



# Incorporating positive body image into the treatment of eating disorders: A model for attunement and mindful self-care



Catherine P. Cook-Cottone\*

University at Buffalo, SUNY, Buffalo, NY, United States

## ARTICLE INFO

### Article history:

Received 22 January 2015

Received in revised form 5 March 2015

Accepted 12 March 2015

### Keywords:

Positive body image  
Eating disorders  
Treatment  
Attunement  
Mindful-self-care  
Flourishing

## ABSTRACT

This article provides a model for understanding the role positive body image can play in the treatment of eating disorders and methods for guiding patients away from symptoms and toward flourishing. The Attuned Representational Model of Self (Cook-Cottone, 2006) and a conceptual model detailing flourishing in the context of body image and eating behavior (Cook-Cottone et al., 2013) are discussed. The flourishing inherent in positive body image comes hand-in-hand with two critical ways of being: (a) having healthy, embodied awareness of the internal and external aspects of self (i.e., attunement) and (b) engaging in mindful self-care. Attunement and mindful self-care thus are considered as potential targets of actionable therapeutic work in the cultivation of positive body image among those with disordered eating. For context, best-practices in eating disorder treatment are also reviewed. Limitations in current research are detailed and directions for future research are explicated.

© 2015 Elsevier Ltd. All rights reserved.

## Introduction

Eating disorders are a group of psychological conditions evidenced by disordered food- and body-related cognitions, poor self-regulation, and dysfunctional eating behaviors (American Psychiatric Association [APA], 2013; Cook-Cottone, 2015). Central to each of the eating disorders is an individual's relationship to his or her body as evidenced by how the body is experienced, fed, cared for, and accepted. Accordingly, cultivation of positive body image may play a powerful role in the treatment of eating disorders. From this salutogenic perspective, it is believed that those struggling with disordered eating can strive for more than a battle to avoid symptoms and tolerate, or ignore, what they perceive as their less-than-perfect bodies (Antonovsky, 1987; Frisén & Holmqvist, 2010; Seligman, 2002, 2011; Wood-Barcalow, Tylka, & Augustus-Horvath, 2010). Going beyond traditional therapeutic goals, patients can work to nurture a healthy relationship with the body and a positive body image that ultimately serve to decrease eating disordered behavior and body dissatisfaction. Patients can strive toward a life that positive psychologists would describe as flourishing (Keyes, 2007; Seligman, 2011; Tylka, 2012), which involves more than thinking about the body differently. Flourishing requires both awareness and action (see Fig. 1). That is, the

flourishing inherent in positive body image comes hand-in-hand with two critical ways of being: (a) having a healthy, embodied awareness of the internal and external aspects of self, and (b) engaging in mindful self-care. Through awareness and active practice, recovering patients can experience positive body image along with mental and physical health. Interested readers are directed to Keyes (2007) and Seligman (2011) for expanded explanations of flourishing and well-being.

This article provides a model for understanding the role positive body image can play in the treatment of disordered eating in moving patients toward flourishing and well-being and methods to facilitate this process. Definitively, positive body image incorporates several core features: body appreciation, body acceptance and love, a broad conceptualization of beauty, inner positivity, filtering information in a body protective manner, and respect for the body (see Avalos, Tylka, & Wood-Barcalow, 2005; Tylka, 2012; Wood-Barcalow et al., 2010). It is believed and empirically supported that positive body image is distinct from body dissatisfaction and is uniquely associated with well-being (Avalos et al., 2005; Tylka, 2012). Nevertheless, to those who are struggling with eating disorders and a strong, negative body image, the idea of a positive body image can seem unrealistically ambitious. It is critical to follow a process that allows positive body image to be experienced as accessible and possible. Further, it is important to focus on body image within the context of supporting each patient's ability to self-regulate, address life-threatening eating disordered behaviors, and increase effectiveness within his or her relationships and environment.

\* Correspondence to: Department of CSEP, University at Buffalo, SUNY, 409 Baldy Hall, Buffalo, NY 14260, United States. Tel.: +1 716 645 1128; fax: +1 716 645 6616.  
E-mail address: [cpcook@buffalo.edu](mailto:cpcook@buffalo.edu)

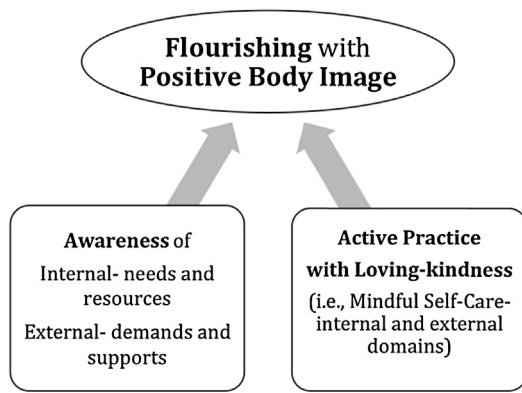


Fig. 1. A conceptual model that represents flourishing with positive body image.

From a salutogenic perspective, full recovery, or flourishing, is viewed as an awareness of, and commitment to, an attuned inner and outer life in which internal needs are met and the external demands are negotiated without compromise to physical or mental health (Cook-Cottone, 2006, 2015; Keyes, 2007; Seligman, 2011). It is mindful self-care behaviors that bring awareness and commitment to action. Within the context of mindful self-care, patients attend to the needs of the self with loving-kindness (Cook-Cottone, 2015). This requires a shift from judgmental, over concern with the body toward loving self-care that honors the inherent need for mind and body connection (see Fig. 1). In this way, recovery is filled with self-compassion and an appreciation for the living, breathing, functioning physical self (Cook-Cottone, 2006, 2015; Keyes, 2007; Tylka, Russell, & Neal, 2015; Tylka, 2012). Consistent with a pathway toward flourishing (Keyes, 2007; Seligman, 2011), patients use self-care tools to protect the self from stress and unhealthy external standards and demands, assess and choose environmental conditions that enhance well-being, and intentionally engage in health promoting behaviors (e.g., intuitive eating, exercise, and yoga; Cook-Cottone, 2015; Cook-Cottone, Tribble, & Tylka, 2013).

To provide context for the role of positive body image in eating disorder recovery, the Attuned Representational Model of Self (ARMS) is reviewed. Next, the major eating disorders are explained and a conceptual model of flourishing and relationships among body judgment, eating behavior, and the major eating disorders is detailed. To provide context, a short review of current best-practices treatment is provided. Finally, aspects of healthy, embodied self-awareness and mindful self-care are considered and described as potential targets of actionable therapeutic work in the cultivation of flourishing in the development of positive body image. Implications for the treatment of disordered eating are discussed.

### Healthy Attunement of the Inner and Outer Aspects of Self

The self is a construction, a representation of the needs and relational dynamics of the inner and outer aspects of living (Cook-Cottone, 2006, 2015). According to the Attuned Representational Model of Self (ARMS, see Fig. 2), the inner aspects of self include the physiological (i.e., body), the emotional, (i.e., the feeling), and the cognitive (i.e., thinking) domains. The outer aspects of self include the microsystem (i.e., family and close friends), exosystem (i.e., community), and macrosystem (i.e., culture). How individuals perceive and experience their bodies involves an ongoing interaction among the aspects of self (Wood-Barcalow et al., 2010). The internal and external aspects are interconnected by a process called attunement (Cook-Cottone, 2006). Based on Daniel Siegel's (1999, 2007) work in the field of interpersonal neurobiology, *attunement* is defined as a reciprocal process of mutual influence and

