In: Treatment and Recovery of Eating Disorders
Editors: Daniel Stein and Yael Latzer
ISBN: 978-1-61470-259-7

Chapter 6

NURTURING RATHER THAN FEEDING: COMMUNITY-BASED NUTRITION COUNSELING FOR PATIENTS WITH EATING DISORDERS

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Abstract

High-quality care for patients with eating disorders is a challenge from the perspective of the affected individuals as well as from a health service point of view. This chapter will focus on the every day clinical practice of the dietitian's work with patients with eating disorders across the continuum of care. The dietitian assists patients in increasing information regarding self nurturance, effective vs. destructive behavior and thought patterns as well as developing consciousness-raising and self awareness regarding maladaptive defense patterns. The dietician creates an appropriate emotional climate for growth, helps patients develop open and trusting relationships with food and the body, as well as with others, helps patients engage in new alternatives for expressing feelings, positive self talk, self control and self nurturance using various tools, techniques and approaches. In addition, the nutritionist helps families return to effective communication patterns.

Keywords: eating disorder, nutrition, treatment, registered dietician.

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INTRODUCTION

High-quality care for patients with eating disorders is a challenge from the perspective of the affected individuals as well as from a health service point of view. This chapter will focus on the every day clinical practice of the nutritionist's work with patients with eating disorders. There are several resources providing practice guidelines for nutrition counselling in eating disorders (1-3). They will be presented here in brief while the skills and the different approaches to be used when addressing these goals will be discussed in detail.

According to the American Dietetic Association (2), "the registered dietician (RD) addresses food related problems—as demonstrated in the patient's thought processes, behaviors and physical status. First, the dietitian assesses the individual's nutritional status, knowledge base, motivation and current eating and behavioral status. In addition, the dietitian assists in medical monitoring of electrolytes, vital signs, physical symptoms, weight, nutritional intake and eating behaviors. The registered dietitian develops the nutrition section of the treatment plan in collaboration with the team and the patient's goals for recovery. The treatment plan is then implemented, with the dietitian supporting the patient in accomplishing the goals set out in the treatment plan. The cornerstones of nutritional treatment are nutrition education, meal planning, establishment of regular eating patterns, and discouragement of dieting" (2). Ideally, the dietitian has continuous contact with the patient throughout the course of treatment or if this is not possible, refers the patient to another dietitian if the patient is transitioning from an inpatient to an outpatient setting (2).

GOALS OF TREATMENT

1) To achieve freedom from the tyranny of the eating disorder
    a. Enroll patients and enhance patient's motivations to cooperate in the restoration of healthy eating patterns and participate in treatment.
    b. Create a wide coalition against the disorder by enlisting family support and providing family counseling, focusing on the appropriate division of responsibility according to the stages in the recovery process.
    c. Assess and treat physical complications.
    d. Restore or maintain healthy weight (at which menses and normal ovulation occur in females, normal sexual drive and hormone levels in males, and normal physical and sexual growth and development in children and adolescents are restored).
    e. Eliminate binge and purge behaviors.

2) To promote healthy eating and activity patterns and improve body image
    a. Provide education regarding healthy nutrition and eating patterns
    b. Correct core dysfunctional thoughts, attitudes, and feelings related to food, eating, dieting, and body image and achieve normal perceptions of hunger and satiety.
    c. Improve body image and body checking

3) To prevent relapse

1. ACHIEVING FREEDOM FROM THE EATING DISORDER'S TYRANNY

A. Enroll patients and enhance patient's motivations to treatment

First steps in the collaborative journey:

From most patients' point of view, nutrition counselling and getting rid of the eating disorders is an unacceptably perilous journey into appetites, desire, and passions, from which they must retreat or risk calamity. Most patients enter treatment due to pressure from family or friends. Thus, a confrontational approach, in which the patient is pressured to accept expert advice and is compelled to change old habits, is recommended only in cases of an immediate threat to one's life. However, since patients tend to see their disorder as an accomplishment rather than as an affliction, such an approach elicits patients' resistance.

The first step for collaborative journey and engaging patients to actively take part in their own recovery can be performed using motivational interview (4) or narrative interview techniques (5,6). Both approaches prefer the interview framework in which the therapist explains and models a collaborative journey towards understanding, developing an obligated stance against the problem, and coping with the journey toward freedom. The therapist adopts a curious, nonjudgmental stance, shows genuine interest in the client's experience, models ability to tolerate confusion, and seeks clarification as needed.

A central notion in the narrative approach is based on Foucault's epigram (7): 'The person is not the problem, the problem is the problem', which can be made more sophisticated by subsequently noting that, once the problem and the person can be conceived of as separable, the problem is neither the person nor the problem, but the person's relationship with the problem. Foucault has suggested that individuals internalize oppressive ideas in cultural, political, and social contexts. Thus, in narrative therapy clinical problems are conceptualized as restraining narratives that are influenced by one's culture and society (6).

A second central notion in the narrative approach is the use of "externalizing conversations" to help clients develop hostility towards the problem. For a narrative therapist, a person does not have eating disorder, but rather the eating disorder has him. When people can linguistically start to be disentangled from the problem and can discover that they, actually, might be otherwise than how "anorexia would have them believe themselves to be" (for example, "worthless"), perhaps other versions of themselves could be foundational to efforts of resistance to, and refutation of, the newly-defined problem.

A third notion in the narrative approach is the realization that the patient who is experiencing the problem is the expert. The change process involves helping clients replace their "dominant stories" with more empowering stories about their lives (8).

The first meeting

This meeting is significant in conveying the "collaborative" nature of the intervention, in which the treatment team, the patient, and family members are working together for one common goal: to achieve freedom from the eating disorder's tyranny and gain freedom of choices in life. At the first meeting, the counselor might be curious about the impact of the problem on the various fields in a patient's life. A beginning of collaborative storing of the patient's entanglement in the disease web is performed (9).

Using motivational interviewing as well as mapping the influence of the eating disorder and externalizing the relationship with the problem, patients typically move from recognizing

the problems as a friend to a stage in which they may be considered as a foe (10). Although the patient acknowledges the sense of self-worth and self-control that is attributed to the eating disorder, he/she may also acknowledge that the eating disorder impedes his/her growth and autonomy, increasing interdependence with family members, and interfering with the formation of normal peer relationships. After recognizing the eating disorder as a destructive visitor rather than as an indication of an inherent weakness or a friend, the patient's values and wishes are discussed to elicit motivation to change and express a wish to start the journey to freedom. Freedom is defined by the patient himself, and it may start with freedom from family's 'intrusive caring', may continue with achieving freedom in choice behaviors, freedom from the preoccupied mind and cognition, etc.

