

## **The Prevalence of Childhood Trauma and Parental Caretaking Quality among Gastric Surgery Candidates**

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*In this study, we examined the prevalence of traumatic childhood experiences as well as the quality of parental caretaking among 121 individuals (85.9% of which were women) seeking surgical treatment for obesity (mean body mass index of 47.2). Among this sample, 43.0% reported emotional abuse, 39.0% the witnessing of violence, 19.0% sexual abuse, 17.4% physical abuse, and 9.1% physical neglect. While the overall quality of parental caretaking was skewed toward a positive rating, those respondents who indicated each form of childhood trauma rated the quality of parental caretaking lower than did those without that specific form of abuse. The authors discuss the implications of these findings.*

In the empirical literature, there is a reasonably consistent association between various forms of childhood abuse and the development of eating pathology. These relationships have been studied among those with formal eating disorders according to the *Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revision (DSM-IV-TR)* (American Psychiatric

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Association, 2000) as well as among individuals with binge eating disorder (BED) and obesity.

### Childhood Abuse and Formal DSM Eating Disorders

A number of authors have described adverse childhood experiences as risk factors for the development of eating disorders (for a review, see Brewerton, in press). For example, according to both longitudinal and cross-sectional studies, Jacobi, Hayward, de Zwaan, Kraemer, and Agras (2004) concluded that sexual abuse and other adverse experiences are common risk factors for eating disorders. In addition, Agras (2003) described sexual and physical abuses as potential risk factors for eating disorders. Finally, with regard to late-onset eating disorders, Tobin, Molteni, and Elin (1995) described associations between physical abuse and binge eating behavior.

### Childhood Abuse and BED

In addition to the relationship between adverse childhood experiences and the traditional eating disorders described in the *DSM-IV-TR*, there may also be relationships between traumatizing childhood experiences and BED. In an overview, Pearlstein (2002) summarized three studies relating to sexual abuse among those with BED. In the first of these, Yanovski, Nelson, Dubbert, and Spitzer (1993) examined 33 women and 10 men with BED and compared them with obese counterparts without BED. There were *no* significant between-group differences regarding histories of sexual abuse. In a study by Fairburn et al. (1998), researchers compared those with BED and healthy controls, and concluded that sexual and physical abuses *were* meaningful risk factors for the disorder. In the final study reported by Pearlstein, investigators Grilo and Masheb (2002) found that 82% of 116 consecutive outpatients with BED reported some form of childhood maltreatment. Across these three studies, the prevalence of sexual abuse among participants with BED was approximately 30%.

As for related studies, Striegel-Moore, Dohm, Pike, Wilfley, and Fairburn (2002) compared healthy individuals, those with psychiatric diagnoses, and women in the community with BED, and found that participants with BED reported significantly higher rates of both sexual and physical abuses. Kugu, Akyuz, Dogan, Ersan, and Izgic (2002) examined individuals with either bulimia nervosa or BED, and found that, compared to controls, those with eating pathology had significantly more frequent histories of sexual and emotional abuses. Finally, in a study by Seel (2003), individuals with BED reported high rates of both covert and overt forms of sexual abuse. The previous research collectively indicates that childhood sexual, physical, and emotional abuses are commonly present in individuals suffering from BED, although there are studies with null findings (e.g., Yanovski et al., 1993).

## Childhood Abuse and Obesity

In addition to the frequent association of various types of childhood abuse with formal DSM eating disorders and BED, a number of studies indicate a relationship between childhood abuse and obesity. In a study of overweight women in a primary care setting (Sansone, Sansone, & Fine, 1995), we found that both highest and current body weights significantly and positively correlated with a history of sexual abuse. In a retrospective study of more than 13,000 individuals, Williamson, Thompson, Anda, Dietz, and Felitti (2002) found that physical and verbal abuses were most strongly associated with increased body weight and/or obesity. Finally, among 53 morbidly obese bariatric surgery patients, Hunter (2003) found that the prevalence of childhood sexual abuse was twice that observed in the general population.

Two studies specifically address childhood abuse in obese males. In the first, Handley (1995) found that sexual abuse was reported significantly more often by obese males, compared with non-obese males. In the second, Adolfsson, Elofsson, Rossner, and Unden (2004) found that older overweight males were more likely to acknowledge sexual abuse, compared with normal-weight males.

