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Therapeutic interventions for controlling eating disorders: A review

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Abstract

Eating disorders, including anorexia nervosa, bulimia nervosa, and binge-eating disorder, are complex mental health conditions characterized by problematic eating behaviors that severely affect an individual's physical and psychological well-being. Managing and treating these disorders requires a multifaceted approach incorporating therapeutic, medical, and psychological interventions. This review synthesizes current therapeutic interventions aimed at controlling and treating eating disorders, including cognitive-behavioral therapy (CBT), pharmacotherapy, family-based treatment (FBT), and emerging approaches like mindfulness and neurobiological treatments. By examining the effectiveness of these interventions and their integration in clinical settings, this paper highlights the necessity of personalized treatment plans for successful recovery.

Keywords: Food habits, eating disorders, human health, nutrition, cognitive-behavioral therapy, psychology

Introduction

Eating disorders (EDs) are significant mental health issues characterized by abnormal eating habits and extreme preoccupations with weight and body image. Anorexia nervosa, bulimia nervosa, and binge-eating disorder (BED) are the most common EDs, each with distinct symptoms but often sharing a pathological focus on food and body image (American Psychiatric Association, 2013) ^[1]. The global prevalence of EDs has increased, underscoring the need for effective and individualized therapeutic interventions (Galmiche *et al.*, 2019) ^[11]. Given the multifaceted nature of EDs, a combination of therapeutic interventions, including cognitive, pharmacological, and family-based therapies, is often employed for effective treatment and management (Tewari, 2019) ^[26].

Common Types of Eating Disorders

Eating disorders (EDs) are psychiatric disorders characterized by abnormal or disturbed eating behaviors and significant concerns about body weight or shape. The most common eating disorders include anorexia nervosa, bulimia nervosa, binge-eating disorder, avoidant/restrictive food intake disorder (ARFID), and pica. Each has distinct symptoms and health risks, though all are associated with substantial mental and physical health impacts.

Anorexia Nervosa (AN)

Anorexia nervosa is characterized by a significant restriction of food intake leading to weight loss or a failure to gain weight, an intense fear of gaining weight, and a distorted perception of body image (American Psychiatric Association, 2013) ^[1]. Individuals with AN often limit calorie intake or engage in excessive exercise and may misuse laxatives or other weight-control measures. This disorder has the highest mortality rate among psychiatric disorders, with complications that can include severe malnutrition, heart issues, and bone density loss (Arcelus *et al.*, 2011) ^[2].

Causes of Anorexia Nervosa

- **Biological causes:** genetic susceptibility, imbalances in neurotransmitters (Like dopamine and serotonin), hormonal alterations (Like cortisol and leptin), and anomalies in the structure of the brain (Such the hippocampus and amygdala) (Bulik *et al.*, 2005) ^[4].

- **Psychological causes:** Low self-esteem, body image distortion, perfectionism, anxiety and depression, trauma (e.g., childhood abuse) (Fairburn *et al.*, 2003; Frank *et al.*, 2013) ^[9, 10].
- **Sociocultural causes:** Cultural beauty standards (e.g., thin ideal), media influence (e.g., social media, advertising), family and peer pressure, socioeconomic factors.
- **Other causes:** diet and calorie restriction, pressure from sports or performance (e.g., ballet, gymnastics), and illnesses (e.g., diabetes, gastrointestinal diseases) (Haines *et al.*, 2006) ^[12].

Bulimia Nervosa (BN)

Bulimia nervosa involves cycles of binge eating-consuming large amounts of food in a discrete period-followed by compensatory behaviors, such as vomiting, excessive exercise, or misuse of laxatives to prevent weight gain (Fairburn *et al.*, 2008) ^[8]. People with BN are often of normal weight or overweight, and the disorder can be accompanied by feelings of shame and guilt related to binge episodes. Complications of BN include gastrointestinal issues, electrolyte imbalances, and dental erosion due to repeated vomiting (Mitchell & Crow, 2006) ^[24].

Binge-Eating Disorder (BED)

Binge-eating disorder, the most common eating disorder in the United States, is characterized by recurrent episodes of eating large amounts of food within a short time frame, often accompanied by a lack of control during the episode (American Psychiatric Association, 2013) ^[1]. Unlike bulimia, BED does not involve regular compensatory behaviors. This disorder can lead to obesity and its associated health risks, such as diabetes, hypertension, and cardiovascular disease (Hudson *et al.*, 2007) ^[17].

