Evidence-Based Disordered Eating Prevention Programs for Active Females

14

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Abstract

In this chapter, the authors discuss the role that self-concept plays as a modulator in disordered eating. While there are many models for self-concept, all models recognize that the development of positive self-esteem is multidimensional and an individual's perception of self can be affected by the environment in both positive and negative ways. Effective prevention and intervention programs must recognize the importance of enhanced self-esteem and embrace the development of this concept in their programs for positive health behavior change. Numerous theoretical frameworks have been proposed to explain and predict the process of health behavior change. The Transtheoretical Model (TTM) developed by Prochaska and DiClemente as a model of intentional behavior change is highlighted in this chapter. Targeted educational programs to prevent disordered eating for female athletes are presented and contact information for more details for research based effective programs are provided in a summary format.

Keywords

Prevention programs for eating disorders • Transtheoretical model • Enhanced self-esteem

14.1 Learning Objectives

After completing this chapter, you should have an understanding of:

- The importance of self-esteem in disordered eating
- The transtheoretical model in the process of health behavior change
- General treatment principles and medical criteria for hospitalization
- Program examples
- Eating disorder resources

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14.2 Introduction

Low self-esteem, accompanied with perfectionism, is a well-recognized trait of those with disordered eating and could be a precipitating factor in the development of eating disorders [1, 2]. This characteristic likely increases females' vulnerability to disordered eating when combined with recently documented genetic and neurobiological findings: the heritability of eating disorder symptoms increases from zero risk before puberty to ≥50 % during and after puberty; also, fMRI studies show decreased activity in brain areas involved in self-regulation and impulse control [3, 4]. Self-esteem, as a component of self-regulation, frequently triggers behavioral and cognitive strategies to maintain or enhance sense of sense [5]. The terms self-concept, self-worth, and self-image are used interchangeably with self-esteem and are all based on self-perception. Self-esteem can defined as the extent to which a person feels positive about himself or herself [6]. Often, self-esteem is described as dichotomous, with a person possessing either high or low self-esteem. People with low self-esteem feel positive about themselves when they encounter affirmative experiences. Conversely, when they face negative experiences, they are disapproving of themselves. People with high self-esteem embrace and benefit from positive experiences and have developed strategies to mollify negative feedback. In short, they have learned how to *offset* negative experiences [7, 8].

Effective prevention and intervention programs must recognize the importance of enhanced self-esteem and embrace the development of this concept in their programs. Education to prevent disordered eating can only be effective if the individual understands and accepts herself, even her limitations. Many times, physically active women have a heightened awareness of the body and its limitations [8]. These limitations may contribute to low self-esteem (losing a race, finishing last, etc.). Rosenberg [9] describes self-esteem as consisting of three major components: (a) social identities (how an individual defines him or herself in society), (b) personal dispositions (perceptions of traits, preferences, response tendencies), and (c) physical characteristics (height, weight, body fat distribution, attractiveness, etc.). While there are many models for self-concept, all models recognize that the development of positive self-esteem is multidimensional and an individual's perception of self can be affected by the social, emotional, and physical involvement in sport and exercise.

14.3 Research Findings

14.3.1 The Transtheoretical Model in Health Behavior Change

Numerous theoretical frameworks have been proposed to explain and predict the process of health behavior change. One frequently used is the transtheoretical model (TTM) developed by Prochaska and DiClemente as a model of intentional behavior change [10]. The TTM assumes that individuals vary in motivation and readiness to change their behavior, and as well, realistically acknowledges that relapse is normal under situations that involve such significant behavior change. Four related concepts considered central to health behavior change are included within this model: stage of change, self-efficacy, decisional balance, and processes of change.

The five stages of change are precontemplation (PC, no intention to change health behaviors within the next 6 months), contemplation (C, seriously considering behavioral change within the next 6 months), preparation (P, still lack commitment to change, but investigating the possibility of change within the next 30 days), action (A, actively modifying problematic behavior within the last 6 months), and maintenance (M, self-control of the behavior established more than 6 months ago).

