

2003

# Different Forms of Abuse in the Eating Disorders: Impact on Schema-Level Cognitions

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DIFFERENT FORMS OF ABUSE IN THE EATING DISORDERS:  
IMPACT ON SCHEMA-LEVEL COGNITIONS

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May 2003

In partial fulfillment of the requirements for the degree of  
Doctorate of Psychology

Christine C. Ganis

Doctoral Dissertation

Philadelphia College of Osteopathic Medicine

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March 10, 2003

## **Acknowledgements**

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The author would like to acknowledge the many colleagues from St. George's Hospital Medical Service, London, UK, who made this study possible, including Professor Glenn Waller, Rachel Lawson, Emma Corstorphine, Amy Luck, and Tamara Morrison. This study was based on Dr. Waller's earlier study on the role of core beliefs with bulimic women at the same institution. Stateside appreciation goes out to Robert DiTomasso, Ph.D., and Rosemary Mennuti, Ed.D., and Caroline Dillon, Ph.D. for their tireless help and suggestions. Additionally, acknowledgement goes to the entire Ganis household for all of their sacrifices. The author is forever in their debt.

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## Abstract

Cognitive theory suggests that traumatic experiences impact on psychopathology via the development of unconditional negative cognitions (core beliefs or schema). This study examined the links between types of childhood trauma and core beliefs in an eating-disordered population. Chart reviews were conducted for 91 eating-disordered women in treatment. Each woman was asked about a history of 4 types of trauma, and completed a standardized measure of core beliefs. This study failed to find links between those women who reported childhood trauma and their core beliefs. Regression analysis predicted 4 schema (Emotional Deprivation, Mistrust/Abuse, Vulnerability to Harm and Subjugation) that were associated with one type of trauma – childhood sexual abuse. The study also found that age at first occurrence was relevant to the cognitive disturbance experienced, particularly for those who were emotionally abused.

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## Introduction

### *Different Forms of Abuse in the Eating Disorders*

Over the last 15 years, there has been a growing body of evidence linking eating disorders to earlier trauma, particularly in those with bulimic pathology. Specifically, those with Anorexia Nervosa, Binge/Purge subtype and Bulimia Nervosa, Purging subtype often report a history of sexual abuse, physical abuse, emotional abuse and/or bullying. What are less well understood are the core beliefs that develop when such reported abuse occurs. These core beliefs, or schemata, are important because they are relatively enduring, internalized models of who the individuals are in their most personal selves, of how they relate to others, and of how they relate to the world at large. Since these core beliefs are negative and relatively resistant to change, knowing the derivative parts (of these core beliefs) makes them particularly useful clinically to patient and therapist alike. Indeed, schema-focused therapy makes particular use of these schemata, so that therapist and patient can re-interpret current thoughts about self, others, and the world (as well as behaviors toward the self, others, and the world) in light of these previously unidentified and unchallenged core beliefs. This study examined whether or not specific reported trauma experiences were associated with specific core beliefs about self, others, and the world. That is, were reported child sexual

abuse (RCSA), reported child physical abuse (RCPA), reported child emotional abuse (RCEA), and/or bullying associated with specific schemata?

*Eating Disorders and Trauma: Early Findings*

Studies of RCPA, RCEA, and bullying are notably absent from the eating disorders literature. There are very few studies of schemata in the eating disorders generally. One of the earliest studies of the association between sexual abuse and of the development of an eating disorder (Oppenheimer, Howells, Palmer & Chaloner, 1985) suggested that those who were sexually abused would most likely experience feelings of disgust or inferiority, and that such feeling would lead to over-concern with weight, with body shape, and with size.

However, these authors suggested that such associations would not likely be simple and causative to the development of an eating disorder. Instead, they would be complex, reflecting phenomenological factors linked to individual case differences. Subsequent studies have supported their predictions, although researchers struggle with a spate of methodological and practical issues (Waller, Everill, & Calam, 1994). These issues include definitions of abuse and methods of inquiry.

*Early prevalence studies.*

Prevalence is a product of both definitions of abuse and methods of inquiry, with some studies yielding prevalence rates as high as 64% in the eating disorders

(Oppenheimer et al., 1985). Later studies found prevalence rates of 50% (Hall et al., 1989), 66% (Beckman & Burns, 1990), and 48% (Waller, 1991). Studies yielding lower prevalence used stricter criteria, in which sexual abuse occurred with physical contact. Examples of these studies include the work of Bulik, Sullivan, & Rorty (1989; 30%), McClelland, L., Mynors-Wallis, Fahy, & Treasure (1991; 30%), and Fairburn & Welch (1993; 21%). Lacey (1990) found a rate of only 7% when using the most conservative legal definition of rape or incest.

*Early prevalence patterns.*

Prevalence patterns by type of eating disorder yield mixed results. Palmer et al. (1990) found no difference in reported sexual abuse in anorexics and bulimics. However, two subsequent studies (Bushnell et al., 1992; Pribor & Dinwiddie, 1992) found associations of intrafamilial (incest) sexual abuse and Bulimia Nervosa, but no corresponding pattern with Anorexia Nervosa. Waller (1991; 1993) and Waller, Halek, and Crisp (1993) found restrictive anorexics had a low prevalence, whereas bulimic anorexics and bulimics with no prior anorexic history had significantly higher rates of sexual abuse.

Perhaps specific characteristics of the sexual abuse itself would emerge as the critical element in understanding why sexually abused women turn to the eating disorders. Calam & Slade (1987; 1989) reported higher eating pathology scores

(as measured by the EAT-26; Garner, Olmsted, Bohr, & Garfinkel, 1982) in women who reported abuse, particularly if it was intrafamilial, if it involved force, or if the victim were young. Williams, Wagner, & Calam (1992) obtained similar results, related to the reported frequency of the sexual abuse. Smolak, Levin, & Sullins (1990) found that higher overall Eating Disorder Inventory total scores were elevated in the sexually abused, (EDI; Garner, Olmsted, & Polivy, 1983), but subscale scores were not elevated for non-abused eating-disordered women. Other studies yielded no association with the EAT-26 (Waller, 1992) or the EDI (Folsom et al., 1993).

*Conclusions about the links: where to go from here?*

What we know so far leads us to conclude that reported child sexual abuse and levels of eating disordered psychopathology are often only moderately related, but that they are certainly associated at a level higher than chance (Waller, Everill, & Calam, 1994). Since the links between sexual abuse and the eating disorders are indeed proving to be complex, perhaps more information can be garnered at the phenomenological level of personal meaning, namely at the schema level.

*Related research on the eating disorders: definitions.*

According to the Diagnostic and Statistical Manual IV (American Psychiatric Association 1994), Anorexia Nervosa (AN) is characterized by (a) a refusal to maintain body weight >85% of that expected for age and height; (b) intense fear of weight gain or fat even though underweight; (c) disturbed body image or denial of the seriousness of current low body weight; and (d) the absence of at least three consecutive menstrual cycles in postmenarcheal females. There are two types of Anorexia Nervosa: the Restricting Type, in which purging is not used, and the Binge-eating/Purging Type, in which bingeing, purging behaviors or compensatory mechanisms are used.

Bulimia Nervosa (American Psychiatric Association, 1994) is characterized by (a) recurrent episodes of binge eating (i.e. eating a large amount of food in a discrete amount of time, coupled with a sense of lack of control during the episode); (b) recurrent inappropriate compensatory mechanisms to prevent weight gain, such as vomiting, the use of laxatives, diuretics, excessive exercise, and/or fasting; (c) the binges and compensatory behaviors occur on average at least twice per week for three months; (d) self-evaluation is unduly influenced by body shape or weight; and (e) the disturbance does not occur exclusively during episodes of Anorexia Nervosa. There are also two types of Bulimia Nervosa, The Purging Type, in which vomiting or compensatory mechanisms are used, and the

Non-purging Type, in which fasting or excessive exercise are used, but not vomiting, laxatives, or diuretics.

A third category, Eating Disorders, Not Otherwise Specified (EDNOS), is a heterogeneous grouping used to describe those individuals who fail to meet the full criteria of Anorexia Nervosa or Bulimia Nervosa. Some typical examples include individuals who: (a) meet the criteria for Anorexia Nervosa, but have regular menses; (b) meet the criteria for Anorexia Nervosa, but despite significant weight loss, still remain in the normal weight range (Body Mass Index [BMI] > 18; (c) meet the criteria for Bulimia Nervosa, except that they binge eat or use compensatory mechanisms fewer than twice per week, or for fewer than three months; (d) the use of inappropriate compensatory mechanisms by an individual of normal weight who eats small amounts of food; (e) repeated chewing and spitting out (rumination) of food; and (f) recurrent binge eating in the absence of inappropriate compensatory mechanisms. The last example of EDNOS is the category of Binge Eating Disorder (BED; Spitzer et al., 1992). BED patients consume a large amount of food within a discrete two-hour period, accompanied by a sense of lack of control over the eating episode. The binge is identical with that described in Bulimia Nervosa, except the end of the sequence is more difficult to establish due to the lack of a temporal event like vomiting. The following behavioral markers were established to aid in the delineation of a binge, and three of the five need to be present: (a) eating is much more rapid; (b) it continues until uncomfortable fullness ensues; (c) the binge involves large

amounts of food in the absence of hunger; (d) the binge involves eating alone due to social embarrassment over the quantity of food consumed; or (e) it involves feelings of self-disgust, depression, or guilt (Walsh & Garner, 1997, p.29).

*Physical sequelae of the eating disorders.*

A number of physical consequences can arise from the eating disorders. Only those considered the most serious or the most life threatening will be discussed. Serious medical complications are common with Anorexia Nervosa. Since the eating disorders affect the whole body, they affect all the systems in the body, as well as their complex interactions. The clinical picture with Anorexia Nervosa is similar to what would be found medically in other cases of starvation and malnutrition, except that Anorexia Nervosa patients have strikingly few complaints, and often report normal levels of energy or even exhibit hyperactivity (Mitchell, Pomeroy, & Adson, 1997). Understandably then, this may lead to the AN patient denying the need for medical care, and perhaps even “pushing the envelope” to exercise even more because they feel so good. With Anorexia Nervosa, mortality is unfortunately quite high (6% to 20%), usually secondary to starvation or suicide (Crisp, Callender, Halek, & Hsu, 1992; Patton, 1988; Ratnasuriya, Eisler, Szmukler, & Russell, 1991).

Much of what is found for Bulimia Nervosa applies to EDNOS as well, particularly when those medical systems referenced are involved, as with a

premorbid or family history of gastrointestinal or cardiac problems. For the reasons already described in the section on diagnosis, EDNOS has such a varied presentation, it would be difficult to carry out meaningful medical studies. With Bulimia Nervosa, medical help-seeking is frequent for such complaints as heartburn or a bloated feeling. It often takes an astute physician to pick up on these hints of more serious medical problems (Pomeroy & Mitchell, 1989).

Mortality with Bulimia Nervosa is considered rare, but morbidity across organ systems is extensive, primarily related to the use of laxatives, diuretics, diet pills, and the emetic Ipecac (Mitchell, Pomeroy, & Adson, 1997, p. 384). The longer the patient has the Bulimia Nervosa diagnosis, of course, the more likely the chances of medical complication. Electrolyte abnormalities, relatively common among both those with Anorexia Nervosa and Bulimia Nervosa, can lead to death because of fluid loss or fluid restriction due to either frank restriction or vomiting, or because of increased potassium loss due to laxative or diuretic use.

