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Eating Disorders and Emotions

Yeme Bozuklukları ve Duygular

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Öz

Duygular davranışsal, bilişsel, fenomenolojik ve fizyolojik kanalları bütünleştiren, bir uyaran olayına evrensel verilen tepkilerdir. Duygularımız mevcut duruma uygunluğumuzu arttırır ve çevreyi şekillendirir. Olaylara verdiğimiz tepkiler ve davranışlarımız duygularımızdan etkilenir. Mutluluk gibi duyguları yaşamak daha kolay, korku ve öfke gibi duyguları yaşamak ise daha zordur. Öfke, korku ve tiksinti gibi temel duygular genellikle toplum tarafından olumsuz görüldüğünden, insanlar bu duyguları deneyimlemekten kaçınırlar. Bununla birlikte, duyguları deneyimlemek ve ifade etmek, bilişsel veya davranışsal olarak nasıl davrandığımız üzerinde olumlu bir etkiye sahiptir. Bu nedenle uzun süreli duygulardan kaçınma ve bastırma, yeme bozuklukları gibi bazı psikopatolojilere neden olabilir. Duygusal stres, yeme miktarında ve iştahta belli oranlarda artışa veya azalmaya neden olabilir. Yeme bozukluklarında uyumsuz veya zor duygularla başa çıkma veya bu duygulardan kaçınma işlevi gören davranışlar görülür. Örneğin, kişi utanç, öfke, suçluluk duygusu yaşamak yerine kısıtlayıcı veya aşırı yeme gibi anormal yeme davranışları gösterebilir. Danışanı ve patolojiyi daha iyi anlamak ve terapinin etkinliğini artırmak için yeme bozukluklarında duyguların etkilerine yönelik araştırmaların çok önemli olduğuna inanılmaktadır. Bu bağlamda, bu derleme çalışmasında yeme bozuklukları ve duygular arasındaki ilişki derinlemesine ele alınacaktır.

Anahtar Kelimeler: Anoreksiya, bulimiya, duygular, tıkanırcasına yeme, yeme bozuklukları.

Abstract

Emotion is a universal and effective reaction to an external stimuli event that combines phenomenological, cognitive, behavioral, and physiological channels. Our emotions increase our aptitude for the current situation and shape the environment. Our reactions to events and our behavior are influenced by our emotions. It is easier to experience emotions such as happiness and more difficult to experience emotions such as fear and anger. Because basic emotions such as anger, fear, and disgust are generally viewed as negative in society, people avoid feeling them. However, feeling and expressing emotions positively affects our cognitive and behavioral actions. For this reason, long-term avoidance and suppression of emotions can lead to some psychopathologies, such as eating disorders. Emotional stress leads to a certain extent increase and decrease in appetite and eating behaviors. In eating disorders, behaviors are observed that serve to cope with inappropriate or difficult emotions or to avoid these emotions. For example, instead of feelings of shame, anger, and guilt, the person may exhibit such abnormal eating behaviors as restrictive eating behaviors or binge eating. In order to better understand the patient and his or her disorder and to improve the effectiveness of treatment, research into the effects of emotions in eating disorders is crucial. In this context, the relationship between eating disorders and emotions will be discussed in depth in this review study.

Keywords: Anorexia, binge eating, bulimia, eating disorders, emotions,

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Introduction

Emotion is a universal, effective reaction to an external event that integrates behavioral, cognitive, phenomenological, and physiological channels in real-time. (Keltner & Shiota, 2003; Shiota & Kalat, 2012). Our emotions enhance our suitability for the current situation and shape the environment. Emotions enable us to harmonize with individuals and our surroundings. The reactions to the events experienced occur with the effect of the emotions we experience at that moment. That is, our emotions have a significant impact on the behavioral responses we elicit. However, emotions are not experienced in the same way by everyone. Some emotions are more difficult to experience or cope with than others. Basic emotions such as anger, fear, and disgust are generally defined as negative emotions by society, and for this reason, these emotions are mostly avoided. However, experiencing and expressing emotions positively affects our behavioral and cognitive reactions. For this reason, emotions that are avoided and suppressed for a long time can lead to psychopathology.

It is stated that emotions such as fear, sadness, anger, and disgust are associated with eating disorders (Espeset et al., 2012; Espina, 2003), emotional eating behavior (Cooper et al., 2004), amount of eating (İnalkaç & Arslantaş, 2018), eating speed (Krebs et al., 1996), choice of food consumed (Robbins & Fray, 1980; Macth et al., 2002), and even it has been reported to have an effect on metabolism and digestion (Blair et al., 1990; Blair et al., 1991). Studies have shown that emotions can increase food intake (Cooper et al., 2004) as well as cause restrictive reactions to food intake (Fox & Power, 2009). For this reason, it is thought that emotions have a certain role in the emergence of eating behaviors. According to the results of one study, emotional stress causes an average of a 30% increase and a 48% decrease in the amount of eating and appetite (Macth, 2008). In other words, while the emotions experienced increased eating behavior for some people, the amount of eating decreased for others. In addition, in some cases, the same group of people may increase or decrease their eating as a result of different emotions (Macth, 2008). For instance, binge eating behavior may occur as a result of anger, while restrictive eating behavior may occur as a result of sadness (Waller et al., 2003). Following these studies, it can be said that emotions are effective in eating disorders and that people with eating disorders have difficulties in experiencing, expressing, and regulating their emotions. For instance, it has been reported that difficulties in emotion regulation have a key role in eating disorders such as anorexia nervosa (Espeset et al., 2012).