Avoidant/Restrictive Food Intake Disorder (ARFID)

ARFID involves a persistent failure to meet appropriate nutritional and/or energy needs, leading to significant weight loss, nutritional deficiency, dependence on nutritional supplements, or marked interference with daily functioning (American Psychiatric Association, 2013) ^[1]. Unlike AN, ARFID does not include a disturbance in the perception of body weight or shape. ARFID may stem from sensory aversions, a lack of interest in food, or fear of adverse consequences like choking or vomiting (Thomas & Eddy, 2019) ^[27].

Pica

Pica is characterized by the persistent ingestion of non-nutritive substances, such as soil, chalk, or paper, for at least one month (American Psychiatric Association, 2013) ^[1]. Pica is more common in children, pregnant women, and individuals with developmental disorders. It poses various health risks depending on the substances consumed, including intestinal blockages, poisoning, and nutritional deficiencies (Leung & Hon, 2019) ^[20].

Rumination Disorder

Rumination disorder involves the repeated regurgitation of food, which may be re-chewed, re-swallowed, or spit out. This behavior is not attributable to a medical condition and occurs independently of another eating disorder (American Psychiatric Association, 2013) ^[1]. Rumination disorder is

more common among children and individuals with intellectual disabilities, and it can lead to weight loss, malnutrition, and social impairment (Chial *et al.*, 2003) ^[5].

Cognitive-behavioral therapy (CBT) for eating disorders:

Cognitive-behavioral therapy (CBT) is widely regarded as the gold standard in ED treatment, particularly for bulimia nervosa and BED. CBT-E (Enhanced Cognitive Behavioral Therapy) is a specialized form that addresses the psychopathology underlying disordered eating behaviors and attitudes toward body image (Fairburn *et al.*, 2015) ^[7]. Studies show that CBT-E helps reduce binge-eating episodes and promotes positive body image and healthier eating behaviors (Linardon *et al.*, 2017) ^[21]. The effectiveness of CBT in reducing ED symptoms in the short and long term has been supported by various meta-analyses, highlighting its role as a first-line treatment (Linardon & Wade, 2018) ^[22].

Family-Based Treatment (FBT)

Family-based treatment (FBT), also known as the Maudsley Approach, has shown efficacy in treating adolescents with anorexia nervosa (Le Grange *et al.*, 2016) ^[19]. This approach involves parents in refeeding their child and helping them regain a healthy weight, gradually transitioning responsibility back to the adolescent. Research supports the success of FBT in promoting recovery, with studies indicating that it improves both weight outcomes and eating behaviors in adolescents (Lock *et al.*, 2016) ^[19]. FBT's efficacy in long-term symptom reduction has led to its recommendation as a primary intervention for young individuals with anorexia nervosa (Eisler *et al.*, 2016) ^[6].

Pharmacotherapy in Eating Disorders

Pharmacotherapy is often used as an adjunct to psychological treatment for EDs, particularly when comorbid mental health issues, such as depression or anxiety, are present. Selective serotonin reuptake inhibitors (SSRIs), like fluoxetine, are commonly prescribed for bulimia nervosa and BED to reduce symptoms of depression and obsessive behaviors related to food (McElroy *et al.*, 2019) ^[23]. Although SSRIs are less effective as standalone treatments, studies show they can enhance outcomes when combined with CBT, particularly in cases of bulimia nervosa (Hay *et al.*, 2018) ^[13]. For individuals with BED, lisdexamfetamine, an ADHD medication, has shown promise in reducing binge episodes, though long-term efficacy requires further research (Hudson *et al.*, 2017) ^[15].

Emerging Therapies

Emerging therapies for EDs include mindfulness-based interventions, dialectical behavior therapy (DBT), and neurobiological treatments. Mindfulness-based approaches, like mindfulness-based cognitive therapy (MBCT), encourage patients to focus on present experiences rather than engaging in maladaptive eating behaviors (Kristeller *et al.*, 2014) ^[18]. DBT, originally developed for borderline personality disorder, is effective in managing bulimia nervosa and BED by helping patients regulate emotions associated with binge eating (Safer *et al.*, 2009) ^[25]. Neurobiological interventions, such as transcranial magnetic stimulation (TMS), show promise in treating anorexia nervosa by targeting brain regions associated with appetite and reward processing (Van den Eynde *et al.*, 2013) ^[29].