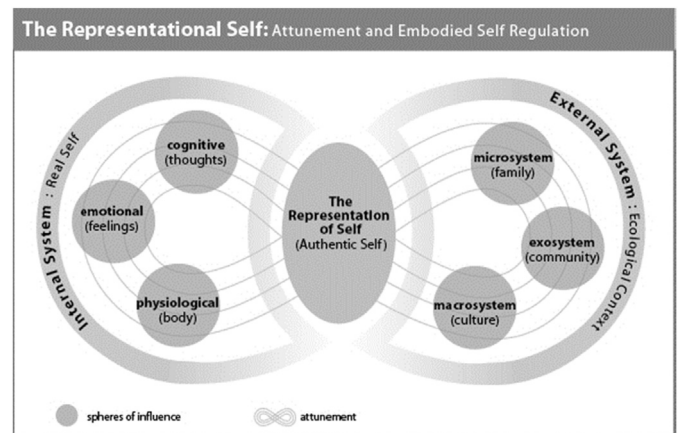


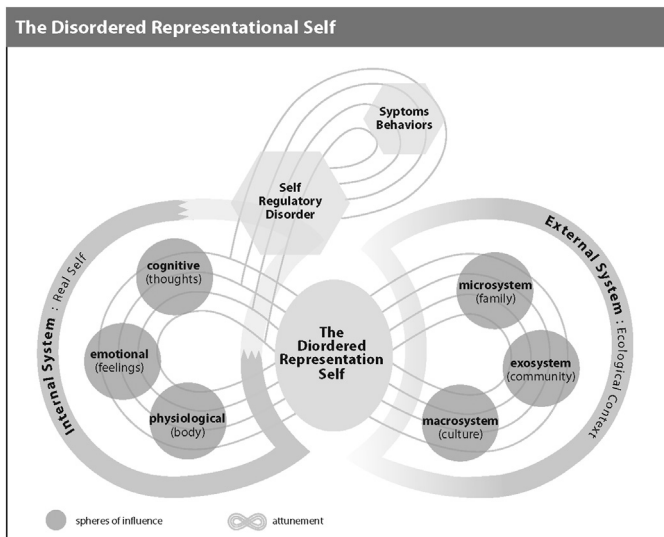
Fig. 2. The Attuned Representational Model of Self (ARMS). In the center, the representational self is experienced as an embodiment of the ongoing behavioral patterns that create attunement within an individual's life.

Adapted from Cook-Cottone et al. (2013).

co-regulation. In the center, the representational self is experienced as an embodiment of the ongoing behavioral patterns that create and maintain attunement within an individual's life (Cook-Cottone, 2015). Effective functioning of the self goes beyond self as subject or object. Healthy, embodied self-regulation occurs when an individual is able to nurture an awareness and maintenance of the needs of the inner aspects of self (i.e., physiological, emotional, and cognitive), while engaging effectively within the context of family, community, and culture (see Cook-Cottone, 2015; Seligman, 2011).

Due to the interactions of complex genetic, biological, interpersonal, and cultural influences some individuals struggle to maintain healthy, embodied self-regulation. For those with eating disorders, there appears to be genetic, biological, and psychological factors that place them at risk for a struggle with food, body image, and their overall relationship with their bodies (e.g., cognitive inflexibility, poor interoceptive awareness, negative affect, self-objectification, dieting; Cook-Cottone, 2015; Cook-Cottone et al., 2013; Espeset et al., 2011; Keel & Forney, 2013; Tiggemann & Williams, 2012; Trace, Baker, Peñas-Lledó, & Bulik, 2013; Tylka & Augustus-Horvath, 2011; Vocks et al., 2010). Although more research is needed before etiology is fully understood, external factors such as familial issues (e.g., family dieting; fat talk; and ineffective, controlling communication patterns) and community and cultural variables (e.g., peer group pressures to diet and pursue thinness, media exposure of extreme ideals for body shape and size) also create risk for, and help maintain, body image disturbance as well as other eating disordered cognitions and behaviors (Cook-Cottone et al., 2013; Reindl, 2002; Striegel-Moore & Bulik, 2007; Tylka, 2011; Wood-Barcalow et al., 2010). For reviews of risk factors for eating disorders and body image disturbance, see Cook-Cottone (2015), Cook-Cottone et al. (2013), and Striegel-Moore and Bulik (2007).

In the case of eating disorder risk, influences from the internal system (i.e., cognitive, emotional, and physiological) and/or the external system (i.e., family, community, or culture) individually, collectively, and/or cumulatively contribute to misattunement (e.g., Cook-Cottone, 2006). In deference to external pressures and ideals, those at risk may objectify, invalidate, or see the internal aspects of the authentic, inner self as unacceptable (Cook-Cottone, 2006; Tylka & Augustus-Horvath, 2011). When this misattunement, objectification, and invalidation occur, the authentic, inner self is abandoned or ignored (Reindl, 2002; Tiggemann & Williams, 2012). The disordered representational self is constructed to regain, at least affectedly, the individual's attunement with his or



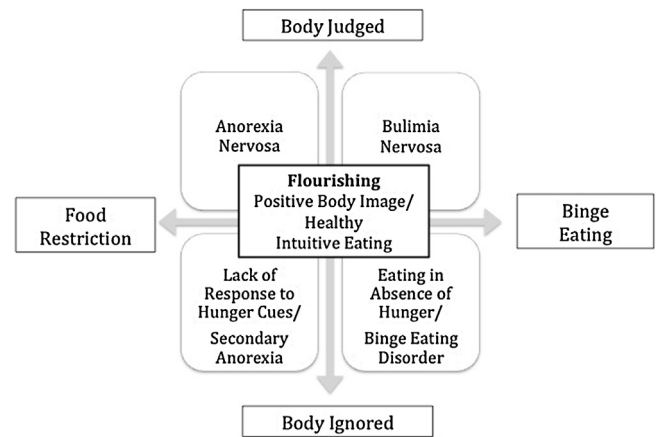
**Fig. 3.** The Disordered Representational Self. The center symbolizes the disordered representational self that lacks connection with the inner self. The self-regulatory disorder is now one of the organizing features of the internal self and symptoms, the focus.

Adapted from Cook-Cottone (2006).

her external, ecological context (see Fig. 3; Cook-Cottone, 2006, 2015; Reindl, 2002; Tiggemann & Williams, 2012). The internal aspects of self (i.e., thoughts, feelings, and physiological needs) are left without representation or voice. Eating disordered behaviors, thoughts, and motivations take on a critical role in the organization and function of the self. The internal aspects of self become attuned to the experience of symptoms in a self-perpetuating, self-reinforcing disorder (see Fig. 3). As a tangible symbol of the self, the body becomes something to control, change, and bring into alignment with cultural ideals. In chronic, clinical cases, the eating disorder becomes the central organizing feature of the individual's life; that is, his or her identity (e.g., Arnold, 2004; Cook-Cottone, 2006, 2015; Reindl, 2002).

The ARMS helps explicate the balance that must be constructed in order to embody a healthy self. With awareness and action, steps can be taken within the internal and/or the external aspects of self to create and maintain an attuned balance. These steps can be conceptualized as mindful self-care. For example, Jordan, a 24-year-old male, has a solid awareness of his tendency to be perfectionistic and ignore his own needs in deference to the needs of others. He feels real pressures from the media, his group of friends, and his dating partner to be lean, muscular, and fit (Tylka, 2011). To counteract his tendencies and external pressures and thereby insulate himself from risk, he intentionally sets and maintains self-care goals (e.g., incorporates rest and recovery days into his workout schedule, engages in practices that facilitate a mind and body connection [e.g., yoga], and rehearses daily self-compassion and body appreciation affirmations).

The ARMS can also help identify areas of vulnerability when things go awry. For example, Mathilde (age 24) was raised in a family that holds achievement and image as primary, ignores or denies chronic alcohol issues, and sees self-care as indulgent. She has learned over the years to resent the needs of her body and to see it as unruly and necessitating control. In her efforts to control her body, Mathilde restricts her food intake, measures and weighs her body daily, and monitors and details each perceived flaw in her physical appearance. The more stress she experiences, the more she restricts her food, plans surgical procedures for body enhancement, and takes unregulated supplements to grow her hair, clear her skin, and enhance her breasts. Ultimately, Mathilde's cognitive



**Fig. 4.** A model conceptualizing eating disorders and flourishing. As can be seen, flourishing is neither body judged nor body ignored, nor is it characterized by food restriction or binge eating. Flourishing in the context of positive body image is and adaptive response to hunger and satiety cues and a mindful connection to the body. Adapted from Cook-Cottone et al. (2013).

set, lack of emotional coping, and behaviors result in enhancing food and body focus and maintain a self-perpetuating cycle of negative body image and disordered eating. Critically, none of these efforts does anything to decrease the sources of her stress or to bring her to more effective functioning. For Mathilde, cultivating a mindful awareness and appreciation of her body, her needs, and external demands and enhancing her self-care skills could help move her to a more positive and effective way of experiencing her body and ultimately functioning in her world. As she is currently functioning, she is embodying clinical levels disordered eating.