At the end of this session, the patient should feel understood, not blamed, respected and assured that steps taken will be negotiated carefully and collaboratively to avoid panic and isolation as long as the patients is committed to recovery.

He also should leave the room with hope that the eating disorder is curable. However, although it is crucial to empower the patient's hopes, the nutritionist should avoid oversimplifying the ease of solving problems, encourage expression and sharing of fears, validating the patient's ambivalence and other feelings about having to cope with the disease (11). The ability to facilitate a commitment toward change is the key challenge of the therapist in the beginning phase of change.

The Therapeutic Alliance

The therapeutic relationship is a key function in the successful treatment of eating disorders. In general, a patient should feel as though he or she is a valid, significant part of the therapeutic alliance and has a personal role in the recovery process, decreasing the patient's feeling of being threatened or "controlled" through the treatment process. Patients are expected to honestly and accurately disclose information to nutritionists about history, present symptoms, current behaviors, and lapses or relapses, despite the eating disorders' temptations and intimidations. A clear stance should be taken against the problem, emphasizing the main priority of the alliance: aiding the process of recovery towards those issues that have been identified as difficult for the patient (not necessarily clinical symptoms) and what the patient feels are the important goals of treatment. The patient is an active participant and is accountable for his or her actions in the quest for behavior change and improvement of quality of life. Impositions will be operated only in relation to safety issues. In these situations, staff should clearly communicate to patients their intentions to take care of them and not engage in control battles, nor punish patients with aversive techniques.

The degree to which the autonomy of the patient is supported is often the degree to which the patient perceives his or her locus of control within the treatment structure. Whenever possible, dietitians should foster lower environmental control over the patient's behavior and increase responsibility and accountability of the patient for his or her own recovery and well-being. The therapeutic alliance with respect to confidentiality, information provided to parents, and crisis interventions should be discussed in a direct and clear manner during the initial consultation. A healthcare provider does not need to obtain parental consent to provide confidential treatment to any youth, as long as the youth understands the benefits and consequences of the proposed treatment (12). Still, parents are assured that if there is deterioration, they will be notified. If the progress of recovery is slow, a decision may be made to increase the level of care. This decision should involve the patient, the family, and/or

support persons, so that they are allowed to be accountable for their actions and facilitation of recovery.

B. Creating a wide coalition against the disorders

The nature of eating disorders dictates the necessity to create a wide and strong coalition against the disorder with collaborative work employed by the interdisciplinary team (13). When working in community-based services, the nutritionist must communicate effectively with outward health care givers. If the dietitian does not communicate effectively with other in or outward team members that co-treat the patient, a split among therapists with respect to beliefs or approaches may occur, and the strength of the wide coalition may be cracked. This may nurture the eating disorder and weaken the patient's battle. A cohesive team of health care providers, who may even span various organizations in the community, allows the youth and family to see that everyone is on the same side working against the eating disorder.

The dietitian is obliged to support treatment goals within the guidelines of the nutrition care process and remain faithful to the messages and communication style agreed on by the team (2). Family members are a primary resource in recovery if they are assisted in learning how to cope during the crisis, to deal with the effects of the eating disorder, and to practice supportive parenting approaches. To enroll parents into the coalition against the eating disorder, therapists express curiosity about those aspects with which the disease intimidated relationships within the family and how food, weight, and health are being abused by the eating disorder. The therapist then invites parents to be part of the coalition against the disorder, a coalition in which the patient is the protagonist, the multidisciplinary staff is the guiding map, and the family is an auxiliary ego. Parents present the third rib of the alliance, and thanks to their encouragement, the child's persistence in the difficult battle is maintained. Individuals and family members are invited to consider ways in which they can gather their strength together to resist the problems. The family's/parents' role is tailored to the stage of illness and to the patient's age, in accordance with the therapeutic alliance. Nutrition counseling is focused on nutrition education as well as dividing responsibility according to the stages in the recovery process. Deciding how the parents can best support their child is most important in the process of recovery.

Parents' role may differ according to the institute's approach

In some places, parents might be in charge of child eating and activity patterns, while in others, the family will act as auxiliary ego and mainly has a supporting role.

The Maudsley approach, for instance (14, 15), involves the family from the outset of treatment and relies heavily on parent involvement in the re-feeding of the child with an eating disorder. In this approach, parents take on the nurses' role and have a primary role in confronting pro-anorexic or bulimic behaviors. Parents are encouraged to separate the eating disorder from the child while performing this task, and blame the eating disorder rather than the child, therefore minimizing the escalation of expressed emotion. Concurrently the siblings are recruited to ease the patient's distress, as well, in the same way. Different strategies are used to coach parents in performing their roles (15, 16). Once safe eating and weight are achieved through parental intervention, responsibility for these issues is gradually handed back to the adolescent (17, 18).

The Maudsley approach consists of three clearly defined phases, usually during one year of treatment: 1. Weight restoration 2. Returning control over eating to the adolescent 3. Establishing healthy adolescent identity. This approach, however, is not for the faint-hearted; some careers are somewhat skeptical and reluctant to be involved in family work (19). Moreover, oftentimes parents and patients are trapped in the care-taking position or the ill person position, respectively. The success of this approach seems to depend on the successful motivation of parents to take on this task and see it through, while simultaneously supporting the processes of adolescent development as they re-emerge, which is well documented (20). When sufferers feel "invisible" in their families, this type of intense involvement may suddenly act as a psychological facilitator in improving the overall relationship. It may help to make the sufferer feel seen, cared about, and loved, but this approach does not fit all families. Such an approach has disadvantages for families in which high levels of hostility or criticism toward the AN adolescent are present. Engaging these families in treatment can be a challenge (21).

Based on a solution-oriented approach, Nardone et al. (22) presented a model to treat eating with a systemic orientation. The authors suggest that direct or indirect attempts by the family to make the patient eat paradoxically increase his/her tendency to deny food and end up complicating the problem instead of solving it. They suggest that the family start a "conspiracy of silence," i.e., stop intervening or even mentioning the problem. In giving this prescription, the authors emphasize the importance of avoiding criticism of past actions, or any implication that the family is somehow guilty. Instead, counsellors use injunctive language, give positive connotations, and above all, avoid negative formulations, praising the parents for having been so patient at helping the daughter, being there for her, working to avoid the situation. Although it may seem strange, parents are asked to start observing without intervening. They must absolutely avoid talking about the problem. When followed, this prescription, as the authors report, stops the usual solutions attempted by the family. This often leads to surprising improvement in the eating disorder symptoms because it interrupts a retroactive vicious circle between the family and the young woman, which had been nourishing the problem (22).

