The Interface

The Relationship Between Borderline Personality and Obesity

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This ongoing column is dedicated to the challenging clinical interface between psychiatry and primary care—two fields that are inexorably linked.

ABSTRACT

Obesity is a significant health problem in the United States. Therefore, it is extremely important to understand potential clinical associations with obesity, including personality pathology. From studies of personality disorders in other types of eating pathology, it appears that restrictive personality disorders (e.g., obsessive-compulsive disorder) are associated with restrictive eating pathology (e.g., anorexia nervosa, restricting type) whereas impulsive personality disorders (e.g., borderline personality disorder) are associated with impulsive eating pathology (e.g., anorexia nervosa, binge-eating/purging type; bulimia nervosa, binge eating disorder). Because binge eating disorder is oftentimes associated with an obese status, it seems likely that borderline personality disorder may also be associated with obesity. At the present time, there appear to be nine accessible studies in this area, comprising 639 obese individuals. While rates of borderline personality disorder in these studies vary from 2.2 to 94.1 percent, 10 of 19 measures detected this disorder at rates of 25 percent or higher, and the average of all percentages is 26.9 percent. Findings appear to support the association between impulsive personality pathology and impulsive eating pathology, and underscore that a significant minority of obese individuals may suffer from borderline personality disorder.

KEY WORDS

Axis II, binge eating disorder, borderline, borderline personality, eating disorders, obesity

INTRODUCTION

Obesity continues to be a major health concern in the United States. According to the Centers for Disease Prevention and Control, 35.7 percent of adults and approximately 17 percent of children in the United States are obese.[1] The individual states with the highest rates of obesity (>30%) include Alabama, Arkansas, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Oklahoma, South Carolina, Tennessee, Texas, and West Virginia.[1] As for etiology, obesity appears to be a multidetermined syndrome with contributions from both genetics and the environment. Personality pathology may also play a unique role in obesity. In this edition of The Interface, we discuss the possible relationship between one specific personality disorder, borderline personality disorder (BPD), and obesity. We begin by presenting data on complimentary styles between personality pathology and eating pathology, then review the prevalence of BPD in obesity as well as discuss the possible nature of this association.

IMPULSIVITY: AN ESSENTIAL FEATURE OF BORDERLINE PERSONALITY DISORDER

In the *Diagnostic and Statistical Manual of Mental Disorders, Fourth*

Edition, Text Revision (*DSM-IV-TR*),[2] BPD is categorized as a Cluster B personality disorder (i.e., this disorder resides in the emotional, dramatic, erratic cluster of personality disorders). The *DSM-IV-TR* describes BPD as a "pervasive pattern of instability" characterized by "marked impulsivity" that affects approximately two percent of the general population. To illustrate possible manifestations of impulsivity, the *DSM-IV-TR* provides, among others, the example of binge eating behavior. In doing so, the *DSM-IV-TR* affirms a distinct association between this specific type of personality pathology and impulsive eating behavior.

RELATIONSHIPS BETWEEN PERSONALITY DISORDER STYLE AND EATING PATHOLOGY

In our previous work, we have noted general associations between personality disorder style and eating pathology.[3] In other words, the style of the personality pathology appears to compliment the style of the eating pathology. As an example, anorexia nervosa, restricting type, is psychologically characterized by high levels of personal control and restraint. When we examined 10 empirical studies on the types of personality pathology encountered in anorexia nervosa, restricting type, we found that obsessive-compulsive personality was the most common (prevalence rate of approximately 22%)—a personality pathology that is characterized by a preoccupation with details and order, perfectionism, excessive devotion to projects, inflexibility, and rigidity.[2] In further support of this association, Cassin and von Ranson state that multidimensional perfectionism is a salient correlate in anorexia nervosa.[4]

In contrast to anorexia nervosa restricting type, anorexia nervosa binge-eating/purging type is characterized by high levels of impulsivity, which is manifest in both the behaviors of binge eating and purging. In our review of nine empirical studies on the personality pathology associated with this eating disorder, we found that BPD was the most common personality disorder (prevalence rate of approximately 25%).[3]

In further examination of the associations between personality pathology and eating pathology, we examined studies on the prevalence of various Axis II disorders in individuals with bulimia nervosa—another eating disorder that is characterized by impulsivity.[3] As expected, among the 28 empirical studies that we examined, we found that the personality disorder with the highest prevalence rate among individuals with bulimia nervosa was BPD, at a rate of around 28 percent.

