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TREATMENT OF EATING DISORDERS WITH NUTRITION

Abdulaziz Mohammed Alhussini, Abdullah Mohammed Alahmed, Abdullah Ali Abdullah Aldhafyan, Waleed Ibrahim Nasr Almusabehi, Mohammed Omar Alateeq, Yasser Mahdi Al-Abdoon, Muhammad Abdulaziz Nasser Al-Mufarrej, Tamran Mohammed Hamad Altamran, Sulaiman Abdullah Al Dowaihi, Mohammed Faleh Alharbi, Uthman Mohammed Alnowihl, Yasser Mahdi Al-Abdoon, Jeza Mahdi Zaiyed Alotaibi

Abstract:

The multidisciplinary clinical team that treats patients with eating disorders must include nutritionists. Their knowledge and proficiency encompass nutrition, physiology, and the ability to encourage behavioral modifications concerning the psycho-socio-cultural facets of eating habits. The state of the art in nutrition therapy for eating disorders is summarized in this review, along with recommendations for nutrition assessment, interventions, information and data monitoring and interpretation, awareness of emerging roles for nutrition, and crucial considerations for professional boundaries in the eating disorders field. Education and background in nutrition therapy.particular to eating disorders encourage a favorable outcome for patients. Nutritionists work at all levels of care, providing outpatient, partial hospitalization, inpatient, and residential programs as well as individual and group treatment. To discuss individual-specific nutrition factors is outside the purview of this essay. To identify the best effective nutrition therapy options for treating eating disorders, more study is required. (2010) Nutr Clin Pract. 25:122–136

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introduction:

Eating sustains life and satisfies basic biological needs. The actual prevalence of eating disorders is probably much underestimated because many people are reluctant to disclose information about their eating behaviors or do not meet the strict diagnostic criteria for an eating disorder. In addition, the choice to forego medical treatment if one is afflicted with an eating disorder, variability in screening and referral practices, and variance in the interpretation of diagnostic criteria all contribute to eating disorders, disordered eating, and worries about potential food addiction. Consequently, up to 90% of people with eating disorders may go untreated.

It is widely accepted that eating disorders, including disordered eating, are prevalent, especially among adolescent girls and young adult women. These diseases are typified by a severe dysfunctional response to signals of hunger and satiety. Eating disorders cause morbidity and reduced function, and their death rates are among the highest of any. mental disorders.4,6 It is estimated that over 7 million women and girls and 1 million boys and men in the US will experience eating disorders at some point in their lives.7 Eating disorders typically occur early in life, with 10% of cases occurring before the age of 10 and roughly one-third occurring in the preteen and adolescent years. The prevalence of eating disorders among athletes appears to be rising, with statistics suggesting rates 10–50 times higher than previously assumed. Eighty-six percent of eating disorders are diagnosed before children exit their teen years.

The interplay of genetics, biology, and psycho-socio-cultural factors is thought to give rise to eating disorders.11 Psychological issues and food selection and eating behavior have long been known to be strongly correlated. 5 Poor nutrition has been proposed as both a cause and an effect of eating disorders. More recent research on the quality and composition of diets suggests that nutrition may be involved in the development and treatment of mood disorders seen in eating-disordered patients. Depression combined with negative emotions and altered appetite regulation is associated with impaired physical activity and increased appetite,13 which may lead to binge eating.

Evidence from the semi-starvation classic Keys study, in which malnutrition was imposed on psychologically healthy men, illustrates the development of dramatic emotional changes with food restriction that include depression, anxiety, and attitudes and behaviors related to food, some of which persisted after refeeding. Obesity is linked to mood, anxiety, and personality disorders, such as major depression, dysthmia, and obsessive-compulsive disorder, as well as poor nutrition and alcohol addiction. disorder, among other conditions.15 Drinking alcohol can have negative and even fatal effects on people with eating disorders, even if their alcohol intake is not greater or more frequent than that of people without eating disorders.16