In the PC stage, information needs to be provided about the behavioral and potential medical problems associated with the behavior. In the C stage, health professionals must help individuals assess the pros and cons of the behavior change so that they will make a commitment to change. Health professionals must encourage initial small steps to initiate change, no one can force someone

to change, and individuals must begin to place greater significance on the benefits of behavior change in the P stage. The A stage occurs when benefits outweigh the costs. Initiating a new health behavior change is bound to be fraught with relapse; health professionals should act to reinforce an individual's self-confidence along with their decision to change. The M stage occurs when individuals are able to continue the new behavior. Conceptually, progression through these stages during attempts at behavioral change is expected to be linked to differences in self-efficacy, decisional balance, and the processes of change [11].

Self-efficacy and decisional balance represent beliefs about behavior that are common to many social cognition models. Specifically, self-efficacy refers to an individual's confidence in his or her ability to perform a specific behavior, which is expected to increase as an individual moves through the stages [12]. Indeed, self-efficacy for health behavior change reliably predicted stages of change; precontemplators and contemplators had the lowest efficacy, while those in the maintenance stage exhibited the highest efficacy [13].

Decisional balance relates to the pros (benefits) and cons (costs) of the behavior; for example, eating gives me more energy, yet it might make me fat. Individuals who change their behaviors have positive decisional balance because the positive beliefs about the behavior outweigh the negative ones. Additionally, the pros increase, while the cons decrease across the stages of change.

Lastly, the TTM also includes processes of change and specifically define a process of change as a "type of activity that is initiated or experienced by an individual in modifying affect, behavior, cognition or relationships" [10]. Health professionals can assist the process of change and the maintenance of the new behavior by providing follow-up support [14].

14.3.2 Athletes at Risk Program

Targeted educational programs for female athletes can be effective at any stage of change. The Athletes@Risk® program is a preventative program for female athletes in both recreational and competitive sport who are at risk of developing the female athlete triad that involves disordered eating, amenorrhea, and osteoporosis (Table 14.1). This licensed prevention educational program was developed by Dr. Julia Alleyne, a medical director for Sport CARE and a clinical professor of medicine at the University of Toronto.

There are five interactive workshop units of this program: understanding health consequences (of the athlete triad), healthy eating habits (food as fuel), positive self-esteem and body image (my body, my sport), safe training practices (getting strong, getting fit), and stress management (life skills and wellness) [15]. The program has been designed for health professionals who interact with female athletes who are at risk for developing the female athlete triad, who may be prone to anxiety disorders, and who have frequent muscular injuries, low self-esteem, and problems coping with lifestyle stressors. This program also can be used as a summer camp for children at a sponsoring facility. For further information, contact Women's College Hospital, Toronto, ON, M5S 1B2, toll free at 1-800-363-9353or visit the website (http://www.womenscollegehospital.ca/programs-and-services/fitness-and-exercise/athletesrisk-program423).

14.3.3 General Treatment Principles

Treating eating disorders is both a science and an art [16]. Even though the treatment goals for anorexia nervosa and bulimia nervosa are well defined (Table 14.2), the method of achieving these goals is less certain [17]. Also, treatment is less likely to occur without proper screening in terms of medical criteria used for hospitalization (Table 14.3) [18–20].

Achieving and maintaining a normal weight and nutritional status is essential for recovery for both anorexia nervosa (AN) and bulimia nervosa (BN). Perfectionist attitudes, low self-esteem, unrelenting pursuit of thinness, intolerance of mood fluctuations, and poor coping skills are problematic for both AN and BN. Recovery is unlikely without a fundamental change in these attitudes.

Table 14.1 Overview of the components in the Athletes@Risk® program at the University of Toronto