Behaviors are seen in eating disorders that function to cope with or to avoid maladaptive or difficult emotions. Instead of experiencing the feeling of shame, the person may show restrictive eating behavior, engage in binge eating attacks to avoid the feeling of anger, experience the feeling of guilt as a result of these attacks, and then display abnormal eating behavior to avoid this feeling. In other words, this process can continue as a vicious circle. Based on such information, it is thought that investigating the effects of emotions in eating disorders is important both in terms of understanding the pathology and the client and increasing the effectiveness of the treatment process. Therefore, the present paper describes common eating disorders, examines the relationship between eating disorders and emotions, and discusses the effect of emotions on the treatment process.

Eating Disorders

Eating disorder is a mental disorder which is characterized by severe psychiatric and somatic problems. There are many severe disturbances in eating behaviors and body weights of people with eating disorders (Schmidt et al., 2016). It affects adversely overall life quality of individuals. Eating disorders are more common in adolescents, even the peak age of onset is 15-24 years, and can cause serious physical complaints and even mortality (Galmiche et al.,

2019). Changes in hormones and social roles and increased stress factors make adolescence a developmentally critical period for eating disorders (Treasure et al., 2010). In terms of gender distribution, this disorder is more common in women. According to Hay et al. (2015), an eating disorder affects one out of every six or seven young women.

According to the latest version of DSM V (2013), eight different disorders are defined under the heading of eating disorders as Pica (in children and adults), Withdrawal (Rumination) Disorder, Avoidant/Restricted Food Intake Disorder, Anorexia Disorder (Restrictive Type / binge-eating/purging type), Bulimia Nervosa, Binge Eating Disorder, another Defined Nutrition and Eating Disorder and Unspecified Nutrition and Eating Disorder. In this review, Anorexia Nervosa, Bulimia Nervosa, and Binge Eating Disorder, which are most common in this pathology, are examined.

Anorexia Nervosa, Bulimia Nervosa and Binge Eating Disorder

Hazardously low body weight and a dreaded fear of gaining weight are characteristics of anorexia nervosa. There is usually body dissatisfaction related to the person's body weight or shape, and the person with anorexia nervosa places excessive importance on the weight and shape of her/his body when evaluating himself/herself. There are two types of anorexia nervosa as restrictive and binge eating/purging. In the restrictive type, the person hardly eats or does an extreme sport. In the binge-eating type, the person exhibits behaviors such as self-vomiting and using laxative drugs (APA, 2013). Patients with anorexia nervosa have obsessive preoccupations such as cutting food into small pieces, calculating calories, and weighing frequently. Anorexia patients appear younger than their age, have a lower body weight than normal, and have lost 20%-30% of their initial body weight at the time of diagnosis (Erbay & Seçkin, 2016). Anorexia nervosa causes serious physical and psychiatric problems. The heart rate, blood pressure and body temperature of anorexia patients are low and this situation may cause death. People with eating disorders have approximately twice the mortality rate of the general population, while people with anorexia nervosa have nearly six times the rate (Schmidt et al., 2016). Anorexia nervosa has a higher mortality risk in adults aged 15–24 years than other major disorders in adolescence, such as asthma or type 1 diabetes (Hay et al., 2015). People with anorexia nervosa have many problems in their social life. In the long term, their social functions deteriorate and they have difficulty maintaining their work, school, or academic life. Their avoidance of eating behaviors decreases their socialization skills after a while.

Bulimia nervosa involves repetitive binge eating followed by oppositional behaviors. The person consumes much more food than they can eat in a very short time and loses control of overeating. According to DSM V (2013), a person may also show behavioral patterns such as vomiting to avoid weight gain, and self-evaluation is severely affected by body shape and weight, as in anorexia nervosa.

Binge eating disorder is characterized by repetitive binge eating behaviors. As in bulimia nervosa, the person consumes much more food by oneself and in a short time than he or she can eat and loses control of eating. Unlike, in binge eating disorder, the person does not act to remove food. In general, when the person eats too much, he/she is disgusted with himself/herself, feels ashamed, depressed, and feels intensely guilty. Bulimia nervosa and binge eating disorder may also cause serious somatic, physical, and mental complaints/problems. Kessler et al. (2013) found that one out of every two to three individuals who suffer from binge eating disorder or bulimia nervosa are obese or at risk of becoming obese. Similar to anorexia nervosa, bulimia nervosa predominantly affects women and binge eating disorder is more common in women, however, this difference between gender is not as dramatic as in bulimia and anorexia. According to American Psychiatric

Association (2013), over a 12-month period, roughly 1.0%-1.5% of women have had bulimia nervosa and while the ratio of women to men is 10:1 in bulimia and anorexia nervosa, this ratio is 2:1 in binge eating disorder. Fairburn and Drownell (2005) indicated that binge eating disorder affects 2% to 3% of the adult population and 8% of the obese population. Binge eating disorder is not as common in females as anorexia and bulimia.