The DSM-IV does not contain obesity; rather, it is classified as a medical condition. Therefore, psychological problems related to the aetiology, maintenance, or response to obesity may not be fully addressed in treatment.17 In fact, despite the DSM-IV's definition of "binge eating," eating disorder specialists understand that psychological distress is more closely associated with losing control over eating than with actual food consumption.18 Song and Fernstrom13 examine psychological problems that arise after bariatric surgery, noting that 10% of obese people have BED, 27% have had BED at some point in their lives, and 66% have had an Axis I diagnosis at some point in their lives. It is evident that not everyone who is underweight or obese suffers from an eating disorder; obese people with BED belong to a different category of obesity.19 Obese people with BED are more likely than obese people without BED to experience severe psychopathology and impairment of social functioning.19,20

Despite the belief held by many patients that losing weight will help, psychological function, the improvement seems to be temporary, as bariatric surgery does not permanently cure pre-existing psychiatric illnesses.
Ifland et al. (22) speculate that a large number of overweight and obese individuals may be suffering from food addiction. A multitude of factors, including genetics, metabolism, biological pathways in the brain, behavior, eating habits, physical activity, environment, and the use of pharmacotherapies that promote weight gain, such as atypical antipsychotic medications21, may contribute to the etiology of obesity and make it resistant to treatment. Neurobiology further suggests that obsessive-compulsive and impulsive traits may be common to BN and BED.20 Functional neuroimaging suggests that obese individuals may have a delayed awareness of satiety and altered chemical neuro-mediators that contribute to a sense of loss of control in eating, appetite drive, and craving similar to addiction.

The correlation between the seven basic criteria of substance dependence, as outlined in the DSM-IV, and the overindulgence in refined foods indicates that treatments for substance misuse may also be beneficial for overeating that results in obesity (20, 22). Since the fundamental characteristics of eating disorders are more similar than different, a single broad diagnostic category covering all eating disorders has recently been proposed.23 Etiological factors, physical, medical, and laboratory findings, and prevalence data for eating disorders can be found at http://www.psychiatryonline. com.10 The American Psychiatric Association (APA) provides treatment guidelines for AN and BN.24 The National Institute for Clinical Excellence (NICE)25 in the United Kingdom and the APA24 both advise nutrition rehabilitation for eating disorders and treatment of subthreshold eating disorders based on the eating disorder that most closely resembles the patient's presentation.

Dietary Therapy

Various levels of nutrition advice can be given by doctors, nurses, psychotherapists, athletic trainers, strength and conditioning coaches, and "nutritionists," according to the National Institutes of Health, which defines nutrition counseling as "a process by which a health professional with special training in nutrition helps people make healthy food choices and form healthy eating habits."27 However, registered dietitians (RDs) are thought to be the most uniquely qualified and trained to provide nutrition therapy across the full continuum of disordered eating and at various levels of care.
Every member of the healthcare team should be aware of the following risk factors and warning symptoms of eating disorders:

- Dietary practices, such as pickingy eating and avoiding particular foods or dietary groupings
- Exercise routines or sports participation that prioritize having a slender figure, bodybuilding, or physical appearance

- Social and cultural norms, such as the understanding of health or beauty, that impact the desire for thinness, dissatisfaction with one's physique, and/or negative body image
- Feeling under pressure to do well, as in sports or academics
- Aspects of psychology, such as temperament, Low self-esteem, anxiety disorders, self-regulation, attachment problems, and a history of abuse
- For a more thorough explanation, see the APA's practice guideline for managing eating disorder patients (24).

In order to provide adequate nutrition and the normalization of eating, the nutritionist helps with medical monitoring, comprehending drugs and pharmacotherapies, and applying medical nutrition regimens.
The expectations for nutrition professionals who identify as advanced or specialty-level practitioners are to apply scientific evidence-based practice that goes beyond entry-level knowledge and experience. These practitioners may work in hospitals, residential treatment programs, private practice, community/public health, education, or research, among other practice settings. A "specialist" in nutrition treatment for eating disorders focuses on this area of the nutrition field and frequently has a position that calls for knowledge and expertise above what is typically anticipated of a generalist.

