

The Roles of Psychosocial Factors and Nutritional Intervention on Eating Disorders

Psikososyal Faktörlerin ve Beslenme Müdahalesinin Yeme Bozuklukları Üzerindeki Rolü

Çilenay TATLI^{1*}, Perim Fatma TÜRKER¹

¹ Başkent Üniversitesi, Sağlık Bilimleri Fakültesi, Beslenme ve Diyetetik Bölümü, Ankara, Türkiye



ABSTRACT

With a multifaceted and intricate etiology, eating disorders are classified as mental diseases. The etiology of eating disorders includes sociocultural factors such as family and childhood experiences, societal and cultural pressures, imposition of media standards, as well as psychological factors such as low self-esteem and body dissatisfaction, stress, anxiety, mood disorders, trauma, and perfectionism. To provide a nutritional intervention that includes the normalization of eating behavior, it is necessary to understand the psychosocial aspects underlying the illness of individuals with eating disorders. Because a dietitian may be the first person to recognize the symptoms of an individual's eating disorder, which is a psychiatric disorder, or the first healthcare professional to whom a patient applies for this condition, and dietitians are a critical member of the treatment team of these patients. During the planning of nutritional intervention; practices such as defining nutritional problems related to medical or physical condition, evaluating anthropometric measurements and biochemical data, examining behavioral and environmental factors, calculating energy and macronutrient requirements, increasing the amount and variety of foods consumed, and giving recommendations regarding the normal perception of hunger and satiety constitute the basic processes of nutrition intervention planned in line with appropriate weight restoration and health goals. In this process, providing psychosocial support and positive reinforcement by considering the changing needs of the individual may help to increase their commitment to the process. Being in constant cooperation and communication with the healthcare professionals involved in the treatment and the family of the individual during the treatment period constitutes an integral part of a well-managed treatment process. In this respect, the health professionals in the treatment team informing the other members of the team by considering the etiological factors of the eating disorder and providing a joint decision-making environment makes a great contribution to the treatment process.

Keywords: eating disorders, psychosocial factors, nutritional intervention

Alınış / Received: 05.01.2024 Kabul / Accepted: 01.08.2024 Online Yayınlanma / Published Online: 28.08.2024



ÖZ

Yeme bozuklukları, karmaşık ve çoklu faktörlü etiyojiye sahip olan psikiyatrik bozukluklardır. Yeme bozukluklarının etiolojisinde aile içi ve çocukluk dönemi deneyimleri, toplumsal ve kültürel baskı, medya standartlarının dayatılması gibi sosyokültürel faktörlerin yanı sıra düşük benlik saygısı ve beden memnuniyetsizliği, stres, kaygı, duygu durum bozuklukları, travma ve mükemmeliyetçilik gibi psikolojik faktörler bulunmaktadır. Yeme davranışının normalleştirilmesini içeren bir beslenme müdahalesi sağlamak için yeme bozukluğuna sahip bireylerin hastalığının altında yatan psikososyal yönlerin anlaşılması gerekmektedir. Çünkü bir bireyin psikiyatrik bir hastalık olan yeme bozukluğuna dair semptomlarını ilk tanıyan kişi veya bir hastanın bu durum için başvurduğu ilk sağlık uzmanı diyetisyen olabilmektedir ve diyetisyenler bu hastaların tedavi ekibinin kritik bir üyesidir. Beslenme müdahalesinin planlanması sırasında; tıbbi veya fiziksel durumla ilgili beslenme sorunlarının tanımlanması, antropometrik ölçümlerin ve biyokimyasal verilerin değerlendirilmesi, davranışsal ve çevresel faktörlerin incelenmesi, enerji ve makro besin ögesi gereksinimlerinin hesaplanması, tüketilen gıdaların miktar ve çeşitliliğinin artırılması, açlık ve tokluğun normal algılanmasına ilişkin öneriler verilmesi gibi uygulamalar, uygun ağırlık restorasyonu ve sağlık hedefleri doğrultusunda planlanan beslenme müdahalesinin temel süreçlerini oluşturmaktadır. Bu süreçte bireyin değişen ihtiyaçları gözetilerek psikososyal destek ve olumlu pekiştirme sağlanması sürece olan bağlılığını arttırmaya yardımcı olabilmektedir. Tedavi süresince tedaviye dahil olan sağlık uzmanları ve bireyin ailesi ile sürekli bir iş birliği ve iletişim içinde olmak iyi yönetilen bir tedavi sürecinin ayrılmaz parçasını oluşturmaktadır. Bu açıdan tedavi ekibi içinde yer alan sağlık profesyonellerinin yeme bozukluğunun etiolojik faktörlerini dikkate alarak ekip içerisindeki diğer üyeleri bilgilendirmesi ve ortak karar alma ortamı sağlaması tedavi sürecine oldukça büyük bir katkı sunmaktadır.