Causes of Eating Disorder

Many neurodevelopmental, sociocultural, genetic and neuropsychiatric factors could be effective in the development of eating disorders. Genetic predisposition has been found to be crucial in eating disorders with twin and family studies. According to twin and family researches, anorexia nervosa, bulimia nervosa, and binge eating disorder are complicated genetic disorders with heritability estimates ranging from 50% to 83% percent for each disorder (Bulik et al., 2007; Treasure et al., 2010). Early mother-infant relationships and family relationships have a significant place in eating disorders. Studies have demonstrated that families of children and adolescents with anorexia nervosa have high expectations and obsessive behavior patterns, mostly perfectionism schemes are active, and the issue of success in the family is frequently emphasized (Stern et al., 1989; Ertaş, 2006). In addition, more deaths, separation, alcohol and gambling addiction were seen in the families of people with anorexia (Rastam & Gillber, 1991). In bulimics, the family has also a serious significance at the beginning and the during disorder. In a study, the rate of people diagnosed with bulimia nervosa starting a diet after family pressure was found to be 55% (Maner & Aydın, 2007).

Individuals with eating disorders have distinctive features such as low self-esteem and negative emotions, also personality traits such as the need for control and insufficient identity formation are among the factors that are significant in the development of eating disorders (Polivy & Herman, 2002). People with anorexia generally display anxiety, nervousness, feelings of worthlessness, and introverted personality traits (Erbay & Seçkin, 2016). In addition, environmental and social factors have importance in eating disorders. It is thought that factors such as the thin/idealized body image that develops today, the media's characterization of a thin physique as normal, and the constant motivation of people to be thin are crucial in the development of eating disorders. Moreover, peer relationship is significant to develop eating disorders. For instance; food, weight, and shape-related criticism, teasing, and bullying all raise the risk of being diagnosed with an eating disorder (Wade et al., 2007). Additionally, youth who had experienced dating violence were more likely to report disordered eating practices in high school (Cha et al., 2016). The other important thing is sexual abuse. While some researchers found a crucial association between eating disorders, especially bulimic symptoms, and sexual abuse history, others have argued that this relationship is exaggerated (Smolak & Levine, 2007). At this point, it has been stated that people who experience sexual abuse may develop a pattern of shame towards their own bodies, and in this case, they may increase their susceptibility to eating disorders (Ainscough & Toon, 2000; cited in Fox and Power, 2009). Moreover, it is known that the expression of emotions in the family environment is valuable in terms of the ability of individuals to identify their emotions and the development of self-esteem. Espina (2003) in her study on alexithymia reported that the parents of children with eating disorders had importantly higher alexithymia levels, and added that assistance to the parents of these children in expressing their feelings could be significant.

Comorbidity

The relationship between eating disorders and other psychopathologies has also been studied by researchers. It has been noted that eating disorders can be comorbid with psychopathologies such as depression, anxiety disorders, and obsessive-compulsive disorder.

It was stated by the researchers that especially women with eating disorders experience depression with a high rate of comorbidity, and in a study, it was reported that 46% of bulimic women also experience major depression (Blinder et al., 2006; Santos et al., 2007). Starvation and protein malnutrition were thought to be related, but the relationship between them was stated to be more complex. According to Fox and Power (2009), depression typically begins before eating disorders and persists after the person's eating disorder has ended. The methodological analysis also revealed that relatives of people with eating disorders were more likely to experience depression, which could be a sign of the emotional environment and genetic transmission.

Treatment Process

There is an interdisciplinary approach to the treatment of eating disorders. Early diagnosis and intervention have severe importance here, as in most psychopathologies. Different approaches are used in the treatment of eating disorders. One of the approaches used is medical treatment. In general, for pharmacological treatment of eating disorders, antidepressants are used. Considering that eating disorders may cause serious consequences such as death, in cases where the body mass index is very low and when the person has serious physical symptoms (low blood pressure, etc.), hospitalization may be required. According to Treasure et al. (2010), the management of bulimia nervosa and binge eating disorders can be complex due to their medical (e.g., diabetes and obesity) and psychiatric (e.g., affective disorders and addictions) comorbidities. However, because the acute medical risk is less in bulimia and binge eating disorders than in anorexia nervosa, outpatient treatment can be applied more frequently. Therapy is considered essential in the treatment of eating disorders. There are various methods are used for eating disorders. Cognitive-behavioral therapy, interpersonal psychotherapy, cognitive analytical therapy, behavioral therapy, family-based therapy, and emotion-focused therapy are frequently used in the treatment of eating disorders (Treasure, et al., 2010). Family-based therapy for adolescents with a brief illness is highly beneficial in treating anorexia nervosa, whereas treatments for adults are only somewhat effective. Schmidt et. al. (2016) remarked that a substantial amount of research supports cognitive-behavioral therapies for bulimia nervosa and binge eating disorder (including self-care and online versions).