Other approaches suggest that eating issues and the eating disorder's front should be managed between the nutritionist and the patient, while parents should revisit their primary role – nurturing rather than feeding. Parents are invited to sidestep eating disorder talks and arguments,reflect the child's difficulties, and empower him to persist in his battle, framing the conversation within the context of the life course, emotional life, and core values (23). This approach promotes sustained autonomy around food with the notion that maintaining a sense of control is often a key dynamic in these patients.

If the child fails to achieve his objectives, he is proposed to ask his parents' help in confronting the ED. According to this approach, in order to help the child regain control of his eating and life, he should be the main agent of change. This relies on the assumption that patients with eating disorders possess a powerful potential for change, given that they receive the necessary nutrients from their environment, although they occasionally engage in self-destructive behaviors (24). Obeying authoritarian images results in improvement in nutritional status but does not promote internalization of self-nurturance and self-control. The clinicians' task is to evoke and strengthen the child's inner resourcefulness and take the lead in the therapeutic process (25-27).

The nutrition counseling focuses on the therapeutic alliance between the therapist and the patient against the illness, and parents are considered as an auxiliary ego unless the child is asking them for a more active role. Their role might range from serving the food and confronting pro-eating disorders thoughts and behaviors to a minor responsibility where parents only make sure the food is available and serve as meal companions who model for the child normal eating behaviors. Families need to be kept up-to-date on the process, progress, and plans during treatment. They need to be informed directly, not just through their child, in order to avoid misinterpretation and misunderstanding. Whenever the nutritionist meets the parents, it is useful to meet with both parents and help them work as a team. This also helps to prevent secrecy, which is especially important if parents are separated or divorced. The young person feels relieved and valued when separated parents can put aside their differences in order to help. Parents are instructed to set rational limits with respect to the house food and cooking, and although it may upset the youth, in the long run, this can actually lead to a sense of control over the power of the eating disorder.

Whatever the institute policy is with respect to parents' role, parents should create a "good enough" environment. Explain the ""non-blaming" philosophy in which "the problem is the problem and not the patient, nor the parents."

Since the child reenacts conflicts, memories, and unconscious experiences with his parents, staff are often required to address parents' deprivations and introjections during the process of recovery. Direct discussion about self-blame, feelings of shame, and incompetence might be helpful as well as empowering to parents, reframing the admission to the program as a way to take responsibility - a step that reflects the parents' ability to help the child take an appropriate stance against the illness. Therapists should also help parents overcome the illusion of having a fast "cure" and the failure to "fix" the child (28).

Dietitians should provide parents with concrete instruction to follow, such as a meal plan, as well as prescriptions regarding what they should do under various circumstances during conflict at home over food and eating. Parents are asked to act as appropriate role models at home, demonstrating healthy eating and activity patterns, eating balanced meals and snacks, and modeling self care and positive body image, while avoiding diet talks (29-30). The dietitians exhibit openness and transparency when dealing with both the patient and family. Questions are welcomed, and the patient and family are encouraged to ask about anything that concerns them.

C. Assess and treat physical complications

Assessment

A careful assessment of the patient's history, symptoms, behaviors, and mental status is the first step in making a diagnosis of an eating disorder (1). For patients aged 20 years and younger, an individually appropriate range for expected weight and goals for weight and height may be determined by considering measurements and clinical factors, including current weight, bone age estimated from DEXA, menstrual history (in adolescents with secondary amenorrhea), mid-parental heights, assessments of skeletal frame, and growth charts.

History of restrictive and binge eating and exercise patterns and their changes, purging, and other compensatory behaviors should be made, as well as listing core attitudes regarding

weight, shape, and eating, and associated psychiatric conditions. Most units use structured forms and various validated assessment tools like the EDEQ, EAT-26, EDI-2, and others (1). Many dietitians use assessment tools as a way to map the problems' influences and revisit these tools with the patients after 6 and 12 months, discussing and collaboratively researching the journey from being tangled in the eating disorder's arms to freedom. A family history of eating disorders or other psychiatric disorders, including alcohol and other substance use disorders, a family history of obesity, family interactions in relation to the patient's disorder, and family attitudes toward eating, exercise, and appearance are all relevant to the assessment. It is important to identify family stressors whose amelioration may facilitate recovery. It is essential to involve health professionals who routinely work with the patient.

Dietitians routinely assess young patients' status in relation to growth pattern, blood pressure, and heart rate, as well as monitor laboratory analyses if it is their role in the absence of physician at the clinic. According to the position of the American Dietetic Association (2), "dietitians demonstrate competence at assessing the physiologic effects associated with malnutrition and assisting the medical team member with monitoring laboratory values, vital signs, and physical symptoms" (31). Table 1 is application of Thomas D, a summation of the factors that should be included in dietetic assessment of patients with eating disorders (31).

Table 1. Factors to include in a dietetic assessment of eating disorder patient

Weight and eating history	From birth to present day; identifying periods of dieting, normal behavior, and times when food intake has been stressful
Current eating habits	Type, pattern, and format of food eaten. Particular food rules and food avoidance
Daily activity patterns	Level of energy expenditure
Binging and purging behaviors	Assess frequency of binges, vomiting, or laxative abuse
Present weight, height, body mass, percentage weight loss	Accurate measurement is important. This may be threatening for the patient, but dietitian should be firm about its necessity.
Body composition	Bone density, anthropometry
Blood chemistry and hematology	Low potassium levels and/or high amylase levels may suggest vomiting or laxative abuse
Issues around growth, illness	Previous points on growth chart should be requested, menstruation pattern.
Nutrition knowledge	Food rules, calorie restrictions
Family weight and issues around food	Helps to assess individual normal weight and food rules within the family
Body image	Body image disparagement and dissatisfaction may be accompanied by body shape avoidance or "fixing" attempts.
Readiness for change	Is the patient talking to you because he/she wants to, or because he/she has been brought by others?

Physical complications

Physical complications are brought to the patient's attention and are incorporated as part of the motivational enhancement talks. To reverse the medical effects of food-related problems, the dietitian provides medical nutrition therapy. Most symptoms (hypotension, bradycardia, hypothermia, dry skin, hypercarotenemia, lanugo, acrocyanosis, and atrophy of the breasts) will be spontaneously reversed when body weight and menses are restored.