Anahtar Kelimeler: yeme bozuklukları, psikososyal faktörler, beslenme müdahalesi



1. Introduction

The importance of nutritional intervention and psychosocial aspects in the comprehensive treatment of eating disorders (ED) and obesity is often emphasized in both scientific literature and practical guidelines on eating disorders (1,2). It is well established that addressing these issues from a holistic perspective can significantly enhance the efficacy of treatment outcomes. Therefore, it is important that ED treatment programs are carried out with an interdisciplinary approach, including psychological and nutritional interventions as well as medical observations and practices. This integrated method ensures that all aspects of the disorder are addressed, providing a more rounded and effective treatment plan. Additionally, these programs should be executed by a multi-professional team specializing in their field, ensuring that each component of the treatment is managed by experts who can provide the most effective care.

The way to ensure effective treatment is to establish and maintain a strong therapeutic alliance for the individual, which is crucial for helping them reach the appropriate weight and adopt healthy eating habits (3). This alliance involves building a trustful relationship between the patient and the healthcare providers, which fosters better adherence to the treatment plan and a more positive outcome. By ensuring that the patient feels supported and understood, the therapeutic alliance can significantly improve the overall success of the treatment.

Considering all this information, this review aims to evaluate the role of psychosocial factors and nutritional intervention in ED based on a multidisciplinary approach. It seeks to provide a comprehensive understanding of how these factors interact and contribute to the development and treatment of ED. By examining the latest research and clinical practices, this review will offer insights

into optimizing treatment strategies and improving patient outcomes. This holistic view will ultimately contribute to the advancement of treatment methods and the betterment of individuals suffering from ED and obesity.

Eating Disorders, Epidemiology and Etiology

Diagnostic standards for eating disorders are based on a comprehensive evaluation of psychological, behavioral, and physiological traits. These disorders are classified as mental diseases due to their profound impact on mental health and behavior (4). According to the Diagnostic and Statistical Manual of Mental Disorders-V (DSM-V), clinical ED are categorized into eight distinct groups: anorexia nervosa (AN), bulimia nervosa (BN), binge eating disorder (BED), pica, rumination disorder, avoidant/restrictive food intake disorder (ARFID), other specified feeding and eating disorders, and unspecified feeding and eating disorders (5). Each of these categories encompasses specific diagnostic criteria that aid in the accurate identification and classification of the disorder.

The lifetime prevalence of ED is estimated to be between 1 and 5%, reflecting the significant number of individuals affected by these conditions. Diagnostically, a study conducted in Europe in 2016 using DSM-V criteria revealed that the prevalence rates were <1-4% for AN, <1-2% for BN, and <1-4% for BED, and subthreshold ED symptoms were found in the range of <1-4%. These findings underscore the varying degrees of severity and manifestation of ED across different populations. Furthermore, it has been reported that the rate of ED in Asian countries is increasing every year, indicating a growing public health concern in these regions (6). Although there has been no comprehensive study conducted in our country in recent years, these rates are in the range of 1-3%, mirroring global data (7).

ED are characterized by a range of behaviors that negatively impact health. These behaviors include extreme measures such as self-induced hunger, restricted eating, skipping meals, overeating, the use of weight-loss drugs, laxatives, and diuretics, as well as excessive exercise. These actions are often driven by concerns about body weight and appearance, reflecting the deep-seated anxieties and psychological distress associated with these disorders (8). Many factors play a role in the etiology of ED, indicating a complex interplay of biological, psychological, and sociocultural influences. Biological explanations highlight genetic predisposition and neurotransmitter dysregulation as key contributors to the development of ED (9). Interestingly, recent studies have reported genetic differences between AN and BN, suggesting distinct biological underpinnings for these disorders (10).

On the other hand, psychodynamic explanations emphasize early developmental conflicts, problems in parental relationships, and the denial of femininity as potential factors weakening ego strength, particularly focusing on AN (11). Cognitive-behavioral explanations posit that dysfunctional thought patterns regarding weight, body shape, and form play a critical role in the formation and maintenance of ED symptoms. These explanations suggest that weight control or compensation methods reinforce and perpetuate the disease (12,13). The cognitive-behavioral approach, especially in its more current form, considers ED from a transdiagnostic perspective, asserting that a similar structure underlies AN, BN, and BED (13).

Furthermore, it is emphasized that the personality and family structures of individuals with ED may also contribute to the development of the disease (14). Sociocultural explanations argue that the social environment and media influence eating problems through their impact on self-esteem and body dissatisfaction. These explanations draw attention to the importance of preventive studies targeting these sociocultural factors (15–17). As evidenced by these diverse perspectives, the etiology of ED is multifactorial and complex, which directly impacts treatment approaches in the field.

Psychosocial Factors in Eating Disorders

With a multifaceted and intricate etiology, ED are classified as mental diseases. These disorders arise from a complex interplay of genetic, biological, psychological, and environmental factors (18). Among these, psychosocial factors hold a significant place. According to extensive studies, there are various sociocultural factors, such as family experiences, childhood experiences, social and cultural pressures, and the imposition of media standards. Alongside these, psychological factors such as low self-esteem, body dissatisfaction, stress, anxiety, mood disorders, trauma experiences, and perfectionist personality traits also play crucial roles in the etiology of ED (19–22).