### From Eating Disorder to Flourishing

Eating disorders that specifically relate to body image concerns include: anorexia nervosa (AN), bulimia nervosa (BN), binge eating disorder (BED), and certain other specified feeding or eating disorders (OFSED). Reflecting a loss of integration between the internal and external aspects of self (see Fig. 3), AN is marked with food and restriction, an extreme fear of gaining weight, excessive weight loss, and disturbed body image (APA, 2013; Cook-Cottone, 2006; Espeset et al., 2011). Cognitively, the objective reality of thinness is denied, perfection is romanticized, and idealized thinness is pursued. Physiologically, hunger cues and other messages from the body are ignored (Cook-Cottone et al., 2013; Espeset et al., 2011; Konstantakopoulos et al., 2012). Specific variations in neurocircuitry in those with AN also may play a role in insensitivity to hunger cues (Kaye, Fudge, & Paulus, 2009). Diagnostically, there are both the restricting and binge-eating/purge subtypes. Rates among women may be increasing, with the lifetime prevalence of DSM-5 AN among women up to 4% (Smink, van Hoeken, & Hoek, 2013). Rates among men are thought to be much lower (0.3% lifetime prevalence; Hoek & Van Hoeken, 2003).

Bulimia nervosa involves an effort to present the self as functioning effectively to friends and family accompanied by a generally secretive preoccupation with food, body weight and shape, and a cycle of bingeing and compensatory purging behavior. Like AN, the body is judged rather than sensed and experienced (see Fig. 4; Cook-Cottone, 2006, 2015; Reindl, 2002). The bingeing and purging cycle can function as a behavioral addiction driven by emotion dysregulation or anxiety (APA, 2013; Cook-Cottone, 2015). Rates of BN may be decreasing with the lifetime prevalence of DSM-5 BN among women is around 2% and among men is 0.5% (Hoek & Van Hoeken, 2003; Smink et al., 2013).



Newer diagnostic categories are BED and OSFED. First, BED is marked by episodes of uncontrolled bingeing (APA, 2013). Cues from the body are ignored as the individual eats in the absence of hunger and, frequently, in response to life stressors or emotional struggles (Ahrberg, Trojca, Nasrawi, & Vocks, 2011; Cook-Cottone, 2015). Binge eating disorder differs from AN and BN in terms of age at onset, gender and racial distribution, psychiatric comorbidity, and association with obesity (Smink et al., 2013). Although BED is often seen in obese individuals, it is distinct from obesity regarding levels of psychopathology and quality of life (Smink et al., 2013). The average lifetime prevalence of BED is 2% (Smink et al., 2013). Next, OSFED is a heterogeneous group of eating disorders and includes partial syndromes of AN, BN, and BED.

Eating disorders are medically dangerous and can be difficult to treat. Both AN and BN are associated with increased mortality (APA, 2013). Notably, data on long-term outcomes, including mortality, are limited for BED and OSFED (Smink et al., 2013). On the community level, 5-year recovery rates for DSM-5, AN is 69% and BN is 55% (Smink et al., 2013).

Conceptually, the major eating disorders can be viewed in broad terms in light of an individual's tendency to judge, ignore, or disconnect from his or her body (see vertical axis in Fig. 4) and the degree to which he or she restricts food intake, experiences a sense of loss of control over eating, or responds to internal cues of hunger and satiety (see horizontal axis in Fig. 4). To illustrate, those with AN and BN are known to judge their bodies negatively in light of media or individual ideals. If high levels of body judgment present within the context of binge eating, an individual is more likely to purge as in BN (Jordan et al., 2014). The lower right quadrant reflects the experience of those who are disconnected from or ignore their bodies and eat in the absence of hunger. Those who binge eat can be disconnected from their bodies and may be more likely to present with BED. Moreover, as represented by the lower left quadrant, for some, food restriction may be a manifestation of difficulties with anxiety, depression, or other trauma; reflects a lack of awareness or response to hunger cues; and has less to do with body image.

At the very center of the ways of being with your body is flourishing. Specific to eating disorders, flourishing involves having a positive body image and healthy intuitive eating (see center of Fig. 4). Protective and therapeutic factors serve as centripetal forces drawing patients toward the flourishing center. Conversely, risk factors and pathological thoughts and behaviors pull patients away from center and toward increased symptomatology. Recall, positive body image emphasizes the appreciation, respect, celebration, and honoring of the body (Tylka, 2012). Moving away from critical self-judgment of, and disconnection from, the body, positive body image works as a centripetal force, drawing the patient toward center. Similarly centered, intuitive eating can be found between restriction and bingeing. Looking at the horizontal axis, intuitive eating involves a connection to the body, rather than judging or ignoring the body, in which hunger and satiety cues are respected, honored, and met (Cook-Cottone et al., 2013). Working to decrease symptoms may not automatically promote a healthy and positive way of being (Keyes, 2007; Seligman, 2011; Tylka, 2012). Consistent with the concept of flourishing presented by Keyes (2007), this model suggests that to thrive one must actively, behaviorally pursue a positive, healthy way of being. That is, through the embodiment of healthy practices, positive body image and intuitive eating can be achieved.

In action, an individual's cognitive and behavioral choices can either lead an individual toward the center and to flourishing (e.g., self-care's centripetal influence) or promote movement out of center as body judgment, disconnection, and/or disordered eating manifest (centrifugal influence). There is emerging empirical support for this model. For example, in a recent experimental study of adult participants, van de Veer, van Herpen, and van Trijp

(2015) found that focus on body appearance negatively affected the ability to respond to satiety signals. Further, Cowdrey and Park (2012) found that ruminative brooding on eating, weight, and shape concerns was uniquely associated with eating disorder symptoms above and beyond depression and anxiety symptoms among healthy adult females. These studies uphold centrifugal influences.

Centripetal influences also are empirically supported via research that has explored self-care in the alleviation of body and eating-related distress. For example, Calogero and Pedrotty's (2004) mindful exercise program delivered to females with eating disorders found that teaching patients to exercise in a way that: (a) rejuvenated, not depleted, the body, (b) emphasized a mind-body connection, and (c) alleviated mental and physical stress increased healthy weight gain among those with AN and reduced obligatory exercise attitudes for all program participants. Similarly, Cook-Cottone, Beck, and Kane (2008) found that a yoga-based intervention that targeted enhancement of the mind and body connection, emotion regulation, body image, and media influences decreased eating disorder symptoms and correlates among those with eating disorders. Further, Kelly, Carter, and Borairi (2014) found that patients with eating disorders who had greater increases in self-compassion early in treatment had faster decreases in eating disorder symptomatology over 12 weeks. Likewise, a sample of community women with negative body image who received a 3-week self-compassion meditation training experienced greater reduction in body dissatisfaction and body shame, and greater increases in body appreciation at post-test and maintained these gains at a 3-month follow-up (Albertson, Neff, & Dill-Shakleford, 2014). In an experimental task, college women who restrict their eating were induced to think self-compassionately after eating a donut (e.g., "people eat unhealthy food at times," "don't be hard on yourself," and "a little bit of food doesn't matter much anyway") and showed reduced distress and disinhibited eating compared to controls who were not administered the self-compassion induction (Adams & Leary, 2007).

These findings suggest that self-care and body appreciation can potentially play a role in the treatment of eating disorders. Of note, given the medical risk associated with clinical eating disorders, it is important that body image and self-care work be conducted within the context of sound medical, nutritional, and psychological care. As viewed through this model, treatment of eating disorders can be done with an eye on what is possible.

### Moving toward Center: Current Best-Practices for Eating Disorders

Individuals with clinical level eating disorders require multi-faceted and comprehensive care (Cook-Cottone, 2009; Rosen & the Committee on Adolescence, 2010). Interventions for eating disordered behavior are comprised of an interactive, three component approach: (a) medical assessment and monitoring, (b) nutritional guidance, and (c) psychological and behavioral treatment (Cook-Cottone, 2009; Cook-Cottone & Vujnovic, in press; Rosen & the Committee on Adolescence, 2010). Body image is typically addressed within the psychological and behavioral aspects of treatment. Effective treatment involves collaboration among team members with a goal of supporting the client toward a healthier and more intuitive relationship with his or her body, food, physical activity, self-care, and emotion regulation (Cook-Cottone, 2015; Cook-Cottone et al., 2013).

