The Treatment of Bulimia Nervosa: A Review of the Literature

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Abstract

Bulimia nervosa (BN) is characterized in the DSM-V as "recurrent episodes of binge eating combined with recurrent inappropriate compensatory behaviors to prevent weight gain, and self-evaluation that is unduly influenced by body shape and weight" (American Psychiatric Association, 2013, p. 345). Estimates of the prevalence of bulimia nervosa have varied widely since it was introduced as a diagnostic category in 1980 (Crow & Brandenburg, 2010, p. 29). Based on surveys of a large, nationally representative sample of randomly chosen U.S. adults, the National Comorbidity Survey Replication study reported a lifetime prevalence of bulimia nervosa as 1.5% among females and 0.5% among males (Crow& Brandenburg, 2010, p. 30). Eating disorders often coexist with other psychological disorders, such as depression, obsessive compulsive disorder, anxiety, bipolar disorder, substance abuse (including prescription drugs), and personality disorders (e.g., borderline personality) (Massey-Stokes, 2008, p. 61), as such bulimia nervosa has relevance to an expansive range of psychological disorders and mental health issues. The purpose of this literature review is to describe and evaluate current, evidence-based treatments for bulimia nervosa. The procedure used to obtain the articles evaluated in this literature review is described first. Then the DSM-V criterion used to diagnose bulimia is presented. Followed by a comprehensive description of the evidence-based theories and therapies used to treat bulimia nervosa, and a summary of the research that supports them. Treatments include cognitive behavioral therapy, acceptance and commitment therapy, and family based treatment. Reviews are presented to enhance the current review and advise an assessment of the evidence. In conclusion, cognitive-behavioral therapy is determined to be the most

effective for bulimia nervosa. The literature review ends with suggestions of potential opportunities for research that may increase the efficacy of treatments for bulimia nervosa.

The Diagnosis and Treatment of Bulimia Nervosa: A Review of the Literature

Bulimia Nervosa first appeared in the DSM-III, characterized in the DSM-V as "recurrent episodes of binge eating combined with recurrent inappropriate compensatory behaviors to prevent weight gain, and self-evaluation that is unduly influenced by body shape and weight" (American Psychiatric Association, 2013, p. 345). Estimates of the prevalence of bulimia nervosa have varied widely since it was introduced as a diagnostic category in 1980 (Crow & Brandenburg, 2010, p. 29). Research reveals bulimia nervosa affects a substantial proportion of the population and it is associated with distress and role impairment (Rodgers et al., 2015, p. 259). However, only a minority of individuals with bulimia nervosa seek appropriate professional treatment (Rodgers et al., 2015, p. 259). It has been proposed that one of the main barriers to seeking treatment among individuals with these disorders is the fear of stigma (Rodgers et al., 2015, p. 259). Knowledge about mental health disorders, specifically their origin, course, treatment options, and dangerousness, has been pinpointed as an important factor contributing to lower levels of stigmatizing attitudes and beliefs (Rodgers et al., 2015, p. 259). Given the size and cost of the problem research and funding for eating disorders is inadequate- e.g., in the UK, only 0.4 % of mental health research expenditure is for eating disorder, compared with 7.2% for depression and 4.9% for psychosis (Schmidt et al., 2016, p. 314). This funding disparity is reflected in the relatively low research activity in eating disorders; in the past decade, only 15615 articles were published worldwide on eating disorders, compared

with about 200000 papers on depression (Schmidt et al., 2016, p. 314). While bulimia nervosa is a significant disorder on its own, it is highly comorbid with an assortment of other disorders, most prominently depression and anxiety, and to a smaller degree bipolar disorder, obsessive-compulsive disorder, and substance abuse disorders (Crow & Brandenburg, 2010, p. 30-31). The presence of comorbidity with bulimia nervosa portends less favorable outcomes in treatment (Crow & Brandenburg, 2010). Bulimia nervosa is a widespread and international disorder with relevance to an expansive range of other psychological disorders and mental health issues. The purpose of this literature review is to explain and assess current, evidence-based treatments for bulimia nervosa.