Electrolytes need to be carefully monitored, particularly for low weight patients and Bulimia Nervosa patients who purge frequently, since hypokalemia is associated with kaliopenic nephropathy, cardiac arrhythmia, and cardiomyopathy (Mitchell, Pomeroy, & Adson, 1997, p. 385). Cardiomyopathy can also result from aggressive refeeding, especially in low weight patients. The use of the emetic Ipecac can also cause cardiomyopathy, a potentially fatal complication (Dress, Massey, Johnson, & Bossen, 1992). Ipecac can cause toxicity to the skeletal muscles, and the heart muscle (Tolstoi, 1990). EKG changes may



predispose very low weight patients to life-threatening arrhythmias, and to atrophy of the cardiac muscle itself (Isner, Roberts, Heymsfield, & Yager, 1985). Two potentially fatal complications (Ceuller & Van Thiel, 1986) are esophageal rupture (due to esophageal erosion or varices) and a gastrointestinal bleed further down the GI tract in patients who vomit often, or who use abrasive materials to vomit. Stomach rupture from the size of the binge is possible with all the eating disorders, and is treated as a medical crisis (Abdu, Garritano, & Culver, 1987). Acute pancreatitis, potentially life threatening, is a complication of Bulimia Nervosa, but is also common with alcohol abuse. The presence of binge drinking with eating disorders presents a two-fold medical management problem (Gavish et al., 1987).

*Presumed mechanisms and clinical course of the eating disorders.*

The etiology of the eating disorders is considered multifactorial. No one factor is sufficient for the development of an eating disorder. Instead, the eventual development appears to depend on an individual's vulnerability to particular risk factors, and to their relative immunity due to protective factors. In her three-stage model, Z. Cooper (1995) describes how individual risk factors combine with other vulnerability and protective factors to determine whether or not an individual develops an eating disorder, and whether the course is transient or chronic.

*Individual factors for vulnerability or immunity.*

In stage one, allowing for selection bias, research from clinical samples tells us there is a strong role for affect in the development of eating disorders. From 25% to 80% of eating disorder patients have a concurrent depressive disorder, generally Major Depression. Kaye (1995) and others implicate serotonin (5-HT) in depression and eating disorders, and they note that moderate dieting affects 5-HT functioning. Low self-esteem may encourage individuals to diet to enhance appearance. They are also associated with high levels of anxiety disorders, especially Social Phobia (20% to 50%; P. Cooper, 1995) and Obsessive-Compulsive Disorder (lifetime prevalence of 16%; P. Cooper, 1995). Another individual risk factor is the presence of a personality disorder (Axis II diagnosis), especially Obsessive-Compulsive Personality Disorder (OCPD) in Anorexia Nervosa (P. Cooper, 1995; Wonderlich, Swift, Slotnick, & Goodman, 1990) and in Borderline Personality Disorder (BPD) in Bulimia Nervosa (Wonderlick, Swift, Slotnick, & Goodman, 1990). Traits such as low self-esteem and perfectionism add to the mix at stage one. Also, premorbid obesity (7% to 20% with Anorexia Nervosa; 18% to 40% with Bulimia Nervosa) may lead to dieting itself, which Z. Cooper (1995) maintains is the major behavioral precursor that may make other factors more potent. Finally, adverse life events, such as high rates of childhood sexual abuse, are seen as potential predisposing factors.

*Family and socio-cultural factors.*

After individual factors, Z. Cooper (1995) cites family and socio-cultural risk factors that contribute to the etiology of eating disorders at stage one. Lifetime risk of eating disorders in a first-degree relative is three times that of normal controls, and twin studies seem to point to genetic vulnerability. Then family environment itself may add to vulnerability, since families of Bulimia Nervosa patients appear more conflictual, disorganized, noncohesive, as well as lacking in nurturance and caring. Families of Anorexia Nervosa patients appear stable and cohesive, but conflict-avoidant. They also lack nurturance. Vandereycken (1995, p. 220) describes the anorexic's family as "consensus-sensitive", while the bulimic's family is "distance-sensitive". In addition, odd eating patterns and strong weight/shape/appearance concerns within the family seem to set the stage for over-identification with current societal values, which prescribe the pursuit of and achievement of thinness as a measure of personal success.

*Normative and non-normative events.*

Continuing with Z. Cooper's (1995) etiological model, stage two in the development of an eating disorder extends from the behavioral antecedent of dieting to the development of a recognized disorder. It is here that a number of factors act as precipitants to developing an eating disorder. The large pool of

women who diet aggregate in this group, but why do relatively few go on to develop eating disorders? To this question, she responds there is virtually no research (Z Cooper, p. 204). Factors that are highly suspect at stage two include normal, developmental ones such as puberty, leaving home, and the development of serious dating relationships, as well as non-normative events such as serious losses, illness, or adverse comments on appearance. Results from prospective studies are eagerly anticipated, such as the one by Patton and colleagues (Patton, et al., 1999) in Australia.

*Three views on maintaining factors.*

Stage three in Cooper's model determines whether or not maintaining factors will serve to help the disorder to remit or to become chronic. According to Z. Cooper (1995), little research exists in this area. The research that does exist essentially subscribes to one of the following views, although these views may not be mutually exclusive.

In the cognitive view, certain cognitive features maintain the disorder, and recovery is only possible when the person(s) changes his/her dysfunctional beliefs about such matters as body image, weight, and/or eating. This view underpins the adherence to the cognitive behavioral treatment model (CBT), which reduces binge eating and purging frequency by 70% over 4 to 5 months, eliminating

binge/purge behavior altogether in one third of patients (Fairburn, 2002; Vitousek, 2002).

According to a second view, the interpersonal view, it is believed that interpersonal phenomena (such as role disputes, grief reactions, and role transitions) can block recovery. Interpersonal psychotherapy (IPT) serves to change relationships, and thus to shore up self-esteem or to promote a sense of competence to develop, allowing cognitive distortions to resolve indirectly. Research groups at Oxford are researching this approach (Fairburn, 2002). Others at the Maudsley Hospital in London are researching new family therapy variants for both Anorexia Nervosa and Bulimia Nervosa patients, regardless of the patient's age, looking to the relational component as the most potent piece of the treatment process (Dare & Eisler, 2002).

According to a third view, maintenance of the eating disorder is understood within the context of ongoing starvation and its physiological effects. Applicable mainly to low weight eating disorders, the physiological view maintains that impaired physiological and psychological functioning derives from starvation. It is only after weight restoration happens, and the body returns to homeostasis, that the eating disorder can resolve. A complex morass of interacting physiological processes can occur as an end product of eating disorder, but resulting abnormalities, no matter how serious, should be seen in context as secondary to the eating disorder itself (Fairburn, 2002; Kaye, 2002; Walsh & Devlin, 1999).

*Distribution of the eating disorders.*

According to Hoek (2002), the eating disorders occur primarily in western society. However, an important qualifier is that most of the research has been done on westernized populations. There are important exceptions to this pattern. From the research of Lee and Katzman (2002) in Asian populations, we know that 3-10% of young women suffer from the eating disorders in Hong Kong. Moreover, they say increases in referral rates and an increase in younger cases suggest increased incidence there in the last decade. In their work on gender & ethnicity, Striegel-Moore and Smolak (2002) point to methodological problems in determining the distribution of eating disorder. Terms such as “race,” “culture,” and “ethnicity” are used inconsistently. Moreover, problems occur due to measures being validated on majority populations in the dominant culture. Diagnostic categories may not be adequate enough to capture the full range of eating disorders among those with pathological eating behaviors, such as binge eating or steroid abuse to “bulk up.” The most rigorous studies are not representative of the larger population, but rather are samples designed to represent the largely white European-derived populations from which they are drawn. For example, clinical samples are typically white females, but when minorities are exposed to the same cultural factors, there is evidence that the latter are “catching up” (Striegel-Moore & Smolak, 2002).

What is known about the distribution of the eating disorders in the general population is that incidence and prevalence of Anorexia Nervosa, Bulimia Nervosa, and EDNOS appear to vary widely. While Anorexia Nervosa and Bulimia Nervosa primarily affect young women (90-95% of patients are female; Hoek, 2002), BED is far more common among males and ethnic minorities than either Anorexia Nervosa or Bulimia Nervosa (1.5 female-to-male ratio: Grilo, 2002).

*Prevalence and incidence of the eating disorders.*

Putting aside these notable shortcomings about the distribution of the eating disorders, the work of Hoek (2002) points to increased risk among certain low-weight or weight-sensitive professions, such as among fashion models and ballet dancers. Whether this association is more a cause than an effect is not known. However, some researchers claim that there is an increased use of eating disorders treatment services suggestive of an “epidemic.”

Hoek says data do not confirm increases among the general population. Prevalence studies look at the actual number of cases in a population at a certain point in time. These studies are often conducted in populations considered high-risk, such as female students in college or high school. Current two-stage studies are considered more accurate than the one-stage studies used in the past. Stage one consists of a self-report questionnaire administered to members of the at-risk-

group. Stage two consists of a follow-up, semi-structured questionnaire for those suspected of an eating disorder at stage one, as well as for controls who are not suspected. This method reveals a much lower prevalence than earlier surveys that used only self-report questionnaires. Point prevalence for Anorexia Nervosa is 280 per 100,000 young females or .28%. The point prevalence for Bulimia nervosa is 1,000 per 100,000 or 1.0% (Hoek, 2002). The point prevalence for BED is 2,000 to 3,000 per 100,000 of the adult population, including 8% of the population of obese adults. Among men, BED achieves a ratio of 1.5 females to one male, or 60% females to 40% males (Anderson, 2002). BED is more common among certain minority groups, such as African American or Hispanic Americans (Grillo, 2002, p. 178).

Incidence studies focus on the number of new cases in the general population over a period of time. Hoek (2002) reports that incidence of eating disorders in the general population is low. Generally, incidence studies have not been conducted due to the unwieldy nature of such work. Instead, researchers look to hospital and case registers to study the trend in utilization of services for the eating disorders. In the Netherlands, such utilization has been reported as stable since the 1970's at around 5 per 100,000 for Anorexia Nervosa, and 11.4 per 100,000 for Bulimia Nervosa (Hoek, 2002, p. 234-235). Researchers in Minnesota report incidence figures of 13.5 per 100,000 for Bulimia nervosa (Hoek, 2002, p. 235), which Hoek regards as a conservative figure due to the secrecy that accompanies this diagnosis in particular. In countries such as the



Netherlands and the United Kingdom, where general practitioners occupy a critical position in determining who will receive specialized care, Hoek (2002, p. 236) estimates only 40% of those with Anorexia Nervosa and 11 % of those with Bulimia Nervosa are identified by their physicians.