## Studies Discounting Relationships Between Childhood Abuse and BED/Obesity

We must acknowledge that not all studies indicate statistical correlations between childhood abuse and BED/overweight/obesity status. For example, in the study by Yanovski et al. (1993), childhood sexual abuse did *not* predict for BED. In addition, we found no relationship between weight status and a history of sexual abuse among a primary care sample of 150 women outpatients (Wiederman, Sansone, & Sansone, 1999).

## Summary

To summarize the preceding empirical studies, there appears to be a general consensus that childhood sexual, physical, and emotional abuses may contribute to various types of eating disturbances including the formal DSM eating disorders, BED, and overweight/obesity, although not invariably.

## PARENTAL CARETAKING QUALITY AND WEIGHT STATUS

Several studies have examined relationships between parental caretaking quality and the association, if any, with overweight status. For example, Ferguson (2006) found that individuals with BED were more likely than

comparison participants to describe families as conflict-ridden, controlling, and dependent. Braungart-Rieker and Guerra (1999) affirmed faulty parenting styles as contributory to obesity. Chen and Kennedy (2004) found that the parental characteristics of poor communication, inadequate behavioral control, and low structure contributed to higher body mass indices. Finally, Striegel-Moore et al. (2005) found that women with BED reported higher parental demands and greater family discord, compared with controls.

However, not all investigators and studies have found associations between parental dysfunction and overweight status. For example, Godfrey (2004) plainly states that no data support the notion that eating disturbances are caused by bad parenting. Eipe (2005) compared overweight women with and without BED and found no differences on measures of family dysfunction. Among obese girls, Bjornson (1997) explored the relationship between parental weight and family dysfunction; heavier parents did not evidence higher levels of family dysfunction.

### Focus of the Present Study

The literature appears to be somewhat inconsistent regarding (a) the prevalence rates of childhood abuse among the obese and whether these differ from other populations and (b) the presence or not of poor parental caretaking among the obese. In addition, the previous literature is potentially compromised by: (a) small sample sizes; (b) diverse recruitment strategies (e.g., treatment-seeking versus not); and (c) limited queries into the full possible range of adverse childhood experiences. In this study, we examined five types of childhood trauma (i.e., sexual, physical, emotional abuses; witnessing violence; physical neglect) as well as the perceived quality of parental caretaking among obese participants seeking gastric surgery.

## METHOD

### Participants

Participants in this study were male and female patients, ages 18 or older, seeking consultation for gastric surgery for obesity (i.e., lap banding or bypass procedure). Exclusion criteria were medical, cognitive, or psychiatric impairment that would preclude the participant's successful completion of a survey. All participants were under the care of one surgeon and each was recruited by the program's social worker as time permitted (i.e., a sample of convenience). Of the 124 individuals approached, 121 agreed to participate for a response rate of 97.6%.

The resulting sample consisted of 104 women and 17 men, ranging in age from 20–70 years (*Mean* = 44.6, *SD* = 11.8). The majority of respondents typically had attained a high school diploma as their highest level of

completed education (77.5%); only 19.2% of the sample had attained a college degree. The majority (82.6%) was White; 14.0% were African-American and the remaining participants were Native American (1), Asian (2), and Hispanic (1). Respondents had body mass indexes ranging from 27.2–92.1 (*Mean* = 47.2, *SD* = 9.7).

## Procedure

At the time of evaluation for gastric surgery, each participant was approached by the program's social worker for enrollment into the project. Following an introduction to the project and successful recruitment, participants were given a survey booklet to complete. The cover page of the survey booklet contained the elements of informed consent. The contents of the survey booklet contained queries about demographic information as well as height, weight history, binge eating behavior, history of childhood abuse, and parental caretaking history.

### BINGE EATING ASSESSMENT

For the assessment of BED, we used the Questionnaire on Eating and Weight Patterns-Revised (QEWP-R) (Spitzer, Yanowski, & Marcus, 1994; Yanovski, 1993). The QEWP-R is a 27-item, self-report measure that explores weight and dieting history, binge-eating behavior, and purging behavior. Previous studies indicate that the QEWP-R identifies individuals with clinically meaningful BED (Elder et al., 2006) and is a useful screening measure for the disorder (Borges, Morgan, Claudino, & da Silveira, 2005; Celio, Wilfley, Crow, Mitchell, & Walsh, 2004). In this study, we excerpted from the QEWP-R five key items relating to the diagnosis of BED and included a list of exclusionary purging behaviors. All five items were required for the diagnosis of BED as well as the absence of any purging behavior.

