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Original article

Suicide attempts in bulimia nervosa: Personality and psychopathological correlates

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Abstract

Background. — Little evidence exists about suicidal acts in eating disorders and its relation with personality. We explored the prevalence of lifetime suicide attempts (SA) in women with bulimia nervosa (BN), and compared eating disorder symptoms, general psychopathology, impulsivity and personality between individuals who had and had not attempted suicide. We also determined the variables that better correlate with of SA.

Method. — Five hundred sixty-six BN outpatients (417 BN purging, 47 BN non-purging and 102 subthreshold BN) participated in the study.

Results. — Lifetime prevalence of suicide attempts was 26.9%. BN subtype was not associated with lifetime SA ($p = 0.36$). Suicide attempters exhibited higher rates on eating symptomatology, general psychopathology, impulsive behaviors, more frequent history of childhood obesity and parental alcohol abuse ($p < 0.004$). Suicide attempters exhibited higher scores on harm avoidance and lower on self-directedness, reward dependence and cooperativeness ($p < 0.002$). The most strongly correlated variables with SA were: lower education, minimum BMI, previous eating disorder treatment, low self-directedness, and familial history of alcohol abuse ($p < 0.006$).

Conclusion. — Our results support the notion that internalizing personality traits combined with impulsivity may increase the probability of suicidal behaviors in these patients. Future research may increase our understanding of the role of suicidality to work towards rational prevention of suicidal attempts.

Keywords: Eating disorders; Suicidal behavior; Predictors; Psychopathology; Eating disorder not otherwise specified; Suicide; Psychiatry in Europe; Psychometry and assessments in psychiatry

1. Introduction

Suicidal behaviors are common in several psychiatric disorders, including psychotic disorders [48], affective disorders [6,61], personality disorders [68], psychoactive substance use disorders [18,45], impulse control disorders [22], body

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dysmorphic disorder [54] and eating disorders [7,9]. Suicidality in eating disorders [54] has been reported in patients with bulimia nervosa (BN) [14,63] and in individuals with the bingeing–purging subtype of anorexia nervosa (AN) [63]. In these patients 54–62% report suicidal ideation and 13–31% suicide attempts ([14,20,27]; Milos et al., 2004 [51]).

Suicidal ideation or attempts in eating disorders are related to comorbid mood disorders [7,64,67], personality disorders [2], substance use disorders [19,23] and axis I and axis II disorders (Milos et al., 2004 [51]; [62]), although they appear to be unrelated to the temporal pattern of onset of the major depression disorder in eating disorders [24]. Suicidal behavior in eating disorders has also been associated with high levels of impulsivity ([44]; Milos et al., 2004 [50]), bingeing/purging behavior including diuretic and laxative abuse [20,27,64], psychopathological distress [59], longer duration of illness [62], a history of physical/sexual abuse [27,30] and lower cholesterol levels [19]. Several personality traits have been associated with suicidality in eating disorders including high persistence (tendency to persevere despite frustration and fatigue), low self-directedness (individual tendency to be responsible, reliable, resourceful, goal-oriented, and self-confident), high self-transcendence (individual tendency to conceive yourselves as integral parts of the universe as a whole) [7], psychasthenia (tendency to suffer phobias, obsessions, compulsions, or excessive anxiety) and aggressive and fear-related traits [14,42,69]. These observations parallel other psychiatric disorders in which suicidality has been associated with aggressive/impulsive traits [48], hopelessness, neuroticism, and external locus of control [5].

Several models of suicidality have highlighted the role of personality as a vulnerability factor. Verona and colleagues [65] underscored the robust association between externalizing syndromes (e.g., alcohol and drug abuse, antisocial personality disorder) and suicidal behaviors in general psychiatric patients. Gruzca and colleagues [34] posited a common underlying factor in individuals who attempt suicide marked by high harm avoidance and low self-directedness. These models are directly relevant to BN which is characterized by both impulsive behaviors [22,23,27] and high harm avoidance and low self-directedness [1,7].

The goals of the current study were threefold: (a) to report the lifetime prevalence of suicide attempts in a clinical sample of individuals with BN (purging vs. non-purging subtype); (b) to determine whether BN patients with a history of suicide attempts exhibit more severe eating disorder symptomatology and greater general psychopathology than BN patients without suicide attempts and (c) to determine the optimal combination of predictors of suicide attempts in BN.

As suggested in the literature [27,64], we hypothesized that lifetime prevalence of suicide attempts would be higher in individuals with purging than non-purging BN, that suicide attempters present greater general psychopathology and that high harm avoidance, low self-directedness, and externalizing symptoms (such as substance abuse) would be associated with an increased likelihood of reporting suicide attempts.

2. Methods

2.1. Participants

Entry into the study was between January 2002 and December 2006. The initial sample included 629 BN patients consecutively admitted to the outpatient clinic of the eating disorders unit in the Department of psychiatry at the University Hospital of Bellvitge. The Ethics Committee of our Institution approved this study and informed consent was obtained from all participants. All patients in this study were female and fulfilled the DSM-IV criteria for BN (APA, 2000 [3]) or Eating Disorder Not Otherwise Specified (EDNOS) if the presence of binges and/or purges is lower than two per week, or the purge exist even after a little quantity of food, as determined by a semi-structured face-to-face clinical interview, conducted by experienced psychologists and psychiatrists. For the present analysis, we excluded: (a) males ($N = 33$), as the number of males was too small for meaningful comparison; (b) participants with questionnaires with relevant missing data ($N = 25$). The total final sample comprised 566 patients (417 BN purging, 47 BN non-purging and 102 subthreshold BN/EDNOS). The mean age of the participants was 26.1 years (SD = 6.9). The mean age of onset of the eating disorder was 19 years (SD = 6.2) and the mean duration of illness was 7.1 years (SD = 5.5). The mean weekly average number of binges was 6.7 (SD = 7.6) of vomiting episodes was 7.2 (SD = 8.9). Mean BMI (kg/m^2) was 23.5 (SD = 4.7). The majority of patients were single (77.4%), employed (77.6%), and completed primary (38.8%) or secondary (48.1%) studies.

2.2. Clinical assessment

2.2.1. Lifetime suicide attempts

As a part of the Diagnostic Interview Schedule, participants were asked by structured clinical face-to-face interview, "Have you ever attempted suicide?" The time frame for these questions was lifetime. A suicide attempt was defined as a self-destructive act with some degree of intent to end one's life. Thus, to be considered an attempt, the attempt was required to have two components, an action that was self-destructive and acknowledgement of intent to die.

2.2.2. Evaluation of comorbid impulsivity

The patients were assessed with a face-to-face structured clinical interview, covering lifetime substance abuse (drug and alcohol) with the structured clinical interview for DSM-IV axis I disorders, SCID-I [26] and impulsive behaviors (namely substance abuse, kleptomania, compulsive buying) according to the DSM-IV criteria and self-injurious behaviors (defined as a self-destructive act with no intention to end one's life [25]).

2.2.3. Evaluation of further sociodemographic and clinical variables

Additional demographic information including age, marital status, education, occupation, living arrangements, parental occupation was obtained via a semi-structured face-to-face