*Outcome studies.*

The knowledge of clinical course and outcome for the eating disorders is informative regarding the staging of treatment, prognostic prediction, the allocation of scarce resources, and the future prescription of what is most likely to work with patients having other comorbid psychiatric disorders. Hsu's meta-analysis of 11 retrospective studies (1995) revealed that although 80% of Bulimia Nervosa patients do improve, perhaps 30% retain a subsyndromal (EDNOS) for an eating disorder. In 20% of patients, the symptoms became chronic. Hsu states the results of these retrospective studies are limited by small numbers and by brief follow-up duration. Patients in these studies appear to respond to treatments, and to maintain their improvements over a one-year period. However, for those Bulimia Nervosa patients who fail to respond, the implications are less clear. In one naturalistic study of 225 women with eating disorders, results were similar to intermediate-term retrospective studies, with 86% dropping below full diagnostic criteria, and with 56% reaching asymptomatic status after eight weeks, but a full 79% were still in treatment at one year follow-up. A few studies in Hsu's meta-

analysis focused on comorbidity of the eating disorders at outcome. In these, it is clear that psychiatric comorbidity decreases with recovery, whereas failure to recover is more likely to be associated with an additional Axis I or II diagnosis (Hsu, p. 243). The residual symptoms of Major Depression in Anorexia Nervosa patients who have recovered suggest that these disorders may be linked in ways we do not yet fully understand. Long-term outcome data on Bulimia Nervosa patients are not available for comorbid Major Depression or Substance Abuse. A few studies have looked at prognostic indicators. Good outcomes are associated with shorter duration of illness, absence of an Axis II diagnosis, and, surprisingly, the presence of a family history of alcoholism. The latter, while counterintuitive, is explained by the fact that if a person knows of a family history of alcoholism, perhaps there is a higher motivation to avoid problems seen as “elective.” When such a problem is flagged, one pays attention to it sooner.

Conclusions from the Hsu meta-analysis on outcome suggest that EDNOS is the most common eating disorder at follow-up, followed by Bulimia Nervosa. While 30% of eating disorder patients have a previous history of Anorexia Nervosa, normal-weight Bulimia Nervosa patients seldom relapse into Anorexia Nervosa. Obesity is not common at follow-up, and not as all as common as in the general population (Hsu, p. 243). Evidence for treatment efficacy exists with cognitive behavioral therapy, since 50% of Bulimia Nervosa patients have symptom remission 2 to 10 years after intake. There is a group of 20% of eating disorder patients who remain highly symptomatic, while the remaining 30% have

cycles of relapse and remission, or remain subsyndromal (EDNOS). How to improve the treatment outcome in these patients remains puzzling. It may be that the robust responders' group has a less severe form of illness, and consequently does better earlier. Hsu recommends that future research involves prospective designs and larger numbers, focusing on the non-responders as well as the less-than-robust responders. In so doing, appropriate strategies can be devised both for efficacious individual treatment, as well as efficient use of programmatic resources.

*Sexual Abuse and its Links with the Eating Disorder: Current Findings*

Only twenty years ago sexual abuse and the eating disorders were scarcely mentioned in the same paragraph, much less linked in some way. Five major reviews relative to this link dating from a decade ago were located (Fallon & Wonderlick, 1997; Pope & Hudson, 1992; Rorty & Yager, 1996; Smolak & Murner, 2001; & Waller, Everill, & Calam, 1994). Of these, the one by Fallon and Wonderlich was the most useful to date.

Fallon and Wonderlich refer to the previous 20 years as a transformational era, in which the link was at first tentative and anecdotal, involving several case series studies ranging in prevalence from 5% to 75% (Folsom et al., 1993; Palmer & Oppenheimer, 1992; Root & Fallon, 1988; & Waller, 1991). There were some early suggestions by some that the bulimic behavior served an affect-regulation

function, stemming from the crisis-level affect generated by the early abuse (Briere, 1992; Root & Fallon, 1989). Early reviews of the child sexual abuse (CSA) and eating disorders literature were impeded by methodological problems, such as different definitions of abuse, absence of blind interviewing conditions (i.e., the relative were present), and instrumentation problems. These early review concluded that CSA was not a necessary nor sufficient cause for eating disorders, but may have a role to play in multifactorial causal models, especially where psychiatric comorbidity is an issue. Pope and Hudson's (1992) review looked at only 6 controlled studies and a number of uncontrolled ones. They concluded that there was no evidence to support the hypothesis that CSA posed a risk factor for Bulimia Nervosa.

Everill and Waller (1994) were perhaps the most insistent to date to suggest that a closer analysis seemed warranted. In the same year, Wooley (1994a; 1994b) furthered this debate with high reported CSA (RCSA) findings from her clinic. Fallon (1994) challenged the eating disorders research community to continue looking for these connections. At the same conference, two large national studies presented positive results on the topic. First, Wonderlich, Wilsnack, and Wilsnack (1994) presented their positive results of a large, nationally stratified survey of women. Likewise, Dansky, and Brewerton (Dansky, Brewerton, & O'Neil, 1994) presented their large, national women's study results linking rape and Post Traumatic Stress Disorder to Bulimia Nervosa and BED. In 1996, Rorty and Yager's review found that CSA, in conjunction

with other child abuse (CPA and CEA), was significantly associated with Bulimia Nervosa. The following year, Fallon and Wonderlich (1997) published their review, in which they attempted to answer the following seven research questions. Since it is a recent review, more space and specificity will be allotted to it.

*Child sexual abuse and bulimia.*

The first of Fallon and Wonderlich's question was "Is CSA associated with Bulimia Nervosa?" In a design comparing the prevalence of CSA from a clinical sample of bulimics with a normal control group, 10 of 13 studies found a positive relationship. In the second type of design, which compared sexually abused to sexually non-abused, prevalence of eating disorders was six times higher than expected (23% of incest victims with Bulimia Nervosa versus 4% in non-abused controls; Pribor & Dinwiddie, 1992). Similarly, Wonderlich et al. (1996) found that incest survivors were much more likely to exhibit Bulimia Nervosa symptoms than non-abused controls. A third type of design looked at non-clinical Bulimia Nervosa subjects (general population or college students), comparing them to normal controls, and found a significant relationship between CSA and eating disorders in 7 of 8 studies (Wonderlich & Fallon, 1997, p. 397). Two of the studies (Dansky, Brewerton, O'Neil, & Kilpatrick, 1997; Wonderlich, Wilsnack, & Wilsnack, 1996) used stratified samples, thought to be highly representative of the nation as a whole.

*Child sexual abuse and type of eating disorder.*

Question two was: “Is CSA more common in Bulimia Nervosa than in Anorexia Nervosa?” Twelve studies took either those with a history of CSA or the reverse, and screened them for the presence of eating disorders. CSA showed a stronger association the Bulimia Nervosa than with Anorexia Nervosa, but 9 papers did show Anorexia Nervosa having some association with CSA.

*Child sexual abuse as a risk factor for eating disorder.*

Question three was “Is CSA a specific risk factor for eating disorder?” The crux of this answer lies in individuals with ED report CSA more than do other psychiatric controls. There is no evidence to suggest that CSA is a specific risk factor for ED, including a number of other comorbid disorders associated with CSA.

*Child sexual abuse and level of pathology.*

Questions four was: “Is a history of CSA related to a more severe eating disorder symptomatology?” Using a conservative definition of CSA, 2 of 11 studies found no evidence (Pope et al., 1994; Folsom et al., 1993). Using broader definitions (e.g. adult abuse) several other studies failed as well (Bulik et al.,

1989; Waller, 1992a). Those with a difference, were modest in size (DeGroot et al., 1992; Waller, 1992b). But interestingly, where there was CSA among Anorexia Nervosa patients, it was associated with higher levels of purging. Waller and his colleagues have extended this research into how aspects of the abuse may relate to severity of symptom presentation. Waller and Ruddock (1993) found higher levels of vomiting in those eating disordered patients who perceive a negative interpersonal response to the disclosure of CSA, perhaps related to the construct of an “invalidating environment.” Other mediating and moderating factors include earlier age of abuse, intrafamilial abuse, level of negative personal beliefs about the abuse (i.e., self attribution), recency of abuse and the use of physical force (Pitts & Waller, 1993; Waller, 1992a; Waller 1992b; Waller 1993; Waller, 1994; Waller, Hamilton, Hamilton, Rose, Sumra, & Baldwin, 1993; Waller & Ruddock, 1993). Fallon and Wonderlich call for further examination in this area.

*Child sexual abuse and comorbidity.*

Question five was: “Is CSA associated with higher than expected levels of comorbidity?” Fallon and Wonderlich looked at 12 studies comparing eating disorders with CSA and those without CSA. Five of the studies found higher levels of psychiatric comorbidity, which included mood disorder, anxiety disorder, conduct disorder, personality disorder, dissociative disorders and greater

overall psychopathology. While Pope et al. (1994) did not find higher levels of comorbidity, overall the evidence supports the hypothesis.

*Child sexual abuse and relational features.*

Question six was: “Are specific features of CSA associated with level of ED disturbance?” A specific feature would be, for example, the age at which abuse occurred. Six of 10 studies were used to predict the level of eating disturbance. Factors that emerged were social competence, perceived maternal relationship, and severity of the abuse. Another factor included whether or not the person reported experiencing features of PTSD. Family stability was a mixed result mediator, and Everill and Waller (1995) found only a limited relationship between CSA disclosure and level of symptoms.

*Child sexual abuse and other trauma.*

Finally, question seven was: “Are other forms of abuse or maltreatment associated with eating disorders?” Several studies linked CPA to eating disorders (Rorty, Yager, & Rossotto, 1994; van der Kolk et al., 1991) to psychological abuse (Rorty, Yager, & Rossotto, 1994) and to various forms of adult victimization (Dansky, Brewerton, O’Neil, & Kilpatrick, 1997). Others suggest an additive effect from various forms of trauma (Dansky, Brewerton, O’Neil, &



Kilpatrick, 1997; Vanderlinden, Vandereycken, van Dyck, & Vertommen, 1993).

The evidence suggests further study about these relationships is warranted.

To summarize Fallon and Wonderlich's meta-analysis, there is evidence for CSA being a nonspecific risk factor for BN. CSA appears to be more common in Bulimia Nervosa than in Anorexia Nervosa, and is associated with greater levels of comorbidity in the eating disorders. However, there is no strong evidence that severity of ED presumes severity of trauma, although the specific factor research may go on to find such associations. A more sophisticated approach to CSA research may help to find factors predictive of later eating disturbances.

Prospective longitudinal studies of children remain our best hope for reliable research findings. Finally, more work is needed especially in long term outcome studies to determine a variable such as a poor prognosis with, for example, physical abuse (Fallon, Sadik, Saoud, & Garfinkel, 1994).

### Purpose of this Study

The aims of this study are to extend the utility of a previous smaller study (Waller et al., 2001) which looked at general core beliefs in the cognitive content of the eating disorders. Specifically, this study looked to the Young Schema Questionnaire – Short Form (YSQ-S) to distinguish types of those with eating disorders who also experienced sexual abuse, regardless of age of onset, origin, or type of abuse.

This study aims to expand on that study by adding the predicative power of greater numbers, and by adding greater specificity regarding the nature of the abuse. Specifically, this study looks at the role of reported child sexual abuse (RCSA) versus presumed milder forms of abuse, namely reported child physical abuse (RCPA), reported child emotional abuse (RCEA) and bullying. Finally, it examines the hypothesis that the earlier the exposure to RCSA, RCPA or RCEA, and bullying, the more serious the level of eating disorder pathology and levels of core beliefs.