Particularly noteworthy is the association between traits of obsessive-compulsive disorder or obsessive-compulsive personality and both anorexia nervosa and bulimia nervosa. These traits tend to linger even after recovery from the ED, indicating a persistent underlying vulnerability (23–25). Family characteristics, including avoidance, strange communication patterns, insufficient boundaries between people, and poor parenting practices, may significantly contribute to the development and maintenance of these disorders.

Adolescence is a critical stage of life marked by a transition towards independence from parents and other family members. From a relational viewpoint, it is especially beneficial to investigate whether family factors provide a basis for behavioral and emotional well-being during this period, particularly in terms of risky behaviors. Given that most individuals live with their parents during childhood and adolescence, the quality of family communication and the parent-child relationship deserve significant attention regarding the individual's emotional and social adaptive development. In this respect, family dynamics and childhood experiences may also be effective in preventing the emergence of eating disorders (26). For instance, a study indicates that individuals with ED often have perfectionist parents who hold high concerns about weight and body shape (27).

People's eating behaviors and habits can be influenced and modified by the cultural characteristics and living conditions of the society in which they reside (28). With the increase in the idealization of thinness within certain societies and cultures, behaviors characterized by self-starvation and an intense fear of weight gain or obesity have been observed, highlighting the impact of social and cultural changes on the etiology of ED (29). Young women frequently experience negative body image, particularly concerning body dissatisfaction (30). Numerous studies have demonstrated that exposure to social media can exacerbate eating problems and body image issues (31). In this way, the internalization of social pressure stemming from contemporary industrial society or Western culture's feminine beauty standards is etiologically linked to ED (32). When users realize that they cannot achieve the standardized ideal body, they often experience dissatisfaction with their bodies because of social comparison on social media (33,34).

Anxiety disorders and depression are among the most prevalent mental illnesses among adolescents (35). Particularly during adolescence, these are two of the most common comorbid diagnoses of ED (36–38). Like those suffering from anxiety disorders, individuals with eating disorders may resort to unhealthy coping mechanisms, such as disordered eating, to manage their feelings (39). Additionally, the persistence of accompanying anxiety symptoms even after alleviation of ED symptoms increases the risk of individuals reverting to old coping behaviors associated with eating disorders (40). More severe ED psychopathology is linked to concomitant anxiety disorders, particularly in female adolescents and young adults (41). Specifically, avoidance of social situations, comorbid social anxiety, and fears of unfavorable evaluation impede recovery efforts by hindering participation in therapy and the development of a positive therapeutic alliance (42).

Moreover, it has been reported that the prevalence of traumatic experiences in young adults may trigger adjustment problems, potentially contributing to the development of pathologies related to ED (43). Traumatic experiences threaten the physical and psychological integrity of the individual, making their role in the development of ED particularly important. Many previous studies have shown that a history of trauma is frequently found in individuals with ED, underscoring the significant impact of these experiences (21,43).

Among psychological variables, personality characteristics contribute to how individuals perceive, relate to, and interact with their environment (29). Perfectionism, a personality trait characterized by the tendency to strive for perfection, has been suggested to increase the risk of developing ED. Moreover, perfectionism can have both positive and negative aspects, with clinical or maladaptive perfectionism theorized to be the personality trait most relevant to the risk of ED (45).

Nutritional Intervention in Eating Disorders

Throughout the screening and treatment phases of patients with anorexia nervosa, bulimia nervosa, and other ED, nutrition intervention, including nutritional counseling, is a crucial component of therapy. This intervention is not only essential for helping to restore normal eating patterns and nutritional status, but it also plays a pivotal role in the overall recovery process. Dietitians are instrumental in

providing medical nutrition therapy, which is a fundamental aspect of the comprehensive treatment approach for individuals with ED. Their role is multi-faceted and involves not only the creation of individualized dietary plans but also a deep understanding of the psychological and neurological characteristics that underpin these disorders (4).

Often, the dietitian may be the first medical expert a patient approaches for help with their ED or the first to identify the symptoms of the condition in an individual (46). This initial interaction is critical, as it sets the stage for the subsequent stages of treatment. Therefore, dietitians need to possess a nuanced understanding of the psychological and neurological aspects of ED in order to provide effective and empathetic care. Their expertise allows them to address the complex interplay of factors contributing to the disorder, including behavioral, cognitive, and emotional aspects.