Session #1	Injury prevention and treatment principles
Understanding the health consequences	Female-specific issues in physical activity
The female athlete triad	*Interactive tools*
Prevention, recognition, and treatment	Strength training on the go
The continuum between disordered eating and an eating disorder	Heart smart learning
Prevention and physical consequences	Performance aids challenge
Exploring osteoporosis in the younger woman	Injury management game
Identification and decreasing the risk	Female-specific issues crossword
Menstruation and the female athlete	*Session #4: food as fuel*
Interactive tools	Nutrition: the basics
Are you at risk?	Using the food guide for good nutrition
Commonly asked questions	Getting enough fuel for activities
Word search	How much is enough?
Session #2: my body, my sport	What happens if needs are not met?
Body image and self-esteem	Eating for performance: before, during, and after
The genetics of body shape	Why do we eat?
Body image and shape through history and culture	*Interactive tools*
The truth about body composition testing	Healthy choices at fast food restaurants
Body image and injury: dealing with the scars	Food and water log
Healthy self-esteem strategies for teens	Analyze a food label
Interactive tools	Nutrition jeopardy
Body contour rating	Olympic quiz
Determining body esteem	*Session #5: life skills and wellness*
Body image diary	Stress management
Developing self-talk: being positive and realistic	Coping with stress
Athletes response to injury	Perception and control
Simple relaxation techniques	Self-esteem and stress management
Session #3: getting strong, getting fit	Developing healthy sexuality
Stretch and strength: keeping balanced	Harassment and abuse
How do we get stronger	Boundary setting
Women and strength training	Physical, social, and sexual boundaries
The seasons of strength training	Assertiveness training
Additional benefits of getting stronger	Interactive tools
Getting fit	Are you stressed?
Aerobic, anaerobic, and interval training	Simple relaxation techniques
Performance aids: what is safe and what is not?	Are you non-assertive?
Overtraining: signs and symptoms	Developing assertive behavior

Athletes@Risk® is a licensed preventive education program

Research has shown that the therapist should function in the therapeutic encounter as a parent, teacher, guide, and coach and that the personality of the therapist is a major therapeutic element in the treatment of patients with AN [17]. The therapist must make every effort to engage the family, especially if treating patients with AN under 18 years of age [21]. Family therapy has shown to be very effective in younger patients with AN of shorter duration (less than 2 years).

Although most patients with BN can be treated in an outpatient setting, the first issue a clinician must decide with AN is the treatment setting. Most clinicians will recommend inpatient treatment for a patient who weighs less than 75 % of average weight, has severe metabolic disturbances, if feeling suicidal, or has failed to

Table 14.2 Treatment goals for anorexia nervosa and bulimia nervosa

Anorexia nervosa	Bulimia nervosa
Restore weight and improve eating habits	Identify the factors and processes that maintain the binge-purge-starve cycle
Change dysfunctional attitudes	
Treat concomitant medical complications	Help the individual identify strategies to overcome the disturbed eating pattern
Work with the family	Change dysfunctional thoughts
Pharmacotherapy to treat depression, moderate obsessive perfectionism, to target certain neurotransmitters, or to treat concomitant complications	Build coping skills
Prevent relapse (most difficult task)	Note: Cognitive behavioral therapy (CBT) has been found to be most effective. However, self-help (SH), using a written manual based on the principles of CBT, has gained wide appeal since the patient may use it with or without the guidance of a therapist

improve after a period of outpatient or partial program treatment [20]. Again, refer to Table 14.3 as to the medical criteria for hospitalization provided by multiple sources [18–20].

Traditionally, inpatient treatment is continued until a patient reaches a reasonable healthy body weight. Discussing a target weight is one of the most important initial tasks of weight restoration. Currently, most clinicians use a body mass index of 18.5 kg/m^2 as the minimal healthy weight for a patient older than 16 [17].

The treatment of BN is usually conducted in an outpatient setting. Cognitive behavioral therapy (CBT) is the treatment of choice and is effective whether conducted individually [22, 23] or in a group setting [24]. The most widely used CBT is the version developed by Fairburn and is implemented over a period of 18 weeks [25]. In the first stage, behavioral techniques are used to replace binge eating with a stable pattern of regular eating. In the second stage, the goal is to eliminate dieting; the focus is on the thoughts, beliefs, and values that reinforce dieting. The third stage is focused on the maintenance of these new healthy behaviors and thought patterns.

Self-help (SH), using a written manual based on the principles of CBT, has been shown to be effective for BN patients and is more accessible than CBT [26]. The patient may use it without any guidance or with the help of a therapist. Under guidance, the program usually consists of 7 sessions and is conducted over a period of 12 weeks. The most widely used manual, by Fairburn, provides a step-by-step discussion of implementing the program [27].

14.3.4 Dissonance-Based Eating Disorder Prevention Program

Almost 10 % of teenage girls and young women experience threshold or subthreshold anorexia nervosa, bulimia nervosa, or binge eating disorders [28, 29]. A meta-analytic review [30] found that only five from dozens of randomized controlled efficacy trials investigating disordered eating prevention programs produced significant reductions in disordered eating symptoms among intervention participants compared to controls that extended at least 6-month post-intervention [31, 32]. One program, cognitive dissonance-based prevention or DBP, which utilizes the theory of cognitive dissonance, is accumulating data as to its empirical effectiveness with EDs [33].