Many recent researchers have pointed out the utility of viewing complex or treatment-resistive cases through the lenses of early maladaptive schemas (Layden et al., 1993; Padesky, 1994; Young, 1999; Waller et al., 2001). Young recognized that in certain populations these early maladaptive schemas are self-perpetuating, relatively absolute, and quite resistant to change, making them less well adapted to ordinary cognitive behavioral therapy (CBT). Within the bulimic

population, Kennerley (1997) and Cooper and Hunt (1998) found the etiology of such complexity was rooted in early trauma. Current cognitive models, although useful in the treatment of most eating disorders, result in an 80% reduction of binge and purge symptoms in those with classic Diagnostic and Statistical Manual IV (DSM-IV) Axis I presentations (American Psychological Association, 1994). The picture is mixed, however, among those patients with comorbid Axis II disorders (common among bulimics and trauma survivors alike). Treatment outcome results are considerably worse for those with anorexia. Fairburn (2001) is calling for more research into these treatment-resistant cases, using modules to address specific cognitive or affective deficiencies. Consider the sexually abused eating disorders in this regard. Perhaps the deficiencies occur at the level of core beliefs.

What do we know so far about the schemata or core beliefs of those with sexually abused eating disorders? Two schemata have emerged so far as being particularly salient with bulimic women. The strength of the Emotional Inhibition schema predicts severity of bingeing, and the strength of the Defectiveness/Shame schema predicts severity of vomiting (Waller et al., 2000). Earlier work from Heatherton and Baumeister (1991) suggests that bulimic behaviors are used to avoid unbearable cognitive or emotional states. Presumably the cognitions and emotional states experienced by a sexual abuse survivor, whose schema are activated, would be particularly intense. Do eating-disordered abuse survivors employ these strategies as well? Preliminary indications are that such information

can inform the treatment process, but more precise information is needed, such as the type of abuse, age at onset of the abuse, as well as patterns with the physically and emotionally abused. How will these and other cognitive and affective avoidance strategies be embedded in the particular schema patterns of abuse survivors? Finally, in the most recent review, Wonderlich (1997) states that child sexual abuse is a non-specific risk factor of bulimia, and he calls for more rigorous study in this area. Of course, the real utility of such questions is in the clinical direction it can provide to practitioners who treat sexually abused survivors with eating disorders. Consequently, there is a need to refine further what constitutes sufficient trauma with the eating disorders, in order to understand better the process of risk transmission, as it manifests through multiple pathways.

This study attempted to answer the following two research questions: What is the relationship between types of trauma and the severity of core beliefs; and does the nature of the abuse affect the severity of the core beliefs?

### *Specific Hypotheses*

This study tested the following hypotheses:

1. The type of abuse will determine the severity of core beliefs in the eating disorders. That is, that RCSA will produce the most severe levels of core beliefs, followed by RCPA, RCEA, and bullying respectively.

2. The earlier the exposure to RSCA, RCPA, or RCEA, and to bullying, the more serious the levels of core beliefs in eating-disordered women.

## Methods

### *Participants*

The study used an existing database of 91 consecutive, female attenders at a tertiary eating disorder service in London, United Kingdom. They were referred to the service for assessment by their general practitioners, leading to inpatient or outpatient treatment for an eating disorder. Using DSM-IV criteria (American Psychological Association, 1994), the study yielded the following population, which was similar to previous proportions found in this facility: Bulimia Nervosa (both Purging Type and Non-purging Type) – N=36 (39.6%); Anorexia Nervosa, Restricting Type – N=18 (19.8%); Anorexia Nervosa, Binge/Purge Type – N=19 (20.9%); Binge Eating Disorder N=8 (8.8%); and Eating Disorders Not otherwise Specified (EDNOS – those with partial criteria) – N=10 (11%).

This study used an existing database, so there was no direct patient contact. Case numbers were assigned to provide anonymity. This was done to ensure that names could not be associated with a particular data set.

### *Overview of the Research Design*

This was a correlation, case series study rather than an experimental design, since the variables were observed, but not manipulated. Other characteristics collected include age, body mass index ( $BMI = \text{weight}(\text{kg})/\text{height}(\text{m})^2$ ), binge

frequency, vomit frequency, the use of laxatives and diagnosis. For a related study, the current and past use of impulsive behaviors was also collected, including information on such behaviors as self-cutting, impulsive self-harm, compulsive self-harm, overdoses, suicide attempts, compulsive spending, compulsive stealing, alcohol and/or drug use, and risky sexual behavior. (See Appendix A).

### *Measures*

Participants completed the following measure as part of the intake process, as well as an extensive, structured clinical interview.

Young Schema Questionnaire (YSQ-S; Young, 1994, see Appendix B) is used to identify schema content (core beliefs). The YSQ-S is the short form (75 item) of a longer self-report questionnaire, consisting of 15 subscales (See Appendix C for list). Each item is rated on a 6-point scale, with 1 being “completely untrue of me”, and 6 being “describes me perfectly”. This scale was selected for several reasons. First, Schmidt, Joiner, Young, and Telch (1995) have validated its use with a clinical population. Second, Lee et al., (1999) demonstrated its good test-retest reliability and internal consistency. Finally, Waller, Meyer, and Ohanian (2001) have validated its use with eating disorders. The overall scores derive from the mean of the items in each scale. Higher scores (range = 1-6) indicate a more maladaptive level of a core belief. Regarding internal consistency of each

scale, Waller's research found high correlations between items of each of the 15 scales. For bulimics, alpha levels were .986 for the YSQ-L and .964 for the YSQ-S. For comparison women, alpha levels were .974 and .922 respectively, well above levels established by Nunnally (1978). Waller's research found high correlations between the two versions, with clinical groups at .98 and comparison groups at .93, with greater than .84 correlation ( $p < .001$ ) in all cases. The latter suggests that removing a substantial number of items from the long form of the YSQ does not affect the central tendency of the scores, thus making the YSQ-S a clinically valid and reliable instrument. The YSQ-S scales are: Emotional Deprivation, Abandonment, Mistrust/Abuse, Social Isolation, Defectiveness/Shame, Failure to Achieve, Dependence/Incompetence, Vulnerability to Harm, Enmeshment, Subjugation, Self-sacrifice, Emotional Inhibition, Unrelenting Standards, Entitlement, and Insufficient Self-control (See Appendix C for definitions).

Clinical interview was the second measure. Extensive structured clinical interviews were conducted by experienced senior clinical staff. The structured clinical interview assessed restriction, objective bingeing, vomiting and other compensatory behaviors to aid in establishing DSM-IV diagnoses. The clinical interview also assessed developmental and abuse history and comorbidities, based on patient self-report. The definitions of abuse used in this study derive from the Child Abuse and Trauma Scale (CATS; Sanders and Becker-Lausen, 1995). Child sexual abuse (RCSA) involved any sexual experience with an adult that



happened prior to age 14, including witnessing sexual abuse of another family member, traumatic sexual experiences, and being fearful of sexual maltreatment when a parent was under the influence of alcohol. Child physical abuse (RCPA) was unexpected harsh punishment or beatings from any adult, and a generally strict, inflexible family environment. Child emotional abuse (RCEA) was defined as parental behaviors, generally unpredictable in nature, that are perceived as ridiculing, insulting, threatening or blaming. These definitions were used in a previous paper (Kent, Waller, and Dagnan, 1997). Bullying was defined as violence, threats of violence, or emotional abuse, perpetrated on the individual by another minor or minors. Neglect was not considered in this study.

### *Procedures*

The investigator served as the individual who extracted information from the chart. Information was made available to the investigator by the senior researcher/clinician from two sources: from information archived in a database of ongoing assessments, and from the written summaries of those assessments found in the charts. The database contains encoded information with relevant schema questionnaire results. The written summaries were obtained from corresponding patient records. Information recorded on data collection sheets by the investigator included coded identification, age, body mass index, binge, and vomit frequency, laxative abuse, diagnosis, and the presence or absence of the various types of abuse being studied – sexual, physical, emotional, and bullying. For a related

study, information was also gathered on the past or present use of various multi-impulsive behaviors, such as self-cutting, overdoses, various forms of substance abuse, and risky sexual behavior. A data collection sheet is available in the appendices (see Appendix A).

Relative to the procedure of the assessment, the senior researcher/clinician explained the study to the patient, and consent was obtained prior to assessment, according to the standards set by the British Psychological Society. The assessment consisted of a structured interview of one-hour duration. After the assessment, paper-pencil questionnaires for home completion were explained to the patient, who was instructed to return them upon completion in the stamped, addressed envelope provided. Results of these questionnaires were then encoded by a research assistant onto the database.

### *Ethical Consideration*

Dr. Waller, under whose direction the database was gathered, complies with the ethical standards of the British Psychological Society, and the National Health Service (NHS) Trust, under whose aegis St. George's Eating Disorders Service falls. The ethical principles of the British Psychological Society are similar in tenor and intent to those of the American Psychological Association. (See supporting documentation in Appendix D).

*Statistical Analysis*

Hypothesis 1 used multivariate of covariance (MANCOVAs) to compare the groups (abused eating-disordered women versus non-abused eating-disordered women) on the YSQ-S. The analysis corrected for the potential influence of the covariate of age and BMI,  $p=.05$ . The use of covariates allows for the factoring out of the statistical influence of one or more variables which may influence the dependent variable in some way. The dependent variable in each case were the 15 YSQ-S core beliefs. The independent variable in each case were the reported presence or absence of the relevant forms of childhood trauma (sexual abuse, physical abuse, emotional abuse or bullying). Multivariate analysis was used to correct for any potential intercorrelations of the dependent variables. It was hypothesized that the most unhealthy core beliefs would be associated with the reported presence of a history of child sexual abuse. Since multiple comparisons increase the risk of Type 1 errors, multivariate analysis was used to minimize the likelihood of this type of error. It was further hypothesized that the next most traumatized group as measured by unhealthy core beliefs, would be the one with the reported presence of a history of child physical abuse, followed in descending order by emotional abuse and the bullying. An alpha level of  $p=.05$  was used for statistical significance in all cases.

Multiple regression and correlation analyses were used to predict the degree of relationship between the linear combination of predictor variables (each type of

trauma) to criterion variables (each of the 15 continuous variables) or core beliefs. Again, it was hypothesized that the most unhealthy core beliefs would be found in the CSA group, as measured by the YSQ-S. An alpha level of  $p=.05$  was used for statistical significance.

Hypothesis 2 tested the associations between YSQ-S scores (core beliefs) and the age at first experience of each type of abuse, using Pearson's correlation coefficients. An inverse relationship was predicted, in that more unhealthy core beliefs were predicted to be associated with abuse experiences that took place at a younger age. The data was tested for appropriate normality of distribution. An alpha level of 5% ( $p=.05$ ) was used to indicate reliable differences and associations.

## Results

The first hypothesis examined the relationship between the severity of the core beliefs and the various forms of traumas. Tables 1 through 4 report the “findings” for CSA, CPA, CEA, and Bullying respectively. An alpha level of  $p=.05$  was used for all statistical tests of significance. As the reader will see, while the overall multivariate  $F$  was not significant for any of the predictor variables, the tables were retained in the body of the paper, since they show the relative impact on the criterion variables for possible future research. It should be emphasized here, however, that Table 1-4 are not interpretable due to the failure of multivariate  $F$  to reach significance in the case of all 4 independent variables.