The basic nutritional intervention encompasses several key components. The first step involves a thorough assessment of the dietary requirements of the affected person. This assessment is crucial for developing an effective treatment plan and includes evaluating current nutritional status, identifying any deficiencies or imbalances, and developing a tailored nutrition plan. Nutritional rehabilitation therapies are then implemented to address these needs and help restore normal eating patterns (4). An essential aspect of this process is the assessment of nutritional status. For example, the food consumption record approach may be more practical and reliable than laboratory testing for assessing current food intake and diagnosing potential micronutrient deficiencies, especially in cases of bulimia nervosa and anorexia nervosa (47). This method provides a detailed and practical understanding of the patient's eating habits and nutritional intake.

A person-centered and cooperative approach is crucial to leveraging the patient's motivation for change. During the initial assessment, the dietitian can gauge the individual's readiness for change and use this information to enhance their intrinsic motivation for recovery (48). This motivational approach helps in setting realistic and achievable goals, fostering a sense of agency and commitment to the treatment process. Engaging the patient in setting their own goals and understanding their personal motivations can lead to more effective and sustained changes in behavior.

Treatment planning should be carefully tailored to the severity of the disease and the specific needs of the individual. Especially during adolescence, it is important that the content of the diet and the timing of meals are appropriate to the growth and development process (49,50). The planning of nutritional intervention involves a comprehensive analysis of the individual's nutritional status. This includes identifying nutritional problems related to medical or physical conditions, evaluating symptoms and behaviors associated with ED, assessing anthropometric measurements and biochemical data, and interpreting attitudes and behaviors related to eating. Additionally, examining behavioral and environmental factors, such as family dynamics and social influences, is crucial for developing a holistic and effective treatment plan (51,52).

In the subsequent stage, practices such as calculating energy and macronutrient requirements, providing guidance to normalize eating patterns to ensure weight change, increasing the variety and number of foods consumed, and offering recommendations regarding the normal perception of hunger and satiety become fundamental aspects of nutrition intervention. These interventions should be aligned with appropriate weight restoration and health goals (4,53). This stage also involves regular monitoring and adjustments to the nutritional plan based on the patient's progress and changing needs.

For patients who cannot be treated on an outpatient basis, inpatient intervention is often the most effective approach. Before initiating treatment, a detailed analysis of weight change and nutritional history should be conducted. Establishing a target weight that supports the resumption of normal menstrual cycles is crucial. The goal is to ensure that the patient achieves a weight that allows for normal physiological functioning, which may include adding a few extra pounds to support overall health. Menstruation typically resumes when weight reaches approximately 90% of relative weight, which serves as a good starting target (54). The target weight should be progressively increased with growth, and adjustments should be made to achieve a normal BMI or 100% relative weight in the later stages of treatment. This is particularly important for pre-menarcheal patients with anorexia nervosa (55). Setting achievable intermediate weight goals in collaboration with the patient can be beneficial, as a personalized diet with some flexibility can enhance the patient's sense of self-control and facilitate acceptance of weight gain (56).

Patients are encouraged to consume a well-rounded diet that includes foods they have previously avoided. The diet should consist of easily consumed soft foods, and individuals should be provided with vitamin and mineral supplements as needed. The energy and nutrient content of the diet should be gradually increased to prevent refeeding syndrome, a potentially dangerous condition that can occur when introducing food to a malnourished individual. Close monitoring of the patient's tolerance status during the nutritional therapy process is essential to ensure that the diet is well-tolerated and that any adverse effects are promptly addressed (49,50).

Providing psychosocial support and positive reinforcement, while considering the evolving needs of the individual, is crucial for increasing adherence to the treatment process (57). This support can include counseling, motivational interviewing, and the development of coping strategies to deal with emotional and psychological challenges. Maintaining continuous cooperation and communication with healthcare professionals involved in other stages of treatment, as well as with the patient's family, is integral to a well-managed treatment process. This collaborative approach helps to ensure that all aspects of the patient's recovery are addressed, from medical and nutritional needs to psychological support and social factors (4,58). Furthermore, the multidisciplinary team should also focus on developing and implementing evidence-based treatment strategies. This involves staying updated with the latest research findings and incorporating best practices into the treatment plan. Evidence-based treatments are critical for improving outcomes and ensuring that the interventions used are effective and supported by scientific research.

In conclusion, the comprehensive treatment of ED requires a multidisciplinary approach that integrates medical, nutritional, and psychological interventions. Dietitians, as part of this team, play a crucial role in restoring nutritional health, promoting healthy eating habits, and supporting the overall recovery process. Through effective teamwork and a deep understanding of the psychosocial factors involved, healthcare professionals can support patients in achieving long-term recovery. Continued research is essential for further improving treatment strategies and outcomes for individuals with ED.

Multidisciplinary Approach in The Treatment of Eating Disorders

When treating ED, a multidisciplinary strategy that includes access to dietary, psychological, psychiatric, and physical interventions is highly recommended to achieve full recovery. This comprehensive approach has long been acknowledged and was formally reiterated in the Society for Adolescent Medicine's position paper, which emphasizes the critical role of doctors, nurses, nutritionists, and mental health specialists as integral members of the care team involved in the treatment process (59, 60). Each of these domains has distinct yet complementary treatment goals, which are essential for addressing the multifaceted nature of ED.

