal)

Methods of data collection:

Responses to questionnaires

Access Arrangements (if applicable):

5. Will the project involve patients (clients) and/or patient(client) data? Yes [ ] No [✓]

6. Will any invasive procedures be employed in the research? Yes [ ] No [✓]

7. Is there a risk of physical discomfort to those taking part? Yes [ ] No [✓]

8. Is there a risk of psychological distress to those taking part? Yes [✓] No [ ]

9. Will specific individuals or institutions (other than the University) be identifiable through data published or otherwise made available? Yes [ ] No [✓]

10. Is it intended to seek informed consent from each participant(or from his or her parents or guardian)? Yes [✓] No [ ]

Student's signature: Susan Brown Supervisor's signature: Date: 18/10/02

FOR COMMITTEE USE:

Immediate approval	[✓]	Referral to full School Committee	[ ]
Referral to local Hospital Ethics Committee	[ ]	Decision pending receipt of further information (specify below)	[ ]

Committee Member's Signature: David Giles Date: 23/10/02

APPENDIX
O

BRITISH JOURNAL OF CLINICAL PSYCHOLOGY:

Instructions to Authors

The *British Journal of Clinical Psychology* publishes original contributions to scientific knowledge in clinical psychology. This includes descriptive comparisons, as well as studies of the assessment, aetiology and treatment of people with a wide range of psychological problems in all age groups and settings. The level of analysis of studies ranges from biological influences on individual behaviour through to studies of psychological interventions and treatments on individuals, dyads, families and groups, to investigations of the relationships between explicitly social and psychological levels of analysis.
The following types of paper are invited:

- Papers reporting original empirical investigations;
- Theoretical papers, provided that these are sufficiently related to the empirical data;
- Review articles which need not be exhaustive, but which should give an interpretation of the state of the research in a given field and, where appropriate, identify its clinical implications;
- Brief Reports and Comments (see below).

1. Circulation

The circulation of the Journal is worldwide. There is no restriction to British authors; papers are invited and encouraged from authors throughout the world.

2. Length

Pressure on Journal space is considerable and papers should be as short as is consistent with clear presentation of the subject matter. Papers should normally be no more than 5,000 words, although the Editor retains discretion to publish papers beyond this length.

3. Refereeing

The journal operates a policy of anonymous peer review. Papers will normally be scrutinized and commented on by at least two independent expert referees (in addition to the Editor) although the Editor may process a paper at his or her discretion. The referees will not be made aware of the identity of the author. All information about authorship including personal acknowledgements and institutional affiliations should be confined to a removable front page (and the text should be free of such clues as identifiable self-citations ('In our earlier work...')).

4. Submission requirements

(a) Four copies of the manuscript should be sent to the Editor (Professor Karin Mogg/ Professor Brendan Bradley, BPS Journals Department, St. Andrews House, 48 Princess Road East, Leicester, LE1 7DR, UK). Submission of a paper implies that it has not been published elsewhere and that it is not being considered for publication in another journal. Papers should be accompanied by a signed letter indicating that all named authors have agreed to the submission. One author should be identified as the correspondent and that person's title, name and address supplied.

(b) Contributions must be typed in double spacing with wide margins and on only one side of each sheet. All sheets must be numbered.

(c) Tables should be typed in double spacing, each on a separate piece of paper with a self-explanatory title. Tables should be comprehensible without reference to the text. They should be placed at the end of the manuscript with their approximate locations indicated in the text.

(d) Figures are usually produced direct from authors' originals and should be presented as good black or white images preferably on high contrast glossy paper, carefully labelled in initial capital/lower case lettering with symbols in a form consistent with text use. Unnecessary background patterns, lines and shading should be avoided. Paper clips leave damaging indentations and should be avoided. Any necessary instructions should be written on an accompanying photocopy. Captions should be listed on a separate sheet.

(e) For articles containing original scientific research, a structured abstract of up to 250 words should be included with the headings: Objectives, Design, Methods, Results, Conclusion. Review articles should use these headings: Purpose, Methods, Results, Conclusions (more details on Structured Abstracts can be obtained by contacting the Journals Department).