From the preceding investigations, we concluded that the style of personality pathology confers an influence on the style of eating pathology, with restrictive personality pathology contributing to restrictive eating pathology, and impulsive personality pathology contributing to impulsive eating pathology.[5] Because personality disorders are believed to commence and consolidate in childhood through the interactions of genes and the environment, it is probable that personality pathology precedes eating pathology in most cases (eating disorders most often manifest in early-to-late adolescence). Therefore, a given personality pathology might be viewed as a potential risk factor for the subsequent development of a specific type of eating pathology.[5–7]

BORDERLINE PERSONALITY AND BINGE EATING DISORDER

Given the preceding perspective on relationships between personality pathology and eating pathology, it is reasonable to conjecture about possible relationships between BPD and obesity—an eating pathology that may be empirically characterized by impulsive eating. Partial evidence for impulsive eating patterns among individuals with obesity seems to currently lie within the literature on binge eating disorder.

Currently classified in the *DSM-IV-TR* as a criteria set for further study,[2] binge eating disorder is characterized by a recurrent pattern of binge eating that occurs at least twice a week for a minimum period of six months. The clinical characteristics of binge eating behavior in this disorder are like those encountered in bulimia nervosa. Unlike the behavioral patterns observed in bulimia nervosa, there are no compensatory behaviors (e.g., vomiting, fasting, exercise) to counter the episodes of massive calorie ingestion in binge eating disorder. Therefore, many individuals with this syndrome wind up being overweight, although weight status, per se, is not a diagnostic criterion.

According to Bunnell[8] and Walsh, Wilfley, and Hudson,[9] the prevalence of binge eating disorder in the community is up to five percent, in weight loss clinics up to 30 percent, and in those with body mass indices (BMI) of 40 or greater, up to 50 percent. According to these prevalence data, in comparison with anorexia or bulimia nervosa, binge eating disorder is the most common eating disorder in existence. Unlike the traditional eating disorders, in binge eating disorder a substantial number of male individuals are affected, with the female to male ratio being 3:2.[8,9] The onset of this disorder is typically during the late teens to early 20s, the ethnicity of the patient population is diverse, and the age-of-presentation for treatment (i.e., 30–40 years) is later than that encountered in anorexia or bulimia nervosa.[8,9] This brief summary

TABLE 1. Studies on the prevalence of borderline personality among various samples of obese participants (*N*=639)

FIRST AUTHOR	RECRUITMENT SITE	N	MEASURES	BPD%
Grana et al[18] 1989	Gastric surgery setting	150	CATI	2.2
Black et al[19] 1989	Gastric surgery setting	38	PDQ	18.4
Black et al[20] 1992	Gastric surgery setting	46	SIDP	30.4
Berman et al[21] 1992	Weight management program	56	SCID-II	7.1
			PDQ-R	25
Sansone et al[22] 1995	Primary care setting	61	DIB	7
			PDQ-R	25
Sansone et al[23] 1996	Eating disorder program	17	PDQ-R/DIB	62.5/41.2
	Primary care setting	60	PDQ-R/DIB	36.7/6.7
Sansone et al[24] 2001	Primary care setting	36	PDQ-4/SHI	27.8/27.8
	Outpatient mental health clinic	17	PDQ-4/SHI	94.1/58.8
Van Hanswijck de Jonge et al[16] 2003	Gastric surgery setting	37	IPDE	5.4
Sansone et al[25] 2008	Gastric surgery setting	121	SHI/PDQ-4/ MSI-BPD	14.0/14.0/7.4

CATI=Coolidge Axis II Inventory; DIB=Diagnostic Interview for Borderlines; PDQ=Personality Diagnostic Questionnaire; PDQ-4=Personality Diagnostic Questionnaire-4; PDQ-R=Personality Diagnostic Questionnaire-Revised; SCID-II=Structured Clinical Interview for DSM-III-R Personality Disorders; SHI=Self-Harm Inventory; SIPD=Structured Interview for DSM-III Personality Disorders

indicates that a number of individuals with obesity may suffer from binge eating disorder, an eating disorder characterized by impulsive eating behavior.

In a review of the literature on the relationship between BPD and binge eating disorder,[10] which was published in the year 2000, we encountered five relevant studies.[11–15] The prevalence rates of BPD among the various samples of individuals with binge eating disorder ranged from 6 to 30 percent. Rates of BPD were consistently higher in participants with binge eating disorder compared with controls. Since this review, we located two additional studies. In the first, van Hanswijck de Jonge et al reported that one out of 15 patients (6.6%) with binge eating disorder suffered from BPD.[16] In the second, Azuma et al found that Japanese participants with obesity and binge eating disorder had "characteristics of BPD."[17] In summary, this collection of studies suggests that rates of BPD among individuals with binge eating disorder are generally higher than rates encountered in community samples.