Medical care primarily focuses on helping the patient gain the appropriate weight and return to normal physical health. This involves monitoring vital signs, managing any medical complications that arise from the eating disorder, and ensuring the patient's overall physical well-being is restored. The medical team works to stabilize the patient's physical condition, which is a crucial first step in the recovery process. Nutritional care is centered around restoring regular eating habits and meeting specific dietary needs based on individual differences. Dietitians play a pivotal role in developing personalized meal plans that ensure the patient receives the necessary nutrients to promote physical health and recovery. This involves not only addressing any existing nutritional deficiencies but also helping the patient develop a healthier relationship with food. Nutritional rehabilitation is tailored to everyone's unique needs, preferences, and recovery goals, making it a cornerstone of the treatment plan. Psychological care aims to resolve issues related to the body and self-image, address distorted cognitions, and manage accompanying disorders such as mood and anxiety disorders. Psychologists and mental health specialists work with patients to explore the underlying emotional and cognitive issues that contribute to their ED. This therapeutic work often includes cognitive-behavioral therapy (CBT), which helps patients challenge and change unhealthy thought patterns and behaviors. Additionally, therapy may address issues of self-esteem, body dysmorphia, and coping mechanisms, providing patients with the tools they need to achieve and maintain recovery (61).

Improvement processes related to the family and social environment are also vital. These processes include providing social support, fostering effective communication, and enhancing the quality of family relationships. Family-based therapy can be particularly effective, as it involves educating family

members about the disorder and how to support their loved one in recovery. Improving family dynamics and building a supportive home environment can significantly impact the patient's recovery journey, providing them with a network of understanding and encouragement (62).

The importance of a multidisciplinary approach in treating ED is even greater than in other mental illnesses because evidence suggests that early intervention, particularly within the first three years of the onset of the disorder, produces significantly better outcomes (62). Early intervention can prevent the disorder from becoming chronic and reduce the severity of symptoms, making it easier for patients to achieve long-term recovery. In this respect, trained health professionals and health service practitioners play a vital role. They inform other members of the treatment team, ensuring a cohesive and informed approach that addresses all aspects of the patient's condition. By providing a joint decision-making environment that considers the etiological factors of ED, they contribute substantially to the treatment process (63).

The implementation of evidence-based treatments for ED is another critical component of successful recovery. Evidence-based treatments are therapies and interventions that have been scientifically proven to be effective. These treatments often include a combination of cognitive-behavioral therapy, family-based therapy, and medical nutrition therapy, among others. The use of these proven methods ensures that patients receive the highest standard of care, increasing the likelihood of a successful outcome.

Establishing a therapeutic alliance, where the patient feels included and actively involved in their treatment, is also crucial. This alliance fosters a sense of trust and cooperation between the patient and their care team, making it easier for the patient to engage in and adhere to their treatment plan. When patients feel heard and understood, they are more likely to commit to the recovery process and make the necessary changes to achieve and maintain their health (64).

In summary, treating ED effectively requires a comprehensive, multidisciplinary approach that addresses the medical, nutritional, psychological, and social aspects of the disorder. Early intervention and the use of evidence-based treatments, combined with a supportive therapeutic alliance, are key factors that promote a successful recovery. By working together, healthcare professionals can provide a holistic treatment plan that meets the unique needs of each patient, helping them to achieve full recovery and improve their overall quality of life.

2. Conclusion

Both the scientific literature and practical guidelines on ED emphasize the critical importance of nutrition intervention in the comprehensive treatment of these disorders. Nutrition intervention is a vital component that supports the therapeutic goals of weight gain, nutrient restoration, and the adoption of healthy, weight-maintaining eating habits. The goal of nutrition intervention in the treatment of ED lies in fostering a therapeutic alliance that supports the client's overall recovery process. This alliance is essential for helping clients achieve their weight goals and maintain these gains through sustainable eating habits.

ED are complex psychiatric disorders with a multifactorial etiology that includes genetic, biological, psychological, and social factors. Because of this complexity, a multidisciplinary approach is necessary for effective treatment. Dietitians play an integral role in the comprehensive treatment team, working alongside psychologists, psychiatrists, and other medical practitioners to provide holistic care. Their expertise in medical nutrition therapy is crucial for addressing the unique dietary needs of each patient and supporting their journey toward recovery. In this respect, specialists within the treatment team must prioritize teamwork and effective communication. Having an expert perspective on the subtleties and complexities of eating patterns is essential. This involves understanding the psychosocial factors that contribute to the development and maintenance of eating disorders, such as low self-esteem, body dissatisfaction, stress, anxiety, mood disorders, trauma, and perfectionist personality traits. By integrating this understanding into their practice, specialists can provide more targeted and effective interventions. Supporting medical treatment with nutritional interventions facilitates sustainable outcomes in both the prevention and treatment of ED. Nutritional interventions can include detailed assessments of nutritional status, personalized meal planning, and continuous monitoring of dietary intake and health markers. These interventions help restore normal eating patterns and nutritional status, which are critical for the overall health and well-being of the patient.

