

# A Review of the Influencing Factors and Treatment Methods of Eating Disorders

Zhirou Yu

*Beijing E-town Academy, Beijing, 100176, China*

**Keywords:** Eating Disorders, Self-Esteem, Perfectionism, Cognitive Behavioral Therapy, Dialectical Behavioral Therapy.

**Abstract:** Focusing on the severe negative impacts produced by eating disorders, this paper reviewed 23 literatures for summarizing recent findings on influencing factors and treatment methods of eating disorders. For influencing factors, self-esteem, while manipulating body dissatisfaction, is negatively correlated with the development of eating disorders. Perfectionism, or some of its components, has proved to have a direct relationship with the development of eating disorders. For treatments, enhanced cognitive-behavioral therapy is broadly recognized in its effectiveness and immense relief of eating disorder symptoms appeared in participants after treatment, whereas dialectical behavioral therapy seems to solely reduce the amount of time and effort consumed while treating. Additionally, dialectical behavioral therapy may address issues more related to emotional regulation and act as an adjunct to family-based treatment. Future studies are expected to cancel the dependence on correlations. Self-esteem and perfectionism are encouraged to be given more attention in daily life.

## 1 INTRODUCTION

Eating disorders are severe psychiatric disorders that should not be considered as a niche topic in today's world. They are undoubtedly bringing serious conditions, for example, the high rates of mortality in anorexia nervosa patients, and proper coping methods are in urgent need. However, claims like eating disorders (ED) being unrecognized by clinicians and unresponsive to current treatments still appear in recent articles. This review summarized evidences in more recent times for generating an update of the related research findings.

This paper reviewed 2 major influencing factors and 2 major treatment methods for ED, summarized findings of previous scholars in recent years. A total of 23 literatures from Google Scholar and Web of Science are reviewed with their reliability carefully considered. The aim is to determine the underlying mechanisms of ED with respect to self-esteem and perfectionism, discuss the effectiveness of enhanced cognitive-behavioral therapy (CBT-E) and dialectical behavioral therapy (DBT) for treating EDs, and give suggestions for future researches. Peculiarly, self-esteem and perfectionism are chosen because they are factors easily detectable and estimable in daily life.

Discussion of these two topics is expected to elevate the attention for maladaptive levels of self-esteem and perfectionism in life.

## 2 INTRODUCTION TO KEY CONCEPTS

### 2.1 Eating Disorders

Eating disorders (ED) are a group of complex psychiatric conditions which induces severe psychological and physical impairments. General clinical features include abnormal eating behaviors due to excessive attention to weight, food, and body shape, but disorganized eating may also happen despite the lack of those extra concerns. ED patients are often subject to distressing social and physical health pressures, and are no doubt susceptible to a variety of mental diseases. Formidable mortality and suicide rates result from ED, especially anorexia nervosa. Basically, ED can be divided into two categories: anorexia nervosa and bulimia nervosa.

## 2.2 Anorexia Nervosa

Anorexia nervosa (AN) presents as self-starvation. Patients with AN devise multiple strategies, which are basically harmful purging behaviors, to avoid weight gain and finally attains critically underweight. Other than receiving social pressures, psychiatric conditions like depression and physical illnesses like cardiac issues and infertility may also arise from AN.

## 2.3 Bulimia Nervosa

Patients with Bulimia nervosa (BN) suffer in a loop of binge eating and purging or/and obsessive exercise, sometimes also accompanied by fasting. Contrary to those who experience AN, BN patients have mostly normal body weight. Some patients can also be overweight. BN, while causing extra social burdens, introduces predisposition to psychiatric conditions such as anxiety, depression, and substance abuse disorders. Physically, nearly all body systems can be significantly affected by BN.

## 2.4 Self-Esteem

Self-esteem refers to a person's subjective belief of self. Low levels of self-esteem indicate beliefs with abasements and the ones holding positive opinions toward themselves tends to end up with high levels of self-esteem (Zanella & Lee, 2022). Scholars also noted that self-esteem may imply an individual's well-being and health since it impacts their ability to adapt and control risky behaviors (De Pasquale et al., 2022). Problematically low levels of self-esteem are found to be associated with multiple kinds of psychiatric malfunctioning (Pelc et al., 2023) including EDs.

## 2.5 Perfectionism

Perfectionism is interpreted as a preference for setting exemplary and demanding standards for one's self and being prone to produce harsh self-evaluations. Individuals with this personality trait tend to pursue an ideal version of self whose attainment is often unrealistic. Although this trait is capable of heartening people to improve, most scholars underline its negative impacts more of the time. Anorexia, for instance, is a mental illness commonly known as being related to negative traits which may result from, or are connected with, perfectionism.