Dissonance theory posits that having inconsistent cognitions creates psychological discomfort which motivates people to change their cognitions for the sake of consistency.

Dissonance may be activated by having individuals act in ways that are not consistent with their beliefs; dissonance can then be reduced by altering the behavior or belief. Recent research indicates that DBP interventions can help athletes with disordered eating by reducing negative thoughts and feelings [34–38].

Smith and Petrie [35] tested the effectiveness of a cognitive dissonance-based intervention compared to a psychoeducationally based healthy

Table 14.3 Sample hospitalization criteria

	Adults	Children and adolescents
Heart rate	<40 bpm or >110 bpm	<50 bpm daytime; <45 bpm nighttime arrhythmia
Blood pressure	<90/60 mmHg or orthostatic hypotension (pulse increase of >20 bpm or drop in BP of >10–20 mmHg/min from lying to standing)	<80/50 mmHg; orthostatic blood pressure changes (>20 bpm increase in heart rate or >10–20 mmHg drop in blood pressure)
Glucose	<60 mg/dL	<60 mg/dL
Electrolytes or metabolic function	Potassium<3 meq/L; electrolyte imbalance; dehydration; metabolic abnormalities	Hypo- or hypernatremia, hypophosphatemia, hypokalemia, hypomagnesemia; serum chloride concentration <88
Gastrointestinal	Hematemesis; esophageal tears; intractable vomiting	Hematemesis; esophageal tears; intractable vomiting
Temperature	<97.0 °F; inability to sustain body core temperature	<96.0 °F, dehydration
Hepatic, renal, or cardiovascular	Organ comprise requiring acute treatment	Organ compromise requiring acute treatment; arrhythmias
Weight and body fat	<75 % of healthy body weight or acute weight decline with food refusal	Acute weight decline with food refusal even if not <75 % of healthy body weight; body fat <10 %
Motivation to recover	Very poor to poor; preoccupied with egosyntonic thoughts	Very poor to poor; preoccupied with egosyntonic thoughts; failure to respond to outpatient treatment
Comorbid psychiatric Disorders	Any existing disorder that would require hospitalization such as suicidal risk and depression	Any existing disorder that would require hospitalization such as suicide risk and depression
Purging behavior (laxatives and diuretics)	Needs supervision during and after all meals and in bathrooms	Needs supervision during and after all meals and in bathrooms
Ability to care for self; ability to control exercise	Complete role impairment; structure required to keep patient from compulsive exercising	Complete role impairment; structure required to keep patient from compulsive exercising
Stress and support	Severe family conflict, lack of structured treatment in home; inadequate support	Severe family conflict, lack of structured treatment in home; inadequate support

Multiple sources: adapted from American Psychiatric Association. Practice Guidelines for the Treatment of Patients with Eating Disorders, 2nd edition. Washington, DC: American Psychiatric Press; 2000;57:5–56; Halmi, K. (2009). Salient components of a comprehensive service for eating disorders. *World Psychiatry*, *8*, 150–155; Rosen, D. and the Committee on Adolescence. (2010). Identification and management of eating disorders in children and adolescents. *Pediatrics*, *126*: 1240–1254

weight and a wait-list control to determine their relative effectiveness in reducing body dissatisfaction, negative affect, dietary restriction, and internalization of the sociocultural ideal. The sample of 29 self-identified disordered eating female athletes engaged in exercises that questioned the thin ideal body type so as to produce dissonance. Possibly due to low power, no treatment effects were found; however, exploratory post hoc analyses suggested that the cognitive dissonance intervention provided some positive effects, that is, decreases in sadness/depression, internalization of a physically fit body type, and increases in body satisfaction.

Another study focused on the issue of education in the female athlete triad. Specifically, Becker and colleagues evaluated whether two exploratory peer-led interventions could have a positive effect on athletes at risk for an eating disorder [34]. Athletes were randomly assigned to either an athlete-modified dissonance prevention or a healthy weight intervention (AM-HWI); ED risk factors were assessed pre/posttreatment, at 6-week and 1-year follow-up. The results ($N=157$) indicated that both interventions reduced dietary restraint, thin ideal internalization, bulimic pathology, shape/weight concern, and negative affect at 6 weeks. Bulimic pathology, shape concern, and negative affect were

reduced at 1-year follow-up. Also, qualitative results suggested that AM-HWI may be the more preferred intervention by athletes.

