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Abstract

Eating disorders are among the most prevalent psychological disorders for the adolescent population. The onset of binge eating disorder (BED) occurs in late adolescence to early adulthood and affects numerous individuals who struggle with identity formation and social development. This paper critiques the efficacy of cognitive behavioral therapy (CBT) in treating binge eating disorder in adolescence. While evidence on the efficacy of this treatment is limited, all research supports the use of cognitive behavioral therapy in treating binge eating disorder. More research on treatment of binge eating disorder must be conducted as adolescence is a crucial time for identity formation.

Keywords: binge eating disorder, cognitive behavioral therapy, adolescence, identity

Cognitive Behavioral Therapy for Binge Eating Disorder in Adolescence

Eating disorders are a major health concern for the adolescent population. These disorders may occur during two major periods of adolescent development: the first entrance into adolescence and the passage from later adolescence into young adulthood (Mash & Wolfe, 2010). Erik Erikson (1902-1994) places psychosocial development into eight distinct stages. The stage that occurs during adolescence is "identity vs. role confusion," when individuals struggle most with finding their identity. Adolescents in this stage will transition from relying heavily on the family to focusing on social development. It is because of this emphasis on social development that adolescents are vulnerable to the influence of peers and the media. Adolescents may hear on television or from friends that being thin is the ideal body size, a concept popularly known as the "thin ideal." If an adolescent does not fit into the parameters for being "thin," a negative body image easily develops. Eating disorders can be used to cope with unideal body types, and may be a response to peers or media to fit in socially. Because eating disorders can easily come about within developing adolescents, it is imperative that research develops to present treatments for these disorders. The purpose of this paper is to present and critique the evidence on the efficacy of cognitive behavioral therapy (CBT) for treating binge eating disorder (BED) in adolescence, examining current research on the therapy and further research that could be done as binge eating disorder continues to affect many adolescents within society.

The DSM-5 presents binge eating disorder as a type of feeding and eating disorder characterized by both a lack of control and eating of an amount of food larger than would normally be eaten during a distinct period of time. Binge eating must occur approximately once per week for at least 3 months, and it must include a significant amount of distress during an episode (American Psychiatric Association, 2013). It can be difficult to define what a "large

amount of food" is within a binging episode because it will vary depending on an individual's definition of "large." Instead, it may be more beneficial to examine the loss of control experienced by an individual with BED (Herpertz-Dahlmann, 2015).

The twelve-month prevalence of binge-eating disorder in U.S. adults is 1.6% for females and 0.8% for males (American Psychiatric Association, 2013). In adolescence, prevalence of BED is 1.5-3% (Mash & Wolfe, 2010). While eating disorders are more common in females than males, binge eating disorder has a much smaller difference between genders than does bulimia nervosa or anorexia nervosa. Binge eating disorder is more prevalent in individuals seeking treatment for weight loss than in other individuals (American Psychiatric Association, 2013).

The peak of onset of an eating disorder is between 14 and 19 years of age (Herpertz-Dahlmann, 2015), while the onset of binge eating disorder in particular is more generally reported as occurring in late adolescence or young adulthood, with some cases even beginning in late adulthood. Remission rates are higher for binge eating disorder than for bulimia nervosa and anorexia nervosa, but the disorder is equally as persistent as bulimia nervosa in that an individual may fluctuate between periods of remission and periods of multiple episodes (American Psychiatric Association, 2013).

The causes attributed to binge eating disorder are difficult to determine, although BED is often found to run in families, which implicates genetic or physiological risk factors (American Psychiatric Association, 2013). Other risk factors that may influence the development of binge eating disorder include biological factors such as serotonin deficiencies in the brain, and psychosocial factors such as family conflict, an emphasis on dieting throughout childhood, negative media influence, and negative peer influences (Eddy, Murray, & LeGrange, 2016).

Common comorbid disorders of BED include depressive disorders, anxiety disorders, substance abuse disorders, and bipolar disorders (American Psychiatric Association, 2013).