Emotions Roles in Eating Disorders

Nutritional needs must be met for the physiological and psychological health of people. Adequate and balanced nutrition is one of the prerequisites for one’s growth, development, and being productive or attentive. Meeting this need in the right way is very significant for the physical and psychological health of people. Recently, emotion-focused studies have been included in eating disorders, as in most psychopathologies, and the relations of these psychopathologies with emotions are examined. The concept of emotional eating, which is defined as one of the eating problems and describes the tendency to overeat in response to negative emotions, is also used in the literature (İnalkaç & Arslantaş, 2018). In terms of eating disorders, people may show a pattern of eating more when they are blazing, while they may feel the need to eat less when they are very sad. According to a study which is conducted by Robbins and Fray (1993), participants consumed less food in strong emotional states such as anger and fear compared to milder emotional states such as distress and depressive mood. In other words, while the food consumption of people decreases in strong and intense emotional situations, the food consumption of people increases in mild emotional situations. Conformably, they may change the things they consume in connection with these feelings, and they may prefer sugary foods (such as chocolate) when the person feels very unhappy. Also, Cooper et al. (2004) indicated that some negative emotions lead to bingeing whereas fear as a negative emotion leads to restriction. The effects of emotional states on

eating behavior are thought to be valuable in terms of understanding eating disorders. The concept of emotional eating emerged with the examination of this relationship. Emotions have adaptive roles that govern people's life experiences. Emotional eating is a concept used to deal with negative emotions and describes the state of overeating. This term was initially used for bulimia as a concept describing the binge eating attacks of patients diagnosed with bulimia nervosa, and then it was thought that binge eating attacks might be related to emotional eating (İnalkaç & Arslantaş, 2018). It is stated that this excessive eating pattern, which is shown in response to negative emotions, is seen in obese people, people with eating disorders, and people who are on a diet despite being of normal weight, and it is assumed that eating disorders are related to regulating these unpleasant emotional states in people (Korkmaz, 2021). Inalkaç and Arslantaş (2018) stated that emotions cause a 30%-48% increase and decrease in appetite and food consumption. For this reason, it is important to understand the role of emotions in eating processes and to determine the relationship between them. At this point, it is thought that individual differences are also effective, but several relationships have been found in studies. It is considered that the amount of food consumed, food choices and cognitive eating controls are related to emotional changes in eating status. According to studies, negative emotions such as anger increase food intake and are associated with consuming more sweet and high-fat foods and disrupting eating habits, while positive emotions such as happiness increase healthy food consumption. (Macth et al., 2002). Considering these relationships, it is thought that eating disorders may occur as a kind of emotion regulation effort. Fox and Power (2009) stated that emotions such as anger, shame, disgust, fear and sadness are predominant in people with eating disorders and that people with eating disorders may tend to enter into binge-eating cycles as a way of coping with these emotions. Considering the dominant emotions in eating disorders, it is seen that both primary and secondary emotions are effective. Primary emotions are anger, sadness, fear, disgust, and happiness. Secondary emotions, on the other hand, are feelings such as shame, guilt, and regret that emerge through primary emotions. According to Korkmaz (2021), people with eating disorders may have the belief that primary emotions are unacceptable, and therefore their secondary emotions are triggered, and abnormal eating behaviors occur as a result of secondary emotions. For instance, anger, which is one of the primary emotions, is perceived by the person as inadequacy due to early experiences and therefore suppressed, resulting in a less threatening emotion such as shame towards one's own body (Fox & Power, 2009).

As was previously indicated, it is significant that the connection between eating disorders and alexithymia has been researched in the literature. According to research, excessive negative emotional experience and a lack of emotional awareness are the two factors that mediate the relationship between body dissatisfaction and disordered eating patterns. It has been suggested that individuals with poor emotional recognition skills may blame their negative emotions on their bodies and turn to disordered eating as a coping mechanism (Espina, 2003).

Emotions are thought to be one of the significant factors in understanding the eating disorder. For this reason, in this study, the relationship between eating disorders and the most dominant related emotions as anger, fear, disgust, shame, and sadness will be examined. Afterward, limited studies with other emotions will be included. Firstly, the dominant emotions will be examined, and after those, the other emotions related to eating disorders will be explained.

Anger

Anger is a hard emotion to both experience and copes with. Anger is a functional emotional state that occurs as a result of inhibition or injustice and manifests itself as being away from the goal one wishes to reach (Izard, 1977, Selvi, 2020). Some researchers suggest

that eating disorders have a crucial function that regulates this difficult emotion. It can help people escape from negative self-awareness or avoid painful emotions (Cooper et al., 2004). Many people who experience eating disorders may feel anger towards themselves or the situation they are in. Anger is one of the most painful emotions to express or experience. The relationship between eating disorders and anger has been studied from different perspectives. Espeset et al. (2012) stated that anger was associated with several specific eating disorder behaviors in their study and reported that eating disorder behaviors represented the subgroups of *"avoiding anger", "inhibiting anger"* and *"releasing anger"*. It has been stated that eating or having food in the stomach is related to experiencing anger whereas restrictive eating and purging are related to avoiding anger. In the same study, it was reported that people with eating disorders evaluated anger as a dangerous emotion and thought that they could be rejected if they showed anger toward others, so instead of being angry, they used their strategies to suppress emotion or do too much physical exercise (Espeset et. al., 2012). Perceiving anger as a difficult and dangerous emotion may push people to avoid experiencing anger, and people may change the direction of their attention to emotion by focusing on food, dieting, or exercising too much. Anger suppression and state anger scores were shown to be significantly higher in women with eating disorders in a different study, and it was noted that these scores were particularly greater in women with bulimic symptoms. (Waller et al.,2003). In the same study, binge eating and vomiting were found to be associated with trait anger, excessive exercise with state anger, and laxative use with anger suppression, also the authors reported that higher trait anger levels and anger suppression levels were associated with "unhealthy core beliefs". Congruently, Geller et al. (2000) found in their study that bulimic symptoms were associated with trait anger levels, while restraining symptoms were associated with state anger, and reported that anorectic patients tended to suppress anger at a higher rate. As stated in these studies, patients with eating disorders experience an increase in their anger level, but they experience some limitations in expressing this emotion. For this reason, they may show eating disorder behavior patterns.