BORDERLINE PERSONALITY AMONG INDIVIDUALS WITH OBESITY

A number of studies have examined the prevalence of BPD among obese individuals (Table 1).[16,18–25] To summarize these data, among the nine studies displayed in Table 1, sample sizes vary from 17 to 150 individuals (i.e., they are generally small). The total number of participants in these nine studies is 639; they are from various socioeconomic classes and the majority are female. The prevalence rates for BPD in these studies varied

from 2.2 to 94.1 percent. Several studies used multiple measures for BPD assessment. In examining results, 10 of 19 measures for BPD detected this disorder at rates of 25 percent or higher. Finally, averaging all of the reported percentages for BPD according to these various measures, 26.9 percent of participants met the criteria for BPD. In other words, a significant percentage of participants with obesity exhibited borderline personality symptomatology.

In addition to the preceding prevalence rates of BPD among individuals with obesity, there are two additionally important facets related to these data. First, in 5 of the 9 studies (over half), participants were recruited from gastric surgery sites. This finding may be particularly salient, as many of these individuals were examined during the assessment phase for gastric surgery. Given that assessments for BPD typically inquire about various self-harm behaviors (e.g., cutting oneself) as well as suicidal ideation and other self-regulation difficulties (e.g., promiscuity, alcohol/drug misuse), it seems feasible that a meaningful percentage of candidates would not disclose this information during the psychological assessment phase for fear of being disqualified for the surgery, regardless of whether such a disclosure would disqualify them or not. If so, then these findings may be appreciably under-reporting the actual prevalence rates of BPD in obesity.

Second, in comparing sample types, note that the lowest rate of BPD among individuals with obesity is reported in a gastric surgery sample whereas the highest rate of BPD is reported in a mental health sample. While disclosure is clearly a potential factor in explaining the differences between these two prevalence rates, setting may be an additional factor. Specifically, it is likely that more emotionally disturbed individuals with obesity are presenting for mental health treatment than for gastric surgery, thereby resulting in a relatively higher rate of BPD among individuals with obesity in mental health settings. Because of this possibility, clinicians in mental health settings need to be particularly aware of screening for BPD in patients who are obese, particularly in the presence of a comorbid mood disorder, an additional form of self-regulation difficulty (e.g., substance misuse), and/or repetitive self-harm behavior (e.g., suicide attempts, self-mutilation).

TEMPORAL ASSOCIATIONS: CONTRIBUTORY RELATIONSHIPS?

From the available studies, it appears that BPD is relatively infrequent among eating pathologies characterized by restrictive patterns and ubiquitous in eating pathologies characterized by impulsivity. Because personality pathology is born of genetics and early childhood experiences and eating pathology typically emerges in early-to-late adolescence, it is likely that personality pathology generally precedes eating pathology. Given this proposed temporal relationship, it may be that borderline personality pathology functions as one of several risk factors for the evolution of particular types of eating pathology—especially anorexia nervosa, binge-eating purging type; bulimia nervosa, binge eating disorder; and/or obesity. Importantly, these eating disorders are multidetermined and their etiologies cannot be simply ascribed to personality pathology. Therefore, personality pathology is probably best viewed as one of several contributory factors for impulsive eating pathology.

CONCLUSION

Obesity is a rampant health problem in the United States. Because of this, it is critical to understand relationships between obesity and other disorders as well as contributory variables. In this regard, personality pathology appears to influence eating pathology, such that restrictive personality pathology (e.g., obsessive-compulsive personality disorder) is most present in restrictive eating pathology, and impulsive personality pathology (e.g., borderline personality disorder) is most present in impulsive eating pathology. These relationships are reinforced by various empirical studies, which document significant rates of obsessive-compulsive personality and perfectionism in anorexia nervosa, restricting type, and significant rates of BPD in anorexia nervosa, binge-eating/purging type; bulimia nervosa, binge eating disorder; and obesity. For example, current data indicate that 27 percent of individuals with obesity harbor comorbid BPD. However, this percentage is likely to be low based upon the observation that 5 of 9 studies took place in gastric surgery settings, many during the assessment phase, thereby potentially compromising patient disclosure. In conclusion, BPD appears to be present in a significant minority of obese individuals, and likely is a contributory factor to initiating and maintaining an obese status.

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