(f) Bibliographic references in the text should quote the author's name and the date of publication thus: Smith (1994). Multiple citations should be given alphabetically rather than chronologically: (Jones, 1998; King, 1996; Parker, 1997). If a work has two authors, cite both names in the text throughout: Page and White (1995). In the case of reference to three or more authors, use all names on the first mention and et al. thereafter except in the reference list.

(g) References cited in the text must appear in the list at the end of the article in current APA style. The list should be typed in double spacing in the following format:

Herbert, M. (1993). *Working with children and the Children Act* (pp. 76-106). Leicester: The British Psychological Society.

Moore, R.G., & Blackburn, I.M. (1993). Sociotrophy, autonomy and personal memories in depression. *British Journal of Clinical Psychology, 32*, 460-462.

Particular care should be taken to ensure that references are accurate and complete. Give all journal titles in full.

(h) SI units must be used for all measurements, rounded off to practical values if appropriate, with the Imperial equivalent in parentheses.

(i) In normal circumstances, effect size should be incorporated.

(j) Authors are requested to avoid the use of sexist language.

(k) Authors are responsible for acquiring written permission to publish lengthy quotations, illustrations etc for which they do not own copyright.

(l) For more information on submission requirements, please refer to the online *Guide to Preparing Manuscripts for Journal Publication* at: http://www.bps.org.uk/publications/jAuthorGuide.cfm or contact the BPS Journals Department. For guidelines on editorial style, please consult the *APA Publication Manual* published by the American Psychological Association, Washington DC, USA (http://www.apastyle.org).

5. E-mail and web submissions

Manuscripts may be submitted via e-mail and the BPS website (http://www.bps.org.uk/publications/jsubmission.cfm). The main text of the manuscript, including any tables or figures, should be saved as a Word 6.0/95 compatible file. The file must be sent as a MIME-compatible attachment. E-mails should be addressed to journals@bps.org.uk with 'Manuscript submission' in the subject line. The main body of the e-mail should include the following: title of journal to which the paper is being submitted; name, address and e-mail of the corresponding author; and a statement that the paper is not currently under consideration elsewhere. E-mail and web submissions will receive an e-mail acknowledgement of receipt.

6. Brief reports and comments

These allow rapid publication of research studies, and theoretical, critical or review comments with an essential contribution to make. Case studies are normally published only as Brief Reports. They should be limited to two printed pages with the text, including references and a 100 word abstract set at 150 lines. Abstracts should also be structured under these headings: Purpose, Methods, Results, Conclusions (more detailed guidelines on structured abstracts are available from the Journals Department). Figures and tables should be avoided. Title, author and name and address for reprints and data of receipt are not included in the allowance. However, deduct three lines from the text each and every time any of the following occur:

a) title longer than 70 characters
b) author names longer than 70 characters
c) each address after the first address
d) each text heading (these should normally be avoided).
e) A character is a letter or space. A punctuation mark counts as two characters (character plus space) and a space must be allowed on each side as a mathematical operator.

7. Ethical considerations

The code of conduct of The British Psychological Society requires psychologists 'Not to allow their professional responsibilities or standards of practice to be diminished by consideration of religion, sex, race, age, nationality, party politics, social standing, class or other extraneous factors. The Society resolves to avoid all links with psychologists and psychological organizations and their formal representatives that do not affirm and adhere to the principles in the clause of its Code of Conduct. In cases of doubt, the Journals Department may ask authors to sign a document confirming the adherence to these principles. Any study published in this journal must pay due respect to the well-being and dignity of research participants. The British Psychological Society's Ethical Guidelines on Conducting Research with Human Participants must be shown to have been scrupulously followed. These guidelines are available at: http://www.bps.org.uk/about/rules5.cfm

8. Supplementary data

Supplementary data too expensive for publication may be deposited with the British Library Document Supply Centre. Such material includes numerical data, computer programs, fuller details of case studies and experimental techniques. The material should be submitted to the Editor together with the article, for simultaneous refereeing.

9. Proofs

Proofs are sent to authors for correction of print but not for rewriting or the introduction of new material. Fifty complimentary copies of each paper are supplied to the senior author, but further copies may be ordered on a form accompanying the proofs.