Discussion

The multifaceted nature of EDs necessitates a range of therapeutic interventions tailored to individual needs. While CBT and FBT have established efficacy, adjunctive therapies like pharmacotherapy and mindfulness-based approaches have shown promise in enhancing outcomes. However, the effectiveness of these treatments varies by ED

subtype and individual characteristics, suggesting that personalized treatment plans may be optimal for successful recovery (Linardon *et al.*, 2017)^[21]. As research continues to explore the neurobiological underpinnings of EDs, future interventions may become increasingly targeted, offering hope for more effective treatment options.

Table No. 1 Summarizing therapeutic interventions for controlling eating disorders,

Therapeutic Intervention	Description	Effectiveness/Benefits	Source
Cognitive Behavioral Therapy (CBT)	Focuses on changing distorted thoughts and behaviors associated with eating disorders.	Effective in reducing symptoms, particularly for bulimia nervosa and binge-eating disorder (BED).	Fairburn <i>et al.</i> , 2015 ^[7] ; Linardon <i>et al.</i> , 2017 ^[21]
Family-Based Treatment (FBT)	Involves family members, especially in treating adolescents with anorexia nervosa.	Shows positive outcomes in adolescent anorexia nervosa; aids in weight restoration and behavior change.	Le Grange <i>et al.</i> , 2016 ^[19] ; Eisler <i>et al.</i> , 2016 ^[6]
Dialectical Behavior Therapy (DBT)	A mindfulness-based therapy initially used for borderline personality disorder; adapted for EDs.	Helps patients manage emotional regulation, effective for bulimia nervosa and BED.	Safer <i>et al.</i> , 2009 ^[25]
Pharmacotherapy	Medications, such as SSRIs, are used alongside therapy to address comorbid conditions.	Useful for reducing depressive symptoms and binge/purge behaviors in bulimia and BED.	Hay <i>et al.</i> , 2018 ^[13] ; Hudson <i>et al.</i> , 2017 ^[15]
Mindfulness-Based Eating Awareness	Aims to help individuals increase awareness of hunger and satiety cues to reduce binge eating.	Effective in reducing binge-eating frequency and promoting healthier eating habits.	Kristeller <i>et al.</i> , 2014 ^[18]
Neurobiological Interventions	Techniques like transcranial magnetic stimulation (TMS) target brain areas related to eating behavior.	Shows promise in anorexia nervosa; Helps in appetite regulation and body image perception.	Van den Eynde <i>et al.</i> , 2013 ^[29]

Eating disorders and cancer

Eating disorders in cancer patients can impact their nutrition in a number of ways, including:

Malnutrition: Cancer and its treatments can make it difficult to eat enough food or absorb nutrients, which can lead to malnutrition. Malnutrition can cause weakness, tiredness, and an inability to fight infections (Hossein *et al.*, 2015)^[14].

Appetite loss: Cancer treatments can cause loss of appetite, which can make it difficult to get enough nutrients (Van Cutsem, E., & Arends, 2005)^[28].

Weight loss: Cancer treatments can cause weight loss, which can lead to malnutrition (Argiles, 2005)^[3].

Conclusion

The management of EDs requires a combination of evidence-based interventions to address the complex interplay of psychological, biological, and environmental factors. Established approaches like CBT and FBT, alongside emerging treatments, demonstrate the potential for tailored interventions that meet the unique needs of individuals with EDs. Further research into personalized and neurobiological therapies may enhance treatment efficacy, ultimately improving recovery rates and quality of life for individuals affected by EDs.

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References

- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Arlington, VA: American Psychiatric Association; c2013.
- Arcelus J, Mitchell AJ, Wales J, Nielsen S. Mortality rates in patients with anorexia nervosa and other eating

disorders: A meta-analysis of 36 studies. Arch Gen Psychiatry. 2011;68(7):724-731.

doi:10.1001/archgenpsychiatry.2011.74.