Method

For my research, I conducted a search for peer reviewed and evidence based information related to bulimia nervosa through the Z. Smith Reynolds Library website. Within the Wake Forest University library website I performed searches through the databases, PubMed and PsycInfo; I also explored the ERIC database. Phrases and keywords like “bulimia nervosa”, “treatment of bulimia nervosa”, “bulimia nervosa in adolescents and children”, and “bulimia nervosa in adults” returned a vast amount of sources associated the subject. I placed limitations on the searches to only produce sources published from 2006 to 2015. PsychInfo produced the greatest number of related articles, and while a majority of articles and chapters of books were accessible instantly through the databases used others had to be requested through the Interlibrary Loan.

Results

The DSM-V describes three essential features of bulimia nervosa: recurrent episodes of binge eating, recurrent inappropriate compensatory behaviors to prevent

weight gain, and self-evaluation that is unduly influenced by body shape and weight (American Psychiatric Association, 2013, p. 345). To qualify for the diagnosis, the binge eating and inappropriate compensatory behaviors must occur, on average, at least once per week for 3 months (American Psychiatric Association, 2013, p.345). The DSM-5 Eating Disorder Work Group made the diagnoses of anorexia nervosa and bulimia nervosa more inclusive in order to resolve the problem of more than 50% of patients with eating disorders receiving the diagnosis of EDNOS (eating disorder not otherwise specified) (Fisher, Gonzalez, & Malizio, 2015, p. 437). This included inclusion of subcategories that incorporated many of the patients who did not meet the criteria for anorexia nervosa or bulimia nervosa; and expanded and rearticulated the diagnosis of feeding disorders of infancy and early childhood, which was limited in the DSM-IV (Fisher, Gonzalez, & Malizio, 2015). Many individuals are sill diagnosed with EDNOS because they lack the required frequency of binge eating, compensatory behaviors, or both (Crow & Brandenburg, 2013, p 29). Although the current DSM-5 classification is broader (and therefore potentially improves access to treatment for a number of individuals with eating disorders), it does not fully capture the range of eating disorders in the community. It is hoped that the World Health Organization will follow suit in the upcoming revision of the International Classification of Diseases (ICD), and that future revisions to diagnostic classifications will consider lowering frequency thresholds of eating disorder behaviors (Micali et al., 2015, 657). Bulimia nervosa commonly begins in adolescence or young adulthood; onset prior to puberty or after age 40 is uncommon (American Psychiatric Association, 2013). BN primarily affects women, with an approximately 10:1 female-to-male ratio (Swanson et al. 2011). Bulimia nervosa can be a

difficult condition to diagnose due to the criteria of the DSM-V and the often secretive nature of individuals with BN. Individuals with BN have reported fearing the judgment of others because their behaviors are considered disgusting and shameful (Hepworth and Paxton, 2007).

When accurate diagnosis is made treatment can begin for bulimia nervosa disorder. Successful, evidenced-based treatments for bulimia nervosa include cognitive-behavioral therapy, acceptance and commitment therapy, and family based treatment.

Cognitive Behavioral Therapy

Overall results suggest that cognitive-behavioral therapy (CBT) is the most efficacious approach and therefore the first-line treatment for adults with bulimia nervosa (Le Grange, Lock, Agras, Bryson, & Jo, 2015, p. 886); it can be delivered using individual, group and guided self-help approaches (Crow & Brandenburg, 2010, p. 37). A specific form of CBT (CBT-BN) has been developed to directly target the proposed maintaining mechanism outlined in the original cognitive- behavioral model of BN (Lampard & Sharbanee, 2015, p. 6). The aim of CBT- BN is to enable patients to identify thoughts, feelings or events before or during bulimic episodes to discover how binging and purging may sooth or regulate emotions; to enable patients to identify and modify core beliefs that perpetuate bulimic behavior; to introduce behavior techniques to combat urges to binge or vomit; and to develop alternatives to bulimic eating patterns to cope with disturbing thoughts and emotions; and to provide training in general problem-solving skills (Sundgot-Borgen, Rosenvinge, Bahr, & Schneider, 2002, p. 191). Adapted from the adult model of CBT-BN, CBT- BN for adolescents is an individual treatment with three stages (Doyle, Byrne, Smyth, & La Grange, 2014, p. 236) Stage one focuses

on helping the patient to see the physical and psychological consequences of the eating disorder as well as outlines the CBT model of BN; stage two addresses the distorted cognitions surrounding food, eating, weight, and shape that maintain the bulimic behaviors; and stage three includes the development of a relapse prevention plan (Doyle, Byrne, Smyth, & La Grange, 2014, p.236).

