## The Relationship Between Suicide Attempts and Borderline Personality in Gastric Surgery Candidates

**To the Editor:** A number of studies have examined among obese individuals the prevalence of suicide attempts prior to and following gastric surgery for weight reduction as well as completed suicide in the aftermath of such surgery (for a review, see Sansone et al[1]). For example, in a prior study, we found that 9.1% of gastric surgery candidates reported at the time of evaluation a past history of suicide attempt.[1] Likewise, while findings vary, a number of investigators have reported rates of postsurgery suicide that are significantly higher than those observed in the general population.[1] However, in gastric surgery candidates, the relationship between suicide attempts and other forms of psychopathology has received limited attention. Because of the known association between suicide attempts and borderline personality disorder (BPD), we wondered if suicide attempts in this population might correlate with this Axis II disorder, and we decided to examine this issue in a previously described database.[1]

***Method.*** Participants were both men and women, aged 18 years or older, who were undergoing consultation for gastric surgery for obesity (ie, either a laparoscopic banding or bypass procedure). Exclusion criteria were medical, cognitive, intellectual, or psychiatric impairment that would preclude the successful completion of a survey. Of the 124 individuals who were 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 to 70 years (mean = 44.6, SD = 11.8). With regard to their highest level of completed education, the majority of participants had attained a high school diploma (77.5%); only 19.2% of the sample had attained a college degree. The majority (82.6%) were white; 14.0% were African American; and 1 participant was Native American, 2 were Asian, and 1 was Hispanic. Body mass indices in this sample ranged from 27.2 to 92.1 (mean = 47.2, SD = 9.7).

All participants were seeking consultation from 1 surgeon, and each was recruited into the project by the program's social worker as time permitted (ie, a sample of convenience). Following an introduction to the project and successful recruitment, participants were given a research booklet to complete. The research booklet explored participants' demographic information, height and weight, and borderline personality psychopathology using 2 measures: (1) the borderline personality scale of the Personality Diagnostic Questionnaire-4 (PDQ-4)[2] and (2) the Self-Harm Inventory (SHI).[3] Item 18 of the SHI specifically queries, "Have you ever intentionally, or on purpose, attempted suicide?" which was used as the indicator for a past suicide attempt.

All participants signed a consent form for participation in this project. Data were collected between May 2005 and March 2008. The project was approved by the institutional review boards of both the community hospital where the study took place and the local university.

***Results.*** There were 11 respondents (9.1%) who endorsed the SHI item regarding a past history of suicide attempt. On the PDQ-4, 5 (45.4%) of 11 suicide attempters versus 12 (10.9%) of 110 suicide nonattempters scored in the BPD range, $\chi^2 = 9.88$, $P < .01$. With regard to the SHI, we eliminated item 18 (ie, suicide attempt) from the scoring but proceeded with the recommended cut-off of 5; in doing so, 4 (36.4%) of 11 of the suicide attempters were positive for BPD versus 12 (10.9%) of 110 of the suicide nonattempters, $\chi^2 = 5.65$, $P < .02$. Note that in this sample, using either BPD measure, individuals with past histories of suicide attempts were approximately 4 times more likely to evidence BPD than those without such histories.

These findings strongly suggest that in obese individuals seeking gastric surgery for weight management, a history of past suicide attempt is a potential clinical indicator of BPD, as it is in other clinical populations. Our findings specifically demonstrate that BPD is roughly 4 times more likely in those with a past history of suicide attempt compared to those without such a history.

While preoperative psychological screening of bariatric surgery candidates has become routine,[4] no uniform guidelines exist on how to conduct these evaluations, nor are there any firm exclusion criteria.[5] However, 2 recent studies provide indications of the foci of such assessments. In the first, which consisted of a general survey of 81 gastric surgery programs, 88% required psychological assessment. While the nature and content of the *clinical* assessment was not clarified, investigators inquired about "commonly used assessment instruments." The Beck Depression Inventory[6] was utilized most frequently by respondents (33.3%) and has a query about suicidal ideation. Measures that may have been used to assess BPD in these programs were the Borderline Personality Inventory[7] (used by 3.7% of programs), the Millon Clinical Multiaxial Inventory[8] (used by 7.4% of programs), and the Personality Assessment Inventory,[9] which explores "borderline features" (used by 14.8% of programs). In this study, the most commonly cited contraindications for surgery were current illicit drug use, active symptoms of schizophrenia, severe mental retardation, and lack of knowledge about the surgery. However, 61.7% and 60.5% of programs indicated that multiple suicide attempts and a recent suicide attempt (within the past year), respectively, were definite contraindications to gastric surgery. Only 11.1% of programs indicated that BPD was a definite contraindication to gastric surgery (76.5% indicated that it was a possible contraindication).

The second study consisted of a survey of 103 psychologists who conduct presurgical evaluations.[10] In this cohort, like the previous study, the nature and content of the *clinical* interview was not determined. However, over 85% of respondents indicated that they used psychological testing in their evaluations, with the most common being the Minnesota Multiphasic Personality Inventory, second edition (MMPI-2).[11] The MMPI-2 assesses for suicidal ideation via a depression subscale, but not for BPD. Over one-third utilized the Beck Depression Inventory,[6] which also contains a suicide item. As for the assessment of BPD, 18% of respondents used the Personality Assessment Inventory[9] and 14% used the Millon Multiaxial Clinical Inventory.[8] While the most commonly cited reasons for delaying or denying bariatric surgery were significant psychopathology such as psychosis or bipolar disorder, untreated or undertreated depression, and/or a lack of understanding of the surgery, 24% also endorsed the item "severe personality disorder." In neither study was a single remote suicide attempt (over 12 months ago) identified as an exclusion criteria for bariatric surgery.

To conclude, a past history of suicide attempt in obese individuals seeking gastric surgery for obesity demonstrates an association with BPD and may function as an indicator to undertake a detailed clinical evaluation for BPD. While the clinical impact of this comorbid diagnosis in this specific population is largely unknown, patients with BPD are prone to self-sabotage. Self-sabotage could affect recovery time from gastric surgery, weight-loss patterns, and/or long-term functioning.

This study has a number of potential limitations, including the self-report nature of the data, a sample of convenience (ie,

a risk of sampling bias), and a small sample size. However, this is the only study among gastric surgery candidates to explore the relationship between a past suicide attempt and BPD, and both BPD measures reflected nearly identical findings. Only future research will reveal whether the diagnosis of BPD has an actual impact on surgical outcome, although the self-sabotaging nature of this disorder suggests the possibility.

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