14.3.5 Eating Disorder Organizations and Resources

Resources exist for physicians in treating eating disorders (Table 14.4). Moreover, education programs at exercise facilities can help to prevent triad disorders in girls and young women by alerting them and caring individuals such as family members. Education materials can be displayed on bulletin boards, web pages, newsletters etc. Information packets can educate parents and children, even if the facility is restricted to adults. An information packet about eating disorders is the BodyWise Handbook at http://www.maine.gov/education/sh/eatingdisorders/bodywise.pdf. The Female Athlete Triad Coalition web page (http://www.femaleathletetriad.org/) contains additional helpful information that exercise professionals can use as educational tools.

Workshops related to improving body image, healthy eating habits, and coping with stressors during puberty can also be provided by fitness facilities. These workshops do not have to be put on by employees but can be hosted for the facility's own clients, as a community service and as advertising for the sponsoring facility. A professional workshop for increasing the self-esteem of girls is GirlPower (https://www.urstrong.com/). There are licensed GirlPower facilitators in Canada, the United States, and Australia. Table 14.5 lists additional educational resources for the prevention and treatment of eating disorders and other related mental illnesses. For more information about the National Mental Health Association or additional resources, please call 1-800-969 NMHA (6642) or visit their website at http://www.nmha.org/infoctr/index.cfm.

Table 14.4 Resources for physicians for the treatment of eating disorders

The Academy for Eating Disorders (AED)
3728 Old McLean Village Dr
McLean VA 22101
Phone: (847) 498-4274
Fax: (847) 480-9282
Website: http://www.aedweb.org
E-mail: info@aedweb.org
Under the eating disorders information, click on research-practice guidelines. This will bring up the latest in research and practice initiatives
American Psychiatric Association (APA)
1400 K St, NW
Washington, DC 20005
Phone: 1-888-35-PSYCH (toll free)
Website: http://www.psych.org
E-mail: apa@psych.org
There is a section entitled Mental Health. Under this tab, there is a list of key topics, one of which is eating disorders. A discussion of the disorders as well as treatment is listed
Internet Mental Health (IMH)
601 W Broadway Suite 902
Vancouver, BC
Canada, V5Z4C2
Phone: (604) 876-2254
Fax: (604) 876-4929
Website: http://www.mentalhealth.com
This site features descriptions of eating disorders by going to the Index and selecting Eating Disorders. Also, under the area of Content, website links are provided

(continued)

Table 14.4 (continued)

National Association of Anorexia and Associated Disorders (ANAD)
National Association of Anorexia Nervosa and Associated Disorders, Inc.® 750 E Diehl Road #127 Naperville, IL 60563 Helpline: (630) 577-1330 Website: http://www.anad.org E-mail: anadhelp@anad.org This website has abundant resources regarding disorders information, treatment and support with a helpline, and listings of treatment facility partners associated with this organization. The site also contains an area dedicated to legislative news relevant to mental health and eating disorders. A list of referrals and support groups is available by calling the helpline
National Eating Disorders Association (NEDA)
165 West 46th Street New York, NY 10036 Phone number:(212) 575-6200 or 1-800-931-2237 (toll-free information and referral hotline) Fax:(212) 575-1650 Web: http://www.edap.org E-mail: info@NationalEatingDisorders.org This comprehensive website offers multiple resources and guidance that begins with online eating disorder screening, an information and referral helpline, as well as a requested listing of practitioners and facilities in one's local area and insurance resources. Support groups and research studies as well as parent, family, and friends' networks are also available
Something Fishy
Phone number: (866) 690-7239 Website: http://www.something-fishy.org News, descriptions of eating disorders, and a treatment finder are all offered on this extensive site. Online support through chat rooms, message boards, and American Online Instant Messaging (AIM) is also available. Sections on dangers associated with eating disorders, helping loved ones, recovery, and cultural issues provide useful information not always seen on other websites. "Doctors and Patients" is a section that provides a practical discussion of medications as well as blood and lab tests. An area entitled "Tips for Doctors" dispenses functional advice about what patients fear most. Their concerns, for example, include not being taken seriously by a physician or that the physician will notify their parents. The additional resources area lists organizations, other websites, and hotline numbers; recommends written material; and provides links to research