### Anorexia nervosa

Overall, despite promising findings and innovations there is yet to be a replicated, well-established treatment for AN, and treatment

is often complicated by the physical and neuropsychological effects of starvation. Treatment for AN includes weight and nutrition restoration either independently or in parallel with psychological treatments (Hartmann et al., 2011; Rosen & the Committee on Adolescence, 2010; Watson & Bulik, 2013). Weight and nutrition are targeted for health and psychological reasons. As weight and nutrition status stabilize, the emotional and psychological symptoms accompanying starvation are decreased or ameliorated, and hunger and satiety sensations may gradually emerge (Grilo, 2006; Rosen & the Committee on Adolescence, 2010). Weight restoration and nutritional rehabilitation can be done individually or with the patient's family (Cook-Cottone & Vujnovic, in press; Couturier, Kimber, & Szatmari, 2013; Rosen & the Committee on Adolescence, 2010; Smith & Cook-Cottone, 2011; Watson & Bulik, 2013). The mental health professional on the team typically implements one of the empirically supported psychological interventions (e.g., cognitive behavioral therapy [CBT], interpersonal therapy [IPT], or family-based treatment for adolescents with AN; Smith & Cook-Cottone, 2011; Watson & Bulik, 2013). Treatment options include outpatient therapy, day-treatment programs, and residential, acute, or inpatient treatment (Rosen & the Committee on Adolescence, 2010).

### Bulimia nervosa

As with AN, each aspect of treatment is important for recovery. Notably, for those with BN the monitoring of electrolytes and cardiac symptomatology is important (Mehler, 2011). Empirically supported psychological treatments for BN include IPT and CBT. Typically, treatment goals address cognitive distortions about food, eating, weight, and shape; interpersonal functioning; emotional distress; and triggers for bingeing and purging (Grilo, 2006; McIntosh, Carter, Bulik, Frampton, & Joyce, 2011). Dialectic Behavioral Therapy (DBT) is emerging as a promising treatment (Erford et al., 2013; Grilo, 2006; McIntosh et al., 2011). DBT is a mindfulness-based, individual and group therapy designed to increase one's ability to experience and tolerate the present moment with a sense of openness and purpose (Masuda & Hill, 2013). DBT addresses four areas of functioning: emotion regulation, distress tolerance, interpersonal effectiveness, and mindfulness (Masuda & Hill, 2013; Safer, Telch, & Agras, 2001). In some cases, medication may also be helpful (Grilo, 2006).

### Binge eating disorder

Newer as a diagnostic category, BED intervention research is emerging. Both IPT and CBT show relatively large effect sizes in the reduction of binge eating (Vocks et al., 2010). Researchers have found that interventions that address eating patterns and target the reductions of binge eating were most effective (Vocks et al., 2010). Adaptations of DBT also show promise for BED (e.g., emotion regulation, distress tolerance; Safer et al., 2001). Mindfulness-based eating awareness training (MB-EAT) may also be effective (Kristeller, Wolever, & Sheets, 2014; Masuda & Hill, 2013). Specifically, the MB-EAT protocol provides mindful practice in nonjudgmental awareness and acceptance of thoughts, feelings, and physical sensations instead of engagement in binge eating behaviors (Kristeller et al., 2014; Masuda & Hill, 2013). In newer therapies, patients learn to stay present to urges and to ride the wave of craving as it peaks and subsides (Cook-Cottone, 2015).

It is important to note that in all areas of eating disorder intervention, more high quality research is needed including a targeted focus on body image symptoms. Critically, research findings suggest that addressing body image issues alone is not sufficient for changes in eating pathology among those with eating disorders (Vocks et al., 2010). Next steps should be integrative. Currently,

practitioners can be cautiously informed by best-practices guidance. However, it is important to note that many of the empirically supported treatments for eating disorders focus on eating behavior, self-regulation, and interpersonal problem solving and fail to adequately address body image beyond treating unrealistic thoughts about the body as cognitive distortions. Attunement and self-care are presented as possible methods for integrating positive body image work into the treatment paradigm.

### Being Centered: Embodiment of Attunement and Self-Care

Finding the center (i.e., the experience of positive body image and healthy intuitive eating as manifest in mind-body connection) involves a two-step process: awareness of needs and challenges and mindful self-care (See Fig. 1). Recall, the first step is an awareness of the need for internal and external attunement among the aspects of self (Cook-Cottone, 2015; Tylka, 2012). That is, mindful awareness and effective balance and management of the physiological, emotional, and cognitive experiences of the self within the context of the demands, supports, and challenges presented by family, friends, community, and culture (Cook-Cottone, 2015). The second step operationalizes what is necessary for balance and attunement—that is, active practice, or embodiment of mindful self-care. Within this model, mindful self-care is seen as the active practice of behaviors that facilitate and maintain attunement and balance among the internal aspects of self and the external aspects of self. Mindful self-care also cultivates an active appreciation for, and engagement with, the body. Critical to a mindful approach, mindful self-care is practiced with an attitude of loving-kindness.

Broadly, mindful self-care is seen as the foundational work required for physical and emotional well-being (see Cook-Cottone, 2015 for an assessment tool and review). Mindful self-care practices that target internal aspects of self include: self-awareness and mindfulness, self-compassion, self-soothing, spirituality, and physical (i.e., healthy eating, hydration, exercise, rest) and medical care of the body. Mindful self-care also addresses external influences. Externally, those who flourish make choices about their environment (e.g., intentionally spend time with friends who encourage healthy eating behaviors and attitudes, purchase magazines and literature that empowers, decorate with art that celebrates the human body in all shapes and sizes), have tools for dealing with challenging interpersonal relationships and cultural messages, and engage with others in a way that supports healthy ways of being within the self and among others (Cook-Cottone, 2015). Mindful self-care and a positive body image may be reciprocal and self-perpetuating. That is, as individuals take care of themselves, they increase the positive feelings they have toward themselves (Andrew, Tiggemann, & Clark, 2014; Gillen, 2015; Tylka, 2015). Conversely, the more positive feelings an individual has toward his or herself the more likely he or she is to engage in self-care (Tylka, 2012). As it was described by a research participant in a mixed-methods study of positive body image among college females, "I'm treating my body with love. My body treats me back with love. It is just like this bond..." (Wood-Barcalow et al., 2010, p. 110). Mindful self-care is proposed as a methodology for moving beyond traditional therapeutic goals toward a healthy attunement with the body. Methods for mindful self-care in the service of positive body image are presented here. To illustrate methodology, Danny, a 24-year-old female, and her experience of growth from clinical eating disorder to thriving is provided as a case example.

When Danny presented at intake for outpatient treatment her presenting problem was Bulimia Nervosa, severity-extreme (i.e., an average of 14 or more episodes of inappropriate compensatory behaviors per week; APA, 2013). She described herself as not able to make it through the day without purging at least twice. She

often ate breakfast, purged, fasted all day, binged at dinner, and purged immediately after. Her behaviors were nearly a routine and most certainly compulsive. She had tried many times to “quit” and reported that she had not been able to go more than seven days in sequence without symptoms. Her relationship with her body was adversarial. That is, she hated her body for “what it’s not” and how it “tormented” her on a daily basis (i.e., she was always craving water and food). Standing at 5 feet 5 inches, Danny weighed 120 pounds. She wished to be 10 pounds thinner and hated her stomach, upper back, and back of her arms specifically. She also despised her hair and spent a substantial amount of money on hair extensions. Danny was a law clerk, missing the deadline to apply to law school many times. She was in a relationship with a young lawyer who was a heavy drinker, who agreed wholeheartedly that she should lose 10 pounds and liked her hair longer. She was linked with a nutritionist, her medical doctor was integrated into her eating disorder treatment, and a cognitive behavioral approach to symptom reduction was initiated. This empirically supported treatment protocol was supplemented with body image, body appreciation, and self-care work. The shifts and progress that Danny made through her work on body image and her disorder are noted in the following section.

### Cognitive and Emotion-based Self-care Tools for Positive Body Image

There are several practices that can help cultivate an inner and outer attunement which facilitates an appreciation and care for the body as well as supports the body’s role in the environment. These self-care tools bolster inner strength and promote resilience. In contrast to judging the body for not fitting into familial, community, or cultural ideals, these practices honor the body and encourage the maintenance of physical and mental health (see Fig. 2). These practices include body acceptance and love, body appreciation, having a broad conceptualization of beauty, self-compassion, and spirituality.