Cardiovascular complications

If the dietitian finds marked orthostatic hypotension with an increase in pulse of 20 BPM or a drop in standing blood pressure of 20 mmHg, bradycardia <40 bpm, tachycardia >110 BPM, or an inability to sustain core body temperature, patient must be advised to go through hospital check up to prevent onset of medical instability (1-3). High prevalence of hematologic abnormalities were reported in women with eating disorders (1). Dietitians routinely monitor vital signs and blood tests, refer to physician, or assist with appropriate dietary advice.

Electrolyte abnormalities

Electrolyte abnormalities such as hypokalemia, hyponatremia, and metabolic acidosis or alkalosis may accompany frequent vomiting or laxative use. Although the results may be normal despite frequent vomiting or laxative use, an elevated bicarbonate level combined with hypokalemia, which usually does not occur with caloric restriction alone, can be a useful clinical clue that the patient is surreptitiously vomiting or using diet pills.

Symptoms associated with self-induced vomiting such as swelling of the parotid and submandibular glands are also reversed when vomiting is stopped, however, abnormal dentition, perimolysis (loss of dentin on the lingual and colossal surfaces of the teeth), and abrasions on the dorsum of the hand (caused by scraping against the incisors during attempts at vomiting) may be remnant (32). Patients often complain of dizziness, fatigue, and decreased energy, and their serum biochemical parameters may be normal or may show a hypokalemic, hypochloremic metabolic alkalosis. These changes have been attributed to chronic intravascular volume contraction associated with secondary hyperaldosteronism as a compensatory response to the dehydration (1). Most patients with normal weight bulimia nervosa appear to be able to tolerate these changes more readily than patients struggling with anorexia nervosa purging type. The use of oral potassium supplements (K-Dur, 2 mmol/kg a day, divided in three equal doses) in the setting of normal renal function may replete the total body potassium stores and decreases the serum hypokalemia. Where the electrolyte disturbance is more severe, a short admission to a medical unit to correct the metabolic changes may be necessary (12). In the case of hypokalemic, hypochloremic metabolic alkalosis, Pinzon & Beimers (12) reported that the best intravenous solution is 0.9% sodium chloride, with a maintenance dose of potassium chloride to restore effective intravascular volume and serum osmolality. Hyponatremia can occur with excess water intake, with inappropriate regulation of anti-diuretic hormone or severely abusing laxatives. Fluid limitation should be considered with the medical team.

Gastrointestinal complaints

Intestinal dilatation from chronic severe constipation and diminished intestinal motility as a result of chronic laxative abuse or withdrawal may be associated with either anorexia nervosa or bulimia nervosa. Both are manageable when implementing a structured meal plan with balanced nutrients (32). Common side effects of laxative and vomiting withdrawal are constipation, fluid retention, feeling bloated, and temporary weight gain. Most people suffer from these symptoms for 1 to 3 weeks after withdrawal.

Pro-motility agents such as metoclopramide or natural products may be useful for bloating and abdominal pains that occur during refeeding and purging behaviors in some patients. Gastroesophageal reflux (GERD) is also often reported by those who vomit. GERD usually occurs because the lower esophageal sphincter (LES) opens at the wrong time or does not close properly. Thus, stomach acid moving backward from the stomach into the esophagus - gastroesophageal reflux. Long-lasting reflux of stomach acid damages the tissue lining the esophagus, causing inflammation and pain and sometimes even cancer (36). Lifestyle modifications thought to be effective include elevating the head of the bed, reducing fat intake, quitting smoking, and remaining upright for three hours after meals. The dietitian can help the patient identify those foods that worsen the GERD symptoms. Some of the foods reported by patients include citrus fruits, chocolate, drinks or foods with caffeine, fatty and fried foods, garlic and onions, mint flavorings, spicy foods, tomato-based foods, like spaghetti sauce, chili, and pizza. The physician might recommend medication such as antacids and antirefluxants (e.g., alginic acid), which are viable treatment options for milder forms of GERD. A combination of the two therapies may be more effective than antacids alone. Histamine H2-receptor antagonists (H2RAs) have been shown to decrease gastric acid and can be used as premedication by patients who are able to predict symptom occurrence.

Stunted growth

Stunted growth with decreased adult final height is one of the most common long-term complications in children and adolescents with anorexia nervosa. There are reports of “catch-up growth,” particularly when target weight is based on the pre-morbid height percentile, but complete catch-up growth may not be achieved (33). In the case of bulimia nervosa, linear growth complications are much less of an issue. The dietitian often challenges the patient's wishes to catch up growth and expresses curiosity about his/her wishes to favor time and act against the eating disorder and the resulting stunted growth. Some patients are motivated through reflection on pubertal development using Tanner staging.

Amenorrhe

The loss of normal estrogen levels causes amenorrhea and contributes to the development of osteoporosis, a serious side-effect of anorexia nervosa (34).

Delayed puberty is one of the cardinal features of anorexia nervosa during adolescence. The progesterone challenge is a common method to evaluate an adolescent with primary amenorrhea. The dietitian should involve the physician or gynecologist to address amenorrhea after weight restoration is achieved.