### *Reported Child Sexual Abuse and Core Beliefs*

There were 56 women who did not experience CSA (61.5%), compared with 35 who reported CSA (38.5%). The mean age for the CSA group was 29.2 years ( $SD=8.00$ ), compared with a mean age of 28.6 years ( $SD=9.50$ ) for the non-CSA group. The mean body mass index ( $BMI=weight(kg)/height(m)^2$ ) for the CSA group was 20.28 ( $SD=8.16$ ), compared with a mean BMI for the non-CSA group of 19.97 ( $SD=6.75$ ). Table 1 presents levels of core beliefs across women reporting a history of CSA, and those with no such history. Those who experienced CSA had mean core belief scores that exceeded those of non-CSA participants in all instance but one. However, as the overall multivariate  $F$  was

not significant [Wilks's  $\Lambda = .773$ ,  $F(15,73) = 1.43$ ,  $p = .156$ ], analysis on the univariate comparison was not pursued.

With regard to the covariate of age, however [Wilks's  $\Lambda = .772$ ,  $F(15,73) = 1.87$ ,  $p = .04$ ], there was a significant interactive effect of abuse on two core beliefs – Emotional Deprivation and Self-sacrifice. For between-subjects relationships based on age [Wilks's  $\Lambda = F(1) = 5.01$ ,  $p = .03$ ], Emotional Deprivation had an Adjusted  $R^2$  value of .61 analogous to  $\eta^2$ , which explains the proportion of the variance accounted for by the covariate of age. Self-sacrifice was significant with regard to age, having an Adjusted  $R^2$  value of only .075. CSA is strongly related to the core belief of Emotional Deprivation, particularly with respect to age. With regard to the covariate of BMI, however [Wilks's  $\Lambda = .839$ ,  $F(15,73) = .934$ ,  $p = .53$ ], there was no interactive effect.

Table 1  
*Levels of Core Beliefs Across Women Reporting Childhood Sexual Abuse (RCSA)  
 and those with No Such History*

YSQ-S	<u>RCSA</u>				<u>MANCOVA</u>		Group
	No	Yes	Age	BMI			
	M	(SD)	M	(SD)	F	F	F
Emotional Deprivation	3.25	(1.50)	4.04	(1.42)	5.01*	0.69	6.26*
Abandonment	3.33	(1.34)	4.00	(1.56)	1.15	0.01	4.91*
Mistrust/Abuse	3.20	(1.47)	4.08	(1.49)	0.01	0.35	7.57*
Social Isolation	3.53	(1.48)	4.07	(1.59)	0.15	3.16	3.00
Defectiveness/Shame	3.86	(1.62)	4.45	(1.17)	0.62	2.25	3.60
Failure to Achieve	3.36	(1.53)	3.62	(1.58)	0.50	3.71	0.61
Dependence/Incompetence	2.96	(1.21)	3.46	(1.21)	0.03	0.75	3.79
Vulnerability to Harm	2.66	(1.15)	3.38	(1.48)	0.39	0.54	6.90*
Enmeshment	2.30	(1.38)	3.09	(1.66)	0.52	0.81	6.36*
Subjugation	3.14	(1.18)	3.93	(1.37)	0.01	0.39	8.52*
Self-sacrifice	3.45	(1.37)	4.26	(1.23)	8.26*	0.00	8.09*
Emotional Inhibition	2.88	(1.50)	3.47	(1.38)	0.61	.055	3.53
Unrelenting Standards	4.32	(1.31)	4.32	(1.41)	0.70	0.66	0.00
Entitlement	2.28	(0.81)	2.68	(1.01)	1.66	0.19	4.08*
Insufficient Self-control	3.16	(1.26)	3.70	(1.33)	1.45	3.78	3.69

Note. \*  $p < .05$

*Reported Child Physical Abuse and Core Beliefs*

There were 66 women who reported no history of child physical abuse (72.5%), but 25 reported a history of CPA (27.5%). The mean age of the CPA group was 32.1 years (SD=10.6), compared with a mean age of 27.6 years (SD=8.0) for those who did not report CPA. The mean BMI was 21.17 (SD=8.70) for the CPA group, compared with a mean BMI of 19.68 (SD=6.69) for those who did not report CPA. Table 2 presents levels of core beliefs among women reporting CPA, and those with no such history. Those who experienced CPA had higher mean core belief scores than the other patients in 12 out of 15 instances. However, as the overall multivariate F was not significant [Wilks's  $\Lambda = .841$ ,  $F(15,73) = .923$ ,  $p = .54$ ], analysis on the univariate comparisons was not pursued.

With regard to the covariate of age, [Wilks's  $\Lambda = .752$ ,  $F(15,73) = 1.60$ ,  $p = .09$ ], there was no interactive effect.

With regard to the covariate of BMI, [Wilks's  $\Lambda = .842$ ,  $F(15,73) = .91$ ,  $p = .55$ ], there was no interactive effect.



Table 2

*Levels of Core Beliefs Across Women Reporting Physical Abuse (RCPA) and those with No Such History*

YSQ-S	No		RCPA		Yes		MANCOVA	
	M	(SD)	M	(SD)	Age	BMI	Group	
	M	(SD)	M	(SD)	F	F	F	
Emotional Deprivation	3.40	(1.36)	3.98	(1.81)	3.90	0.68	1.18	
Abandonment	3.45	(1.45)	3.94	(1.43)	1.79	0.01	3.06	
Mistrust/Abuse	3.34	(1.51)	4.06	(1.50)	0.18	0.32	4.46*	
Social Isolation	3.74	(1.47)	3.72	(1.74)	0.13	3.01	0.04	
Defectiveness/Shame	4.02	(1.50)	4.27	(1.47)	0.44	2.13	0.48	
Failure to Achieve	3.40	(1.50)	3.63	(1.69)	0.33	3.68	0.46	
Dependence/Incompetence	3.13	(1.21)	3.22	(1.28)	0.04	0.69	0.21	
Vulnerability to Harm	2.85	(1.17)	3.15	(1.67)	0.59	0.48	1.42	
Enmeshment	2.64	(1.50)	2.50	(1.64)	0.34	0.72	0.03	
Subjugation	3.39	(1.28)	3.56	(1.38)	0.01	0.33	0.37	
Self-sacrifice	3.56	(1.39)	4.30	(1.24)	6.04*	0.00	2.96	
Emotional Inhibition	2.95	(1.45)	3.52	(1.50)	0.24	0.53	2.42	
Unrelenting Standards	4.38	(1.35)	4.16	(1.31)	0.53	0.66	0.19	
Entitlement	2.35	(0.82)	2.67	(1.10)	1.11	0.20	1.40	
Insufficient Self-control	3.37	(1.28)	3.38	(1.41)	1.71	3.70	0.23	

Note. \*  $p < .05$

*Reported Child Emotional Abuse and Core Beliefs*

There were 51 women who did not experience emotional abuse (56%), although 40 women did report a history of such abuse (44%). The mean age of the CEA group was 32.3 years (SD = 9.2), compared with a mean age of 26.1 years (SD = 7.7) for women who did not report emotional abuse as children. The mean BMI of the CEA group was 21.14 (SD = 8.28), compared with a mean BMI of 19.27 (SD = 6.35) for women who did not experience emotional abuse as children. Table 3 presents levels of core beliefs across women reporting CEA and those with no such history. Those who experienced CEA as children had YSQ-S scores that exceeded the non-CEA participants' scores in 10 out of 15 mean core beliefs. However, as the overall multivariate  $F$  was not significant [Wilks's  $\Lambda = .863$ ,  $F(15,73) = .774$ ,  $p = .70$ ], analysis on the univariate comparisons was not pursued.

With regard to the covariate of age [Wilks's  $\Lambda = .748$ ,  $F(15,73) = 1.64$ ,  $p = .08$ ], there was no interactive effect.

With regard to the covariate of BMI [Wilks's  $\Lambda = .842$ ,  $F(15,73) = .91$ ,  $p = .55$ ], there was no interactive effect.

Table 3  
*Levels of Core Beliefs Across Women Reporting Emotional Abuse (RCEA) and those with No Such History*

YSQ-S	No		<u>RCEA</u>		Yes		<u>MANCOVA</u>	
	M	(SD)	M	(SD)	Age	BMI	Group	
	M	(SD)	M	(SD)	F	F	F	
Emotional Deprivation	3.24	(1.38)	3.97	(1.59)	2.72	0.72	2.27	
Abandonment	3.48	(1.42)	3.73	(1.50)	1.84	0.01	1.67	
Mistrust/Abuse	3.31	(1.50)	3.84	(1.54)	0.34	0.28	3.35	
Social Isolation	3.69	(1.53)	3.79	(1.57)	0.30	2.99	0.52	
Defectiveness/Shame	4.05	(1.49)	4.14	(1.49)	0.51	2.11	0.04	
Failure to Achieve	3.36	(1.52)	3.59	(1.59)	0.20	3.64	0.56	
Dependence/Incompetence	3.16	(1.32)	3.14	(1.11)	0.02	0.69	0.01	
Vulnerability to Harm	2.92	(1.35)	2.96	(1.31)	0.42	0.46	0.20	
Enmeshment	2.76	(1.58)	2.40	(1.47)	0.12	0.75	0.46	
Subjugation	3.32	(1.34)	3.59	(1.25)	0.13	0.32	1.28	
Self-sacrifice	3.45	(1.44)	4.16	(1.22)	4.88*	0.00	2.42	
Emotional Inhibition	3.11	(1.50)	3.10	(1.47)	0.73	0.52	0.06	
Unrelenting Standards	4.37	(1.35)	4.27	(1.34)	0.66	0.66	0.01	
Entitlement	2.36	(0.89)	2.54	(0.94)	1.27	0.20	0.14	
Insufficient Self-control	3.38	(1.30)	3.36	(1.33)	2.13	3.67	0.79	

Note. \*  $p < .05$

*Reported Child Bullying Experiences and Core Beliefs*

The majority of women (68; 74.7%) did not report a history of bullying, although 23 women (25.3%) did experience it. The mean age of women who reported being bullied as children was 28.3 years ( $SD = 8.0$ ), compared with a mean age of 29.0 years ( $SD = 9.2$ ) for those who did not report being bullied as children. The mean BMI of the group who reported being bullied as children was 21.08 ( $SD = 8.28$ ), compared with a mean BMI of 19.76 ( $SD = 6.95$ ) for women who did not report being bullied as children. Table 4 presents the levels of core beliefs across women who reported being bullied, as well as among those with no such history. Among those who experienced bullying, mean YSQ-S scores exceeded those of non-bullied participants in 13 out of 15 instances. However, as the overall multivariate  $F$  was not significant [Wilks's  $\Lambda = .788$ ,  $F(15,73) = 1.31$ ,  $p = .22$ ], analysis on the univariate comparisons was not pursued.

With regard to the covariate of age, however [Wilks's  $\Lambda = .706$ ,  $F(15,73) = 2.02$ ,  $p = .02$ ], there was a significant interactive effect. Just as in the analysis of CSA, there was a significant effect for age of abuse with Bullying on two core beliefs – Emotional Deprivation and Self-sacrifice. For between-subjects relationships based on age [Wilks's  $\Lambda = F(1) = 5.13$ ,  $p = .03$ ], Emotional Deprivation had an Adjusted  $R^2$  value of 0.61 for Bullying. This means that 6.1% of the core belief of Emotional Deprivation is accounted for by the criterion variable of Bullying with respect to age. For between-subjects relationships based on age [Wilks's  $\Lambda = F(1) = 8.33$ ,  $p = .01$ ], Self-sacrifice had an Adjusted  $R^2$  value

of .08 for Bullying. It follows that 8% of the core belief of Self-sacrifice is accounted for by the criterion variable of Bullying with respect to age.