Fear

When one perceives a threat to themselves or a loved one, they experience fear. When the threat is no longer present, fear swiftly passes. We begin to express fear at a very early age. A newborn baby may startle at the sudden sound and may reveal a fear response when separated from the caregiver after a few months (Shiota & Kalat, 2010). Although we have some innate fears, most fears are acquired and learned later. One of the emotions central to eating disorders is thought to be fear. Looking at this a little more closely, people with eating disorders avoid (basically fear) high-calorie, fatty foods and are extremely afraid of gaining weight and feel anxiety about these issues. So, it is thought that it would be good to refer to anxiety when talking about fear as an emotion. A more widespread expectation of "*something bad might happen*" is anxiety (Lazaros, 1991). Anxiety is a secondary emotion and it is about what might happen in the future. The possibility of threats to reveal anxiety may be quite large. People with eating disorders also have serious concerns about gaining weight. Szmukler et al. (1995) stated that high-calorie foods are considered dangerous for the slim body shape, clearly demonstrating this situation in *terms of fear of weight gain, morbid dread of fatness,* and *weight gain* (cited in., Harvey et al, 2002). Although fear and anxiety are defined by most people as negative emotions, these emotions have a very important function. It is one of our vital emotions, which has serious functions based on fear and anxiety. Fear helps people and all animals to defend themselves or to respond simultaneously when they encounter a dangerous situation. However, if fear or anxiety is not suitable for the situation, it can disrupt our daily functioning and reduce our adaptation skills. It is thought that most people with eating disorders experience a constant sense of fear throughout the day. Espeset et

al. (2012) stated that fear was expressed by patients with eating disorders as ever-present restlessness or lump in their stomach, and they felt extreme fear of consuming food and gaining weight. Eating disorder patients are feeling fat despite consuming very little and being afraid of this situation, as well as the belief that they lose control, especially during attacks, perpetuates eating disorder behaviors. Harvey et al. (2002) in their study that looked at the relationship between eating attitudes and fear and disgust, reported that both emotions were experienced towards high-calorie foods and an overweight body. These are hard emotions. Furthermore, people try to avoid or suppress their fears to cope with fear and anxiety. In general, in the face of fear, people tend to use defense mechanisms and strategies such as escape, avoidance, freezing, or suppression. It is thought that patients with eating disorders manage and suppress their fears with different eating patterns. Espeset et al. (2012) stated that eating disorder patients use restrictive eating, purging and body-checking techniques while suppressing their fears. Being hungry might help people manage their anxiety, may calm down with purging when they start to feel fearful or anxious and manage their anxiety and fear by controlling their body when they feel fat. In addition, it is thought that the experience of fear and anxiety of people with eating disorders also affects the social life of the person. People with eating disorders care a lot about the opinions of others, and they are extremely afraid that when they are involved in a social environment, others will think they are overweight or make any statements about it. At this point, they may start to avoid others as a dysfunctional defense mechanism in order to manage their fears and anxieties.

Disgust and Self Disgust

Disgust is a basic emotion that is experienced towards many objects or situations. Disgust is an emotion with a universal facial expression and serious bodily manifestation (like nausea). During this feeling, there is a serious desire to get away from the object that evokes the feeling of disgust as soon as possible (Davey, 1994). Although it is assumed that there is a relationship between disgust sensitivity and eating disorders, the nature of this relationship has not been fully clarified in studies. Davey et al. (1998), in their very early studies, found a significant relationship between eating disorder measures and disgust sensitivity measures in both the non-clinical and clinical groups (significantly higher in the clinical group), however, reported that the increased disgust was limited to disgust with food, body and body products, that is not valid to variables other than those. For this reason, it is thought that the feeling of disgust develops in people with eating disorders in two ways. Patients can reveal this feeling about food intake and against being fat/overweight. As mentioned before, people are very afraid of being overweight or getting feedback about being overweight. At this point, people’s body perceptions change and they see themselves as terrible, fat, or greasy, and for this reason, they start to be disgusted with both food and their bodies. People are disgusted with food intake, their body appearance, and purging and bingeing processes, so they try to stay away from food and limit their food intake. Davey and Chapman (2009) stated in their study that there is an important relationship between predisposition and sensitivity to disgust and slim body appearance and bulimic symptoms. In other words, if people’s sensitivity to disgust or their concerns about body appearance increases, their desire to be thin and bulimic symptoms also increase. With these and similar studies, it is thought that disgust sensitivity could be associated with eating disorders. Espeset et al. (2012) added that participants' disgust was also aroused by reminders of their own body image, such as looking in the mirror, touching, or taking a shower, and that participants tended to avoid this emotion in order to regulate their disgust. Considering these statements of the participants, it is thought that the feeling of disgust towards oneself, which means “self-disgust”, is important in the initiation and maintenance of an eating disorder. Bell et al. (2017), in their study examining the relationship between the intention of self-disgust and sensory processing, found that people

with anorexia and bulimia nervosa experienced more self-disgust compared to people without any eating disorder diagnosis, but there was no difference between participants with anorexia and bulimia. Significantly, the same study discovered that disgust sensitivity was solely associated with self-disgust in individuals with anorexia, whereas higher sensory avoidance and decreased sensation seeking were also connected to self-disgust in the group of individuals with bulimia. This research suggests that the eating disorder itself may differ in approaching or avoiding sensory stimuli (Bell et al., 2017).