Osteopenia and osteoporosis

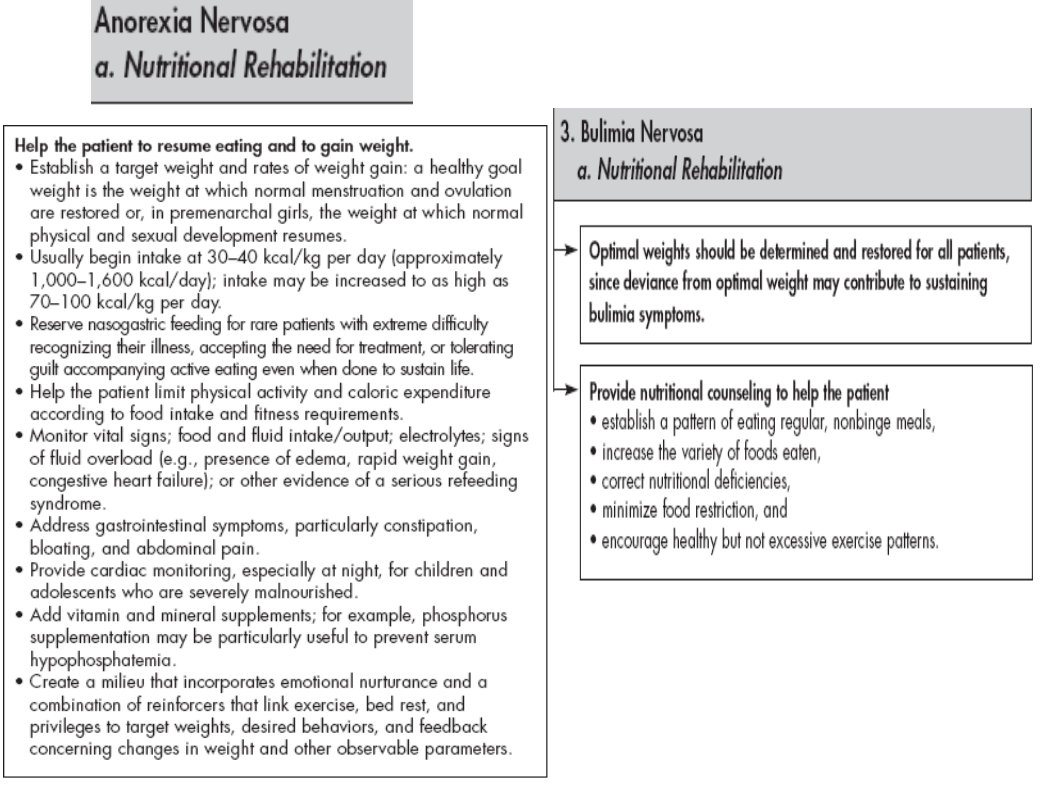
To address osteopenia and osteoporosis, body weight restoration and return of menses are main goals. Calcium (1,500 mg/day) with vitamin D (400 IU/day) supplements have shown some effectiveness, as have selective estrogen receptor modulators in women (35). The literature offers no definitive answer to the question about the potential benefits of using estrogen supplementation via oral contraceptives for improving bone accretion or preventing the development of osteopenia or osteoporosis. Oral contraceptives are usually incorporated with older and chronic patients.

D. Restore or maintain healthy weight

During the last few years, there has been considerable debate about the ethics of involuntarily feeding patients with anorexia nervosa (37-39). There is general agreement that children and adolescents who are severely malnourished and in grave medical danger should be re-fed, involuntarily if necessary, but that every effort should be made to gain their cooperation as cognitive function improves (1-3). Nutritional rehabilitation is aimed at promoting metabolic recovery, restoring a healthy body weight and growth, and improving eating habits and psychological behavior.

Intake levels

Total intake levels range from 30-40 kcal/kg/day during the first days to 70-100 kcal/kg/day. Intake is progressively increased while monitoring vital signs (Table 2 and 3 from ref. 1).



Dietitians can help patients choose their own meals and can provide a structured meal plan that ensures nutritional adequacy and that none of the major food groups are avoided.

Nasogastric feeding is reserved for hospitalized patients with extreme difficulty in recognizing their illness, accepting the need for treatment, or tolerating guilt accompanying active eating even when done to sustain life. In contrast to the in-patient setting, in a community-based setting, food is negotiable and its quality and quantities are tailored to patients' readiness. Although the target is to address the DRI recommendations, with respect to intake of dietary proteins, fats, and carbohydrates, 15–20% protein of the daily energy intake consisting of 30% fats and 50–55% carbohydrates, in view of the approach presented here, it is actually subjugated to the patient's willingness to take this advice. Thus, sometimes the initial focus is on maximizing the nutritional value of what is eaten, which can improve health and feelings of well-being, even before weight is gained. Legitimate food allergies and patients' religious and cultural practices should be considered and discussed to limit patient rationalizations for restricted eating. For weight maintenance, Kaye et al. (40) found that weight-restored patients with anorexia nervosa often require 200–400 calories more than sex, age, weight, and height-matched control subjects to maintain their weight. The energy wasting of malnourished anorexia nervosa patients results in higher than normal resting energy expenditure (41).

The physician in most units monitors the blood tests regularly (its frequency depends on the setting and patient's position), while the dietitian reintroduces food gradually, starting at only 300-400 calories above the patient's preadmission daily intake to reduce the risk of refeeding syndrome and to support adherence. Caloric increases ranging from 300 to 500 calories per week are given to achieve the expected weight gain of 0.5-1 kg.

Laboratory tests are ordered and reviewed for the first 3 to 4 weeks but become less important as the patient becomes used to eating.

Refeeding syndrome

Refeeding syndrome involves a host of fluid and electrolyte derangements and leads to a constellation of cardiac, neurologic, and hematologic complications, including sudden, unexpected death, that occur in the weeks after the initiation of nutritional rehabilitation (42). The common pathway to develop refeeding syndrome may be ascribed to hypophosphatemia, but may include fluxes in potassium, magnesium, and sodium, acting concurrently, synergistically, and deleteriously with the classic shift in phosphorus levels (43). Most of the serious consequences from refeeding are seen with severe hypophosphatemia (serum phosphorus less than 1.0 mg/dl) (43). Admission to hospital for monitoring and management of refeeding syndrome is recommended in such conditions. Nutrition management of patients at risk for refeeding syndrome involves close monitoring of their symptoms and electrolyte status, particularly their phosphate and magnesium levels (2). Orenstein et al. (45) have found that serum phosphorus tended to improve dramatically within 24 to 48 hours when 250 mg to 500 mg per dose were administered. However, with oral supplements, there is the potential for inconsistent gastrointestinal absorption and diarrhea. Therefore, for individuals with severe hypophosphatemia, it is recommended to use intravenous supplementation at a dose of 20 to 30 mg/kg/day, in divided doses, usually infused over 6 hours (45).

Vitamin and mineral supplement

Some approaches suggest inclusion of vitamin and mineral supplements. To avoid deficiencies due to imbalanced electrolytes (for instance, excessive zinc ingestion may cause copper deficiency resulting in a variety of neurological symptoms), a broad vitamin and mineral replacement is suggested. Others prefer to encourage patients not to rely on external supplementation, but rather on regular foods. However, when hypophosphatemia or extreme hypokalemia are observed, phosphorus or potassium supplementation may be particularly useful to prevent cardiac arrhythmias.

Weighing and weight gain

The degree and rate of weight gain is based on psychological as well as medical considerations. Although the aim of most nutritional rehabilitation programs is to maintain a weight gain of approximately 400–800 g/week (1, 46), frequently the rate of weight gain is much slower due to perception that "if you cannot fight them, join them." Davies and Jaffa (46) suggest that the rate of weight gain should be fast enough to avoid negative “institutionalization” effects of inpatient stay but not so fast as to cause overwhelming anxiety to the patient, nor to result in an unacceptable risk of developing refeeding syndrome. Usually in the outpatient setting, patients are weighed once per week, and after weight regaining and stabilization, this may be reduced to once in two weeks, and then to once per month. Patients with bulimia are normally weighed once per week or once in two weeks. Some have suggested to adopt a strategy of limited weighing or to weigh patients with their back to the scale, in order to minimize the psychological effect of weighing. Others argue that patients should acclimatize to the notion of their weight, thus weighing in a modest frequency is part of desensitization (30).