Lampard & Sharbanee (2015) evaluate an updated model of CBT-BN, called CBT-E (enhanced CBT), which is expanded to include four additional factors (mood intolerance, perfectionism, interpersonal problems, and low self-esteem) that have broad empirical support in the maintenance of BN. CBT –E builds on the original CBT-BN and outlines how, in some individuals the core maintaining factors and symptoms of the disorder are maintained by the four factors previously mentioned. A study found that low self-esteem was associated with over-evaluation of weight and shape and that greater interpersonal problems were associated with greater dietary restraint, and another observed that a relationship existed between mood intolerance and elevated binge eating (Lampard & Sharbanee, 2015, p. 8). These studies provide evidence that mood intolerance, low self-esteem, and interpersonal problems are important treatment mechanisms in BN that should be targeted in treatment. Despite the additional treatment modules random clinical trials of CBT-E have abstinence rates from binge eating and purging of 42-47% showing that limitations in treatment response are still observed when compared with CBT-BN (Lampard &Sharbanee, 2015). Random Clinical Trials evaluating CBT-BN have observed that 30-50% of patients experience remission (Lampard & Sharbanee, 2015, p. 6). These findings indicate that advances in formulation of maintaining mechanisms of BN have not translated into improved treatment outcomes.

Acceptance and Commitment Therapy

Acceptance and Commitment Therapy (ACT) is one of the several novel acceptance-based models of CBT that emphasizes changing behaviors rather than altering internal experiences (Juarascio et al., 2013, p. 461). Avoiding internal experiences is an ineffective coping mechanism and is thought to be the cause of many psychological issues. ACT teaches patients to obtain psychological distance (defuse) from distressing internal experiences; clarify overarching personal values; create goals that can help patients live a more fulfilling, meaningful life; and increase willingness to experience negative internal experiences in the service of valued behavior (Juarascio et al., 2013, p. 461).

A study by Juarascio et al. (2013) at the Renfrew Center (a residential treatment facility for eating disorders) of 140 adult women diagnosed with anorexia nervosa, bulimia nervosa or eating disorder not otherwise specified compared the effectiveness of treatment as usual (TAU) to ACT combined with TAU. Pure random assignment was not feasible because of preexisting residential treatment as a comparison condition (Juarascio et al., 2013); a nonequivalent group design was used where half of the participants received standard TAU and half received TAU+ biweekly ACT groups (Juarascio et al., 2013). If a patient consented to being part of the treatment study, she underwent a 1-hr pretreatment assessment that included a brief structured interview, food challenge, and a questionnaire packet inkling all ACT process variables. Treatment as usual at the facility is based on a comprehensive system designed to normalize eating patterns, stabilize or increase weight, and eliminate compensatory behaviors. The theoretical orientation of the program is ecletic and includes psychodynamic, feminist, interpersonal, and cognitive-

behavioral components. All patients are assigned to a treatment team composed of a clinical psychologist, psychiatrist, a master's-level primary therapist, a registered nurse, dietician, a family therapist, and art and movement therapists. Participants in the TAU+ACT group received all of the TAU elements described but attended biweekly ACT groups instead of staff run leisure groups. ACT groups covered processes such ass acceptance, willingness, defusion, mindfulness, values clarification, committed action, and perspective taking; the focus of the groups was identifying, practicing, and achieving behavior goals (Juarascio et al., 2013, p. 469). Several trends were observed for eating disorder questionnaire scores at post-treatment, with those in the ACT condition showing larger decreases in weight concern, shape concern, and global eating pathology (Juarascio et al., 2013, p. 475). The ACT group also increased their consumption in the food challenge by nearly twice as much (posttreatment consumption 24.88%) as TAU (posttreatment consumption 11.90%) (Juarascio et al., 2013, p. 475) and 38% of the ACT patients who were in the clinical range at pre-treatment had fallen to the normative range by post-treatment, while only 17% of TAU patients comparably improved. The ACT treatment also trended toward lower rates of rehospitalization among those who responded to the 6-month follow-up (Juarascio et al., 2013, p. 479).