People with eating disorders tend to avoid the strong disgust they feel. Studies have reported that participants both avoid situations such as looking at their own bodies and feeling their bodies, and they avoid exposing others to their bodies, thus avoiding sexual experience or physical intimacy (Espeset, 2012). In general, it is thought that the feeling of disgust in people with eating disorders is related to body dissatisfaction. Fox et al. (2012) argued that the experiences of shame and self-disgust can be very similar when evaluated in terms of body dissatisfaction.

Shame and other related emotions

Shame is a secondary emotion which is relevant to so many emotions like disgust, fear, anger or guilt. Shame is a feeling that includes emotional, social, cognitive, physical, and behavioral components, and is usually caused by the evaluation that others underestimate the self and the belief that the self is bad and flawed (Goss & Allan, 2009). As it might be understood from this definition, a person might experience shame both externally with what others think about him/her and internally with what he/she thinks about himself/herself (Gilbert, 1998). The relationship between eating disorders and shame has been extensively studied in recent years. According to Goss and Gilbert (2002), individuals diagnosed with eating disorders exhibit restrictive eating or binge/purge eating behaviors and move away from their feelings of shame for a short time, but these behaviors intensify the severity of the feeling of shame and maintain the emotion due to their nature. In addition, it is known that people with eating disorders experience body dissatisfaction, and it is thought that they are generally ashamed of their body appearance and tend to develop negative evaluations, criticism and hostility towards themselves. Studies have reported that women with eating disorders experience shame both about their body appearance and control over their eating behavior (Swan & Andrews, 2003). Although shame is experienced by people with eating disorders for different reasons, it has a central position. In his study, Skanderued (2007) reported that people with anorexia had shame about not being more successful, not being able to control their eating behaviors and having an eating disorder, apart from body shape whereas some participants feel pride about controlling their eating behaviors and being thin. Similarly, Goos and Allan (2009), in their study examining the relationship between shame, pride and eating disorders, reported that feelings of shame and pride have an impact on eating disorders. Considering the results of this study, it can be said that shame and pride have a significant cyclical effect on the development and maintenance of eating pathology.

Moreover, in the literature, shame, guilt and eating disorders are investigated together. These variables have a strong association. Guilt is a secondary emotion like shame and people with eating disorders experience this emotion. Frank (1991) found that shame and guilt are experienced by people with eating disorders much more frequently than people with depression. According to early studies, mostly guilt is associated with eating patterns such as bingeing and purging while shame is associated with body appearance (Frank, 1991). However, there are some contradictory studies. In a study, shame proneness was associated with binge eating while guilt was not (Bottera et al., 2020). Although there is a difference between studies, these emotions are related to eating disorders' behavior patterns. Shame has

more clear results than guilt (Blythin, 2018). However, in the therapy process, clients may bring these emotions. They could feel guilt when they eat something or during a binge attack.

In studies investigating the effect of shame on eating disorders, it has been emphasized that childhood sexual abuse and neglect may be important in the development of this emotion. It has been reported that there is a significant relationship between experiencing bad experiences in childhood, depression, and eating disorders, especially in the development of body shame (Andrews, 1997; Fox & Power, 2009). The effects of being neglected or sexually abused in childhood might be devastating and a source for the development of many psychopathologies. Congruently in eating disorders, sexual abuse might make the person vulnerable to being ashamed of one's own body. Finally, in coping with the feeling of shame, as mentioned earlier, individuals tend to either avoid this emotion with restrictive eating or to experience short-term relief in their shame level with binge eating. Studies indicate that this emotion might be tolerated in different sources when working professionally with eating pathology (Skanderued, 2007). In a study examining the shame, the severity of psychopathology, and self-compassion levels of patients diagnosed with eating disorders during the treatment process, it was observed that the severity of eating pathologies intensified with the increase in the shame level, and the severity of eating pathologies decreased with the increase in the patients' self-compassion levels (Kelly & Tasca, 2016). This information is considered to be valuable in the treatment of eating disorder psychopathology.

Sadness

The other basic and self-conscious emotions' effect on eating disorders has been investigated by researchers. The impact of happiness and sadness, which are basic emotions, on eating disorders is not known exactly, and some information about its indirect effects is available in the literature. The relationship between sadness, which is one of the basic emotions, and eating disorders has not been fully clarified, but some studies have been conducted on this relationship. Sadness is generally defined as a negative emotion in both society and literature. Some studies of sadness and eating disorders in the field provide several explanations for depression (Fox & Power, 2009; Espeset et al., 2012). Sadness is an emotion commonly associated with depression. Depression and eating disorders could often be encountered as comorbidities, and it is investigated in the literature which pathology begins first and which pathology affects the development of the other. Fox and Power (2009) reported that sadness may be effective in both pathologies as it is in disgust. It is thought that disgusting the dominant emotions in eating disorders and depression may be illuminating/enlightening in order to understand the comorbidity. It is considered that sadness is an emotion that is effective in the daily life of people with eating disorders. Espeset et al. (2012) reported that people with eating disorders feel more fat, disgusting, and awful when they have a bad day when they feel depressed and sad, also stated that they used the strategies of *'avoiding awareness of sadness', 'inhibiting expression of sadness'* and *'suppressing sadness'* to avoid this feeling. People with eating disorders generally evaluate sadness as an ambiguous and heavy emotion and try not to show these emotions to others. Furthermore, instead of experiencing this feeling, people prefer to engage in behaviors such as excessive preoccupation with food, restrictive eating, and purging. On the other hand, in the same study, some participants reported that they felt almost no sadness and did not cry (Espeset et al., 2012). It is thought that the deficiency in emotion recognition skills or alexithymia may be effective in the development of this condition. This situation could also be explained by suppression, which is an emotion regulation strategy. Because people do not know how to deal with this emotion or how to manage it, so they may be trying to ignore it. In addition, it was noted that feeling depressed and sad did not differ in the expressions of the participants,

the relationship between them was very strong, and the distinction between the two expressions was unclear.