Body acceptance and love involve a comfort with the body exactly as it is (Frisén & Holmqvist, 2010; Tylka, 2012). It involves an attunement of the inner aspects of self (i.e., thought, feelings, and body) via cultivation of a cognitive schema for the body that accepts all shapes, sizes, and unique qualities as well as an emotional valance of loving-kindness toward the body. In a qualitative study of positive body image, Frisén and Holmqvist (2010) asked 30 adolescents who had shown the highest level of body satisfaction in a national Swedish survey about their bodies and body perceptions. They found that these adolescents had an acceptance of their imperfections. That is, despite listing “flaws” they were not troubled by them (Frisén & Holmqvist, 2010, p. 207). Rather, they tended to accept imperfections as a part of themselves. In this way of viewing the body, it is understood that no one can be perfect and that pursuit of this “illusory ideal” can be physically and mentally harmful (Tylka, 2012, p. 659; Wood-Barcalow et al., 2010).

Body acceptance was a challenge for Danny. Initially, it was a concept that she had never considered. Coming from a home in which self-discipline and criticism were considered honorable practices, she had a sense that accepting the body was indulgent and undisciplined. The first step for Danny was psychoeducation and movement toward shifting cognitions related to her body. The second edition of Thomas Cash’s (2008) book, *The Body Image Workbook: An Eight-Step Program for Learning to Like Your Looks*, begins with a set of assessments that can help bring patients to an awareness of their body image challenges. Danny went through each of the assessments in session. The assessment scores provided her with concrete evidence of the degree of her body image concerns and the impact of these concerns on her life.

Body appreciation is the practice of gratitude for the function, health, and aspects of the body (Frisén & Holmqvist, 2010; Tylka, 2012; Wood-Barcalow et al., 2010). As with body acceptance, body appreciation promotes attunement among the inner aspects of self. Seligman (2011) identified gratitude as a key aspect in flourishing. Reflecting attunement between the body and its role in the environment, the body is valued for its inherent strengths and its ability to function within the environment rather than its appearance (Frisén & Holmqvist, 2010). This includes thinking about and focusing on the body, noticing and praising the body for what it is able to do rather than critiquing its appearance (e.g., “My legs are so strong,” “I am so lucky that I can reach the top shelf;” Tylka, 2012; Tylka & Augustus-Horvath, 2011). This sort of appreciation is distinct from a *critical* attention to the body as seen in those with eating disorders. Body appreciation is practiced from an attitude of loving-kindness and gratitude. This was one of the first practices Danny initiated. She simply noted when a negative body-related thought entered her thinking, stopped the thought, took a deep breath, and generated gratitude for her body and its function in the current moment. When walking to the office from her car, instead of recounting the ways her dress was not fitting as she liked, she shifted her thoughts to, “My legs are strong and are getting me to work,” and “I am so grateful to my eyes for being able to see the beautiful flowers planted along the way.” In moments such as these, she was able to experience an immediate relief from her constant body-related ruminating.

Beauty is viewed broadly by those with a positive body image (Wood-Barcalow et al., 2010). At the cognitive and emotional levels, there is an appreciation of all shapes and sizes, ethnicities, skin tones, types and shades of hair, skin art, scars, mobility, disability, and genetic differences. Those who experience positive body image view beauty as an inner experience that can radiate outward (Tylka, 2012; Wood-Barcalow et al., 2010). Inner beauty is comprised of feelings such as happiness and joy as well as positive cognitions about the self, others, and circumstances (Tylka, 2012). In a qualitative study of college women with positive body image, participants reported that those with a positive body image show a freedom that signals they are happy with who they are in “this particular container” (Wood-Barcalow et al., 2010, p. 110). It is believed that when people feel good about themselves, it shows. Danny decided to work in this area by doing a practice writer and blogger Jennifer Pastiloff calls “beauty hunting” (Pastiloff, 2014). In beauty hunting, you look for the beauty in the world and in people. It is not the media-generated image of beauty that you seek. It is the beauty from within that can only be seen in mindful awareness and connection. Danny’s daily homework was to hunt for beauty and record it through photos and in her beauty hunting journal. The goal: to deepen Danny’s awareness and appreciation of the kind of beauty that comes from within.

Self-compassion is the practice of responding to challenges and personal threats by treating oneself with nonjudgmental understanding and kindness, acknowledging distress, and realizing that pain and struggle are part of the universal human experience (Neff, 2003). Helping create attunement among the inner aspects of self, self-compassion practice involves a cognitive reframing of challenge and threat as well as an emotional shift toward loving-kindness rather than frustration or fear. In a study of 435 community women, Tylka, Russell, and Neal (2015) found that self-compassion buffered the associations from media-thinness related pressure to disordered eating and thin-ideal internalization. Further, they found that higher self-compassion had direct associations with lower thin-ideal internalization, fewer perceived thinness-related pressures, and lower disordered eating. Danny was initially resistant to practice self-compassion. She found it much easier to feel compassion toward others than herself. In session, she worked through stressful scenarios, rephrasing her



cognitions in a “*what if I was self-compassionate?*” manner. By working with self-compassion in an “*as if*” manner, she was able to cognitively appreciate the benefits and gradually internalize these thoughts emotionally, in a felt sense of allowing herself to be imperfect and honor her efforts.

Spirituality integrates each of the internal aspects of self (i.e., the thinking, feeling, and physical) through passionately held beliefs and active practices. It is theorized that those with positive body image hold a belief that there is a higher power, or an order in the universe, that accepts them unconditionally (Tylka, 2012). For example, in yoga philosophy, an individual’s dharma (i.e., purpose or reason for being) relies on their unique fit within universal dharma (i.e., the purpose of all life). In this way, an individual’s unique characteristics are part of his or her dharma and perfect just as they are (Cook-Cottone, 2015). The body is seen as a temple for the spiritual self that must be maintained and cared for in order for an individual’s spiritual life to flourish (Tylka, 2012). Seligman (2011) views meaning and purpose as key aspects to flourishing. A mixed-methods study of college females found that spirituality assisted in the formation and preservation of a positive body image (Wood-Barcalow et al., 2010).

In one her boldest moves, Danny decided to begin the practice of yoga. Her boyfriend was skeptical and made fun of her. Danny went to yoga anyway. As she practiced and learned about the concept of Dharma, she began to actively want more for herself than her daily routine of two meals, two purges. She reconnected with her passion for law and making a difference. She came to session eager to talk about her parents’ bitter divorce when she was in elementary school and how she had always dreamed of being a lawyer to help children and parents through divorce mediation. She cried for the first time in therapy. Through her tears, she looked up and said, “I had forgotten about that.”

### Health Promoting Self-care Behaviors for Positive Body Image

Health promoting self-care behaviors that support positive body image involve listening to the body’s needs and choosing behaviors based on the needs of the body. These behaviors are in contrast to making choices based on appearance or unrealistic external ideals or standards (Wood-Barcalow et al., 2010). Bolstering a connection with the inner aspects of self, these behaviors include addressing basic physical needs (i.e., medical care, nutrition, and hydration), exercise for health and enjoyment, and adaptive methods for stress relief and body care.

Taking care of the body’s basic physical needs is a necessary aspect of self-care and is likely associated with the cultivation of positive body image. In this way, the self is experienced as an embodied focus and action in service of physiological well-being. First, Wood-Barcalow et al. (2010) found that college females with positive body image sought preventative and remedial health care to help maintain a healthy lifestyle. Second, in contrast to those with clinical eating disorders, those with a positive body image nourish themselves without self-judgment. They attend to hunger and satiety cues, eat nutrient-dense food, and honor cravings (Wood-Barcalow et al., 2010). In a study exploring intuitive eating and eating disordered behaviors among 2,287 young adults (mean age: 25.3 years), intuitive eating was inversely associated with BMI in both genders. Further, males and females who reported trusting their bodies to tell them how much to eat had lower odds of utilizing disordered eating behaviors compared to those that did not have this trust (Denny, Loth, Eisenberg, & Neumark-Sztainer, 2013). Notably, current treatment recommendations for those with clinical eating disorders include structured meal planning and meal motoring to assure weight gain in AN, discourage bingeing in BED,

and prevent the binge/purge cycle in BN (Cook-Cottone et al., 2013; Ozier & Henry, 2011).

Intuitive eating is presented here as a possibility for movement into well-being, once those with eating disorders are able to detect their hunger and satiety cues (Tribole & Resch, 2012). Clinically, a meal plan is often helpful in early and intermediary phases of eating disorder recovery, offering the patient safety and security from the possible indecision and ambiguity that can be associated with intuitive eating. Consequently, the introduction of intuitive eating should be considered in relation to the chronicity and severity of the eating disorder and developmental issues unique to each person. Accordingly, more research is needed to explore intuitive eating within the context of early treatment of eating disorders. In the case of Danny, she agreed to go to a nutritionist. Looking forward to her recovery, she chose a nutritionist with training in intuitive eating. Given the severity of her symptoms, she began with a meal plan with portions and nutritional guidelines. Over time, Danny transitioned to a less structured plan. It took a few years for Danny to transition to a more fully intuitive approach to eating. Of note, when she is stressed, she finds it is best if she shifts back to more structured eating until the challenge has passed. For the most part, she is able to eat intuitively to fuel and nourish her body.