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11. Checklist of requirements:

- A signed submission letter
- Correspondent's title/name/address
- A cover page with title/author(s)/affiliation
- Double spacing with wide margins
- Tables/figures at the end
- Complete reference list in APA format
- Four good copies of the manuscript (or an e-mail attachment)

APPENDIX
P

CLINICAL PSYCHOLOGY REVIEW:

SUBMISSION REQUIREMENTS: All manuscripts should be submitted to Alan S. Bellack, Department of Psychiatry, The University of Maryland at Baltimore, 737 W. Lombard St., Suite 551, Baltimore, MD 21201, USA. Submit three (3) high-quality copies of the entire manuscript; the original is not required. Allow ample margins and type double-space throughout. Papers should not exceed 50 pages (including references). One of the paper's authors should enclose a letter to the Editor, requesting review and possible publication; the letter must also state that the manuscript has not been previously published and has not been submitted elsewhere. One author's address (as well as any upcoming address change), telephone and FAX numbers, and E-mail address (if available) should be included; this individual will receive all correspondence from the Editor and Publisher.

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COMPUTER DISKS: Authors are encouraged to submit a 3.5" HD/DD computer disk to the editorial office; 5.25" HD/DD disks are acceptable if 3.5" disks are unavailable. Please observe the following criteria: (1) Send only hard copy when first submitting your paper. (2) When your paper has been refereed, revised if necessary, and accepted, send a disk containing the final version with the final hard copy. Make sure that the disk and the hardcopy match exactly (otherwise the diskette version will prevail). (3) Specify what software was used, including which release, e.g., WordPerfect 6.0a. (4) Specify what computer was used (IBM compatible PC, Apple Macintosh, etc.). (5) The article file should include all textual material (text, references, tables, figure captions, etc.) and separate illustration files, if available. (6) The file should follow the general instructions on style/arrangement and, in particular, the reference style of this journal as given in the Instructions to Contributors. (7) The file should be single-spaced and should use the wrap-around end-of-line feature, i.e., returns at the end of paragraphs only. Place two returns after every element such as title, headings, paragraphs, figure and table call-outs. (8) Keep a backup disk for reference and safety.

TITLE PAGE: The title page should list (1) the article; (2) the authors' names and affiliations at the time the work was conducted; (3) a concise running title; and (4) an unnumbered footnote giving an address for reprint requests and acknowledgements.

ABSTRACT: An abstract should be submitted that does not exceed 200 words in length. This should be typed on a separate page following the title page.

KEYWORDS: Authors should include up to six keywords with their article. Keywords should be selected from the APA list of index descriptors, unless otherwise agreed with the Editor.

STYLE AND REFERENCES: Manuscripts should be carefully prepared using the *Publication Manual of the American Psychological Association*, 5th ed., 1994, for style. The reference section must be double spaced, and all works cited must be listed. Avoid abbreviations of journal titles and incomplete information.

Reference Style for Journals: Raymond, M.J. (1964). The treatment of addiction by aversion conditioning with apomorphine. *Behaviour Research and Therapy, 3,* 287-290.

For Books: Barlow, D.H., Hayes S.C., & Nelson, R.O. (1984). *The scientist practitioner: Research and accountability in clinical and educational settings.* Elmsford, NY: Pergamon.