With regard to the covariate of BMI [Wilks's  $\Lambda = .82$ ,  $F(15,73) = 1.07$ ,  $p = .40$ ], there was no interactive effect.

Table 4  
*Levels of Core Beliefs Across Women Reporting Bullying as Children and those with No Such History*

YSQ-S	<u>Bullying</u>				<u>MANCOVA</u>		
	No		Yes		Age	BMI	Group
	M	(SD)	M	(SD)	F	F	F
Emotional Deprivation	3.51	(1.51)	3.67	(1.54)	5.13*	0.59	0.27
Abandonment	3.56	(1.52)	3.67	(1.27)	0.92	0.02	0.08
Mistrust/Abuse	3.45	(1.54)	3.81	(1.50)	0.01	0.43	1.05
Social Isolation	3.64	(1.56)	4.00	(1.48)	0.06	3.43	1.25
Defectiveness/Shame	3.93	(1.59)	4.45	(1.02)	0.96	2.79	3.56
Failure to Achieve	3.24	(1.62)	4.12	(1.09)	0.91	5.10*	7.23*
Dependence/Incompetence	3.04	(1.28)	3.48	(1.01)	0.00	1.00	2.41
Vulnerability to Harm	2.81	(1.33)	3.30	(1.26)	0.17	0.73	2.57
Enmeshment	2.62	(1.59)	2.56	(1.38)	0.41	0.70	0.01
Subjugation	3.31	(1.33)	3.81	(1.19)	0.02	0.56	2.73
Self-sacrifice	3.71	(1.44)	3.92	(1.22)	8.33*	0.00	0.59
Emotional Inhibition	3.10	(1.50)	3.13	(1.43)	0.69	0.54	0.04
Unrelenting Standards	4.44	(1.33)	3.98	(1.33)	0.89	0.45	1.92
Entitlement	2.42	(0.92)	2.48	(0.91)	1.77	0.17	0.07
Insufficient Self-control	3.36	(1.33)	3.40	(1.27)	1.51	3.64	0.00

Note. \*p<.05

*Summary of Results of Tables 1-4*

To summarize the main effects for Tables 1-4, in the case of all of the independent variables, CSA, CPS, CEA, and Bullying, the null hypothesis must be accepted since no differences can be found in the core beliefs of those with and those without childhood trauma. The meaning of the interactive effect of the covariates, especially age with some of the same dependent variables, needs to be examined more closely.

*Multivariate Association of Trauma Variables with Core Beliefs*

Table 5 presents the results of the multiple regressions, showing the capacity of the independent variables (CSA, CPA, CEA, and Bullying) to predict scores on each of the 15 core beliefs of the YSQ-S. Four core beliefs emerged as having the most robust relationships with childhood trauma – Emotional Deprivation, Mistrust/Abuse, Vulnerability to Harm, and Subjugation. In each case, the only reliable predictor was CSA.

Table 5  
*Association of Different Forms of Trauma (RCSA, RCPA, RCEA and Bullying)  
 with Core Beliefs*

YSQ-S	<u>Multiple Regression</u>			<u>Independent Variables</u>			
	F	p	%variance	IV	t	p	Beta
Emotional Deprivation	3.64	0.01	9.8	RCSA	2.06	0.04	0.22
Abandonment	1.99	ns	3.9	-	-	-	-
Mistrust/Abuse	3.50	0.01	9.3	RCSA	2.24	0.03	0.24
Social Isolation	1.36	ns	1.5	-	-	-	-
Defectiveness/ Shame	1.92	ns	3.7	-	-	-	-
Failure to Achieve	1.60	ns	2.4	-	-	-	-
Dependence/ Incompetence	1.24	ns	1.0	-	-	-	-
Vulnerability to Harm	3.30	0.01	8.7	RCSA	3.01	0.01	0.32
Enmeshment	2.23	ns	5.2	-	-	-	-
Subjugation	3.39	0.01	9.1	RCSA	2.84	0.01	0.30
Self-sacrifice	4.07	0.00	11.4	-	-	-	-
Emotional Inhibition	1.40	ns	1.6	-	-	-	-
Unrelenting Standards	0.50	ns	2.1	-	-	-	-
Entitlement	1.06	ns	2.8	-	-	-	-
Insufficient Self-control	1.5	ns	2.0	-	-	-	-

Note. Two-tailed significance \* $p < .05$



*Association of Age at First Trauma Experience with Core Beliefs*

Hypothesis 2 measured the relationship between age of onset of the various forms of abuse with the severity of the core beliefs. It predicted the fact that the younger the age, the more severe the damage to schema. The groups were dichotomized into those abused before the age of 14, and those abused after their 14<sup>th</sup> birthday, for the purposes of this analysis. Point-biserial correlation was used to measure the relationship between one variable which is measured on an interval scale (YSQ-s) with another variable (age at first trauma), which has dichotomized values.

Table 6 presents the correlation of core beliefs (YSQ-S scores) with the age at first abuse for each form of trauma. The groups consisted of the 35 reporting CSA, 25 reporting CPA, 40 reporting CEA and 23 reporting Bullying. Note that some individuals appear in two or possibly more groups, thus the observations are not totally independent, yet they remain independent within each correlation. None of the correlations for CSA, CPA, nor Bullying reached significance. However, among the CEA group, two correlations were reliable – Abandonment and Self-sacrifice. Consistent with Hypothesis 2, the younger the women were when emotional abuse occurred (<age 14), the more abandonment fears they display later in adulthood. Conversely, the older the women were when emotional abuse occurred, the more likely it was that they would display self-sacrifice beliefs and self-sacrifice behaviors in adulthood.

Table 6  
*Association of Core Beliefs with Age at First Traumatic Experience*

	<u>Emotional</u>	<u>Sexual</u>	<u>Physical</u>	<u>Bullying</u>
N=	40	35	25	23
<u>Schema/Core Belief</u>				
Emotional Deprivation	0.03	0.25	-0.15	-0.12
Abandonment	-0.32*	0.15	0.03	0.02
Mistrust/Abuse	0.09	0.23	0.15	-0.32
Social Isolation	-0.16	0.24	0.28	0.16
Defectiveness/ Shame	-0.17	-0.08	0.13	0.29
Failure to Achieve	-0.22	0.14	0.24	0.29
Dependence/ Incompetence	-0.31	0.04	0.21	0.27
Vulnerability to Harm	0.02	0.22	0.31	-0.05
Enmeshment	-0.03	0.20	0.47	0.38
Subjugation	0.03	0.23	0.14	0.17
Self-sacrifice	0.36*	0.03	0.18	-0.01
Emotional Inhibition	-0.10	-0.15	0.27	-0.09
Unrelenting Standards	-0.05	-0.13	0.00	0.24
Entitlement	-0.08	0.24	0.35	-0.09
Insufficient Self- control	0.08	0.17	0.26	0.36

Note. Two-tailed significance \* $p < .05$

*Descriptive Statistics By Age at First Traumatic Experience*

Descriptive statistics in Table 7 revealed non-significant differences in the mean ages and body mass indices of each trauma group, which indicated the similarity of each group with the other. It further reveals the fact that abuse usually occurs in multiple ways rather than singly. The most common pattern of abuse appears to be that which co-occurs with one or two other types.

The most common co-occurrence of abuse is sexual abuse with emotional abuse (N=23). All four types of abuse occur less frequently by themselves than two or three co-occurring types. Physical abuse almost never occurs by itself (N=2). The least common types of co-occurrence of abuse are sexual abuse with bullying (N=9), and physical abuse with bullying (N=9).

Table 7  
*Descriptive Statistics By Age at First Traumatic Experience*

	Emotional	Sexual	Physical	Bullying
N=	43	39	27	26
M age =	32.21	30.00	31.92	28.42
(SD) =	(8.91)	(8.33)	(10.16)	(7.56)
M BMI =	22.00	21.20	22.40	22.33
(SD) =	(9.50)	(9.60)	(10.60)	(10.18)

Crosstabulations

	Emotional	Sexual	Physical	Bullying
Emotional	-	23	17	12
Sexual	-	-	81	9
Physical	-	-	-	9

	Emotional	Sexual	Physical	Bullying
One Type of Abuse	10	9	2	9
+ One Other Type	18	14	10	8
+ Two Other Types	11	12	11	5
+ Three Other Types	4	4	4	4

## Discussion

This study investigated the links between different types of reported childhood trauma and of core beliefs in an eating-disordered population. While an earlier study of 61 bulimic women suggested significantly higher levels of core beliefs among the 21 who reported a history of child sexual abuse (Waller, Meyer, Ohanian, & Osman, 2000), this study failed to yield similar results.

The researcher measured the severity of core beliefs for various types of childhood abuse, proposing that the most severe, long-term impact into adulthood would be experienced by those who had been sexually abused. The researcher also hypothesized that the deleterious effects from CPA, CEA, and bullying would follow in descending order. However, due to the lack of significance of overall multivariate F for CSA, CPA, CEA, and Bullying, there was no justification to conduct post-hoc analyses (univariate AVOVAs) on each of the dependent variables for main effects. The univariate F values remain a potential source of future research on core beliefs with abused individuals. Perhaps with larger N and with equal-sized groups, multivariate F may reach significance. Alternately, if the number of dependent variables could be reduced to a smaller number of higher order factors, then perhaps multivariate F may reach significance. Despite this lack of significance, multiple regression analysis suggested that RCSA had the most robust relationship with core beliefs of the 4 types of trauma tested, which further suggests that there is some validity to the

suggestion that sexual abuse does correlate with significant emotional damage, which persists into adulthood.

Relative to the age at which abuse took place, the only significant results were in the group who reported emotional abuse (CEA), in which two core beliefs stood out - Abandonment and Self-sacrifice. There appears to be something more damaging about emotional abuse than even sexual or physical abuse at an earlier age. Perhaps, as some have suggested (Kent, Waller, & Dagnan, 1999), age of onset acts as an important moderator, and goes on to become a reliable predictor of eating-disordered psychopathology. Further, when emotional abuse is present early in life, it deters the establishment of basic trust that most clinicians would consider necessary for the establishment of normal adult relationships. This lack of basic trust would then be an inadequate foundation for later emotional stability. Unless the therapist can restore basic trust through something like successful schema work or interpersonal psychotherapy, the person who was emotionally abused early in life is likely to carry around his/her Abandonment template for further abuse through adulthood, being relatively impervious to the conditions that might counteract it. Then there are the implications with multiple types of abuse, often sexual abuse with emotional abuse. Since certain abuses tend to co-occur, there are two cognitive points of reference that remain salient for the individual to remain in the abuse.

Perhaps this is why a sub-group of eating-disordered individuals remain treatment-resistant, despite the cognitive and behavioral evidence that says

recovery will be beneficial. Clinically one often hears the patient saying, “I get it intellectually, but recovery feels wrong , and I don’t know why” (at an emotional level).