For certain fields of dietetics, the American Dietetic Association (ADA) has adopted practice-specific Standards of Practice (SOP) and Standards of Professional Performance (SOPP).28 However, as of this writing, there is neither SOP nor SOPP for the eating disorder specialist. The SOP and SOPP for Behavioral Health Care (first published in 2006) should be reviewed and revised to include eating disorders as one of four distinct practice areas, as recommended by the Behavioral Health Nutrition (BHN) ADA practice group.29 A variety of approaches, some with more empirical evidence than others, have been and are still used to treat eating disorders, including nutrition therapy. The nutritionist can recognize the telltale signs and symptoms of an eating disorder (ED) and may be the first professional to be consulted by a patient.

Nutrition Therapy: A Look Into Psychotherapy

A skilled nutrition counselor assists the patient in identifying and comprehending the intricate role that an eating disorder plays in their lives. In order to support clients in changing their behavior, nutrition therapy helps patients recognize that disordered eating may satisfy their need for safety or pain relief.5 Nutrition counseling helps patients identify problematic behaviors and sets realistic and achievable goals related to nutrition.5,31 Nutrition education involves discussing differences between knowledge, beliefs, and behaviors, which ultimately gives the patient the power to normalize eating and make healthier choices.

Nutrition rehabilitation is the aim of nutrition treatment. The restoration of malnutrition-affected biological and psychological functions, as well as achieving and maintaining a healthy body weight, are recovery indicators.24 To this end, the nutrition therapist evaluates the current and past patterns of dietary intake, including meal timing, portion size, and rituals related to food or the body. Changes in food intake, supplementation, compensatory behaviors, physical exercise, and the patient's relationship with their body are all aided by nutrition therapy.

Several tactics include problem-solving exploration, risk-taking, assertiveness, obtaining necessary support, and boundary-setting. More precisely, patients learn how to eat appropriately in a variety of social settings and choose foods from all food groups in the right quantities to meet their nutritional needs. Physical activity, growth and/or development, reaching and maintaining a healthy weight range, and attending to coexisting conditions that may affect food selection—such as allergies, intolerances, metabolic syndrome, polycystic ovarian syndrome, disabilities, or family history of disease—are all taken into account when determining nutrition needs and dietary patterns32, 33. The nutritionist must take into account the many variables that influence food intake, such as socioeconomic status and way of life.

variables, individual beliefs, social interactions and abilities, past traumatic experiences, self-worth, body image, substance misuse, and involvement in sports. Finding and utilizing resources affects the effectiveness of nutrition therapy. These resources could be things like having access to a nutritious diet, being knowledgeable about choosing and preparing food, and having support networks like friends, family, and coworkers. In acting as an agent of change, the nutrition thera- pist must initially establish a therapeutic alliance by seek- ing to fully understand and empathize with the various aspects of the client’s struggle.5 Development of a strong, mutually trusting, and nonjudgmental relationship begins at the initial assessment.4 A helping model puts the coun- selor in the position of teaching and coaching, focusing on developing a greater sense of competence through positive regard, reassurance, and support as patients and family members explore potential solutions.4,5,34 Blonna and Watter34 have identified 3 sets of individual skills that are the basis of effective healthcare counseling: “attend- ing skills” (culturally appropriate body language) are essential to establishing a safe and open counseling rela- tionship; “responding skills” keep patients involved, allow- ing the nutrition counselor to understand issues from the client’s perspective; and “influencing skills,” which are imperative in facilitating change.

In most cases, the application of therapeutic modalities useful for an eating disorder will apply as patients migrate from one diagnostic classification to another.9 Behavioral approaches offer an opportunity for change that may go beyond the “physical” changes of food selection or body weight to emotional and relational changes (eg, sense of self-confi- dence or safety with food). A variety of counseling approaches are used to develop or expand personal5 or coping skills33,35 that are supported by evidence, primarily from the

psychological literature. Unfortunately, it is not uncommon for patients to receive care from clinicians who lack training in therapeutic modalities.36 Nutrition therapists may not possess the necessary knowledge and skills to successfully facilitate change unless they are specifically trained or credentialed in counseling. This is especially true for patients with eating disorders who experience extreme fear and anxiety related to distrust, disgust, or a sense of losing control. The main objective of using psychotherapy techniques is to help clients identify and comprehend their conscious and unconscious ideas and beliefs, as well as the emotions or actions that influence their eating and exercise habits.