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	age	sex	b.m.i	bmi.grou	group	national	ethnicit	b.e.d	bulim.p	bulim.np	import	ede.q.li	restrain	weight	shape	eating	somatic	anxiety	insomnia	depressi	esstotal	characte
1	61	female	27	overweight	OVERWEIGHT	BRITIS	WHITE	no	no	no	played a part	1.83	.20	2.40	3.25	.60	0	1	1	0	44	18
2	21	female	27	overweight	OVERWEIGHT	BRITIS	WHITE	no	no	no	among main thi	1.65	.60	2.00	3.00	.20	1	0	0	0	47	18
3	24	female	24	Normal weigh	CONTROL	.	WHITE	no	no	no	among main thi	.45	3.60	2.60	3.13	1.00	5	3	3	1	64	26
4	41	female	24	Normal weigh	CONTROL	BRITIS	WHITE	no	no	no	not very imp	.06	.40	.00	.88	.00	3	5	1	0	37	12
5	60	female	22	Normal weigh	CONTROL	BRITIS	WHITE	no	no	no	played a part	.99	.78	2.60	2.13	.00	0	0	0	0	28	12
6	22	female	24	Normal weigh	CONTROL	.	WHITE	no	no	no	among main thi	.60	2.00	5.00	5.25	1.40	2	6	6	2	94	36
7	26	female	24	Normal weigh	CONTROL	BRITIS	.	no	no	no	played a part	.31	.40	2.60	3.38	.80	6	6	1	0	58	22
8	28	female	24	Normal weigh	CONTROL	BRITIS	WHITE	no	no	no	played a part	.10	.60	.60	1.00	.00	4	0	0	0	52	23
9	41	female	34	obese	OBESE	BRITIS	.	no	no	no	played a part	.83	1.60	2.80	2.90	1.40	0	5	0	0	36	13
10	47	female	25	overweight	OVERWEIGHT	.	WHITE	no	no	no	not very imp	.04	.20	.40	.25	.00	0	0	0	0	28	12
11	60	female	28	overweight	OVERWEIGHT	BRITIS	WHITE	no	no	no	among main thi	.45	2.40	2.80	4.88	.20	0	0	0	0	48	12
12	62	female	32	obese	OBESE	BRITIS	WHITE	no	no	no	played a part	.51	3.60	3.60	4.50	.00	0	0	0	0	36	12
13	56	female	32	obese	OBESE	BRITIS	.	no	no	no	played a part	.27	1.20	2.00	2.75	.20	1	0	3	0	49	20
14	38	female	23	Normal weigh	CONTROL	BRITIS	.	no	no	no	among main thi	.36	2.00	3.80	2.38	.20	0	2	0	0	37	16
15	23	female	23	Normal weigh	CONTROL	.	ASIAN	no	no	no	played a part	.45	3.80	1.00	4.25	1.20	0	0	0	0	73	32
16	41	female	46	severely obes	OBESE	.	WHITE	yes	yes	no	most import	.97	4.80	5.80	5.88	5.80	2	7	5	7	112	48
17	23	female	23	Normal weigh	CONTROL	.	MIXED	no	no	no	among main thi	.37	2.00	2.80	3.50	.20	2	1	0	0	56	23
18	32	female	41	severely obes	OBESE	BRITIS	WHITE	yes	no	no	among main thi	.58	3.80	3.60	4.50	1.40	0	0	0	0	78	29
19	43	female	37	severely obes	OBESE	.	WHITE	no	no	no	among main thi	.55	3.60	3.60	4.50	1.00	3	0	5	7	36	12
20	27	female	22	Normal weigh	CONTROL	BRITIS	WHITE	no	no	no	among main thi	.44	1.00	3.60	4.63	1.00	3	7	0	0	89	33
21	39	female	33	obese	OBESE	.	.	yes	no	no	among main thi	.50	3.00	2.80	4.00	1.80	0	0	0	0	47	13
22	52	female	24	Normal weigh	CONTROL	BRITIS	.	no	no	no	not very imp	.07	.00	.40	1.25	.00	0	5	0	0	36	12
23	33	female	33	obese	OBESE	.	WHITE	no	no	no	most import	.44	1.80	4.00	3.63	.60	0	0	0	0	48	18
24	26	female	29	overweight	OVERWEIGHT	BRITIS	WHITE	no	no	no	played a part	.17	.80	1.80	1.50	.00	0	0	0	0	50	18
25	45	female	43	severely obes	OBESE	.	.	no	no	no	played a part	.19	2.60	.80	1.00	.00	0	0	0	0	28	12
26	32	female	25	overweight	OVERWEIGHT	.	WHITE	no	no	no	played a part	.07	.00	.60	.75	.20	2	0	1	0	38	12