Moreover, a multidisciplinary approach ensures that all aspects of the patient's health are addressed. Medical practitioners monitor physical health and manage any medical complications. Psychologists provide therapy to address cognitive distortions and emotional issues, while psychiatrists may manage any co-occurring psychiatric conditions with appropriate medication. Dietitians ensure that the patient's nutritional needs are met and help them develop a healthier relationship with food.

In this collaborative environment, the treatment team can develop a comprehensive care plan that is tailored to the individual needs of the patient. This plan should include strategies for dealing with potential setbacks and maintaining progress over the long term. Continuous collaboration and communication among team members are essential for adapting the treatment plan as the patient's needs evolve. Despite the progress in understanding and treating ED, more evidence-based research is needed to improve treatment outcomes. Research can help identify the most effective primary and secondary treatments, uncover new therapeutic approaches, and refine existing ones. This ongoing research is vital for developing a deeper understanding of ED and enhancing the effectiveness of interventions.

In conclusion, the comprehensive treatment of ED requires a multidisciplinary approach that integrates medical, nutritional, and psychological interventions. Dietitians, as part of this team, play a crucial role in restoring nutritional health and promoting sustainable eating habits. Through effective teamwork and a deep understanding of the psychosocial factors involved, healthcare professionals can support patients in achieving long-term recovery. Continued research is essential to further improve treatment strategies and outcomes for individuals with ED.

Declaration of Ethical Code

In this study, we undertake that all the rules required to be followed within the scope of the "Higher Education Institutions Scientific Research and Publication Ethics Directive" are complied with and that none of the actions stated under the heading "Actions Against Scientific Research and Publication Ethics" are carried out.

References

1. Hackert AN, Kniskern MA, Beasley T M. Academy of Nutrition and Dietetics: revised 2020 standards of practice and standards of professional performance for registered dietitian nutritionists (competent, proficient, and expert) in eating disorders. *Journal of the Academy of Nutrition and Dietetics* 2020;120(11):1902-1919.
2. Toutonghi J. EPA-1820–Nutritional Interventions for Eating Disorders. *European Psychiatry* 2014;29(S1):1-1.
3. Winston AP. Management of physical aspects and complications of eating disorders. *Psychiatry* 2005;4(4):22-26.
4. Ozier AD, Henry BW. Position of the American Dietetic Association: nutrition intervention in the treatment of eating disorders. *Journal of the American Dietetic Association* 2011;111(8):1236-1241.
5. Köroğlu. Amerikan Psikiyatri Birliği Ruhsal Bozuklukların Tanısal ve Sayımsal El kitabı, Beşinci Baskı (DSM5), Tanı Ölçütleri Başvuru El kitabı. Hekimler Yayın Birliği, Ankara, 2014.
6. Pike KM, Dunne PE. The rise of eating disorders in Asia: a review. *Journal of eating disorders* 2015;3:1-14.
7. Vardar E, Erzen M. Ergenlerde yeme bozukluklarının yaygınlığı ve psikiyatrik eş tanıları iki aşamalı toplum merkezli bir çalışma. *Türk Psikiyatri Dergisi* 2011;22(4):205-212.
8. Nattiv A, Loucks AB, Manore MM, Sanborn CF, Sundgot-Borgen J, Warren MP. American College of Sports Medicine. American College of Sports Medicine position stand. The female athlete triad. *Med Sci Sports Exerc* 2007;39(10):1867–1882.
9. Gordon KH, Holm-Denoma JM, Crosby RD, Wonderlich SA. The classification of eating disorders. *The Oxford handbook of eating disorders* 2010;9-23.
10. Hinney A, Volckmar AL. Genetics of eating disorders. *Current psychiatry reports* 2013;15:1-9.
11. Zerbe KJ. The crucial role of psychodynamic understanding in the treatment of eating disorders. *Psychiatric Clinics of North America* 2001;24(2):305-313.
12. Leung N, Waller G, Thomas G. Group cognitive-behavioural therapy for anorexia nervosa: a case for treatment?. *European Eating Disorders Review: The Professional Journal of the Eating Disorders Association* 199;7(5):351-361.
13. Fairburn CG. *Cognitive behavior therapy and eating disorders*. Guilford Press 2008.
14. Polivy J, Herman CP. Causes of eating disorders. *Annual review of psychology* 2002;53(1):187-213.
15. Garner DM. Measurement of eating disorder psychopathology. *Eating disorders and obesity: A comprehensive handbook* 2002;2:141-146.