Patients who require much lower caloric intakes or are suspected of artificially increasing their weight by fluid loading should be weighed in the morning after they have voided and are wearing only underwear; their fluid intake should also be carefully monitored (1). Urine specimens obtained at the time of a patient’s weigh-in may need to be assessed for specific gravity to help ascertain the extent to which the measured weight reflects excessive water intake.

Meal Plan

The dietitian explains to the patients that they will start off with small meals and gradually build up to larger meals. Patients are introduced to such de-sensitization practices to decrease fear of food groups, such as fats. When patients panic upon receiving an increased-calorie diet, clinicians may limit negotiating by pointing out the endless desire of the eating disorder to bargain and request special considerations. Patients are encouraged to review the meal support guidelines and expectations before making a commitment, and are reminded that they may call for support if they encounter difficulties while performing the tasks. Daily intake is divided into three meals and two or three snacks. In order to control both binge eating and purging behavior, a structured meal plan is advised. Attention is paid to scheduling and meal content, two factors that are critical to establishing control of urges to binge.

Liquid nutritional supplementation

Calorie dense nutritional supplements (such as Ensure and Scandishake) are used as meal replacements for those who find it easier to exercise eating and control and consume more energy with less volume of food.

Gradually, patients should be exposed to regular food to avoid liquid feeding "addictions."

After most of the weight has been regained, in order to extend food variety, the dietitian may offer the patients to start with a "surprise menu" – or gradual exposure to foods. In this strategy, the dietitian brings a new food to every session, and the patient has to eat it as part of his agreement to enter the "game." Whenever the patient is overwhelmed by the eating disorder's threatening, the therapist focuses on Socratic questioning using questions such as, "Do you consider your growth arrest a problem? How do you think it will impact your every day life?" Do you want to try and limit the influence of the eating disorder on your life?"

Although it is an anxiety-provoking "game," it gets easier over time, and patients find it very helpful. Concurrently, a restaurant outing with the dietitian may be implemented to extend patients' social options.

Artificial Nutrition

Severe malnutrition could require the use of artificial nutrition to rapidly correct dangerous clinical conditions and to reverse medical complications, however this area is beyond the scope of this chapter.

Meal support therapy

Therapeutic meal support has been recognized as one of the cornerstones of treatment in specialized eating disorder programs (47, 48). It is a form of emotional and physical support provided to a person struggling with an eating disorder before, during, and after meals and snacks in an effort to increase the struggling person's success with meal/snack completion. Effective meal support is not just sitting down and watching someone eat. It is an active process that needs to be implemented with compassion and care (49). The clinician eats appropriate meals or snacks (normal amounts of food, balanced meal) with the patient.

According to the different stages of independency, the clinician's role is changed. In the beginning, the clinician sets up the trays (opens all containers), and eats with the patients while carrying out anti-anorexic/bulimic conversation as well as distraction techniques throughout the meals, in order to help the patient manage the preoccupied fears endorsed by the ED. The clinician promotes limited time meals starting from 50 to 20 minutes, depending on the patient's status. Following meals, to counter psychological and physical discomfort, the clinician may suggest a very slow walk, a distracting game, movie or any other post-meal support. With those wishing to purge, clinicians might advice deep breathing and other relaxation techniques lasting at least one hour following meals and 30 minutes following snacks. Gradually, patients are given increased levels of responsibility. They are encouraged to choose their own foods and serve their own portions while acknowledging the potential misperception that emerges by starvation and cognitive alternation, which reinforces a difference between subjective and objective measures of intake. The dietitian provides expert guidance on changes in the prescribed meal plan in order to stabilize body weight and identify

individualized “appropriate” portions while encouraging variety, spontaneity, and increased flexibility.

Physical activity

Physical activity should be adapted according to the food intake and energy expenditure of the patient, taking into account the patient’s bone mineral density and cardiac function (1). For the severely underweight patient, exercise should be restricted and always carefully supervised and monitored. Once a safe weight is achieved, the focus of an exercise program should be on the patient’s gaining physical fitness as opposed to expending calories (1). An exercise program should involve exercises that are not solitary, are enjoyable, and have endpoints that are not determined by time spent expending calories or changing weight and shape. Sports such as soccer, basketball, volleyball, or tennis are examples. Some people diagnosed with eating disorders utilize compulsive exercise as a compensatory behavior to prevent weight gain. To manage this problem, patients should have a prescription for the amount and a specific schedule of physical activity that is allowed based on factors such as history of exercise abuse, current weight level, and medical risk factors.

E. Eliminate binge eating and purging behaviors and laxative abuse

Those who engage in binge eating and purging behaviors, as well as in laxative abuse, often find themselves swollen from excessive water retention and delayed bowel motility. The nutritionist may offer the patient several strategies to withdraw from these destructive behaviors, inviting the patient to choose which track fits better rather than challenging the patient's conflict with control issues. The patient may choose to implement a gradual breaking away from purging or abusing laxatives or to stop at once. The dietitian provides companionship and support when encountering the maladaptive behaviors, suggesting various strategies to distract negative emotions and cope with stressful situations.

Developing a pattern of normal eating, with three meals and appropriate snacks per day, is crucial in breaking chaotic eating behaviors (2). This allows the individual to become reacquainted with internal hunger and satiety cues while also changing behaviors, in order to move away from restriction and the binge–purge cycle. Energy intake should initially be based on the maintenance of weight to help limit hunger because this can be a trigger for a binge. Purging behaviors do not completely inhibit use of calories from the binge; an average retention of 1,200 kcal occurs from binges of various sizes and contents, and laxatives are ineffective at minimizing energy absorption but do substantially increase water losses (50). To promote normal bowel function, a fiber-rich diet is recommended. Patients are advised not to restrict fluid intake to avoid dehydration and worsening of constipation, and those with normal ranged weight may benefit from addition of regular physical activity, which assists in regulating bowel function. Binge eating is often precipitated by triggers such as negative affect, with overeating being identified as a tension-releasing coping mechanism, used to deal with emotional distress (51). Individuals with binge eating often engage in various behaviors to attempt to control their weight. For some patients, giving up severe dietary restrictions and restraints appears to increase binge-eating behavior, which is often accompanied by compensatory purging.