27	31	female	23	Normal weigh	CONTROL	.	WHITE	no	no	yes	played a part	.47	1.20	4.00	4.50	1.00	7	0	5	0	43	16
28	60	female	27	overweight	OVERWEIGHT	.	WHITE	no	no	no	played a part	.15	2.20	.40	.75	.00	4	0	0	0	30	12
29	26	female	27	overweight	OVERWEIGHT	BRITIS	WHITE	no	no	no	among main thi	.40	2.60	2.60	3.13	.80	0	3	1	0	62	20
30	23	female	24	Normal weigh	CONTROL	.	.	no	no	no	played a part	.26	2.60	1.40	1.90	.00	0	0	0	0	40	18
31	34	female	25	overweight	OVERWEIGHT	BRITIS	WHITE	no	no	no	among main thi	.60	3.60	4.40	4.50	1.20	3	2	3	0	58	23
32	62	female	28	overweight	OVERWEIGHT	BRITIS	WHITE	no	no	no	played a part	.22	1.80	1.40	1.50	.40	0	0	0	0	42	12
33	26	female	21	Normal weigh	CONTROL	.	WHITE	no	no	no	not very imp	.10	.00	.20	.90	1.00	4	2	5	0	50	17
34	32	female	32	obese	OBESE	BRITIS	WHITE	no	no	no	not very imp	.29	1.60	2.40	2.38	.20	0	0	0	0	54	20
35	50	female	24	Normal weigh	CONTROL	.	.	no	no	no	played a part	.45	.60	3.40	4.63	1.80	5	4	3	3	72	29
36	26	female	23	Normal weigh	CONTROL	BRITIS	.	no	no	no	among main thi	.29	1.80	2.20	2.38	.40	0	0	0	0	42	14
37	21	female	26	overweight	OVERWEIGHT	.	WHITE	no	no	no	played a part	.20	.80	1.40	2.25	.25	4	7	4	5	51	18
38	43	female	33	obese	OBESE	BRITIS	.	no	no	no	played a part	.18	1.20	1.00	2.00	.00	0	0	0	0	33	16
39	36	female	20	Normal weigh	CONTROL	BRITIS	.	no	no	no	among main thi	.10	.00	.80	1.13	.20	0	0	0	0	44	16
40	29	female	21	Normal weigh	CONTROL	BRITIS	WHITE	no	no	no	played a part	.23	1.20	1.40	1.88	.80	0	3	5	0	58	27
41	52	female	26	overweight	OVERWEIGHT	BRITIS	WHITE	no	no	no	played a part	.24	1.80	1.00	2.50	.20	0	0	0	0	42	16
42	28	female	25	overweight	OVERWEIGHT	.	WHITE	no	no	no	among main thi	.52	3.60	3.20	5.00	.20	1	0	1	0	40	17
43	52	female	43	severely obes	OBESE	BRITIS	.	no	no	no	not very imp	.20	.40	1.60	2.00	.60	0	0	0	0	63	19
44	30	female	21	Normal weigh	CONTROL	BRITIS	WHITE	no	no	no	among main thi	.71	6.00	3.40	4.50	2.40	2	5	0	0	51	19
45	59	female	23	Normal weigh	CONTROL	BRITIS	WHITE	no	no	no	among main thi	.10	.40	.60	.63	.60	2	3	0	0	68	26
46	30	female	29	overweight	OVERWEIGHT	.	WHITE	no	no	no	most import	.43	1.60	3.60	3.75	1.00	2	0	0	0	43	15
47	47	female	25	overweight	OVERWEIGHT	.	WHITE	no	no	no	played a part	.07	.60	.40	.38	.20	0	0	0	0	28	12
48	40	female	23	Normal weigh	CONTROL	.	WHITE	no	no	no	played a part	.75	4.80	4.40	5.25	2.80	3	5	0	2	102	39
49	34	female	23	Normal weigh	CONTROL	.	WHITE	no	no	no	among main thi	.38	3.40	2.60	2.38	.40	0	0	0	0	59	18
50	27	female	24	Normal weigh	CONTROL	BRITIS	.	no	no	no	played a part	.33	1.40	2.80	2.63	.80	4	1	0	0	66	30
51	34	female	26	overweight	OVERWEIGHT	.	WHITE	no	no	no	played a part	.31	1.60	2.40	2.88	.20	0	0	0	0	30	12
52	40	female	29	overweight	OVERWEIGHT	.	WHITE	no	no	yes	among main thi	.47	3.60	2.40	2.50	2.20	0	0	0	0	44	20
53	49	female	21	Normal weigh	CONTROL	.	WHITE	no	no	no	played a part	.03	.60	.00	.00	.20	0	0	0	0	36	13