Motivational interviewing (MI) is a counseling technique that is intended to increase motivation to change. The "stages of change" model by Prochaska et al.37,38 guides treatment to enable change in attitudes, feelings, and actions based on a notion known as the "processes of change." MI has been demonstrated to be useful when eating disorders and the treatment of obesity.20 The application of social cognitive theory and social learning theory and cognitive behavior therapy (CBT) principles facilitates dietary changes for weight management, diabetes, and cardiovascular disease.37 CBT was found to be effective for BN and "similar syndromes" by the 2004 Cochrane review of psychotherapy for eating disorders.39 CBT is thought to be a more potent approach than other psychotherapies when used alone.40 CBT has been specifically adapted for application to eating disorders25 and has demonstrated to be beneficial when given by dietitians in a group setting for reducing binge eating and enhancing depression, body image, and self-esteem among obese women.17 However, the effectiveness of CBT alone for eating disorders is limited,6, and CBT combined with other psychotherapies
To encourage a deeper comprehension of the mental, emotional, spiritual, and medical dimensions of eating disorders, nutrition therapy may incorporate dialectical behavior therapy (DBT), individual or group CBT, or psychoeducation.

To improve skill and lessen guilt and anxiety, try self-monitoring, therapeutic repetition/clarification, role-play, modeling, imagery, and real-life performance.5 Many clinicians refer to their approach as a mixed (eclectic) approach, which may incorporate feminist, narrative, or self-disclosure techniques.42 Nutrition therapy groups are frequently provided in treatment centers alongside individual therapy, and they have benefits as well as potential drawbacks like exposure to competition and contagion. In order to provide new or expanded understanding and experimentation, the nutrition therapist strikes a balance between education and group member involvement and interaction. After practicing outside, patients return to the group setting to discuss their experiences.

When compared to secular CBT, some faith-based inpatient programs have demonstrated better outcomes when spirituality-oriented CBT was used.43 Successful outcomes can be promoted by supporting and utilizing one's spirituality in reducing mealtime anxiety and

disorders related to food, especially among spiritually devout patients. In certain patients, "maintaining processes" such as clinical perfectionism, pervasive low core self-esteem, mood intolerance, and interpersonal difficulties interact with the core psychopathology of eating disorders and contribute to treatment resistance.9 For these reasons, nutrition therapy should be coordinated and conducted concurrently with mental health professionals33, who use psychological assessments related to motivation, mood, anxiety, personality, and substance use disorders that impact the clinical course and outcome24 of nutrition therapy. Individuals with eating disorders are frequently ambivalent and resistant to treatment,25 and severe eating disorders are known for their protracted course. Indeed, personality and temperament assessment may be essential to putting into practice a therapeutic strategy (such as dialectical behavior therapy) that is likely to encourage constructive change and create reasonable expectations about the course of the illness and recovery.23

Increased Accountabilities

A nutrition professional's increased duties should not include providing therapy for complicated psychological and interpersonal problems like trauma. Nonetheless, dietitians might be able to advise people with eating disorders with their oral or physical health. Relationships between nutrition, dental health, and eating disorders include malnourishment deficits, purging behaviors, use of carbonated, sweetened, or caffeinated beverages, and usage of vinegar and lemon to lower hormone levels. When appropriate, referrals to oral healthcare professionals who specialize in eating disorders for dental cleanliness and pain or discomfort management should be taken into account. Maintaining good oral health is crucial for managing changes in the patient's body image, self-esteem, and oral aesthetics. It also influences the patient's dietary preferences and, eventually, their nutritional status. Therefore, there is a reciprocal association between oral health and nutrition.44

The nutrition therapist is often the first person patients, families, and other members of the multidisciplinary treatment team turn to for advice on how to strike a balance between physical activity and energy consumption. Nutritionists are not certified to prescribe exercise, but they can talk about how patients with low energy intake, osteoporosis, or related bone disorders should and shouldn't use exercise to lower their risk of health problems.25 If a patient has eating disorders, they can also be referred to an athletic trainer or physical therapist.