Nutrition education and cognitive behavioral therapy

Nutrition education and cognitive behavioral therapy (CBT) are two core skills implemented with these behaviors. Nutrition education encompasses principles of normal eating, psychological and physiological effects of starvation, nutritional requirements, and metabolism. It also counters misconceptions about body weight regulation and consequences of purging behavior. Patients are taught that inducing diarrhea by laxatives does not significantly change the absorption of food in the body, since laxatives work near the end of the bowel, where they primarily affect absorption of water and electrolytes (like sodium and potassium). Thus, they work after most of the nutrients from the food have been absorbed into the body and what appears to be weight loss is actually dehydration or water deprivation. Moreover, when bulk agents, like Metamucil and Colace are used as directed (with large amounts of water), they don't have the same physical effects on the bowel as the stimulant and osmotic laxatives. However, when these bulk agents are misused, they have the same psychological consequences as regular laxatives.

Cognitive behavior techniques are implemented to help the patient identify maladaptive behaviors and the associated cognitions. The therapist's first task is to help patients see that their dieting attempts are a problem since they are a major cause of preoccupation with thoughts about food and eating, they are anxiety provoking, and they restrict the way in which patients can eat. Rigid dietary rules are coupled with the tendency to react in an extreme and negative fashion to the intermittent breaking of these rules.

Patients are encouraged to self-monitor their daily behavior and thinking patterns, mapping the antecedents of maladaptive behaviors. Learning and utilizing skills is an important component of CBT for eating disorders, and it is likely that effective skill use facilitates symptom reduction. Usually, with CBT for eating disorders, patients are taught skills (e.g., thought restructuring, stimulus control techniques) and are asked to practice these skills between sessions (52).

Food records are the most common instrument used to identify and address maladaptive behaviors and cognitions. Self-monitoring is a central feature of treatment for eating disorders. It is recognized as a vehicle of data collection regarding a patient's dietary intake as well as associations between food intake, distressing situations, thoughts, emotions, and body image experiences. Patients are encouraged to monitor in the moment versus allowing significant time between an experience and recording the details of the experience. Food records may be formed in various levels of complexity. Initially, they may include details about time, place, companionship, and content of food eaten, as well as information regarding binge/purge episodes. Further on, they may focus on monitoring hunger and satiety cues, emotional eating, and obsessive compulsive rites related to food and eating. They may focus on qualitative as well as quantitative information. It is important that the dietitian review self-monitoring with the patient so that the patient can see the value of adhering to this aspect of the program, not only for improvements in eating disorder symptoms, but also for their overall quality of life, through increased knowledge of themselves and how they perceive and experience the world (53).

The cyclic nature of bulimic symptoms is perpetuated by negative effects and core beliefs. Negative effects are considered to be an antecedent to binge bulimic behaviors, including binge eating (54). *Cognitive restructuring* confronts dysfunctional cognitive schemas, beliefs, and interpretations regarding dieting and nutrition, as well as the

relationship between eating patterns and physical symptoms. Food records are collaboratively discussed with the patient, and problem solving strategies are suggested. Since binge eating disorder and bulimia nervosa share common psychological and behavioral characteristics, binge eating disorder treatment has been highly influenced by bulimia nervosa treatment literature that encompasses cognitive behavior therapy and interpersonal psychotherapy (2). Normalization of eating behaviors is a primary goal, rather than weight loss, at any cost.

Weight maintenance may be a pivotal accomplishment and should be recognized as such by both the nutritionists and the patient because this can be an indicator of fewer or decreased binge episodes. In addition, appropriate physical activity components and leisure activities may provide stress management and also assist with energy balance.

2. Promote Healthy Thinking, Eating, and Activity Patterns and Improve Body Image

A. Normalizing eating and activity patterns.

With weight restoration, food choices increase, food hoarding decreases, and obsessions about food decrease in frequency and intensity, although they do not necessarily disappear. Gradual incorporation of “forbidden or feared foods” into the diet is an important goal in nutrition counseling to increase variety of food eaten and counter restricted behaviors that limit patients’ possibilities. During this process, patients are overwhelmed with concerns about their bodies. They describe a fear of gaining weight and may often state that they would rather be dead than fat.

Desensitization

Desensitization is a well known process in behavioral therapy. At the beginning of the treatment process, patients are aided in creating a “feared or forbidden foods” list in which they rank feared foods according to intensity of fear surrounding the particular foods (55). Through the treatment process, patients are assisted in neutralization of such fear through the practice of mindfulness and exposure therapy using a graduated hierarchy of progressively more feared foods. Mindfulness is the guiding factor for exposure therapy in that it sets the stage for a calm, focused, de-escalated, and nonjudgmental cognitive set for the experience. Exposure to other anxiety-provoking activities such as eating in a restaurant or eating with friends is often conducted, first verbally and then by modeling and simulating grocery shopping or eating out in restaurants. These situations allow the patient to practice utilizing healthy coping skills, such as problem-solving and mindfulness (55). The dietitian at this stage provides less supervision and more collaboratively researches the world of desires, fantasies, and boundaries with the patient. Food records are used to observe patient's tendencies, avoidance, and disinhibition behaviors. Various problem-solving strategies are advised.

Nutrition education

Nutrition education is a core feature in dietitian's role when breaking through these habits. Patients feel understood and respected when dietitians provide knowledge about basic

food groups, the food guide pyramid, healthy eating habits, nutrient content of foods, as well as physiological and psychological consequences of restriction and semi-starvation. The psychobiological basis of hunger and satiety and the relatedness of nutritional status and behaviors to impaired concentration, indecisiveness, mood fluctuations, and sleep disturbance are discussed. The dietitian helps the patients develop an understanding of what they need from a physiological standpoint and to learn how to apply it to their own bodies. The goal is to normalize food intake, to help the individuals achieve normal satiety signals, so they can fuel themselves adequately to support health and allow them to achieve their life goals. Although done before, the dietitian addresses continually the potential difference between subjective and objective measures of intake and collaboratively researches with the patients what is an "appropriate" portion for them.

The dietitian discusses with patients the impact of the "numbers dictators" and helps patients choose alternative strategies for self-regulation and control. Some prefer to stick to calorie counting, while others are swept away to an obsessive course and would thus rather use schemes of eating portions and food exchanges.

Mindful eating should be encouraged, and ***emotional eating*** should be countered and its pattern explored. Clinician teaches patients to identify specific emotional triggers to food restrictions or binging and purging, challenge their irrational beliefs relating to weight, body image, and self-esteem, and develop healthy alternative behaviors to compulsive eating. Clinician may educate patients about mood intolerance and help explore unique events in which the patients have addressed such states with different effective strategies rather than eating or dieting.