Extract from the Raw Data Table

APPENDIX Q

Table 2: Participants' Ethnicity and Diagnosis of Bulimia / Binge Eating Disorder: Frequencies & Percentages

		HEALTHY WEIGHT		OVERWEIGHT		OBESE		SEVERELY OBESE	
		n	%	n	%	n	%	n	%
ETHNICITY									
	White	52	92.9	37	94.9	6	100	14	93.3
	Black	1	1.8	1	2.6	0	0	0	0
	Asian	2	3.6	1	2.6	0	0	1	6.6
	Mixed	1	1.8	0	0	0	0	0	0
DIAGNOSIS OF BULIMIA NERVOSA (purging)		0	0	0	0	0	0	0	0
DIAGNOSIS OF BULIMIA NERVOSA (non-purging)		1	1.4	1	2.4	0	0	0	0
DIAGNOSIS OF B.E.D		3	0.04	1	0.02	1	0.07	5	0.30

APPENDIX R

APPENDIX
S

<u>Brief Paper - Table 4</u>: Comparison of Mean Scores Obtained on the E.S.S. in this Sample (Community Sample of Women) and Mean Scores Obtained in an Undergraduate Population (Andrews et al, 2002)

	Current Community Sample of Women			Undergraduate Students		
	n	**mean**	**S.D**	**n**	**mean**	**S.D**
Total shame	147	49.97	18.93	163	55.58	13.95
Characterological shame	147	19.29	8.42	163	24.43	7.25
Behavioural shame	147	17.83	6.77	163	21.25	5.5
Bodily shame	147	8.59	3.72	163	9.82	3.40

APPENDIX T

Main Paper – Table 4: Results of ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
GLOBAL E.D.E-Q.	Between Groups	1.910	3	.637	8.935	.000
	Within Groups	10.187	143	.071		
	Total	12.097	146			
RESTRAINT	Between Groups	36.333	3	12.111	6.694	.000
	Within Groups	258.722	143	1.809		
	Total	295.055	146			
WEIGHT CONCERN	Between Groups	100.498	3	33.499	19.432	.000
	Within Groups	246.523	143	1.724		
	Total	347.021	146			
SHAPE CONCERN	Between Groups	92.998	3	30.999	15.357	.000
	Within Groups	288.663	143	2.019		
	Total	381.660	146			
EATING CONCERN	Between Groups	54.608	3	18.203	16.899	.000
	Within Groups	154.033	143	1.077		
	Total	208.642	146			
psych distress	Between Groups	3179.467	3	1059.822	7.676	.000
	Within Groups	19745.200	143	138.078		
	Total	22924.667	146			
somatic symptoms	Between Groups	160.751	3	53.584	4.161	.007
	Within Groups	1841.331	143	12.876		
	Total	2002.082	146			
anxiety / insomnia	Between Groups	257.120	3	85.707	4.282	.006
	Within Groups	2862.159	143	20.015		
	Total	3119.279	146			
social dysfunction	Between Groups	86.868	3	28.956	3.145	.027
	Within Groups	1316.697	143	9.208		
	Total	1403.565	146			
severe depression	Between Groups	311.370	3	103.790	6.422	.000
	Within Groups	2311.296	143	16.163		
	Total	2622.667	146			
E.S.S - total	Between Groups	7848.561	3	2616.187	8.415	.000
	Within Groups	44458.269	143	310.897		
	Total	52306.830	146			
E.S.S - character	Between Groups	1038.859	3	346.286	5.320	.002
	Within Groups	9307.563	143	65.088		
	Total	10346.422	146			
E.S.S - behaviour	Between Groups	349.404	3	116.468	2.625	.053
	Within Groups	6345.344	143	44.373		
	Total	6694.748	146			
E.S.S - bodily	Between Groups	414.831	3	138.277	12.028	.000
	Within Groups	1643.903	143	11.496		
	Total	2058.735	146			
E.S.S - eating	Between Groups	290.230	3	96.743	20.933	.000
	Within Groups	660.886	143	4.622		
	Total	951.116	146			
SELF ESTEEM	Between Groups	959.224	3	319.741	8.886	.000
	Within Groups	5109.762	142	35.984		
	Total	6068.986	145			