Exercise for health and enjoyment may be associated with positive body image. Adolescents with high levels of body satisfaction tend to view exercise as a natural and important part of life and as joyful and health promoting (Frisén & Holmqvist, 2010). In a qualitative study, more than half of the adolescents with positive body image exercised at least four times a week, some every day. When asked why they exercised, these adolescents explained that they found joy in it and appreciated the health benefits (Frisén & Holmqvist, 2010). Notably, these adolescents did not tend to describe exercise as a way to lose weight or control the size or shape of the body. Further, early research suggests that young adult women with positive body image exercise in response to the body (Wood-Barcalow et al., 2010). Meaning, those with a positive body image slow down or rest when needed.

Having a health-related, rather than appearance-focused, reason for exercise may be protective. Facilitating attunement among the inner aspects of self and bolstering resistance to external pressures, the thinking associated with physical activity is aligned with health rather than image. To illustrate, in an experimental study of exercise environments, a sample of 48 predominately college-age women were randomly assigned to one of two exercise classes: appearance emphasis or health promotion (O’Hara, Cox, & Amorose, 2014). The instructors either followed the appearance-focused script (e.g., “First, we are doing a quick warm-up to kick start that calorie burn! The more calories we burn, the faster we burn fat!”) or a health-focused script, (e.g., “First we are going to do a quick warm-up to get those ‘feel-good’ endorphins going” O’Hara et al., 2014, p. 113). Researchers found that participants with lower health-related reasons for exercise reported greater state self-objectification in the appearance-focused class in comparison to those with higher health-related reasons for exercise. Having health-related reasons for exercise may help protect group fitness participants from the appearance-focused comments of instructors. In another study, Homan and Tylka (2014) found that exercise frequency was related to positive body image in a correlational study of female college students. However, high levels of appearance-based exercise motivation weakened these relationships. The authors encouraged young women to become physically active for body image as well as physical and mental health benefits and cautioned that exercise should “unambiguously stress the health and enjoyment benefits of exercise rather than the possibility of weight loss or shape change” (Homan & Tylka, 2014, p. 105).

Eating disordered behavior can serve as a method of stress management or emotion regulation for some (e.g., Ahrberg et al.,

2011). Accordingly, recovery, resilience, and positive body image can be strengthened with use of adaptive methods for stress relief and mind/body connection. For example, in [Wood-Barcalow et al.'s study \(2010\)](#), college females with a positive body image articulated adaptive methods for stress relief, such as getting massages and engaging in grooming rituals. As detailed previously, [Calogero and Pedrotty \(2004\)](#) found that a mindful exercise program delivered to participants with eating disorders improved weight restoration for those with AN and decreased obligatory exercise attitudes for all participants. Yogic approaches may be especially beneficial for those with eating disorders (e.g., [Carei, Fyfe-Johnson, Breuner, & Brown, 2010](#); [Cook-Cottone et al., 2008](#); [Cook-Cottone, 2015](#); [Klein & Cook-Cottone, 2013](#)). In these interventions, mind and body integration are targeted using yoga postures, breath techniques, and a focus on body and breath awareness ([Carei et al., 2010](#); [Cook-Cottone et al., 2008](#)). Positive outcomes for yoga interventions among those with eating disorders include decreased eating disorder symptoms and correlates ([Klein & Cook-Cottone, 2013](#)). See [Gard, Noggle, Park, Vago, and Wilson \(2014\)](#) for a review of the self-regulatory mechanism of yoga for psychological health.

For Danny, yoga was a critical factor in her recovery. Following dosage guidelines (see [Cook-Cottone, 2013](#)), she attended class at least every other day. Some weeks she went to yoga daily. She found that her body awareness and embodied practice in class reinforced her efforts to hydrate and eat well. She experienced fatigue and frustration on days during which she had eating disorder symptoms, and energy and ease on days when she took good care of herself. Yoga provided immediate feedback on her efforts to recover. She said, "It is just me and the mat. What I do to my body is so obvious there. I can't ignore or dissociate from the effects." Danny also practiced other forms of stress relief. She began a daily practice of meditation, took mindful walks, and engaged in deep breathing and progressive muscle relaxation at bedtime.

### Self-care in Choosing and Cultivating Healthy Environments for Positive Body Image

Mindful self-care involves the cultivation of an individual's external environment in a manner that promotes happiness and well-being ([Cook-Cottone, 2015](#)). As illustrated in ARMS (see [Fig. 2](#)), managing the external environment in a manner that allows attention to and care of the external aspects of self is critical for attunement, well-being, and flourishing. For positive body image this includes building and maintaining positive body relationships and having and using skills for filtering information in a body protective manner.

Those who have a positive body image secure and maintain relationships with individuals who do not hold an idealized version of the body as important and unconditionally accept their bodies and the bodies of others ([Tylka, 2012](#); [Wood-Barcalow et al., 2010](#)). Within body positive relationships, weight gain or loss, aging, or other changes to the body are not contingencies upon which the strength and the values of the relationships are weighed. For those with a positive body image, "the body itself is peripheral" ([Frisén & Holmqvist, 2010](#), p. 208). Other things matter. The body is a valued instrument of connection and function. For example, hands can hold and soothe, arms can hug, and eyes can see. Generally, in body positive relationships, appearance is not mentioned ([Frisén & Holmqvist, 2010](#)). If appearance is mentioned, it is related to the creative, interchangeable aspects (e.g., clothes, jewelry, or hairstyle; [Tylka, 2012](#)). Further, those with a positive body image maintain friendships with others who are accepting of themselves ([Wood-Barcalow et al., 2010](#)). Within the context of these relationships, an individual feels valued and loved based on

his or her inner qualities such as creativity, personality, and intellect ([Tylka, 2012](#)). This idea was supported by a mixed methods study of college females who identified unconditional acceptance from family, friends, and partners as central to the formation and maintenance of positive body image ([Wood-Barcalow et al., 2010](#)). A year into therapy, Danny broke up with her boyfriend. The relationship just did not make sense anymore. When she was beauty hunting, she never found anything there. What she did find was judgment, stress, demands, and criticisms. His drinking was getting worse as was his critique of her appearance. As Danny's practice of self-love and appreciation grew, his attitudes and behaviors created a cognitive and emotional dissonance within her.

Maintaining a positive body image may be associated with the ability to filter messages from others and the media in a body protective manner ([Tylka, 2012](#); [Wood-Barcalow et al., 2010](#)). Messages that promote idealized images of the body, diets, and food restriction can come from family, friends, and the media ([Wood-Barcalow et al., 2010](#)). Those with a positive body image have a cognitive filter that screens information before to determine if it is accepted or rejected ([Tylka, 2012](#); [Wood-Barcalow et al., 2010](#)). Information that is assessed as negative or harmful is rejected (e.g., weight-related comments; photo-shopped or idealized images of beauty, femininity, and masculinity). To illustrate, adolescents with a positive body image did not place importance on negative comments about their bodies ([Frisén & Holmqvist, 2010](#)). Also, college women with a positive body image saw media images as unrealistic and discounted them by noting airbrushing, make-up artists, personal trainers, and stylists as helping to construct the image ([Wood-Barcalow et al., 2010](#)). This process includes the affirmation that filtering information in this way creates more time and energy to focus on the important aspects of life ([Tylka, 2012](#)). Danny actively sought out examples of objectification and idealization of thinness in images of women. She brought especially egregious images into the office as evidence and to discuss. As her awareness increased, she internalized a sense of self-protection along with an urge to share this knowledge about the media with other individuals in her life. This stance created a cognitive set that is considered protective. Similar cognitive dissonance techniques are used effectively in eating disorder prevention work (e.g., [McMillan, Stice, & Rohde, 2011](#); [Rohde et al., 2014](#)).