Different treatments exist for eating disorders experienced by adolescents. Lock (2015) presents the various psychosocial treatments that are available, including family therapy, individual therapy, interpersonal psychotherapy, cognitive training, dialectical behavior therapy, and cognitive behavioral therapy. Treatment can either occur through group sessions, one-on-one sessions between therapist and patient, or through Internet-based treatment (Lock, 2015). Medications are also often used to treat psychological disorders, and can be of significant help when combined with a psychosocial therapy.

Cognitive behavioral therapy is particularly beneficial for treating binge eating disorder. Since BED often results from distorted body images and a lack of self-esteem, cognitive behavioral therapy can help to counter these false self-perceptions. In using CBT, a clinician helps an individual recognize distortions in thinking and replace them with more positive self-thought. This type of therapy emphasizes that individuals have a choice about what they think, so that they have the ability to think positive thoughts about their bodies and weight. Cognitive distortions often occur because they provide the safety and comfort to eat uncontrollably; they make eating a part of an individual's identity; and they allow individuals to find justification for binge eating (Costin, 1996).

A cognitive behavioral therapy model may include making changes to eating routines, including monitoring of weekly weighing sessions and the establishment of a regular eating schedule. Patients of CBT are taught to find alternatives to binge eating, and to problem-solve when placed in situations that may cause temptation. Psychologically, patients will learn exercises that explore the relationship between a person's mood and attitude towards food, along

with learning how to view weight in a healthy way. The social aspect of CBT treatment may work to enhance relationships with family and peers and work towards preventing relapse (Yarborough et al. 2013). Treatment can span any number of weeks, depending on a patient's response to treatment and relapse rates. After reviewing the model for what cognitive behavioral therapy looks like for the adolescent population, it is important to review and critique the evidence on the efficacy of this therapy in both adolescents and adults.

One possible form of treatment was analyzed in a randomized controlled trial, where Bishop-Gilyard et al. (2011) compared the efficacy of a behavioral program and the combination of a behavioral program with the medication sibutramine for treating binge eating disorder in a group of 82 male and female adolescent participants. They found that those who received the behavioral therapy achieved an 8.9% decrease in BMI, as compared to the 8.4% BMI loss in participants without BED. These findings support the use of behavioral therapy. The study further discovered that the combination of behavioral and pharmacologic therapy produced the most significant weight loss among their participants (Bishop-Gilyard et al., 2011). While this study has a clear support for the combination of therapy with medication, there are many reasons why this treatment may not be practical for adolescents with BED. The combination of two treatments may not be financially possible for adolescents and their families, and families might approach medicine with a negative stigma towards its effectiveness.

As a potential solution to the financial barriers that may be associated with treatment of BED, Jones et al. (2008) examined the efficacy of an Internet-facilitated intervention on reducing binge eating disorder and maintaining weight in a randomized, controlled trial for adolescents. This study tested a population of 105 male and female high school students who participated in a 16-week-long online intervention program that aimed to reduce binge eating and improve weight

maintenance. The results of the study showed that maintaining weight and reducing binge eating can be achieved through an easily accessible online intervention program, and targeting weight loss or management may be a successful option for reducing binge eating (Jones, 2008). This study provided easy access to treatment for adolescents and may be a cheaper solution than the use of medication or in-person treatment. However, this treatment is detached from the real-life situations in which the binge eating may occur.

In order to add a personal component to the treatment of binge eating disorder, De Bar et al. (2013) conducted a small, pilot randomized controlled trial to test the efficacy of cognitive behavioral therapy in treating binge eating disorder in adolescent girls. This study specifically targeted female adolescents because their eating disorders often go unnoticed and untreated (DeBar et al, 2013). The study also considered the developmental context in which adolescents experience binge eating and tailored intervention to this specific context. Results revealed that the 26 adolescent females who participated in the study found the intervention to be very helpful for treating their eating disorder. Of those participants who received CBT, 100% were abstinent from binge eating after six months, as compared to the 50% of participants in the no treatment/delayed treatment group who achieved abstinence at month six of the study (DeBar et al., 2013).