16. Lamoureux MM, Bottorff JL. "Becoming the real me": Recovering from anorexia nervosa. *Health Care for Women International* 2005;26(2):170-188.
17. Weaver K, Wuest J, Ciliska D. Understanding women's journey of recovering from anorexia nervosa. *Qualitative health research* 2005;15(2):188-206.
18. Rohde P, Stice E, Marti CN. Development and predictive effects of eating disorder risk factors during adolescence: Implications for prevention efforts. *International Journal of Eating Disorders* 2015;48(2):187-198.
19. Bratland-Sanda S, Sundgot-Borgen J. Eating disorders in athletes: overview of prevalence, risk factors and recommendations for prevention and treatment. *Eur J Sport Sci* 2013;13(5):499-508.
20. Fairburn CG, Cooper Z, Doll HA, Norman P, O'Connor M. The natural course of bulimia nervosa and binge eating disorder in young women. *Archives of General psychiatry* 2000;57(7):659-665.
21. Jacobi F, Wittchen HU, Hölting C, Höfler M, Pfister H, Müller N, Lieb R. Prevalence, co-morbidity and correlates of mental disorders in the general population: results from the German Health Interview and Examination Survey (GHS). *Psychological medicine* 2004;34(4):597-611.
22. Treasure J, Claudino AM, Zucker N. Eating disorders. *The Lancet* 2010;375(9714):583-593.
23. Lilenfeld LR, Kaye WH, Greeno CG, Merikangas KR, Plotnicov K, Pollice C. A controlled family study of anorexia nervosa and bulimia nervosa: psychiatric disorders in first-degree relatives and effects of proband comorbidity. *Arch Gen Psychiatry* 1998;55:603-10.
24. Sullivan PF, Kendler KS. Typology of common psychiatric syndromes. An empirical study. *Br J Psychiatry* 1998;173:312-9.27.
25. Sullivan PF, Bulik CM, Fear JL, Pickering A. Outcome of anorexia nervosa: a case-control study. *Am J Psychiatry* 1998;155:939-46.
26. Erriu M, Cimino S, Cerniglia L. The role of family relationships in eating disorders in adolescents: a narrative review. *Behavioral sciences* 2020;10(4):71.
27. Woodside DB, Bulik CM, Halmi KA, Fichter MM, Kaplan A, Berrettini WH, ... Kaye WH. Personality, perfectionism, and attitudes toward eating in parents of individuals with eating disorders. *International Journal of Eating Disorders* 2002;31(3):290-299.
28. Andersen AE, Yager J. Eating disorders. *Comprehensive Textbook of Psychiatry*, 8. baskı, cilt 1. B Sadock, V Sadock (Ed), Philadelphia. Lippincott Williams & Wilkins 2005;2005-2021.
29. Keel PK, Forney KJ. Psychosocial risk factors for eating disorders. *International Journal of Eating Disorders* 2013;46(5):433-439.
30. Fallon EA, Harris BS, Johnson P. Prevalence of body dissatisfaction among a United States adult sample. *Eating Behaviors* 2014;15(1):151–158.
31. Holland G, Tiggemann M. A systematic review of the impact of the use of social networking sites on body image and disordered eating outcomes. *Body Image* 2016;17:100–110.
32. Stice E, Marti CN, Durant S. Risk factors for onset of eating disorders: Evidence of multiple risk pathways from an 8-year prospective study. *Behaviour Research and Therapy* 2011;49(10):622–627.
33. Frieiro Padin P, González Rodríguez R, Verde Diego MDC, Vázquez Pérez R. Social media and eating disorder psychopathology: A systematic review. *Cyberpsychology Journal of Psychosocial Research on Cyberspace* 2021.
34. Frederick DA, Daniels EA, Bates ME, Tylka TL. Exposure to thin-ideal media affect most, but not all, women: Results from the Perceived Effects of Media Exposure Scale and open-ended responses. *Body Image* 2017;23:188–205.
35. Polanczyk GV, Salum GA, Sugaya LS, Caye A, Rohde LA. Annual research review: A meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. *J. Child Psychol. Psychiatry* 2015;56:345–365.
36. Godart NT, Flament MF, Perdereau F, Jeammet P. Comorbidity between eating disorders and anxiety disorders: A review. *Int. J. Eat. Disord* 2002;32:253–270.
37. Godart NT, Perdereau F, Rein Z, Berthoz S, Wallier J, Jeammet P, Flament MF. Comorbidity studies of eating disorders and mood disorders. Critical review of the literature. *J. Affect. Disord* 2007;97:37–49.
38. Swanson SA, Crow SJ, Le Grange D, Swendsen J, Merikangas KR. Prevalence and correlates of eating disorders in adolescents. Results from the national comorbidity survey replication adolescent supplement. *Arch. Gen. Psychiatry* 2011;68:714–723.
39. De Young KP. Comorbidities: Anxiety disorders. In *Encyclopedia of Feeding and Eating Disorders*; Wade, T., Ed.; Springer: Singapore 2016;1–5.
40. Bardone-Cone AM, Harney MB, Maldonado CR, Lawson MA, Robinson DP, Smith R, Tosh A. Defining recovery from an eating disorder: Conceptualization, validation, and examination of psychosocial functioning and psychiatric comorbidity. *Behav. Res. Ther* 2010;48:194–202.
41. Vall E, Wade TD. Predictors of treatment outcome in individuals with eating disorders: A systematic review and meta-analysis. *Int. J. Eat. Disord* 2015;48:946–971.
42. Smith KE, Mason TB, Leonard RC, Wetterneck CT, Smith BER, Farrell NR, Riemann BC. Affective predictors of the severity and change in eating psychopathology in residential eating disorder treatment: The role of social anxiety. *Eat. Disord* 2018;26:66–78.
43. Smyth JM, Hockemeyer JR, Heron KE, Wonderlich SA, Penebaker JW. Prevalence, type, disclosure, and severity of adverse life events in college students. *Journal of American College Health* 2008;57(1):69-76.