Energy Needs

It might be difficult to estimate the energy requirements of patients with eating disorders. The most accurate way to determine energy requirements in patients with AN and BN is through indirect calorimetry; however, most clinicians do not use this method.61–66 Attempts to correlate energy requirements using equations typically used for determining energy expenditure in hospitalized patients and general populations have failed for patients with eating disorders. The applicability, affordability, and portability of modern equipment

restrict its usage in numerous contexts. Although research in a healthy community is extremely restricted and these units have not been investigated in a population with eating disorders, lower cost, handheld indirect calculators provide an economical option. Reliance on a constant for respiratory quotient (RQ), a ratio of oxygen use and carbon dioxide emission, is one potential drawback in using handheld equipment to measure resting metabolic rate (RMR) in eating disorder patients. When using conventional indirect calorimeters, the RQ is employed to confirm that measurements are accurate. Both of RQ's components may be impacted by the respiratory metabolic compensation that eating disorders bring about. Instead of measuring RQ, a technique that assumes it could limit data accuracy. To achieve the treatment goal(s), clinicians may first obtain a complete nutrition history before creating an eating/feeding plan. For instance, the nutrition therapist may strive for weight maintenance or restoration.

Composition of Macronutrients

As of right now, there is no advice about the distribution of macronutrients that is unique to people with eating disorders. Individualized planning is a component of nutrition therapy, which helps patients resolve cognitive distortions related to food's nutritional value, particularly with relation to fat, protein, and carbs. Planning meals should incorporate enough carbohydrates while keeping an eye on how you use energy all day long. Even if a lot of patients just consider each food's nutritional value, obtaining dietary quality can be challenging. The nutrition therapist will help patients incorporate optional calories into a balanced diet and address their individual taste preferences in order to achieve satiation, minimize dietary restriction, and encourage flexibility.

The majority of patients are aware that protein from food sources supplies the necessary amino acid substrates for lean tissue synthesis and repair, but there is growing evidence that protein and amino acids also play roles in multiple metabolic processes, such as thermogenesis and glycemic regulation. Evidence of precursor amino acids' involvement in neurotransmitter synthesis can help nutrition therapists support patients in including high-quality protein sources in their diets. A number of researchers have also looked into the potential benefits of amino acids in the treatment of depression. Although dietary manipulation studies have shown promise, the impact on mood appears to be limited at this point.87 Further research is required to translate this science into actual food prescriptions.

Patients with eating disorders frequently consume inadequate amounts of vitamins and minerals, which may result in micronutrient deficiencies (although frank deficiencies are less common than one might think). A comprehensive diet history can assess insufficiency of micronutrient intake. Various micronutrient deficiencies have been found among patients who restrict food intake. Niacin, vitamin B12, and folic acid supplementation has been reported to improve appetite and mental state. There is a correlation between mood disorders typical of eating disorders and B vitamin deficiency. During treatment, it is standard

procedure to regularly supplement patients with a comprehensive multivitamin/mineral preparation. Serum vitamin and mineral levels are regularly assessed by many treatment teams in addition to additional micronutrients such calcium, zinc, vitamin D, folic acid, thiamine, and vitamin B12. Evidence of persistent zinc and folic acid deficiencies during weight recovery96 indicates that supplementation may be advised after the rehabilitation stage of treatment.

Suggestions for the Upcoming

When working with patients who suffer from mental illnesses, including eating disorders, nutritionists need to be up to date on the latest research on the use of nutrition as an adjuvant as well as a first line of defense. In order to effectively treat eating disorders, nutrition therapists must be up to date on new research and contribute to evidence-based therapy approaches. To acquire knowledge and improve counseling skills, one can pursue workshops, seminars, formal or self-education, informal or formal supervision, and other related activities.

Conclusion:

It is obvious that choosing the best treatment plans requires decisions in the treatment process. Primum non nocere, or "above all, do no harm," is the first medical principle.111 Healthcare practitioners should weigh the potential advantages and disadvantages of nutrition therapy in all its forms, from assessment to intervention to prevention, in order to lower the possibility of unintentional harm. Hence, by employing techniques that are founded on sound judgment and aim to maximize every experience, a skilled nutrition therapist will be able to serve as an example of measured risk-taking.112 There is a lack of therapeutic expertise regarding eating disorders, and more empirical research is required to determine the best nutrition techniques. We urge medical professionals to disclose their findings, even if they are just single case studies, as this could advance knowledge about relapse, recovery rates, and acceptability of treatment.40

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