These three randomized controlled trials provide both benefits and limitations to the use of CBT in treating binge eating disorder. All of the previously mentioned studies included notably small sample sizes. Jones et al. (2008) used 105 participants in their study, Bishop-Gilyard et al. (2011) had 82 adolescents participate, and DeBar et al. (2013) had only 26 members in their study. DeBar et al. (2013) attributes their low enrollment numbers to the unwillingness of many adolescents to admit that they have an eating disorder. It may be

particularly difficult for adolescents to admit any unsafe behaviors of eating disorders to parents, who must be notified of these behaviors prior to a teen's enrollment in a treatment program. Jones et al. (2008) credits low adherence to the reality that adolescents may have other time demands that prevent them from fully engaging in a treatment. While these reasons may help to better understand the small sample sizes, these sizes can nonetheless diminish a study's credibility because it is difficult to tell if the results can be universally applied to any adolescent. Future studies should strive for larger sample sizes that can give more credibility to a study's applicability.

These three trials also provide evidence that the majority of treatment is aimed towards the female population. DeBar et al. (2013) used their pilot trial to treat binge eating disorder in adolescent girls specifically. Eating disorders are more prevalent in females than males because females are more likely to experience internalizing disorders, eating disorders being among such disorders. Despite this fact, one of only three randomized controlled trials on treating binge eating disorder in adolescence with CBT involved only female participants. If treatment is only aimed towards females because they are more likely to experience the disorder, the population of males who also suffer from the disorder may be neglected. Bishop-Gilyard et al. (2011) actually discovered that their study included a larger percentage of males than females who experienced binge eating. While they may have universally lower prevalence rates of binge eating disorder, adolescent males still need treatment that can help them in coping with the disorder. Treatment should be sure to equally target both populations.

In their findings, Bishop-Gilyard et al. (2011) discovered that targeting weight loss may help to decrease binge eating behaviors in adolescence. This was an interesting finding also supported by Jones et al. (2008), whose primary goals were weight-loss oriented, targeting such

behaviors as weight maintenance, healthy eating, and exercise. Similarly, DeBar et al. (2013) considered working in the future to target overweight populations who could use the CBT program to prevent future weight gain. While it may indeed be true that weight loss and a decrease in binge eating episodes could happen simultaneously, it is important to not view a treatment for a psychopathological disorder as a weight-loss program. Treatment must be taken seriously if due credit is to be given to the significance of this disorder.

Because evidence on treatment for binge eating disorder in adolescence is limited, it is helpful to examine the studies produced from adult populations to compare to the findings in adolescent populations. In the body of evidence that examines the efficacy of cognitive behavioral therapy used for treating binge eating disorder in adult populations, all sources found support for the use of CBT for BED. These studies demonstrate the efficacy of CBT over other treatments such as behavioral weight loss therapy (BWLT) in improving BED core symptoms and targeting such issues as overvaluation of shape and weight. While these studies all provide support for CBT, the majority of these studies are limited in their use of DSM-IV criteria for binge eating disorder (Fischer, Meyer, Dremmel, Schlup, & Munsch, 2014; Grilo, Masheb, & Wilson, 2005b; Grilo, Masheb, Wilson, Gueorguieva, & White, 2011; Grilo, Masheb, & Crosby, 2012; Munsch et al., 2007; Munsch, Meyer, & Biedert, 2012). Use of DSM-IV may be viewed as out-of-date. In light of recent changes made to feeding and eating disorders in the DSM-5, binge eating disorder gained its own category. Any differences made to the disorder's criteria must be addressed when conducting studies on the disorder.