### CHILDHOOD ABUSE ASSESSMENT

With regard to abuse in childhood, participants were asked if, "Prior to the age of 12, did you ever experience . . ." and yes/no response options were: (a) sexual abuse (any sexual activity against your will); (b) physical abuse (any physical insult against you that would be considered inappropriate by either yourself or others and that left visible signs of damage on your body either temporarily or permanently or caused pain that persisted beyond the "punishment"); (c) emotional abuse (verbal and nonverbal behaviors by another individual that were purposefully intended to hurt and control you, not kid or tease you); (d) physical neglect (not having your basic life

needs met); and (e) witnessing of violence (the first-hand observation of violence that did not directly involve you). This brief query into childhood trauma was developed by one of the authors (R.A.S.) and designed to accommodate busy medical settings by exploring histories of childhood trauma with minimal intrusion.

#### PARENTAL CARETAKING

To broaden the assessment of childhood adversity, we also inquired about the number of different caretakers while growing up as well as the overall quality of parental caretaking. For the latter query, response options were: excellent, good, fair, not very good, and terrible.

All participants signed a consent form for participation. Both the hospital and university Institutional Review Boards approved this project.

### RESULTS

#### Prevalence of BED in the Sample

In this sample of patients, the prevalence of BED was 6 out of the 92 participants who completed the QEWP-R, or 6.5%. Because of the low prevalence rate, we were not able to perform comparative analyses between those with versus without BED.

#### Prevalence of Childhood Abuse Experiences

Of the 121 respondents, 43.0% reported having experienced emotional abuse, 39.0% the witnessing of violence, 19.0% sexual abuse, 17.4% physical abuse, and 9.1% physical neglect. Most (62.7%) respondents indicated having experienced at least one form of childhood abuse with 25.4% of the total sample indicating one form, 17.8% two forms, 12.7% three forms, 4.2% four forms, and 2.5% all five forms of childhood trauma.

#### Quality of Parental Caretaking

Most respondents (69.2%) indicated having had two caretakers while growing up; 13.1% reported having had just one, 9.3% three, and 7.5% four or more caretakers during childhood. The ratings of the overall quality of caretaking during childhood ranged from 1–5, but were skewed toward a positive rating: 4.2% of respondents rated parental caretaking a 1 (Terrible), 5.9% a 2 (Not Very Good), 16.0% a 3 (Fair), 34.4% a 4 (Good), and 39.5% a 5 (Excellent). However, ratings did vary according to reports of childhood abuse and trauma (see Table 1). Those respondents who indicated having

**TABLE 1** Mean Ratings of Childhood Parental Caretaking as a Function of Having Experienced Each of Five Forms of Childhood Trauma

	Did Not Experience	Did Experience	<i>F</i>	<i>df</i>	<i>p</i>
	Mean ( <i>SD</i> )	Mean ( <i>SD</i> )			
Sexual Abuse	4.09 (.96)	3.55 (1.47)	4.70	1,117	.05
Physical Abuse	4.15 (.97)	3.20 (1.28)	14.22	1,117	.001
Emotional Abuse	4.44 (.81)	3.38 (1.12)	35.35	1,117	.001
Witnessing Violence	4.24 (.90)	3.62 (1.27)	9.38	1,114	.005
Physical Neglect	4.17 (.91)	2.00 (.82)	52.95	1,117	.001

experienced each form of childhood trauma rated the quality of caretaking during childhood lower than respondents who indicated having not experienced each form of trauma. Also, the total number of different forms of childhood trauma experienced was moderately correlated ( $r = -.57$ ,  $p < .001$ ) with the rating of overall parental caretaking.

## DISCUSSION

In this sample of patients seeking gastric surgery for obesity, we found that the prevalence of BED was surprisingly low (6.5%). According to the literature, the prevalence of BED in the community is around 5%, in weight-loss clinics up to 30%, and in those with body mass indices greater than 40, up to 50% (Walsh, Wilfley, & Hudson, 2003). Note that the mean body mass index for participants in this study was  $47.2 \text{ kg/m}^2$ , suggesting that a sizeable proportion of participants might suffer from BED. What might explain this disparity?