Another finding related to age at which trauma took place indicated that , the older the person was , the more likely that Self-sacrifice would come into play. This suggests a possible explanation for the fact that those who experience emotional abuse remain so long with abusing partners. Simply put, they might be cognitively programmed to do so, first by their desperate need to prevent abandonment, and second by their self-sacrificing schema. If they were emotionally abused both early in life and later in life, then they have two schemata at work to keep them hoping (without justification) that if they remain in the abusive relationship, things might improve. Their beliefs might sound something like this: (a). “I must keep this flawed relationship no matter what, or I will be abandoned and be all alone,” or the reverse, “I will abandon others first” (including the therapist), “since it is inevitable they will abandon me” (Abandonment schema), and (b) “it is completely up to me to make it work, after all, so I must keep giving and giving” (Self-sacrifice schema).

### *Theoretical Implications*

While this study does not support the primary hypothesis regarding disproportionate damage with CSA, some of the results suggest further work

needs to be conducted in this area. Multiple regression analysis (Table 5) yielded some interesting results on 4 core beliefs, all of them associated with CSA (Emotional Deprivation, Mistrust/Abuse, Vulnerability to Harm, and Subjugation). When covarying for age, the same two core beliefs emerged as significant in the case of both CSA and Bullying - Emotional Deprivation and Self-sacrifice. It would seem then that Emotional Deprivation, in particular, holds some clinical promise for unlocking some of the treatment-resistance with this challenging population. Could it be that CSA in particular generates a need in the eating-disordered population to suppress affect even more than in the other forms of trauma?

Since the main effects were not found, however, several possibilities need to be explored. First, the model may be incorrect or in need of modification. Whereas the previous literature focused largely on CSA and bulimic pathology, this study increased the diversity of types of abuse across four types of trauma, and split diagnosis into 5 types, leaving two cells with only 8 (BED) and 10 (EDNOS) participants, perhaps greatly reducing power.

Second, the patients from this facility might not be representative. Given the fact that this site is a tertiary facility, these patients are often in a chronic stage of their illness.

Third, perhaps the measures were not sensitive enough, or were too transparent for this “sophisticated” patient population. Perhaps they have seen the measures before (test sensitization), or have read about such relationships in the



widely available self-help literature, thereby presenting the inherent possibility of random variance. Already discussed was the possibility that the constructs were not valid. Since multiple raters were used, perhaps reliability was compromised, particularly in the case of reported emotional abuse. A small study to check inter-rates reliability could have been conducted on 20% of the same subjects by an independent rater, (Cone and Foster, 1998).

Fourth, perhaps the concept of child emotional abuse in particular was under-reported. Clinically it is often noted that the patient will deny emotional abuse in particular, believing that what they experienced growing up was normal. It is only after anecdotes are revealed in sessions that the construct of emotional abuse acquires a fuller meaning, re-evaluated with adult appreciation. This would not always be apparent on initial evaluation, even by a highly skilled evaluator.

Last, perhaps with certain types of reported abuse, whether fully recalled or not, a threshold is crossed (comparable to "catastrophe theory" in physics), in which predictable, expected relationships simply break down into chaos when materials involved (in this case, the eating-disordered patients) are subjected to conditions beyond their reasonable limits. If this should prove to be case, then only ipsative comparisons would have meaning, and (of course) we would not have such data pre- and post-abuse.

*Methodological Limitations*

There were several important methodological limitations to this study. Additional assessments could have been used, such as the Eating Disorders Examination (EDE; Fairburn & Cooper, 1993), to extend the strength of the inferences drawn, and to link results with the extent of eating disorders psychopathology. Clearly this study would have needed substantially more participants to derive meaningful results (power) in that instance. Also, the use of a comparison group, although adding to the complexity of the design, would have given more strength to the links of trauma and later schema adherence, despite how the psychopathology presents itself in adulthood (e.g., eating disorder versus substance abuse or depressive comorbidity).

The researcher underestimated the obstacles to assembling complete data sets. Even by collecting 120 "complete" data sets, only 91 could be used because of missing data (such as YSQ-S tests with only one missing item). Presumed carelessness or impulsivity may be understood clinically in that the clients often want maximum returns on his/her minimal investment. They want relief from their uncomfortable symptoms with a minimum of affective exertion. In the case of remembering their abuse history, remembering and recording can trigger uncomfortable post-traumatic sequelae usually avoided by the patient. This remembering and recording is done without the benefit of an immediate therapeutic environment.

*Clinical Implications*

Heterogeneous schemata (from four of Young's five domains - Young, 1999) make highly traumatized patients more difficult to manage in treatment. These patients may switch schema domains, or switch to other multi-impulsive behaviors. They may miss appointments, fail to do homework, and lead the type of chaotic lives that necessarily interfere with treatment. Their abuse is often of multiple types. Preliminary indications are that these are typically sexual abuse coupled with emotional abuse. Knowledge of this context for the therapist early in treatment may help to predict treatment-interfering behaviors for both patient and therapist. Knowing this context could add an extra measure of empathy to help the therapist meet the client more than halfway. Techniques such as longer or more extensive preparation (deriving from the stages of change literature), periodic evaluation for schema activation, and more reinforcement for maintenance of treatment gains might provide the necessary 'scaffolding' to keep this challenging population oriented toward recovery. Moreover, perhaps since this population appears to be more emotionally deprived, owing to their trauma experiences, more attention could be paid to identifying this as a treatment goal early in treatment, with techniques attenuated to developing skills of affective expression, appropriating trust within the bounds of safety.

The clinical implications of the second hypothesis (regarding age at time of the abuse) might suggest that if the schemata of Abandonment and Self-sacrifice are present, the clinician should consider a history of emotional abuse, lacking even reported history of such abuse. If the suspected abuse cannot be recalled or it is actively denied, it need not stop forward movement in therapy. Linehan's (1993) notion of the 'invalidating environment' may be useful here to recontextualize for the patient what is seen in the schema content.

### *Future Research*

Few studies have included emotional abuse and bullying as measures of abuse among the eating disorders. It would seem from this study that there may be utility in doing so. A study by Kent, Waller, and Dagnan (1999) found that CEA was the only form of childhood abuse that predicted eating psychopathology. Similar to this study's preliminary findings, and as Rorty, Yager, and Rossotto (1994) and others (Briere and Runtz, 1990) have stated, different forms of abuse rarely occur in isolation, and perhaps should not be treated as independent entities since they may have an additive effect. However, for the purposes of understanding the relative degree of negative impact on the schemata of the developing young woman, sexual abuse followed by emotional abuse, appeared to be the most negatively impactful.

In an earlier study of core beliefs with eating disordered women, Waller, Ohanian, Meyer, and Osman (1998) found three different core beliefs significant - Defectiveness/Shame, Insufficient Self-control, and Failure to Achieve. However, their group was smaller (50 women), and somewhat different in composition (no Anorexia Nervosa, Restricting Type, nor those screened for abuse histories). These findings, though, add to the suggestion that there are significant cognitive and emotional underpinnings to bulimic psychopathology that can be found (and clinically used) if they are sought.

As Young (1994) hypothesized, these core beliefs are rooted in dichotomous cognitions about oneself and the world, and can be traced to adaptive responses developed early in life. Certainly the effect of these schema are no less present nor impactful on those eating-disordered individuals who suffer from childhood trauma than on those who do not. It would also seem, just as Kennerley (1997) suggested, there is growing evidence that the clinician should aim to reduce the effect of specific core beliefs with more complex cases, rather than only working with the more superficial cognitive processes and content which are addressed in traditional cognitive behavioral therapy.

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## Appendix A

**ID** \_\_\_\_\_  
**Age** \_\_\_\_\_  
**BMI** \_\_\_\_\_  
**Binge frequency** \_\_\_\_\_  
**Vomit frequency** \_\_\_\_\_  
**Laxative abuse** \_\_\_\_\_  
**Gender** \_\_\_\_\_  
**Diagnosis** \_\_\_\_\_

**Emotional abuse**

Reported presence Y/N  
 Perpetrators Father/mother/both/siblings/others/others+family  
 Age Childhood (pre-8) / later / both

**Sexual abuse**

Reported presence Y/N  
 Perpetrators Intrafamilial / Extrafamilial / both  
 Age at first experience \_\_\_\_\_ years  
 Multiple experiences Y/N  
 Multiple abusers Y/N  
 Physical contact Y/N

**Physical abuse**

Reported presence Y/N  
 Perpetrators Intrafamilial / Extrafamilial / both  
 Age at first experience \_\_\_\_\_ years  
 Multiple experiences Y/N  
 Multiple abusers Y/N  
 Physical contact Y/N

**Bullying**

Reported presence Y/N  
 Perpetrators Intrafamilial / Extrafamilial / Both  
 Age at first experience \_\_\_\_\_ years

**Comorbid behaviours, psychological problems and general health**

**Current and past impulsive behaviours (used to influence emotional arousal):**

Behaviour		Current use (tick if used)	Use in past (tick if used)	Comments (especially when used)
Self-cutting				
Other impulsive self-harm (e.g. hitting; burning)				
Compulsive self-harm (e.g. picking skin; hair pulling)				
Overdoses				
Suicide attempts				
Compulsive spending (not on food)				
Compulsive stealing (not food)				
Excessive alcohol use				
Drug	Amphetamine			
	Cocaine			
	Ecstasy			
	LSD			
	Cannabis			
	Heroin			
	Others (specify)			
Risky sexual behaviour (e.g., recurrent one-night stands; unsafe sex; working in sex industry)				

**Is the patient's eating problem multi-impulsive in nature? Yes / No**  
delete as necessary

**General physical health:**

## Appendix B

## YSQ-S

**INSTRUCTIONS:**

Listed below are statements that a person might use to describe himself or herself. Please read each statement and decide how well it describes you using the rating scale below. When you are not sure about how a statement applies to you, base your answer on what you emotionally feel, not on what you think to be true. Using the rating scale below, choose the highest rating from 1 to 6 that applies to you and write the number in the space before the statement.

**RATING SCALE:**

- 1 = Completely untrue of me
- 2 = Mostly untrue of me
- 3 = Slightly more true than untrue
- 4 = Moderately true of me
- 5 = Mostly true of me
- 6 = Describes me perfectly

1. \_\_\_\_\_ Most of the time, I haven't had someone to nurture me, share him/herself with me, or care deeply about everything that happens to me.
2. \_\_\_\_\_ In general, people have not been there to give me warmth, holding, and affection.
3. \_\_\_\_\_ For much of my life, I haven't felt that I am special to someone.
4. \_\_\_\_\_ For the most part, I have not had someone who really listens to me, understands me, or is tuned into my true needs and feelings.
5. \_\_\_\_\_ I have rarely had a strong person to give me sound advice or direction when I'm not sure what to do.
6. \_\_\_\_\_ I find myself clinging to people I'm close to because I am afraid they'll leave me.
7. \_\_\_\_\_ I need other people so much that I worry about losing them.
8. \_\_\_\_\_ I worry that people I feel close to will leave me or abandon me.
9. \_\_\_\_\_ When I feel someone I care for pulling away from me, I get desperate.
10. \_\_\_\_\_ Sometimes I am so worried about people leaving me that I drive them away.
11. \_\_\_\_\_ I feel that people will take advantage of me.
12. \_\_\_\_\_ I feel that I cannot let my guard down in the presence of other people, or else they will intentionally hurt me.
13. \_\_\_\_\_ It is only a matter of time before someone betrays me.
14. \_\_\_\_\_ I am quite suspicious of other people's motives
15. \_\_\_\_\_ I'm usually on the lookout for people's ulterior motives
16. \_\_\_\_\_ I don't fit in.
17. \_\_\_\_\_ I'm fundamentally different from other people.
18. \_\_\_\_\_ I don't belong; I'm a loner.