Main Paper – Table 5: Results of Tukey Post Hoc Test Showing Localisation of Significant Differences in Mean Scores on the EDE-Q, GHQ, E.S.S & RSE for the 4 Independent Groups

Dependent Variable	(I) 4 BMI grps	(J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
psych distress	1	2	4.44	2.282	.214	-1.49	10.37
		3	2.67	3.541	.875	-6.54	11.87
		4	-10.63*	2.970	.003	-18.35	-2.91
	2	1	-4.44	2.282	.214	-10.37	1.49
		3	-1.77	3.729	.964	-11.47	7.92
		4	-15.07*	3.192	.000	-23.37	-6.77
	3	1	-2.67	3.541	.875	-11.87	6.54
		2	1.77	3.729	.964	-7.92	11.47
		4	-13.30*	4.186	.010	-24.18	-2.41
	4	1	10.63*	2.970	.003	2.91	18.35
		2	15.07*	3.192	.000	6.77	23.37
		3	13.30*	4.186	.010	2.41	24.18
somatic symptoms	1	2	1.25	.697	.283	-.57	3.06
		3	1.44	1.081	.544	-1.37	4.25
		4	-1.94	.907	.144	-4.30	.41
	2	1	-1.25	.697	.283	-3.06	.57
		3	.19	1.139	.998	-2.77	3.15
		4	-3.19*	.975	.007	-5.72	-.66
	3	1	-1.44	1.081	.544	-4.25	1.37
		2	-.19	1.139	.998	-3.15	2.77
		4	-3.38*	1.278	.044	-6.71	-.06
	4	1	1.94	.907	.144	-.41	4.30
		2	3.19*	.975	.007	.66	5.72
		3	3.38*	1.278	.044	.06	6.71
anxiety / insomnia	1	2	1.68	.869	.216	-.57	3.94
		3	.61	1.348	.970	-2.90	4.11
		4	-2.63	1.131	.098	-5.56	.31
	2	1	-1.68	.869	.216	-3.94	.57
		3	-1.08	1.420	.872	-4.77	2.61
		4	-4.31*	1.215	.003	-7.47	-1.15
anxiety / insomnia	3	1	-.61	1.348	.970	-4.11	2.90
		2	1.08	1.420	.872	-2.61	4.77
		4	-3.23	1.594	.183	-7.37	.91
	4	1	2.63	1.131	.098	-.31	5.56
		2	4.31*	1.215	.003	1.15	7.47
		3	3.23	1.594	.183	-.91	7.37
social dysfunction	1	2	.59	.589	.748	-.94	2.12
		3	.10	.914	1.000	-2.28	2.48
		4	-1.91	.767	.065	-3.90	.08
	2	1	-.59	.589	.748	-2.12	.94
		3	-.49	.963	.957	-2.99	2.01
		4	-2.50*	.824	.015	-4.65	-.36
	3	1	-.10	.914	1.000	-2.48	2.28
		2	.49	.963	.957	-2.01	2.99
		4	-2.01	1.081	.250	-4.82	.80
	4	1	1.91	.767	.065	-.08	3.90
		2	2.50*	.824	.015	.36	4.65
		3	2.01	1.081	.250	-.80	4.82
severe depression	1	2	.50	.781	.920	-1.53	2.53
		3	.67	1.212	.945	-2.48	3.82
		4	-3.95*	1.016	.001	-6.59	-1.31
	2	1	-.50	.781	.920	-2.53	1.53
		3	.17	1.276	.999	-3.14	3.49
		4	-4.45*	1.092	.000	-7.28	-1.61
	3	1	-.67	1.212	.945	-3.82	2.48
		2	-.17	1.276	.999	-3.49	3.14
		4	-4.62*	1.432	.008	-8.34	-.90
	4	1	3.95*	1.016	.001	1.31	6.59
		2	4.45*	1.092	.000	1.61	7.28
		3	4.62*	1.432	.008	.90	8.34

Table 5 continued.....

