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Factors related to severity of vomiting behaviors in bulimia nervosa

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Abstract

Assessments of the severity of vomiting (weekly frequency), depressive and eating-related psychopathology, anger level and management, and personality dimensions were used to characterize patients with bulimia nervosa binge purging type (BN-BP). The sample comprised 130 outpatients with BN and 130 control women. The Eating Disorder Inventory-2 (EDI-2), the State-Trait Anger Expression Inventory, the Beck Depression Inventory, and the Temperament and Character Inventory (TCI) were administered to all patients. The Self-Directedness dimension of the TCI and the Bulimia subscale of the EDI-2 were the strongest predictors of the severity of bulimic behavior; anger levels and anger expression were not so strongly related to illness severity. A more severe form of bulimic symptomatology probably has substrata in specific character deficits (low Self-Directedness on the TCI) and particular psychopathological features (high bulimia on the EDI-2). Patients with a high frequency of vomiting need specific therapeutic interventions to enhance the character dimension of Self-Directedness.

Keywords: Eating disorders; Personality; Anger; Bulimic behaviors; Temperament

1. Introduction

Bulimia nervosa (BN) is diagnosed according to DSM-IV (American Psychiatric Association, 1994) on the basis of both symptoms and psychopathological elements. Although a subtype of BN without purging behaviors is included in DSM-IV, it is clear that bulimic symptomatology, especially vomiting, poses a great risk to physical well-being because of associated somatic complications (American Psychiatric Association Work Group on Eating Disorders, 2000). Moreover, in the research literature, one of the more frequently used outcome criteria is a decrease in the weekly frequency of purging behaviors, as well as in binge-eating episodes, in studies of both pharmacological and psychotherapeutic treatments (Bulik et al., 1998).

A current diagnosis of BN (DSM-IV) purging type (BN-BP) requires a frequency of bulimic symptoms higher than twice a week for at least 3 months. Findings in clinical samples indicate that some patients have a frequency of bulimic behaviors

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similar to that reported in DSM-IV, whereas many others engage in bulimic behaviors 20–30 times more frequently. According to a nonlinear model, the risks of arrhythmia due to low serum potassium levels, esophageal rupture, and acute metabolic failure increase as the frequency of vomiting increases (Wolfe et al., 2001). Moreover, Monteleone et al. (2002) have reported that leptin secretion is decreased in BN patients with a chronic disease course and with severe levels of binging/vomiting behavior. Furthermore, although a 50% decrease in the frequency of these behaviors is considered an index of the clinical efficacy of pharmacological treatments (American Psychiatric Association Work Group on Eating Disorders, 2000), the significance of changes, for example, from a four-episode to a two-episode/week frequency versus a 30-episode to a 15-episode/week frequency is unclear. There is debate about the correlation between the severity of eating disorder symptomatology and treatment outcome (Agras et al., 2000), and some investigators report only vomiting as correlated to outcome (Lacey, 2001).

In recent years, bulimic behaviors have been investigated both from a psychological-psychopathological viewpoint and in regard to their biological substrata. Thus, bulimic behaviors have been associated with several emotional states (Waters et al., 2001), particularly with negative moods (Casper and Lyubomirsky, 1997) and depression (Lehoux et al., 2000), poor self-esteem (Pitts and Waller, 1993) and, more broadly, negative affects (Tachi et al., 2001; Stice, 2001). These findings have also been supported by results in studies using nonclinical samples (Waller and Osman, 1998; Milligan and Waller, 2000). Further elements have emerged in association with bulimic symptoms, such as difficulties in familial relationships (MacBrayer et al., 2001), poor social skills (Grisset and Norvell, 1992), marked impulse dysregulation (American Psychiatric Association Work Group on Eating Disorders, 2000; Tiller et al., 1995), and problematic management of aggressive and angry feelings (Fassino et al., 2001). The investigation of biological substrata led to interesting, though not definitive, results pertaining to the serotonin system (Brambilla, 2001; Steiger et al., 2001).

A previous study of patients with eating disorders (Fassino et al., 2001) underscored an association between vomiting behavior and high scores on two subscales of the Eating Disorder Inventory-2 (EDI-2): bulimia and impulse regulation. No association was found among vomiting behaviors and specific personality profiles assessed with the Temperament and Character Inventory (TCI) or different ways of managing aggressive feelings (Fassino et al., 2001). Other authors also used the TCI to investigate personality in bulimic patients according to the model of Cloninger et al. (1991, 1993), identifying some personality traits as peculiar to the disorder (high Novelty Seeking, low Self-Directedness and Cooperativeness), without investigating their correlation to purging behaviors (Bulik et al., 1995).

Although several studies focused on biological, psychological, and psychopathologic substrata of bulimic behaviors, features correlated to the severity of bulimic symptoms have not been well studied. Thus, factors correlated to the severity of purging behaviors in women with BN are still unclear. A previous, well-designed study (Sullivan et al., 1996) investigated factors correlated to the severity of BN, defined according to eight parameters (one of which was purging frequency); the interesting results will be discussed below in comparison with the results of the present study. Sullivan et al. (1996), however, did not mention anger, which has been recently reported as a relevant pathogenic factor (Fassino et al., 2001). The objective of the present study was to investigate the possibility of distinguishing patients with BN-BP according to the severity of vomiting symptoms (weekly frequency) based on depressive and eating-related psychopathology, anger level and management, and personality dimensions assessed with the TCI. The identification of different degrees of severity might allow us to distinguish subgroups of patients who, despite sharing the same diagnosis, need different treatments in relation to emergency, duration, and type. Such an approach might help us to understand why treatment outcome is not always directly correlated to the severity of bulimic symptoms (Sullivan et al., 1996).

Thus, the aims of this study were as follows: (1) to compare a group of BN-BP patients with a nonclinical group of controls; (2) to compare three subgroups of bulimic patients (most of them with a