19. \_\_\_\_\_ I feel alienated from other people.
20. \_\_\_\_\_ I always feel on the outside of groups.
21. \_\_\_\_\_ No man/woman I desire could love me once he/she saw my defects.
22. \_\_\_\_\_ No one I desire would want to stay close to me if he/she knew the real me.
23. \_\_\_\_\_ I'm unworthy of the love, attention, and respect of others.
24. \_\_\_\_\_ I feel that I'm not lovable.
25. \_\_\_\_\_ I am too unacceptable in very basic ways to reveal myself to people.
26. \_\_\_\_\_ Almost nothing I do at work (or school) is as good as other people can do.
27. \_\_\_\_\_ I'm incompetent when it comes to achievement.
28. \_\_\_\_\_ Most other people are more capable than I am in areas of work and achievement.
29. \_\_\_\_\_ I'm not as talented as most people are in their work.
30. \_\_\_\_\_ I'm not as intelligent as most people when it comes to work (or school).
31. \_\_\_\_\_ I do not feel capable of getting on in everyday life.
32. \_\_\_\_\_ I think myself a dependent person, when it comes to everyday functioning.
33. \_\_\_\_\_ I lack common sense.
34. \_\_\_\_\_ My judgment cannot be relied upon in everyday situations.
35. \_\_\_\_\_ I don't feel confident about my ability to solve everyday problems that come up.
36. \_\_\_\_\_ I can't seem to escape the feeling that something bad is about to happen.
37. \_\_\_\_\_ I feel that disaster (natural, criminal, financial, or medical) could strike at any moment.
38. \_\_\_\_\_ I worry about being attacked
39. \_\_\_\_\_ I worry that I'll lose all my money and become destitute.
40. \_\_\_\_\_ I worry that I am developing a serious illness, even though nothing serious has been diagnosed by a physician.
41. \_\_\_\_\_ I have not been able to separate myself from my parent(s), the way other people my age seem to.
42. \_\_\_\_\_ My parent(s) and I tend to be overinvolved in each other's lives and problems.
43. \_\_\_\_\_ It is very difficult for my parent(s) and me to keep intimate details from each other, without feeling betrayed or guilty.
44. \_\_\_\_\_ I often feel as if my parent(s) are living through me - I don't have a life of my own.
45. \_\_\_\_\_ I often feel that I do not have a separate identity from my parents or partner.
46. \_\_\_\_\_ I think if I do what I want, I'm only asking for trouble.
47. \_\_\_\_\_ I feel that I have no choice but to give in to other people's wishes, or else they will retaliate or reject me in some way

*Please turn over and continue*

48. \_\_\_\_\_ In relationships, I let the other person have the upper hand.
49. \_\_\_\_\_ I've always let others make choices for me, so I really don't know what I want for myself.
50. \_\_\_\_\_ I have a lot of trouble demanding that my rights be respected and that my feelings be taken into account.
51. \_\_\_\_\_ I'm the one who usually ends up taking care of people I'm close to.
52. \_\_\_\_\_ I am a good person because I think of others more than of myself.
53. \_\_\_\_\_ I'm so busy doing things for the people that I care about that I have little time for myself.
54. \_\_\_\_\_ I've always been the one who listens to everyone else's problems.
55. \_\_\_\_\_ Other people see me as doing too much for others and not enough for myself.
56. \_\_\_\_\_ I am too self-conscious to show positive feelings to others (e.g. affection, showing I care).
57. \_\_\_\_\_ I find it embarrassing to express my feelings to others.
58. \_\_\_\_\_ I find it hard to be warm and spontaneous.
59. \_\_\_\_\_ I control myself so much that people think I am unemotional.
60. \_\_\_\_\_ People see me as uptight emotionally.
61. \_\_\_\_\_ I must be the best at most of what I do; I can't accept second best.
62. \_\_\_\_\_ I try to do my best; I can't settle for "good enough".
63. \_\_\_\_\_ I must meet all my responsibilities.
64. \_\_\_\_\_ I feel there is constant pressure for me to achieve and get things done.
65. \_\_\_\_\_ I can't let myself off the hook easily or make excuses for my mistakes.
66. \_\_\_\_\_ I have a lot of trouble accepting "no" for an answer when I want something from other people.
67. \_\_\_\_\_ I'm special and shouldn't have to accept many of the restrictions placed on other people.
68. \_\_\_\_\_ I hate to be constrained or kept from doing what I want.
69. \_\_\_\_\_ I feel that I shouldn't have to follow the normal rules and conventions other people do.
70. \_\_\_\_\_ I feel that what I have to offer is of greater value than the contributions of others.
71. \_\_\_\_\_ I can't seem to discipline myself to routine or boring tasks.
72. \_\_\_\_\_ If I can't reach a goal, I become easily frustrated and give up.
73. \_\_\_\_\_ I have a very difficult time sacrificing immediate gratification to achieve a long-term goal.
74. \_\_\_\_\_ I can't force myself to do things I don't enjoy, even when I know it's for my own good.
75. \_\_\_\_\_ I have rarely been able to stick to my resolutions.

***Thank you very much for answering these questions.  
Please turn over and continue with the next questionnaire.***



Appendix C

*Definitions of Core Beliefs*

*Early maladaptive schemas with associated schema domain.*

(Revised November, 1998)\*

*Disconnection and Rejection*

The expectation that one's needs for security, safety, stability, nurturance, empathy, sharing of feelings, acceptance, and respect will not be met in a predictable manner.

*Emotional Deprivation.* Expectation that one's desire for a normal degree of emotional support will not be adequately met by others. The three major forms of deprivation are:

*Deprivation of Nurturance* – Absence of attention, affection, warmth, or companionship.

*Deprivation of Empathy* – Absence of understanding, listening, self – disclosure, or mutual sharing of feelings from others.

*Deprivation of Protection* – Absence of strength, direction, or guidance from others.

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Therapy Center New York, 120 E. 56th Street, Suite 530, New York, NY 10022  
or phone (212) 588-1998.

*Abandonment/Instability.* The perceived instability or unreliability of those available for support and connection. Involves the sense that significant others will not be able to continue providing emotional support, connection, strength, or practical protection because they are emotionally unstable and unpredictable (e.g., angry outbursts), unreliable, or erratically present; because they will die imminently; or because they will abandon the patient in favor of someone better.

*Mistrust/Abuse.* The expectation that others will hurt, abuse, humiliate, cheat, lie, manipulate, or take advantage. Usually involves the perception that the harm is intentional or the result of unjustified and extreme negligence. May include the sense that one always ends up being cheated relative to others or “gets the short end of the stick”.

*Social Isolation/Alienation.* The feeling that one is isolated from the rest of the world, different from other people, and/or not part of any group or community.

*Defectiveness/Shame.* The feeling that one is defective, bad, unwanted, inferior, or invalid in important respects; or that one would be unlovable to significant others if exposed. May involve hypersensitivity to criticism, rejection, and blame; self-

consciousness, comparison, and insecurity around others; or a sense of shame regarding one's perceived flaws.

*Impaired Autonomy And Performance*

The expectations about oneself and the environment that interfere with one's perceived ability to separate, survive, function independently, or perform successfully.

*Failure to achieve.* The belief that one has failed, will inevitably fail, or is fundamentally inadequate relative to one's peers, in areas of achievement (school, career, sports, etc.). Often involves beliefs that one is stupid, inept, untalented, ignorant, lower in status, less successful than others, and so on.

*Dependence/Incompetence.* Belief that one is unable to handle one's everyday responsibilities in a competent manner, without considerable help from others. Often presents as helplessness.

*Vulnerability to Harm or Illness.* Exaggerated fear that imminent catastrophe will strike at any time and that one will be unable to prevent it. Fears focus on one or more of the following: Medical Catastrophes, Emotional Catastrophes or External Catastrophes.

*Enmeshment/Undeveloped Self.* Excessive emotional involvement and closeness with one or more significant others (often parents), at the expense of full individuation or normal social development. Often involves the belief that at least one of the enmeshed individuals cannot survive or be happy without the constant support of the other.

*Other-Directedness*

The excessive focus on the desires, feelings, and responses of others, at the expense of one's own needs – in order to gain love and approval, maintain one's sense of connection, or avoid retaliation. Usually involves suppression and lack of awareness regarding one's own anger and natural inclinations.

*Subjugation.* Excessive surrendering of control to others because one feels coerced – usually to avoid anger, retaliation, or abandonment. The two major forms of subjugation are Subjugation of Needs and Subjugation of Emotions.

*Self-Sacrifice.* Excessive focus on voluntarily meeting the needs of others in daily situations, at the expense of one's own gratification. The most common reasons are to prevent causing pain to others, to avoid guilt from feeling selfish, or to maintain the connection with others perceived as needy.

*Overvigilance And Inhibition*

The excessive emphasis on suppressing one's spontaneous feelings, impulses and choices or on meeting rigid, internalized rules and expectations about performance and ethical behavior – often at the expense of happiness, self-expression, relaxation, close relationships, or health.

*Emotional Inhibition.* The excessive inhibition of spontaneous action, feeling, or communication – usually to avoid disapproval by others, feelings of shame, or losing control of one's impulses.

*Unrelenting Standards/Hypercriticalness.* The underlying belief that one must strive to meet very high internalized standards of behavior and performance, usually to avoid criticism. Typically results in feelings of pressure or difficulty slowing down, and in hypercriticalness toward oneself and others.

*Impaired Limits*

A deficiency in internal limits, responsibility to others, or long-term goal-orientation. Leads to difficulty respecting the rights of others, cooperating with others, making commitments, or setting and meeting realistic personal goals.

*Entitlement/Grandiosity.* The belief that one is superior to other people; entitled to special rights and privileges; or not bound by the rules of reciprocity that guide normal social interaction.

*Insufficient Self/Self-Discipline.* Pervasive difficulty or refusal to exercise sufficient self-control and frustration tolerance to achieve one's personal goals, or to restrain the excessive expression of one's emotions and impulses.

Appendix D



DEPARTMENT OF PSYCHIATRY  
Chairman: Professor J. Hubert Lacey

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27<sup>th</sup> August 2002

**Professor Tom Burns**  
Chairman  
Research and Development Committee  
South West London and St. George's  
Mental Health NHS Trust

**Professor Glenn Waller**  
Department of Psychiatry  
SGHMS

Dear Professor Waller

**Proposal:** The Role of Cognitive Process and Content in the Links between Reported Childhood Trauma and Impulsivity in the Eating Disorders

**Investigators:** Waller, Ganis, Corstorphine, Lawson

**This application has been considered by the Trust Research and Development Committee (which is the equivalent of the US Internal Review Board that you mention in your letter). I am pleased to confirm that the Committee is happy for this research to proceed. I note that the research is essentially a piece of case note research, and therefore requires no explicit ethical committee approval.**

**As you know, the Committee asks for a report when the research has been completed. Rather than requiring separate reports for the three studies that you are conducting here, would you send a single report at the appropriate juncture?**

With best wishes

You

**Professor Tom Burns**