Source: adapted from Patient Care. Identifying and managing eating disorders. November 30, 2001 (http://www.patientcareonline.com/patcare/). With permission

Table 14.5 Eating disorder organizations and resources

Anorexia Nervosa and Related Eating Disorders, Inc. (ANRED) *Internet*: http://www.anred.com/ ANRED's mission is to provide easily accessible information on anorexia nervosa, bulimia nervosa, binge eating, and other food and weight disorders. ANRED, a nonprofit organization, distributes materials on topics about recovery and prevention of weight related disorders
Soy Unica! Soy Latina! *Internet*: http://latinasunidas.org/mybody/default.htm An excellent bilingual website for young Latinas with a good section on eating disorders
Eating Disorder Information and Referral Center *Internet*: http://www.EDreferral.com This website is a resource for information and treatment options for all forms of eating disorders. It includes referrals to local treatment centers nationwide

(continued)

Table 14.5 (continued)

Harvard Eating Disorders Center (HEDC) WACC 725 15 Parkman Street Boston, MA 02114 Tel: (617) 236-7766 *E-mail*: info@hedc.org *Internet*: http://www.hedc.org/ The Harvard Eating Disorders Center is a national nonprofit organization dedicated to research and education and gaining new knowledge of eating disorders, their detection, treatment, and prevention to share with the community at large. The website includes information about eating disorders, help for family and friends, resources, and a listing of events and programs
Overeaters Anonymous (OA) World Service Office PO Box 44020 Rio Rancho, NM 87174-4020 Tel: (505) 891-2664 *E-mail*:info@overeatersanonymous.org *Internet*: http://www.overeatersanonymous.org/OA is a nonprofit international organization that provides volunteer support groups worldwide. Modeled after the 12-step Alcoholics Anonymous program, the OA recovery program addresses physical, emotional, and spiritual recovery aspects of compulsive overeating. Members are encouraged to seek professional help for individual diet and nutrition plans and for any emotional or physical problems
The Renfrew Center Foundation 475 Spring Lane Philadelphia, PA 19128 Tel: 1-800-RENFREW *E-mail*: foundation@renfrew.org *Internet*: http://www.renfrew.org/ The Renfrew Center Foundation is a tax-exempt, nonprofit organization promoting the education, prevention, treatment, and research of eating disorders. The Renfrew Center Foundation is funded by private donations and by the Renfrew Center, the nation's first freestanding facility committed to the treatment of eating disorders

14.4 Contemporary Understanding of the Issues

Theoretical perspectives differ in the treatment of eating disorders, and the interplay among the many treatment variables is very complex and not well understood. Furthermore, many ED specialists in the sport world consider female athletes to represent a uniquely challenging population with which to work [34]. CBT, the Athletes@Risk®, and dissonance-based programs are three intervention strategies aimed at providing further understanding of treatments for ED. The later DBP has been supported to the extent that it meets the American Psychological Association's (APA) criteria for an efficacious intervention (i.e., DBP outperformed no treatment control groups, an alternative intervention, and findings have been replicated by independent laboratories/researchers), which is rare for ED prevention programs ([34], p. 4). Additionally, DPB effects appear to be long lasting with data showing reductions in ED risk factors continuing at 2- and 3-year follow-up periods [36]; DBP has been shown to reduce the onset of EDs by 60 % compared to an assessment only control [34].

14.5 Future Directions

Practice guidelines for the treatment of patients with eating disorders have been developed by psychiatrists who are in active clinical practice and are available on the web at http://www.psych.org/psych_pract/treatg/pg/eating_revisebook_index.cfm?pf=y. These guidelines were approved by the American Psychiatric Association in 1999 and published in 2000 [22]. These guidelines are not intended to serve as a standard of medical care but rather provide recommendations for treating patients with eating disorders.

14.6 Concluding Remarks

Theoretical perspectives differ in the treatment of eating disorders, and the interplay among treatment variables is very complex. Despite the fact that treatment goals for anorexia nervosa and bulimia nervosa are well defined, a decisive therapeutic approach with which to achieve these goals remains unclear. Regardless of theoretical perspectives, however, the personality of the health professional and the therapeutic relationship developed between the health professional and patient are important elements in recovery [17].

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