Bulimia Nervosa and Binge Eating Disorder

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The natural course of Bulimia Nervosa and Binge eating disorder in young women

Background: In 1979, Russell described bulimia nervosa, “an ominous variant of anorexia nervosa” (Russell 1979). Bulimia nervosa (BN) is characterized by binge eating and recurrent inappropriate compensatory behavior to prevent weight gain (i.e. self-induced vomiting, laxatives, diuretics). Binge eating disorder (BED) is a new diagnostic concept that has provisional status in the DSM-IV. It is characterized by binge eating without inappropriate compensatory behavior. However, most patients seen clinically do not meet criteria for a specific eating disorder and are classified as eating disorder, not otherwise specified (ED NOS). Fundamental questions remain: 1) how many eating disorders are there; 2) to what extent are the categories overlapping or distinct; and 3) what is their course over time? Bulik and colleagues addressed these questions in a large population based twin study (Bulik 2000). Their results supported the three DSM-IV categories (i.e. AN, BN, BED) and divided ED NOS into three more less distinct classes. The authors speculate that these three additional classes may represent those individuals at risk for developing the specific eating disorders. Fairburn and colleagues addressed the third question of natural course for BN and BED. In a similar study Keel and colleagues examined long-term outcome of BN.

Aim: To describe the relative course and outcomes of bulimia nervosa (BN) and binge eating disorder in a community-based cohort.

Methods: Two cohorts were studied prospectively over 5 years, one cohort of women with BN and the other of women with BED. Of the BN cohort 92/102 (90%) and 40/48 (83%) of the BED cohort participated in the interview at final follow-up. The participants were between 16 and 35 years old. The assessments were conducted at 15-month intervals.

Main Findings: Mean duration of follow-up was 5 (±0.3) years. The changes in diagnostic status of the cohorts at the end of 5 years are outlined below.
BN cohort
15% met full criteria for BN
2% met full criteria for anorexia nervosa (AN)
34% met criteria for eating disorder not otherwise specified (NOS)
8% met criteria for binge eating disorder
41% were in full or partial remission.
40% received treatment by the end of follow-up

Binge Eating Disorder
3% met full criteria for BN
0% met full criteria for anorexia nervosa (AN)
15% met criteria for eating disorder not otherwise specified (NOS)
10% met criteria for binge eating disorder
72% were in full or partial remission
8% received treatment by the end of follow-up

Conclusions: Bulimia nervosa and binge eating disorder have different courses and outcomes over 5 year follow-up courses. When BN and binge eating disorder are compared, the prognosis of binge eating disorder was relatively favorable, with the great majority making a full recovery despite not having treatment; Most improvement occurred in the first 15 months with gradual improvement thereafter. There was little movement between the two diagnostic categories supporting these categories as distinct. These observations validate binge eating disorder as a diagnostic concept

Limitations: This study only assessed behavior at 15-month intervals leaving gaps of time where symptoms may have been present. It is also difficult to estimate the impact of the study assessments on the individual's course.

Impact on Internal Medicine: Most women with eating disorder are not diagnosed and even fewer are treated. This is in part because of the secrecy and shame associated with eating disorders. Clinicians must be aware of these disorders and then actively screen and discuss with patients to recognize and treat these disorders.

Related Articles:
Bulimia nervosa: an ominous variant of anorexia nervosa.

An empirical study of the classification of eating disorders

3) Long-term Outcome of Bulimia Nervosa

The available long-term outcome data regarding eating disorders is small. Prior to Keel and colleagues study, there is only one 10-year study of 44 women (4). In Keel study two clinical cohorts of women with bulimia nervosa were reassessed at 11.5 (±1.9) years. The aim was to find predictive factors and describe long-term outcome of women with bulimia nervosa (BN). Surprisingly, age of onset, severity of symptoms and 3 broad categories of Axis I diagnoses (anxiety, mood and impulse control disorders) were not related to overall
outcome. However, duration of symptoms at baseline was significantly associated with outcome (P<.01). Lifetime substance use disorder was associated with the more recent disordered eating behavior (P<.01). At follow-up 69.9% were in full or partial remission.

The number of women who continue to meet full criteria for eating disorders declines over time. However, a full 30% still meet criteria for an eating disorder. Longer duration of symptoms at presentation and a history of substance abuse predicted a worse outcome. When compared to Fairburn’s community-based, 5-year study, the women in this clinical sample had a higher remission rate (69.9% vs. 40%). This higher remission rate may be related to treatment or time.


Most research suggests that cognitive behavioral therapy* (CBT) is the most effective psychotherapeutic treatment for bulimia nervosa (BN). This study is designed to compare CBT and interpersonal psychotherapy** (IPT) in the treatment of BN in a multisite study.

CBT was significantly superior to IPT at the end of treatment in the proportion of patients that recovered (29% vs. 6%; P<.001), the percentage that remitted (48% vs. 28%; P=.003) and in the proportion meeting community criteria for eating attitudes and behaviors (P=.04). However, there were no significant differences between CBT and IPT at follow-up (40% vs. 27%).

For completers, CBT was more effective than IPT in reducing objective binge episodes (P=.001), purging (P=.001) and dietary restraint (P=.001) at the end of treatment, but again not at any follow-up points. CBT has a clinical and statistical advantage over IPT in the treatment of BN. CBT produced more rapid improvement than IPT, which was sustained. For women who present for treatment of their BN, a treatment plan including CBT by a qualified therapist is indicated. It is interesting to note that over time both CBT and IPT allow change in the behaviors associated with BN, but neither significantly changed underlying attitudes in body shape and weight, nor self-esteem.

* Cognitive Behavioral Therapy: CBT focuses on treating the eating disorder and associated pathological thoughts (cognitive) and behaviors. CBT has 3 overlapping phases. The first phase focuses on education. Detailed self-records of food intake, binging, and purging form the basis of early therapy sessions. In the second phase, *cognitive
procedures” and “behavioral experiments” are used to identify and correct maladaptive thoughts. The third phase is concerned with maintenance of change and relapse prevention.

**Interpersonal Psychotherapy:**
It does not focus on eating habits, attitudes toward body image or shape. Rather IPT focuses on achieving change in interpersonal relationships. In the treatment of BN it can be roughly divided into 3 phases. In the first phase a detailed analysis is made of the interpersonal context within which the eating disorder arose and was maintained, leading to a formulation of an interpersonal problem area(s). The second phase focuses on making changes in the problem areas. The third phase reviews progress and consolidates gains that may be used in future problems.