B. Treating dysfunctional thoughts related to food, shape and weight

Poor body image at the end of treatment predicts poor prognosis (56). Dietitians should help patients deal with their concerns about weight gain and body changes, given that these are particularly difficult adjustments for patients to make.

Body image therapy

Body image therapy encompasses a host of components designed to improve mindfulness with regard to the experience of the body, decrease over-concern with body size and shape, address over-estimation of body size, decrease fear of situations that are associated with body shape concerns, decrease body checking rituals, and develop compassion and acceptance for the body and self (54). Patients are encouraged to accept their body size and shape as well as appreciate themselves for who they are, versus what they look like.

Media literacy

Media literacy is one of the tools aimed to build skills to resist social persuasion and empower the subjects to adopt a critical evaluation of media content so that they can identify, analyze, challenge, and propose alternatives to cultural ideals presented in the mass media. The main goal is to counter rigid internalized societal ideals of size and appearance, body dissatisfaction, and dieting, which were reported to be a causal risk factor for maladaptive eating patterns (57).

Mirror exposure

Mirror exposure is another tool that may be incorporated by dietitians. Mirror exposure involves deliberate, planned, and systematic exposure to body image. The approach is nonjudgmental, holistic in focus, and mindful of present emotional experience. Complementary behavioral assignments aim to reduce avoidance and excessive checking (58).

The clinician may use narrative therapy, which studies the internalized oppressive ideas in cultural, political, and social context (7). Most counsellors find it very productive when they share with the patients their personal experience in balancing their eating habits. Mahatma Gandhi said, “You must be the change you wish to see in the world.” Thus counsellors should be good role models, modeling positive body acceptance by eliminating negative self statements.

C. Managing body checking behaviors.

Some dietitians incorporate strategies of abolishing body checking behaviors. Body checking is the practice of repeatedly checking aspects of one’s body in a range of ways (59). These behaviors include examining specific body parts, using the fit of clothing or jewelry to judge shape or weight, frequent weighing, and studying oneself in the mirror repeatedly. Each episode might last from a few seconds to a number of minutes. Fairburn et al. hypothesized that body checking magnifies perceived imperfections, serving to maintain body size preoccupation and the fear of losing control (thus maintaining dietary restriction). Because patients pay attention to even small changes, slight (and normal) fluctuations in weight can trigger mood change (60).

Mountford et al. (61) suggested that for an intervention to be successful in eliminating unhealthy checking or avoidance, the individual’s underlying cognitions must be explicitly observed and challenged, as it is likely that a few key beliefs will underlie a number of behaviors. The therapist may ask patients why it is so important for them not to have to check their bodies every ten minutes. What knowledge does it add and how does it impact your thinking and affect?

3. RELAPSE PREVENTION

Follow-up meetings are crucial even after symptoms abstinence in order to support further progress and prevent relapse. Adhesion to anti-eating disorder steps can fluctuate. The dietitian increases hope while predicting more setbacks and reframing the fluctuating pattern of the journey to recovery. Meetings are focused on unique outcomes in which the patients enforce self-nurturance and self-regulation, aiming to empower patient self-efficacy. After identifying unique outcomes, patients are helped to ascribe significant meaning to these instances through re-storying, a therapeutic process designed to help patients create a sense of empowerment, self–efficacy, and hope (62). Re-storying might for example involve the counselor asking the patients, “What does this say about you and your ability to resist to society's messages?” “How would you name the strategy you employed when these ideas

were driven away?" Gradually, a preferable story about patients' identity and coping style is re-authored (9).

During the follow-up sessions, patients are educated on the principles of relapse prevention, that is, the distinction between lapses and relapses and the development of plans to manage high-risk situations (63). Also, patient are trained to "get back on track" as quickly as possible once a lapse has occurred. It is important that patients are prepared for vulnerability to relapses during high-risk times. Patients are aided in identifying personal triggers and high-risk situations that may promote relapse and are trained through mindfulness to utilize awareness to recognize, prior to the lapse, that they have a choice in which behaviors they will choose, given the situation. In addition, patterns of thinking and destructive behaviors that may trigger relapse are identified. Patients are coached on how to reframe lapses as "slips" versus a complete relapse (55).

When patients are experiencing the urge to lapse to maladaptive behaviors (restrictions, binging, or purging), they are invited to phone their dietitian prior to engaging in such behaviors.

Wisniewski & Ben Porat (64) suggested using telephone skill coaching with DBT framework. They describe a telephone-based, semi-structured procedure that involves ascertaining the problem, evaluating what the patient has already tried to solve the problem, and developing, getting commitment for, and minimizing problems with an action plan. Generally, the goal of telephone skill coaching is to empower the caller to make a decision regarding the current crisis and to take appropriate action. In standard DBT treatment, telephone coaching is used to assist clients in generalizing the skills they are learning in treatment to everyday situations (11). Eating disorder patients are likely to become dysregulated when exposed to food-related stimuli as well as to interpersonal interactions. In such conditions, they might find a short conversation with their dietitian helpful to avoid relapse. The therapist needs to refrain from providing therapy and/or offering interpretative remarks regarding current behavior during telephone skill-coaching, as this attention could possibly reinforce crisis behavior (64). Interpretations regarding the episode, therefore, should be left for the individual session.

Solution focused strategy

Solution focused also offers techniques to overcome relapses. When some symptoms are re-engaged, the therapist may use techniques to remind the patient how he felt without the tyranny of the eating disorder. The "as if" technique is a useful tool in these situations. It is aimed to induce a positive, solution-oriented self-deception, where the fantasy of having overcome the problem becomes a self-fulfilling prophecy. This maneuver has two effects: It introduces a positive suggestion that takes advantage of the "logic of belief," suggesting that the "miracle" can happen and more importantly, shifts the person's attention away from the present symptom to a future free of the disorder. This change of perspective, obtained through suggestion, is therapeutic in itself, because it opens new horizons and projects the person beyond the problem (65).

Summary

The dietitain is an essential component of the team treatment of patients with eating disorders during assessment and treatment across the continuum of care. The dietitian assists

patients in increasing information regarding self-nurturance, effective vs. destructive behavior and thought patterns, as well as developing consciousness-raising and self-awareness regarding maladaptive defense patterns. The dietitian creates an appropriate emotional climate for growth, helps patients develop open and trusting relationships with food and the body as well as with others, and helps patients engage in new alternatives for expressing feelings, positive self-talk, self-control and self-nurturance using various tools, techniques, and approaches. In addition, the dietitian helps families return to effective communication patterns.

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