Danny's journey to recovery led her all the way back to her 5th-grade self, the year her parents were divorced. She recalled seeing images of women on magazine covers, television, and her computer that paired airbrushed beauty and thinness with success and love. She recalled a day when she bought into the idea that if she could look like that, she would be safe. Later in her recovery, she reworked the story of her 5th-grade self. She decided to write a letter to the younger Danny. She explained to her that what she was going through was horrible and that no matter what she did or said, her parents' divorce was going to happen. She told her 5th-grade self that she was a beautiful, passionate, sensitive, and smart girl from the inside out. She also told her that it was those very qualities that were going to make her a wonderful young woman that would find the love and safety she needed and wanted. Last, she told the little girl a secret. She wrote, "Guess what Danny? You do get into law school. More, you have wonderful, loving friends that can't wait for you to be a lawyer and help little girls just like you."

### Conclusions

Flourishing and well-being should be considered as possibilities for those struggling with eating disorders. Doing so will take a change in direction and action. Cultivating mental health goes beyond ameliorating symptoms and asks for more than languishing ([Keyes, 2007](#); [Seligman, 2011](#)). For those with eating disorders, flourishing includes mind and body attunement and effective,



mindful self-care while negotiating environmental demands and supports. Within this context, positive body image may play a powerful role in the treatment of eating disorders as patients go beyond traditional therapeutic goals to nurture a healthy relationship with the body and others. It is proposed that through awareness and active practice, recovering patients can potentially experience positive body image along with mental and physical health. They can flourish.

More research needs to explore the roles of positive body image and mindful self-care in the treatment of eating disorders. Currently, there are several theoretical papers and texts; a growing group of qualitative studies conducted with nonclinical participants with positive body image; a collection of studies of body appreciation among nonclinical participants and participants that present with risk factors such as body dissatisfaction, self-objectification, and eating disordered behaviors; and a few experimental studies integrating mindful self-care (mindful exercise, self-compassion in eating disorder treatment; e.g., Albertson et al., 2014; Calogero & Pedrotty, 2004; Cook-Cottone, 2006, 2015; Cook-Cottone et al., 2008; Cowdrey & Park, 2012; Frisén & Holmqvist, 2010; O'Hara et al., 2014; Tylka, 2011, 2012; van de Veer et al., 2015; Wood-Barcalow et al., 2010). Future work should be done with attention to the physical risk inherent in eating disorders and include medical and nutritional aspects of treatment. Further, future research should include males, as a large preponderance of the extant studies had been conducted with female participants. In terms of prevention, researchers should explore the development of positive body image and mindful self-care and their roles in the protection of individuals from eating disordered behaviors. A scale that may be useful for these endeavors is the Mindful Self-Care Scale (see Cook-Cottone, 2015).

The early work in the area of positive body image is promising. New directions can only be effectively forged with new visions. Models for seeing problems in new ways provide a catalyst and a roadmap for change for researchers as well as patients. By exploring flourishing as a possibility for those with eating disorders, the view set forward at the commencement of treatment is changed. Patients can envision a life that is more than working hard to avoid symptoms and triggers for body dissatisfaction. While working on traditional treatment goals such as symptom reduction and self-regulation, they can begin a practice of mindful self-care that targets the cultivation of positive body image. They can practice a new way of being with and for their bodies.

## References

- Adams, C. E., & Leary, M. R. (2007). Promoting self-compassionate attitudes toward eating among restrictive guilty eaters. *Journal of Social and Clinical Psychology, 26*, 1120–1144. <http://dx.doi.org/10.1521/jscp.2007.26.10.1120>
- Ahrberg, M., Trojca, D., Nasrawi, N., & Vocks, S. (2011). Body image disturbance in binge eating disorder: A review. *European Eating Disorders Review, 19*, 375–381. <http://dx.doi.org/10.1002/erv.1100>
- Albertson, E. R., Neff, K. D., & Dill-Shakleford, K. E. (2014). Self-compassion and body dissatisfaction in women: A randomized controlled trial of brief meditation intervention. *Mindfulness, http://dx.doi.org/10.1007/s12671-014-0277-3*
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Andrew, R., Tiggemann, M., & Clark, L. (2014). Positive body image and young women's health: Implications for sun protection, cancer screening, weight loss and alcohol consumption behaviours. *Journal of Health Psychology, http://dx.doi.org/10.1177/1359105314520814*
- Antonovsky, A. (1987). *Unraveling the mystery of health: How people manage stress and stay well*. San Francisco: Jossey-Bass Publishers. <http://dx.doi.org/10.4135/9781446221129.n9>
- Arnold, C. (2004). *Running on empty: A diary of anorexia and recovery*. Livonia, MI: First Page.
- Avalos, L. C., Tylka, T. L., & Wood-Barcalow, N. (2005). The Body Appreciation Scale: Development and psychometric evaluation. *Body Image, 2*, 285–297. <http://dx.doi.org/10.1016/j.bodyim.2005.06.002>
- Calogero, R. M., & Pedrotty, K. N. (2004). The practice and process of healthy exercise: An investigation of the treatment of exercise abuse in women with eating disorders. *Eating Disorders: The Journal of Treatment and Prevention, 12*, 273–291. <http://dx.doi.org/10.1080/10640260490521252>
- Carei, T. R., Fyfe-Johnson, A. L., Breuner, C. C., & Brown, M. A. (2010). Randomized controlled clinical trial of yoga in the treatment of eating disorders. *Journal of Adolescent Health, 46*, 346–351. <http://dx.doi.org/10.1016/j.jadohealth.2009.08.007>
- Cash, T. F. (2008). *The body image workbook* (2nd ed.). Oakland, CA: New Harbinger.
- Cook-Cottone, C. (2006). The attuned representation model for the primary prevention of eating disorders: An overview for school psychologists. *Psychology in the Schools, 43*, 223–230. <http://dx.doi.org/10.1002/pits.20139>
- Cook-Cottone, C. (2009). Eating disorders in childhood: Prevention and treatment supports. *Childhood Education, 85*, 300–305. <http://dx.doi.org/10.1080/00094056.2009.10521701>
- Cook-Cottone, C. P. (2013). Dosage as a critical variable in yoga research. *International Journal of Yoga Therapy, 23*, 11–12. <http://www.iayt.org/?page=AboutIJYT>
- Cook-Cottone, C. P. (2015). *Mindfulness and yoga for self-regulation: A primer for mental health professionals*. New York, NY: Springer.
- Cook-Cottone, C., Beck, M., & Kane, L. (2008). Manualized-group treatment of eating disorders: Attunement in mind, body, and relationship (AMBR). *Journal of Specialists in Group Work, 33*, 61–83. <http://dx.doi.org/10.1080/01933920701798570>
- Cook-Cottone, C. P., Tribble, E., & Tylka, T. L. (2013). *Healthy eating in schools: Evidence-based interventions to help kids thrive*. Washington, DC: American Psychological Association. <http://dx.doi.org/10.1037/14180-000>
- Cook-Cottone, C. P., & Vujanovic, R. (2015). Interventions for children and adolescents with eating disorders. In L. Theodore (Ed.), *Handbook of applied interventions for children and adolescents*. New York, NY: Springer Publishing Company (in press).
- Couturier, J., Kimber, M., & Szatmari, P. (2013). Efficacy of family-based treatment for adolescents with eating disorders: A systematic review and meta-analysis. *International Journal of Eating Disorders, 46*, 3–11. <http://dx.doi.org/10.1002/eat.22042>
- Cowdrey, F. A., & Park, R. J. (2012). The role of experiential avoidance, rumination and mindfulness in eating disorders. *Eating Behaviors, 13*, 100–105. <http://dx.doi.org/10.1016/j.eatbeh.2012.01.001>
- Denny, K. N., Loth, K., Eisenberg, M. E., & Neumark-Sztainer, D. (2013). Intuitive eating in young adults. Who is doing it, and how is it related to disordered eating behaviors? *Appetite, 60*, 13–19. <http://dx.doi.org/10.1016/j.appet.2012.09.029>
- Erford, B. T., Richards, T., Peacock, E., Voith, K., McGair, H., Muller, B., . . . & Chang, C. Y. (2013). Counseling and guided self-help outcomes for clients with bulimia nervosa: A meta-analysis of clinical trials from 1980 to 2010. *Journal of Counseling & Development, 91*, 152–172. <http://dx.doi.org/10.1002/j.1556-6676.2013.00083.x>
- Espeset, E. M., Nordbø, R. H., Gulliksen, K. S., Skårderud, F., Geller, J., & Holte, A. (2011). The concept of body image disturbance in anorexia nervosa: An empirical inquiry utilizing patients' subjective experiences. *Eating Disorders, 19*, 175–193. <http://dx.doi.org/10.1080/10640266.2011.551635>
- Frisén, A., & Holmqvist, K. (2010). What characterizes early adolescents with a positive body image? A qualitative investigation of Swedish girls and boys. *Body Image, 7*, 205–212. <http://dx.doi.org/10.1016/j.bodyim.2010.04.001>
- Gard, T., Noggle, J. J., Park, C. L., Vago, D. R., & Wilson, A. (2014). Potential self-regulatory mechanisms of yoga for psychological health. *Frontiers in Human Neuroscience, 8*, <http://dx.doi.org/10.3389/fnhum.2014.00770>
- Gillen, M. M. (2015). Associations between positive body image and indicators of men's and women's mental and physical health. *Body Image, 13*, 67–74. <http://dx.doi.org/10.1016/j.bodyim.2015.01.002>
- Grilo, C. M. (2006). *Eating and weight disorders*. New York, NY: Taylor & Francis. <http://dx.doi.org/10.4324/9781315820101>
- Hartmann, A., Weber, S., Herpertz, S., Zeeck, A., German Treatment Guideline Group for Anorexia, & Nervosa. (2011). Psychological treatment for anorexia nervosa: A meta-analysis of standardized mean change. *Psychotherapy and Psychosomatics, 80*, 216–226. <http://dx.doi.org/10.1159/000322360>
- Hoek, H. W., & Van Hoeken, D. (2003). Review of the prevalence and incidence of eating disorders. *International Journal of Eating Disorders, 34*, 383–396. <http://dx.doi.org/10.1002/eat.10222>
- Homan, K. J., & Tylka, T. L. (2014). Appearance-based exercise motivation moderates the relationship between exercise frequency and positive body image. *Body Image, 11*, 101–108. <http://dx.doi.org/10.1016/j.bodyim.2014.01.003>
- Jordan, J., McIntosh, V. V., Carter, J. D., Rowe, S., Taylor, K., Frampton, C., . . . & Joyce, P. R. (2014). Bulimia nervosa-nonpurging subtype: Closer to the bulimia nervosa-purging subtype or to binge eating disorder? *International Journal of Eating Disorders, 47*, 231–238. <http://dx.doi.org/10.1002/eat.22218>
- Kaye, W. H., Fudge, J. L., & Paulus, M. (2009). New insights into symptoms and neurocircuit function of anorexia nervosa. *Nature Reviews Neuroscience, 10*, 573–584. <http://dx.doi.org/10.1038/nrn2682>
- Keel, P. K., & Forney, K. J. (2013). Psychosocial risk factors for eating disorders. *International Journal of Eating Disorders, 46*, 433–439. <http://dx.doi.org/10.1002/eat.22094>
- Kelly, A. C., Carter, J. C., & Borairi, S. (2014). Are improvements in shame and self-compassion early in eating disorders treatment associated with better patient outcomes? *International Journal of Eating Disorders, 47*, 54–64. <http://dx.doi.org/10.1002/eat.22196>
- Keyes, C. L. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist, 62*, 95–108. <http://dx.doi.org/10.1037/0003-066x.62.2.95>
- Klein, J., & Cook-Cottone, C. (2013). The effects of yoga on eating disorder symptoms and correlates: A review. *Internal Journal of Yoga Therapy, 23*, 41–50. <http://www.iayt.org/?page=AboutIJYT>