Dependent Variable	(I) 4 BMI gps	(	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
E.S.S - total	1	2	4.29	3.423	.595	-4.61	13.19
		3	-1.65	5.313	.990	-15.46	12.17
		4	-19.22*	4.457	.000	-30.80	-7.63
	2	1	-4.29	3.423	.595	-13.19	4.61
		3	-5.93	5.596	.714	-20.48	8.61
		4	-23.51*	4.790	.000	-35.96	-11.05
	3	1	1.65	5.313	.990	-12.17	15.46
		2	5.93	5.596	.714	-8.61	20.48
		4	-17.57*	6.282	.030	-33.90	-1.24
	4	1	19.22*	4.457	.000	7.63	30.80
		2	23.51*	4.790	.000	11.05	35.96
		3	17.57*	6.282	.030	1.24	33.90
E.S.S - character	1	2	2.20	1.566	.499	-1.87	6.27
		3	.21	2.431	1.000	-6.11	6.53
		4	-6.49*	2.039	.010	-11.80	-1.19
E.S.S - character	2	1	-2.20	1.566	.499	-6.27	1.87
		3	-1.99	2.561	.865	-8.65	4.67
		4	-8.69*	2.192	.001	-14.39	-3.00
	3	1	-.21	2.431	1.000	-6.53	6.11
		2	1.99	2.561	.865	-4.67	8.65
		4	-6.70	2.874	.096	-14.18	.77
	4	1	6.49*	2.039	.010	1.19	11.80
		2	8.69*	2.192	.001	3.00	14.39
		3	6.70	2.874	.096	-.77	14.18
E.S.S - behaviour	1	2	1.88	1.293	.470	-1.49	5.24
		3	.43	2.007	.996	-4.78	5.65
		4	-3.18	1.684	.238	-7.55	1.20
	2	1	-1.88	1.293	.470	-5.24	1.49
		3	-1.44	2.114	.904	-6.94	4.05
		4	-5.05*	1.810	.030	-9.76	-.35
	3	1	-.43	2.007	.996	-5.65	4.78
		2	1.44	2.114	.904	-4.05	6.94
		4	-3.61	2.373	.427	-9.78	2.56
	4	1	3.18	1.684	.238	-1.20	7.55
		2	5.05*	1.810	.030	.35	9.76
		3	3.61	2.373	.427	-2.56	9.78
E.S.S - bodily	1	2	-.16	.658	.995	-1.87	1.55
		3	-1.58	1.022	.414	-4.23	1.08
		4	-4.95*	.857	.000	-7.18	-2.72
	2	1	.16	.658	.995	-1.55	1.87
		3	-1.42	1.076	.551	-4.22	1.38
		4	-4.79*	.921	.000	-7.18	-2.40
	3	1	1.58	1.022	.414	-1.08	4.23
		2	1.42	1.076	.551	-1.38	4.22
		4	-3.37*	1.208	.030	-6.51	-.23
	4	1	4.95*	.857	.000	2.72	7.18
		2	4.79*	.921	.000	2.40	7.18
		3	3.37*	1.208	.030	.23	6.51
E.S.S - eating	1	2	.30	.417	.892	-.79	1.38
		3	-.71	.648	.691	-2.40	.97
		4	-4.00*	.543	.000	-5.41	-2.59
	2	1	-.30	.417	.892	-1.38	.79
		3	-1.01	.682	.453	-2.78	.76
		4	-4.30*	.584	.000	-5.82	-2.78
	3	1	.71	.648	.691	-.97	2.40
		2	1.01	.682	.453	-.76	2.78
		4	-3.29*	.766	.000	-5.28	-1.30
	4	1	4.00*	.543	.000	2.59	5.41
		2	4.30*	.584	.000	2.78	5.82
		3	3.29*	.766	.000	1.30	5.28