Family Based Therapy

Health is not a static condition, but a dynamic interplay among the dimensions of physical, mental, emotional, social, and spiritual health. Consistent with this view of health promoting healthy body image and preventing eating disturbances among children and adolescents should focus on the "whole child" (Massey-Stokes, 2008, p. 58). Bulimia nervosa can go undetected for several years before a diagnosis is made which

may reflect embarrassment; sufferers typically present five years after symptom onset unless their behaviors are extreme or have been disclosed to a parent/carer (Mairs & Nicholls, 2016, p. 5). Strong family involvement is essential to health promotion and prevention; parents should make it a priority to invest time in building strong loving, and supportive relationships with their children (Massey-Stokes, 2008, p. 64). Family based therapy (FBT-BN) relies on family involvement to address eating disorder symptoms in adolescent populations. FBT-BN follows a three phase model beginning with shifting control of eating over to the parents, phase two consists of gradually shifting control back to the adolescent, and phase three addresses developmental issues and encourages open communication between parents and the adolescent to navigate future trials.

Le Grange, Lock, Agras, Bryson, & Jo (2015) conducted a study at the University of Chicago and Stanford to compare the efficacy of CBT-A (CBT adapted for adolescents) and FBT-BN. In the study 130 participants where randomly assigned to FBT-BN, CBT-A or SPT (supportive psychotherapy) groups. All treatments were delivered within 18 sessions over a period of six months. FBT-BN assumes that the secrecy, shame, and dysfunctional eating patterns associated with BN negatively affect adolescent development and confuse and disempower parents; the primary treatment strategy is to engage the adolescent in a more collaborative relationship with parents promoting behavior change (Le Grange, Lock, Agras, Bryson, & Jo, 2015, p. 889). The abstinence rate from binge eating and purging episodes was significantly higher for FBT-BN (39.4%) compared to CBT-A (19.7%), and at 6-month follow up (FBT-BN 44.0%, CBT-A 25.4%), the difference between the two treatments narrowed at 12 months post treatment (FBT-BN 48.5%, CBT-A 32%) (Le Grange, Lock, Agras, Bryson, & Jo, 2015,

p. 891). Not surprisingly one proposed moderator, family pathology (FES Conflict) emerged as an important moderator of treatment effect, and FBT-BN probably wouldn't be the best treatment for a high-conflict family.

Discussion

From the review of the literature, it is evident that bulimia nervosa disorder is a widely studied diagnosis that still presents a great challenge to clinicians in regard to client remission rates at the end of treatment. Although the development of CBT-BN, CBT-E, and CBT-A represent significant milestones in the treatment of bulimia nervosa the outcomes of treatment remain largely the same in the ranges of only 30-50% remission of posttreatment. Given that a proportion of clients do not improve following treatment for BN there is a need to focus on the active ingredients in these treatments that lead to change in client cognition or behavior, and determine how these treatment ingredients lead to change. It has been proposed that integration of CBT-BN, CBT-E, and CBT-A with techniques from other therapeutic techniques could be combined to enhance treatment outcomes. Lampard and Sharbanee (2015) discuss the potential effectiveness of integrating chair dialogues a technique derived for Gestalt therapy with CBT-E, citing evidence of chair dialogues allowing clients to act through emotion processing, which is associated with downstream change in several of the maintaining mechanisms of BN in the CBT-E model. Studies specifically examining integration of complementary techniques from other therapeutic orientations with current CBT treatments of individuals with bulimia nervosa are likely to yield new information on the effectiveness of the current treatments.

Bulimia nervosa is a complex disorder to diagnose due to a number of factors, including the secretive nature of the disorder and the inclusivity of the diagnostic criterion, because of the challenges a large majority of patients do not seek or receive treatment for years after symptom onset. While the DSM-5 has made leaps in expanding the criteria for bulimia nervosa, evidence suggests that eating disorders not otherwise specified (EDNOS) remain the most common diagnosis, particularly among youth (Micali et al., 2015, p. 652). Massey-Stokes (2008) suggests that early intervention is key in prevention of body image and eating disturbances from developing. She goes on to state that the primary protective factor (from development of eating disturbances) that has received the most empirical support is positive family relationships (Massey-Stokes, 2008, p. 62). This reiterates the findings of Le Grange, Lock, Agras, Bryson, & Jo study of the efficacy and superiority of FBT-BN in the treatment of adolescents compared with CBT-A at the University in Chicago and Stanford. It is important to mention that the FBT-BN studies utilize primarily adolescent participants. Research with FBT-BN should be conducted with younger children and adults to see if it is equally successful across populations.

As mentioned, these studies validate the efficacy of new and combined treatment methodologies for bulimia nervosa. These studies, particularly the newer approaches (CBT-E & ACT), should be replicated in studies with larger sample sizes, representative of the population, to test the generalizability of these initial results.

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