Happiness

In general, negative emotions such as anger and disgust are considered to be effective in eating disorders, and studies are mostly conducted on these emotions. Happiness, which is one of the basic emotions, is not very much associated with an eating disorder, and it is thought that if the eating disorder increases, the level of happiness of people may decrease. In a study conducted by Stice and Shaw (1994) on this subject, it was reported that the depression, shame, guilt, and body dissatisfaction levels of people who look at the pictures of thin female models are higher than those who look at the photos of the models with average weight, and their happiness levels are lower. As seen in the study, there may be an increase in negative emotions and a diminish in positive emotions in the development of eating pathology. As mentioned earlier, women experience eating disorders at higher rates. In a study, an answer was sought to the question of why certain women develop eating disorders despite all women's exposure to media, and in this study, linking goals to happiness was accepted as a moderator (Smith, 2000). The research was performed through Western society in women. It is thought that the media's perception of beauty and the idealization of the thinner woman image from every channel of the media raise the rate of body dissatisfaction in society. In addition, the standard perception of beauty in society is constantly changing. For instance, in the past, the average weight was higher, and different clothing and make-up styles were dominant. But, even if the time or conditions change, there are some standards that people must comply within society. With the development of the modern world and the influence of the media, these processes are thought to be more dominant and central. In this study, the group who associates reaching the goal with happiness, that is, the people who think that long-term happiness depends on reaching a certain goal (it can be thought of as reaching a certain weight or being thin enough) have higher levels of depression and eating pathologies, and lower self-esteem levels. (Smith, 2000). In these findings, it is seen that eating behavior or weight loss has a mediating task to reach this feeling, that is, the meaning attributed to happiness affects when and where happiness should be experienced. In eating disorders, people may use restricted eating behavior or reach an ideal such as being thin enough, not experiencing negative emotions, and feeling positive emotions such as happiness.

The Use of Emotions in the Psychotherapy Process and Emotion Regulation Strategies

Emotions have been influential in the development of most psychiatric diagnoses. Emotions are crucial to the emergence and perpetuation of eating disorders. Emotion regulation skills may have serious effects on people's pathologies and symptoms. Emotion regulation is a dynamic process that expresses what emotions we have, when, how, and for how long we experience our emotions, and how we react behaviorally or physically (Gross 2002; Gross 1998). Emotion regulation may develop in a very short time, often unconsciously. As a result of many factors, such as individual differences, developmental levels, mental and physical capacities, intelligence level, age, and gender, people's emotion regulation patterns differ. Korkmaz (2021) reported that people need to regulate their emotions in case of an "undesirable" or "unpleasant" emotion. In addition, we regulate our emotions voluntarily or involuntarily according to the social environment and the situation we are in, and the content of our social relations. For instance, people may feel high levels of anxiety when they are about to take an important test. To manage this anxiety, people may

reduce their anxiety level by engaging in an activity that they enjoy (for example, meeting with a loved one and eating a dessert they love very much).

Emotions are regulated for different reasons, and different methods are used in the emotion regulation process. In Gross's (1998) process model, there are five different emotion regulation strategies: situation selection, situation modification, attentional deployment, cognitive change, and response modulation, and the strategies preferred by people vary according to when the emotion is experienced. The development of the emotion regulation process before the emotion arises is called antecedent-focused emotional regulation, and the use of strategies after the emotion arises is called response-focused emotional regulation (Gross, 1999). There are many functional or non-functional emotion regulation strategies such as reassessment, avoidance, escape, suppression, rumination, problem-solving, and mindfulness. It is considered that the evaluation of psychopathologies with the strategies used for emotion regulation will make an important contribution to the treatment processes. Situations such as dysfunctional strategies used and not being able to recognize and express emotions may contribute to the development of some psychiatric problems. It is believed that eating disorders are closely related to emotion regulation skills and that emotions play a significant role in eating disorders. It is noteworthy in the literature that the symptoms that occur in eating disorders are externalized with different physical reactions as a result of a lack of emotion regulation skills or an inability to manage emotions. Haynos and Fruzzetti (2011) stated that prominent eating disorder behaviors such as food restriction, purging, and binge eating serve to "avoid" people's negative emotions. It is also thought that the person diagnosed with an eating disorder tries to suppress their emotions through abnormal eating behaviors. Although it is known that emotion dysregulation is the source of many psychiatric problems, it is also very valuable to process this information into treatment processes. Studies on the emotion regulation skills of patients during the treatment process can make an important contribution to the treatment of eating disorders.