- Argiles JM. Cancer-associated malnutrition. Eur. J Oncol Nurs. 2005, 9.
- Bulik CM, Tozzi F, Anderson C. The relationship between perfectionism and eating disorders. Int. J Eat Disord. 2005;38(2):139-145.
- Chial HJ, Camilleri M, Williams DE, Litzinger K, Perrault J. Rumination syndrome in children and adolescents: Diagnosis, treatment, and prognosis. Pediatrics. 2003;111(1):158-162.
- Eisler I, Le Grange D, Lock J. Family therapy for adolescent eating disorders: Research and clinical practice. Eur Eat Disord Rev. 2016;24(3):220-223.
- Fairburn CG, Cooper Z. CBT for eating disorders: A transdiagnostic approach. J Eat Disord. 2015;3:34.
- Fairburn CG, Cooper Z, Shafran R. Cognitive behavior therapy for eating disorders: A transdiagnostic theory and treatment. Behav Res Ther. 2008;46(5):569-581.
- Fairburn CG, Marcus MD, Wilson GT. Cognitive-behavioral therapy for binge eating and bulimia nervosa. In: Striegel-Moore SA, Smolak L, editors. Eating disorders: Innovative directions in research and practice. New York: Psychology Press; c2003. p. 149-170.
- Frank GK, Reynolds JR, Shott ME. Altered temporal lobe functioning in anorexia nervosa. J Psychiatr Res. 2013;47(1):133-141.
- Galmiche M, Dechelotte P, Lambert G, Tavolacci MP. Prevalence of eating disorders over the 2000–2018 period: A systematic literature review. Am J Clin Nutr. 2019;109(5):1402-1413.
- Haines PS, Neumark-Sztainer D. Sex differences in the relationship between sociocultural factors and disordered eating behaviors. Int. J Eat Disord. 2006;39(2):147-155.
- Hay P, Claudino AM, Touyz S, Fairburn CG. Pharmacotherapy for bulimia nervosa and binge eating disorder. Cochrane Database Syst Rev. 2018, 10.

14. Hossein SA, Bahrami M, Mohamadirizi S, Paknaad Z. Investigation of eating disorders in cancer patients and its relevance with body image. *Iran J Nurs Midwifery Res.* 2015;20(3):327-333.
15. Hudson JI, *et al.* Efficacy of lisdexamfetamine in adults with moderate to severe binge-eating disorder: A randomized clinical trial. *JAMA Psychiatry.* 2017;74(9):903-910.
16. Hudson JI, *et al.* Efficacy of lisdexamfetamine in adults with moderate to severe binge-eating disorder: A randomized clinical trial. *JAMA Psychiatry.* 2017;74(9):903-910.
17. Hudson JI, Hiripi E, Pope HG, Kessler RC. The prevalence and correlates of eating disorders in the National Comorbidity Survey Replication. *Biol Psychiatry.* 2007;61(3):348-358.
18. Kristeller JL, Wolever RQ. Mindfulness-based eating awareness training for treating binge eating disorder: The conceptual foundation. *Eat Disord.* 2014;22(4):256-272.
19. Le Grange D, Lock J, Agras WS. Family-based treatment of eating disorders. *J Fam Ther.* 2016;38(2):187-191.
20. Leung AK, Hon KL. Pica: A common condition that is commonly missed - an update review. *Curr Pediatr Rev.* 2019;15(3):164-169.
21. Linardon J, Wade TD. A systematic review of the efficacy of self-help interventions for the treatment of eating disorders. *Int J Eat Disord.* 2017;50(3):273-287.
22. Linardon J, Wade TD. Meta-analysis of cognitive-behavioral therapy and other psychological treatments for binge eating disorder and bulimia nervosa. *Psychol Med.* 2018;48(4):392-403.
23. McElroy SL, Guerdjikova AI, Mori N. Overview of pharmacotherapy for binge-eating disorder. *J Clin Psychiatry.* 2019;80(1):18-33.
24. Mitchell JE, Crow S. Medical complications of anorexia nervosa and bulimia nervosa. *Curr Opin Psychiatry.* 2006;19(4):438-443.
25. Safer DL, Telch CF, Chen EY. Dialectical behavior therapy for binge eating and bulimia. *J Eat Disord.* 2009;1:12.
26. Tewari S. Therapeutic diet to control diseases. *AkiNik Publications;* c2019. p. 1-79.
27. Thomas JJ, Eddy KT. Avoidant/restrictive food intake disorder: A three-dimensional model of neurobiology with implications for etiology and treatment. *Curr Psychiatry Rep.* 2019;21(8):67.
28. Van Cutsem E, Arends J. The causes and consequences of cancer-associated malnutrition. *Eur J Oncol Nurs.* 2005, 9.
29. Van den Eynde F, *et al.* Brain stimulation for anorexia nervosa: A review of the evidence. *Eur Eat Disord Rev.* 2013;21(5):361-371.