## 3 FACTORS THAT INFLUENCE EATING DISORDERS

### 3.1 Self-esteem

Low self-esteem has already been widely recognized as a pervasive risk factor for the development of EDs. Correlation between pathological eating and low self-esteem has been found through meta-analysis, with the effects notably more significant for females. There is also a self-esteem theory derived by researchers who are trying to explain the existence and development of EDs (Zanella & Lee, 2022).

Many literatures viewed body dissatisfaction as an important cognitive factor that links self-esteem with abnormal eating behaviors. Pelc et al found a direct relationship between satisfaction with appearance and self-esteem and discovered that negative body image induces low levels of self-esteem. In their research, 233 students from Poland whose ages range from 12 to 19 years old are surveyed. Female participants accounted for 63% of the sample, while males made up 37%. The self-esteem theory proposed dissatisfaction directed at body shape elicited by low self-esteem as the trigger of disorganized eating, especially binge eating. In Zanella and Lee's report, low self-esteem is responsible for college students' unpleasant feelings about their body image, but no significant relationships are discovered between self-esteem and disordered eating.

The Rosenberg Self-esteem Scale (RSES), a self-report instrument invented by M. Rosenberg in 1965, consists of 10 statements with a 4-point Likert scale. This instrument evaluates the level of global and personal self-esteem while the respondents imply how well they believe themselves align with what the 10 statements described. Pelc et al utilized the Polish version of RSES on adolescents in their study and Pasquale et al employed the Italian version (De Pasquale et al., 2022; Pelc et al., 2023).

A confirmed hypothesis in Pasquale et al's study states that self-esteem mediates, but not directly modifies, relationships between trait anxiety and EDs. Meanwhile, a significant negative correlation between binge eating and self-esteem is yielded from their bivariate correlation study. 352 healthy individuals aged between 18 and 37 years old engaged in their study. 67.9% of the sample are women, and 54% of the sample are students.

In Pelc et al's study, RSES indicated lower self-esteem for people who had lost a remarkable portion of weight in a recent period of time, which is one of the strategies these kinds of people use while they

want to establish higher degrees of self-esteem (Pelc et al., 2023). They also noted that women tend to be more affected, which, to an extent, coheres with what Clomsee et al found. Likewise, Navarro et al's study exhibited results suggesting that female adolescents show higher degrees of body dissatisfaction compared to male adolescents. Their sample included 355 students in primary schools with no mental or physical diseases (Navarro et al., 2021). The size of disparity on developing maladaptive diet intends while being bothered by self-esteem between males and females remains to be seen.

What is more, with their findings, Pasquale et al took the relationship between having ED and owning low self-esteem as a persistent vicious cycle, and this cycle have also been proposed earlier by Zanella and Lee. This could also be explained by a finding in Pasquale et al's study: patients who know that they are being treated because of having EDs had lower self-esteem than patients who are not aware of the fact that the treatments they are receiving are aiming at EDs. Low self-esteem triggered the occurrence of EDs, and being diagnosed with EDs again lowers self-esteem.

To sum up, the impact of low levels of self-esteem no doubt enhances the risk of developing EDs. Therefore, in any case, eliminating the reliance of correlations would be vital.

### 3.2 Perfectionism

Perfectionism, in high levels, had also been proved as being able to induce a predisposition for EDs in individuals. Importantly, several researchers emphasized the necessity of seeing perfectionism as a collection of many distinct dimensions. Martini et al also explained it as a "two factor solution", one being adaptive and the other one maladaptive. The maladaptive dimension, which is the specific dimension that will be investigated here, associates more with threatening factors including symptoms of AN and BN (Martini et al., 2021). Additionally, perfectionism is related to self-esteem.

Two literatures mentioned the use of Multidimensional Perfectionism Scale (MES) invented by Frost for assessing perfectionist behavior. MES includes 35 inquiries while utilizing a 5-point Likert scale. Martini et al assigned it to 139 AN patients and 121 healthy respondents as a control group. Bernabéu and Marchena employed MES to measure six dimensions in 312 adult respondents. The two most vital dimensions are concern over mistakes (CM) and doubts and actions (DA). CM is the one most relevant to ED psychopathologies, especially

AN, and DA is observed at a high level in people with EDs. These two dimensions are shown as major predictors of body mass index (BMI) and binge eating behaviors and mediating factors between BMI and emotion. Interestingly, different scoring in these two dimensions form distinct behavioral patterns regarding eating while cooperating with emotion: high scores lead to rigid intake constraints, whereas low scores tend to bring overfeeding (Bernabéu-Brotóns & Marchena-Giráldez, 2022).