Behavioral methods are frequently used in the treatment of eating disorders. The American Psychological Association (2006) recommends behavioral treatment methods for achieving a healthy body weight. However, treatments should be multidimensional to increase recovery rates and decrease relapse rates. As a result of the systematic review study conducted by Berends et al. (2018), it was reported that 31% of patients with anorexia had relapsed after treatment. New approaches and methods to be added to treatment are important in terms of reducing recurrence rates and increasing the effects of treatment. According to Haynos and Fruzetti (2011), the fact that cognitive-behavioral therapy, which is mostly used in people with anorexia, does not provide full recovery in the treatment process might be explained by the inadequacy of cognitive strategies alone and the lack of adding emotion regulation skills to the therapy process. It is not sufficient to use only cognitive strategies when people are experiencing intense emotional arousal. Trying to reduce or tolerate emotional arousal with emotion regulation strategies might be effective in the treatment process (Haynos & Fruzetti, 2011). Although eating is an emotionally stimulating behavior for people with eating disorders, it is a behavior that must be done continuously to recover during the treatment process. Therefore, it is considered that clinicians' integrating emotions and emotion regulation/dysregulation skills into the therapy process may increase the efficiency of the treatment.

Emotion-focused therapy is also used for eating disorders and is effective in treatment. In emotion-focused therapy, the aim is to access primary emotions hidden by secondary emotions, transform basic maladaptive emotions into innate healthy emotional experiences, and change dysfunctional behavior patterns (Dolhanty & Greenberg, 2007). Behaviors seen in eating disorders are used to cope with and avoid maladaptive emotions. In emotion-focused

therapy, maladaptive emotions are activated within the session and matched with alternative emotions. Access to compatible emotions becomes difficult because people with an eating disorder either avoid emotions or hide primary emotions behind secondary emotions. Abnormal eating behaviors might be considered the result of secondary or maladaptive emotions. For instance, anger may be expressed with a less threatening emotion such as shame or self-disgust towards one's own body (Fox & Power, 2009). For this reason, emotion-focused therapy deals with the emotions that the individual is afraid to face, and it aims to achieve healthy emotions by experiencing and processing the emotions (Dolhanty & Greenberg, 2007). This process both demonstrates to people that emotions might be experienced and enables the person to cope with emotions without an eating disorder. In summary, during the therapy process, the primary and secondary emotions that the client experiences and avoids should be noted, and the emotions should be discussed. With psychoeducation about emotions, the client may be made aware of the relationship between their emotions and their eating disorder. Ensuring that the client eats regularly with a behavioral approach and using cognitive modification strategies with a cognitive approach may not be enough for eating disorder to recover or not recur. Therefore, supporting clients with emotion-focused strategies may positively affect the prognosis of psychopathology.

Conclusion

With their increasing rates in recent years, eating disorders are gaining importance as a psychopathology that needs to be examined and discussed. The causes and treatment procedures of eating disorders vary depending on the type and severity of the pathology and the personal characteristics of the patient. It is known that factors such as genetic predisposition, personality traits, family relationships, upbringing, and negative childhood experiences are effective in the formation of eating disorders (Bulik et al., 2007; Erbay & Seçkin, 2016; Ertaş, 2006). It is thought that the increase in eating disorder rates in recent years is also related to social media and idealized physical appearances for individuals. In addition, opinions and research suggest that eating disorders may be associated with difficulty in emotional regulation. Considering factors such as the high rates of comorbidity and relapse in eating disorders and the risk of death, especially in anorexia, it is thought that it is important to investigate treatment methods, add effective new methods, and take a multidisciplinary approach. Behavioral and cognitive methods are extensively used in eating disorders. According to researchers, relapse rates in the treatment of eating disorders can be reduced by adding emotion-focused approaches to the treatment (Haynos and Fruzzetti, 2011). With emotion-focused approaches, people will be able to recognize the emotions they associate with their eating behaviors and replace these dysfunctional emotions with healthier emotions, and behavioral change will occur.

The literature showed that there is a significant relationship between eating disorders and emotions. While fear, anger and disgust, which are our basic emotions have a serious importance in eating disorders, the relationship of sadness and happiness with eating disorders has not been fully clarified. There is a serious relationship between the feeling of shame, which is one of our secondary emotions, and eating disorders. However, even though it has been shown that guilt and pride, which are our other secondary emotions, are associated with eating disorders, research has been insufficient to clearly determine the relationship. In general, eating disorders have been associated with regulating negative or undesirable emotions in the literature. It has been stated that people's irregular eating patterns and behaviors have an externalizing function to avoid or suppress these emotions.

Knowing the sources of behavioral patterns in eating disorders is very valuable for treatment approaches. People's behavioral patterns, such as restrictive eating, excessive exercise, and vomiting, may result from their efforts to regulate the emotions they feel in an

unhealthy way. The person may avoid eating to manage the anxiety of gaining weight or try to get rid of this feeling by making himself or herself vomit because he or she is ashamed of the food he or she eats. Or she or he may develop dysfunctional eating patterns because she or he is disgusted with his or her own body. Considering these, it is thought that people need to have correct emotion regulation skills to reduce their dysfunctional eating behaviors. Considering the proven effects of cognitive and behavioral approaches in eating disorders, it is thought that the emotional approaches to be added will be effective in the development and treatment of the pathology. Moreover, it was thought that the inclusion of emotion regulation strategies in classical therapy methods would increase recovery rates and decrease relapse rates.

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