44. Karaoğlu M, Erzi S. Yeme tutumları ve travmatik yaşantılar: Öz şefkat ve duygu düzenlemenin aracı rolü. *Kıbrıs Türk Psikiyatri ve Psikoloji Dergisi* 2019;1(3):145-151.
45. Shafran R, Cooper Z, Fairburn CG. "Clinical perfectionism" is not "multidimensional perfectionism": A reply to Hewitt, Flett, Besser, Sherry & McGee. *Behav Res Ther* 2003;41:1217-1220.
46. Scribner Reiter C, Graves L. Nutrition therapy for eating disorders. *Nutr Clin Pract* 2010;25:122-136.
47. Wilson GT, Grilo CM, Vitousek KM. Psychological treatment for eating disorders. *Am J Psychol* 2007;62:199-216.
48. Rollnick S, Miller WR, Butler CC. *Motivational interviewing in health care: Helping patients change behavior*. New York, NY: Guilford Press 2007;74-75.
49. Kruger S, Kennedy SH. Psychopharmacotherapy of anorexia nervosa, bulimia nervosa and binge-eating disorder. *Journal of Psychiatry and Neuroscience* 2000;25(5):497.
50. Ebeling H, Tapanainen P, Joutsenoja A, Koskinen M, Morin-Papunen L, Järvi L, ... Wahlbeck K. A practice guideline for treatment of eating disorders in children and adolescents. *Annals of medicine* 2003;35(7):488-501.
51. Wilson GT, Sysko R. Frequency of binge eating episodes in bulimia nervosa and binge eating disorder: Diagnostic considerations. *International Journal of Eating Disorders* 2009;42(7):603-610.
52. Klump KL, Bulik CM, Kaye WH, Treasure J, Tyson E. Academy for Eating Disorders position paper: Eating disorders are serious mental illnesses. *Int J Eat Disord* 2009;42:97-103.
53. Rosen DS. American Academy of Pediatrics Committee on Adolescence. Identification and management of eating disorders in children and adolescents. *Pediatrics* 2010;126:1240-1253.
54. Golden NH, Jacobson MS, Schebendach J, Solanto MV, Hertz SM, Shenker IR. Resumption of menses in anorexia nervosa. *Arch Pediatr Adolesc Med* 1997;151:16-21.
55. Parry-Jones WL. Target weight in children and adolescents with anorexia nervosa. *Acta Paediatr Scand Suppl* 1991;373:82-90.
56. Marshall MH. Anorexia nervosa: dietary treatment and re-establishment of body weight in 20 cases studied on ametabolic unit. *J Hum Nutr* 1978;32:349-57.
57. Kaye W. Neurobiology of anorexia and bulimia nervosa. *Physiol Behav* 2008;94:121-135.
58. Stice E, NG J, Shaw H. Risk factors and prodromal eating pathology. *J Child Psychol Psychiatry* 2010;51:518-525.
59. Monteleone AM, Fernandez-Aranda F, Voderholzer U. Evidence and perspectives in eating disorders: a paradigm for a multidisciplinary approach. *World Psychiatry* 2019;18(3):369.
60. Kreipe RE, Golden NH, Katzman DK, Fisher M, Rees J, Tonkin RS, Silber M, Sigman G, Schebendach J, Ammerman S, Hoberman MM. Eating disorders in adolescents: A position paper of the Society for Adolescent Medicine. *Journal of Adolescent Health* 1995;16:476-480.
61. Robin AL, Gilroy M, Dennis AB. Treatment of eating disorders in children and adolescents. *Clinical Psychology Review* 1998;18(4):421-446.
62. Treasure J, Stein D, Maguire S. *Early Interv Psychiatry* 2015;9:173-84.
63. National Institute for Health and Care Excellence. *Eating disorders: recognition and treatment*. Version 2.0. London: National Institute for Health and Care Excellence. 2017.
64. Grenon R, Carlucci S, Brugnera A, Schwartze D, Hammond N, Ivanova I, ... Tasca GA. Psychotherapy for eating disorders: A meta-analysis of direct comparisons. *Psychotherapy Research* 2019;29(7):833-845.