In individuals with AN, perfectionism has been shown to be heightened compared to healthy people. In a study associating perfectionism in AN with personality, researchers conducted an evaluation on personality traits that are highly correlated with perfectionism in AN patient to assign them to either low or high perfectionism group. The study had a total of 193 participants. Self-reports and questionnaires concerning factors including but not limited to eating behaviors and perfectionism are done. Results demonstrate that their high perfectionism group exhibited more general psychopathological symptoms in life, especially the ones related to eating. The desire for thinness, and also self-esteem, was found to be positively and negatively correlated with perfectionism respectively (Longo et al., 2024).

For BN patients, the vicious loop mentioned in 3.1 contributes to the enhancement of the level of perfectionism: negative body images elevate the drive for perfection and therefore prompts BN patients to set hardly attainable fasting standards. Subsequently, binge eating, unfortunately, is the most general strategy for compensating the inability of complying with the standards.

## 4 TREATMENTS FOR EATING DISORDERS

### 4.1 Enhanced Cognitive Behavioral Therapy

Enhanced cognitive behavioral therapy (CBT-E) is a peculiar type of cognitive behavioral therapy (CBT) developed specially for treating EDs. Its effectiveness has long been proved by clinical trials. Although normal CBT and CBT-E has been found to function equally towards ED patients, research found that CBT-E attains similar outcomes in a shorter period of time. Moreover, in research with ED patients, self-esteem elevated faster with less efforts from both patients and therapists with CBT-E.

According to Dalle and Calugi, the application of CBT-E on adolescent ED patients can differ, mainly on time duration, depending on patient situations. The normative CBT-E for adults lasts for about 40 weeks. After completing sets of interviews which assesses the patients' several conditions related with ED, two models that explains EDs are introduced for the sake of giving them a brief sense about what role do they themselves play in this therapy. The psychological model stresses the negative impact of the patients' pathological self-evaluation scheme. With this wanned appraisal system, dangerously low weight and irrational ways of dieting are being thwarted to be perceived as an issue, and senses of achievement after successful fasting outweighed the harmful results. Patients are encouraged to actively figure out a new, healthier appraisal system during the therapy. The disease model, which puts patients in a rather passive role, interprets EDs as an entity parted from the patients and prompts the patients to get rid of being controlled by this presence under aid. The goal of CBT-E in this case is to help the patients derive a solution---an enhanced version for either their appraisal system or the way they react to the control of the ED entity. So far, as the researchers claimed, 62% of AN patient who completed a full CBT-E trial had their symptoms relieved. 70% of the patients with normal weight illustrated significantly diminished disordered feeding behaviors after the therapy.

Another study proved a more intensive version of CBT-E to be effective in treating both adolescents and adults with AN. A total of 150 participants are included. 74 of them are adolescents and the remaining 81 people are adults. Upon the end of the therapy, BMI increased among the AN patients, and a mild decrease occurred at about 20 weeks after the therapy ends. Psychopathological elements are said to be reduced significantly at the end of the therapy and only a trivial rebound was observed in follow-ups (Dalle & Calugi, 2020).

## 4.2 Dialectical Behavioral Therapy

Dialectical behavioral therapy (DBT) is a treatment model derived from CBT which concentrates specifically on emotional regulation. Some researchers address that DBT is an effective treatment for the patients who still cannot achieve temperance from binge eating after engaging in CBT treatments. In a study comparing the effectiveness of DBT and CBT on treating binge eating disorders (BED), BED patients who received DBT were taught to healthily regulate emotions in several ways and goals of changing maladaptive eating behaviors were set. 74

respondents aged above 18 were involved in this study. Contrary to what those researchers addressed, this study concluded CBT to be more effective even in populations that seems to be needing help peculiarly on emotional regulation. Nevertheless, while yielding analogical achievements compared to CBT, DBT, at least the DBT used in this study was less time-consuming (Lammers et al., 2020).

Moreover, DBT is proved to be able to deal with harmful overcontrolling behaviors observed in EDs, which is highly correlated with the development of this disorder. Baudinet et al' s research utilized radically open DBT (RO-DBT), where 131 adolescents aged between 11 and 18 years old with restrictive EDs participated sessions teaching emotional regulation skills and completed measures that assesses a wide variety of factors mostly related to ED and overcontrol. Improvements in ED symptoms, mood, and physical health appeared (Baudinet et al., 2020).

DBT is also justified as a promising adjunct to family-based treatment (FBT), a common treatment for EDs. A study with 18 girls aged from 13 to 18 showed that ED patients, especially those with AN, who experienced FBT accompanied by DBT, displayed remarkably enhances in adaptive skills and weight. Meanwhile, there is a decline in universal dysfunctional coping strategies (Peterson et al., 2020).

## 5 DISCUSSION

Conclusively, both self-esteem and perfectionism are potential risk factors for the development of EDs. Self-esteem acts more as a mediating factor by manipulating the individual' s satisfaction of their own body, whereas perfectionism, since often being divided into several aspects for measuring, exert different levels of impacts when viewed from different aspects. In addition, these two factors negatively correlate with each other.