Efficacy studies on binge eating disorder in adults reflect those in adolescence in that they only utilize small sample sizes. Sample sizes ranged from as low as 41 participants (Fischer et al., 2014) to 125 participants (Grilo et al., 2011). Because sample sizes were often initially

much larger, high dropout rates can be attributed to limited criteria for entry into the studies. One such criteria is the difference between objective bulimic (binge eating) episodes (OBEs) and subjective bulimic (binge eating) episodes (SBEs) that occur within binge eating. Objective binge eating episodes are measured by a certain number of binge episodes per week, whereas subjective binge eating episodes are judged based on loss of control felt by the individual experiencing the episode (Peterson et al., 2012). The majority of studies measure binge eating episodes objectively, so that individuals who do not meet the number of binge episodes per week specified by the study are excluded from treatment (Fischer et al, 2014; Grilo, Masheb, & Salant, 2005a; Grilo, Masheb, & Wilson, 2005b; Grilo et al., 2011; Grilo et al., 2012; Ljotsson et al., 2006; Striegel-Moore et al., 2010). Low adherence may be attributed to numerous other causes, but in order to have more generalizable results that can span larger populations, future studies may need to broaden entry criteria to account for individuals with varying degrees of binge eating disorder.

A final consideration must be made regarding weight loss treatment coupled with CBT for treating binge eating disorder in adults. While CBT specifically does not decrease obesity, the reduction in binge eating that often results from CBT may lead to significant weight loss (Grilo, Masheb, & Wilson, 2005). Grilo et al. (2011) found CBT to be more beneficial in reducing number of binge eating episodes, while behavioral weight loss therapy (BWLT) was used to target weight loss specifically during treatment. Obesity is an important issue to target in individuals with binge eating disorder, because many individuals with BED may experience obesity and associated metabolic problems (Grilo et al, 2011). While weight loss may be an important outcome of CBT for binge eating disorder, CBT should still be treated with the value it offers as a treatment for a serious disorder among the population. Marchesini et al. (2002)

specifically targeted the psychological disturbances found in many individuals who experience eating disorders. Addressing the multiple effects that an eating disorder may have on an individual's health is important when applying treatment.

Addressing future areas of study in cognitive behavioral therapy for binge eating disorder is essential to improving treatment for this disorder. Because the majority of evidence critiquing adolescent-specific CBT treatment often couples BED with other eating disorders, more studies need to be done for BED specifically in adolescence. While binge eating is a significant part of bulimia nervosa (BN), the DSM-5 recognizes BED as its own distinct disorder. Treatment that couples both BN and BED may fail to target some of the unique features of BED, and coupling it with another disorder may negate some of the significance of the disorder.

Because binge eating disorder can begin in early or late adulthood, many of the studies on CBT for binge eating disorder are targeted specifically towards an adult population. While these articles have provided significant evidence towards the efficacy of CBT for binge eating disorder, they cannot tell us about the specific experiences of an adolescent with BED. Early intervention may lead to better results in targeting unique issues with self-esteem and overvaluation of shape and weight that many adolescents experience from peers and the media on a daily basis.

The evidence available for using cognitive behavioral therapy to treat binge eating disorder in adolescents is incredibly limited. While all of the current research supports the use of CBT in treating BED, only three studies test the efficacy of this treatment in adolescence, one specific to adolescent girls. An adolescent who may be struggling with BED and searching for treatment may conclude that CBT is an effective method for treating the disorder, but further research needs to address the specific means by which the treatment should be conducted (i.e.

with medication, online, in-person, etc.). While it may be safe to assume the efficacy of the treatment, there is not enough evidence to be confident in its generalizability to the variety of adolescents who struggle with the disorder. Much more research needs to be conducted if the public is to truly understand the significance of binge eating disorder as a health concern among adolescents. Because identity formation is a pivotal part of adolescence, and body image can be an important focus in establishing identity, it is crucial that we are able to present evidence of therapies that are proven to help adolescents with binge eating disorder.

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