The disparity between the anticipated and observed prevalence rate of BED in this sample might be explained in several ways. First, the patients in this particular sample may have been hesitant to acknowledge BED behaviors for fear of being denied the surgery (note that of the 121 participants, only 92 or 76% of the sample completed this query). Second, it is possible that as gastric surgery for obesity becomes increasingly commonplace, there is a more diluted association between seeking surgery and suffering from eating pathology (i.e., BED). This phenomenon has certainly been observed with tattoos. In the past, the presence of tattoos was highly associated with antisocial personality disorder. Tattoos are now fairly commonplace, particularly among younger populations, and their association with Axis II psychopathology has diminished significantly. This may also be occurring with the association between BED and obesity. In support of these impressions, in a recent study, Kalarchian et al. (2007) found that the prevalence of BED among 288 gastric surgery candidates was 16.0%.

In this sample, we encountered fairly high levels of childhood abuse. Using the *identical* assessment tool for childhood trauma in a sample of 116 women being seen in a primary care setting for routine care (Sansone, Wiederman, & Sansone, 1998), we found rates of abuse as follows: emotional abuse 39.7% (43.0% in this sample), witnessing violence 44.0% (39.0% in this sample), sexual abuse 23.3% (19.0% in this sample), physical abuse 36.2% (17.4% in this sample), and physical neglect 10.3% (9.1% in this sample). Note that there is little difference in the reported prevalence rates of different forms of childhood trauma between these two populations.

Similar rates of childhood abuse are also echoed in other samples of gastric surgery candidates and patients. For example, in a sample of 137 gastric surgery patients (Grilo, White, Masheb, Rothschild, & Burke-Martindale, 2006), 32% reported childhood sexual abuse, 37% some form of non-sexual abuse, and 31% no form of abuse. In another sample, Gustafson et al. (2006) found that only 16% of their gastric surgery candidates reported sexual abuse.

While there are high levels of childhood trauma among the obese presenting for gastric surgery for obesity, these rates are similar to primary care populations. This suggests that among contemporary gastric-surgery populations, if childhood trauma is a contributory variable to obesity, it is non-specific. It may also be that there are unique predisposing contextual factors surrounding the abuse that heighten the risk for eating disturbances, but we did not analyze these. What might these contextual factors be? For example, Hyde and Kaufman (1984) describe several influential factors that may affect outcomes in *sexual abuse*. These include the age at which the molestation first began, frequency and duration of the abuse, relationship of the perpetrator to the victim, methods used to contain the “secret,” degree of isolation of the “secret,” and manner in which the exposure of the secret is handled. Additional factors may include a greater number of perpetrators, the lack of parental/family support, a threat to one’s life or the life of a family member, and/or higher levels of aggression associated with the sexual abuse.

In this study, we found that abusive experiences significantly correlated with lower scores by participants on parental caretaking. While this finding is not surprising, we must emphasize an important point. The abusive experiences reported by participants might have been committed by non-family members (e.g., sexual abuse). However, regardless of the source of abuse, participants with abusive experiences rated caretakers as poorer in quality. This could relate to either the caretaker being the perpetrator or the caretaker not protecting the participant from a perpetrator outside of the family. Note that nearly three quarters of participants rated their parental caretaking experience as good or excellent.

From a clinical perspective, these data underscore the importance of exploring abuse histories and parental caretaking quality among patients seeking treatment for obesity. When present and while nonspecific, such



histories suggest psychodynamics related to diminished parental nurturing, an impaired capacity for self-soothing, and the negative effects of trauma on core self-regulatory functions. In terms of therapeutic tools and treatment options, these may not be substantially different than when treating other types of patients with trauma; however, the manifestation of psychological symptoms may be more singularly focused (eating pathology) in individuals suffering from obesity.

In summary, patients seeking gastric surgery for obesity have high rates of childhood abuse. However, these rates of abuse may not exceed the rates encountered in the general population. In addition, the majority of participants rated parental caretaking as good or excellent. In this sample, abusive experiences exhibited significant correlations with lower scores on the quality of parental caretaking; this finding suggests that the two may be closely related to each other. This study has several potential limitations including a sample of convenience, the self-report nature of the assessments, and the cursory assessment for childhood abuse. However, the findings provide further evidence of high rates of childhood trauma among the obese. In addition, to our knowledge this is the only study that has examined childhood abuse in relationship to parental caretaking quality in this type of population. Only further research will tease out the nuances of these complex developmental issues and obesity, *if they exist in contemporary populations of patients seeking gastric surgery*.

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