However, studies concerning these two factors and EDs so far still had a reliance on correlation. Further researches should attempt to uncover deeper connections between them such as causal relationships.

CBT-E, as a therapy expressly developed for EDs, had already received testing and wide approval on its effectiveness. It is already one of the most common methods for treating EDs. Slight alternations on applying this treatment in different studies have been discovered, but all of the results recognized CBT-E' s capability.

On the other hand, there is not yet a specialized version of DBT for treating EDs. This therapy does not seem to be equally applicable or effective for all ED patients with different etiologies. It is more suitable to be utilized in scenarios where emotional regulation plays a significant role. Studies indicated that the major benefit, and perhaps the only reason, of substituting CBT-E by DBT would be the relatively effort-conserving quality of DBT. Furthermore, it acts well as an adjunctive treatment for FBT instead of working alone.

## 6 CONCLUSION

This literature review explored self-esteem and perfectionism as influencing factors for EDs and CBT-E and DBT as treatments for EDs based on 23 literatures. Low levels of self-esteem are found to be a cause for high body dissatisfaction especially in females, which increases the severity of, or risk of developing EDs. High levels of perfectionism, or some specific aspects that comprise perfectionism, contributes to the development of EDs. CBT-E's effectiveness for EDs has been proved by immense relief of ED symptoms in patients while DBT seems to require less time and effort from both patients and therapists.

Further research about the influencing factors should tempt to eliminate the dependence on correlational relationships. As for the treatments, further expansions and improvements regarding DBT might be necessary for DBT to become a powerful tool for treating EDs.

This article, reflecting on four specific topics regarding ED, aims to sum up relatively novel findings and opinions with reference to these fields from recent years and indicate new notions for the prevention and treatment of ED.

## REFERENCES

Baudinet, J., Simic, M., Griffiths, H., Donnelly, C., Stewart, C., & Goddard, E. 2020. Targeting mal-adaptive overcontrol with radically open dialectical behaviour therapy in a day programme for adolescents with restrictive eating disorders: an uncontrolled case series. *Journal of Eating Disorders*, 8: 1–13

Bernabéu-Brotóns, E., & Marchena-Giráldez, C. 2022. Emotional eating and perfectionism as predictors of symptoms of binge eating disorder: the role of perfectionism as a mediator between emotional eating and body mass index. *Nutrients*, 14(16): 3361

Dalle Grave, R., & Calugi, S. 2020. *Cognitive behavior therapy for adolescents with eating disorders*. Guilford Publications

De Pasquale, C., Morando, M., Platania, S., Sciacca, F., Hichy, Z., Di Nuovo, S., & Quattrocchi, M. C. 2022. The roles of anxiety and self-esteem in the risk of eating disorders and compulsive buying behavior. *International Journal of Environmental Research and Public Health*, 19(23): 16245

Lammers, M. W., Vroeling, M. S., Crosby, R. D., & van Strien, T. 2020. Dialectical behavior therapy adapted for binge eating compared to cognitive behavior therapy in obese adults with binge eating disorder: a controlled study. *Journal of Eating Disorders*, 8: 1–11

Longo, P., Bevione, F., Amodeo, L., Martini, M., Panero, M., & Abbate-Daga, G. 2024. Perfectionism in anorexia nervosa: associations with clinical picture and personality traits. *Clinical Psychology & Psychotherapy*, 31(1): e2931

Martini, M., Marzola, E., Brustolin, A., & Abbate-Daga, G. 2021. Feeling imperfect and imperfectly feeling: a network analysis on perfectionism, interoceptive sensibility, and eating symptomatology in anorexia nervosa. *European Eating Disorders Review*, 29(6): 893–909

Navarro-Patón, R., Mecías-Calvo, M., Pueyo Villa, S., Anaya, V., Martí-González, M., & Lago-Ballesteros, J. 2021. Perceptions of the body and body dissatisfaction in primary education children according to gender and age: a cross-sectional study. *International Journal of Environmental Research and Public Health*, 18: 12460

Pelc, A., Winiarska, M., Polak-Szczybyło, E., Godula, J., & Stepien, A. E. 2023. Low self-esteem and life satisfaction as a significant risk factor for eating disorders among adolescents. *Nutrients*, 15(7): 1603

Peterson, C. M., Van Diest, A. M. K., Mara, C. A., & Matthews, A. 2020. Dialectical behavioral therapy skills group as an adjunct to family-based therapy in adolescents with restrictive eating disorders. *Eating Disorders*, 28(1): 67–79

Zanella, E., & Lee, E. 2022. Integrative review on psychological and social risk and prevention factors of eating disorders including anorexia nervosa and bulimia nervosa: seven major theories. *Heliyon*, 8(11)