- Konstantakopoulos, G., Varsou, E., Dikeos, D., Ioannidi, N., Gonidakis, F., Papanimitriou, G., & Oulis, P. (2012). Delusionality of body image beliefs in eating disorders. *Psychiatry Research*, *200*, 482–488. <http://dx.doi.org/10.1016/j.psychres.2012.03.023>
- Kristeller, J., Wolever, R. Q., & Sheets, V. (2014). Mindfulness-based eating awareness training (MB-EAT) for binge eating: A randomized clinical trial. *Mindfulness*, *5*, 282–297. <http://dx.doi.org/10.1007/s12671-012-0179-1>
- Masuda, A., & Hill, M. L. (2013). Mindfulness therapy for disordered eating: A systematic review. *Neuropsychiatry*, *3*, 433–447. <http://dx.doi.org/10.2217/np.13.36>
- McIntosh, V. V., Carter, F. A., Bulik, C. M., Frampton, C. M., & Joyce, P. R. (2011). Five-year outcome of cognitive behavioral therapy and exposure with response prevention for bulimia nervosa. *Psychological Medicine*, *41*, 1061–1071. <http://dx.doi.org/10.1017/S0033291710001583>
- McMillan, W., Stice, E., & Rohde, P. (2011). High- and low-level dissonance-based eating disorder prevention programs with young women with body image concerns: An experimental trial. *Journal of Consulting and Clinical Psychology*, *79*, 129–134. <http://dx.doi.org/10.1037/a0022143>
- Mehler, P. S. (2011). Medical complications of bulimia nervosa and their treatments. *International Journal of Eating Disorders*, *44*, 95–104. <http://dx.doi.org/10.1002/eat.20825>
- Neff, K. (2003). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity*, *2*, 85–101. <http://dx.doi.org/10.1080/15298860390129863>
- O'Hara, S. E., Cox, A. E., & Amorose, A. J. (2014). Emphasizing appearance versus health outcomes in exercise: The influence of the instructor and the participants' reason for exercise. *Body Image*, *11*, 109–118. <http://dx.doi.org/10.1016/j.bodyim.2013.12.004>
- Ozier, A. D., & Henry, B. W. (2011). Position of the American Dietetic Association: Nutrition intervention in the treatment of eating disorders. *Journal of the American Dietetic Association*, *111*, 1236–1241. <http://dx.doi.org/10.1016/j.jada.2011.06.016>
- Pastiloff, J. (2014, September 2). *Re: Beauty hunting: The manifest-station* [Web log message]. Retrieved from <http://themanifeststation.net/beauty-hunting/>
- Reindl, S. M. (2002). *Sensing the self: Women's recovery from bulimia*. Boston, MA: Harvard University Press. <http://dx.doi.org/10.5860/choice.39-1885>
- Rohde, P., Auslander, B. A., Shaw, H., Raineri, K. M., Gau, J. M., & Stice, E. (2014). Dissonance-based prevention of eating disorder risk factors in middle school girls: Results from two pilot trials. *International Journal of Eating Disorders*, *47*, 483–494. <http://dx.doi.org/10.1002/eat.22253>
- Rosen, D., & the Committee on Adolescence. (2010). Identification and management of eating disorders in children and adolescents. *Pediatrics*, *126*, 1240–1253. <http://dx.doi.org/10.1542/peds.2010-2821>
- Safer, D. L., Telch, C. F., & Agras, W. S. (2001). Dialectic behavioral therapy for bulimia nervosa. *American Journal of Psychiatry*, *158*, 632–634. <http://dx.doi.org/10.1176/appi.ajp.158.4.632>
- Seligman, M. E. P. (2002). Positive psychology, positive prevention, and positive therapy. In C. R. Snyder & S. J. Lopez (Eds.), *The handbook of positive psychology* (pp. 3–12). New York: Oxford Press.
- Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. New York, NY: Simon & Schuster.
- Siegel, D. J. (1999). *The developing mind: Toward a neurobiology of interpersonal experience*. New York: Guilford Press.
- Siegel, D. J. (2007). *The mindful brain, reflection and attunement in the cultivation of well-being*. New York, NY: WW Norton & Company.
- Smink, F. R., van Hoeken, D., & Hoek, H. W. (2013). Epidemiology, course, and outcome of eating disorders. *Current Opinion in Psychiatry*, *26*, 543–548. <http://dx.doi.org/10.1097/YCO.0b013e328365a24f>
- Smith, A., & Cook-Cottone, C. (2011). A review of the theoretical and empirical facets of family therapy as an effective intervention for anorexia nervosa in adolescents. *Journal of Clinical Psychology in Medical Settings*, *18*, 323–334. <http://dx.doi.org/10.1007/s10880-011-9262-3>
- Striegel-Moore, R. H., & Bulik, C. M. (2007). Risk factors for eating disorders. *American Psychologist*, *62*, 181–198. <http://dx.doi.org/10.1037/0003-066x.62.3.181>
- Tiggemann, M., & Williams, E. (2012). The role of self-objectification in disordered eating, depressed mood, and sexual functioning among women: A comprehensive test of objectification theory. *Psychology of Women Quarterly*, *36*, 66–75. <http://dx.doi.org/10.1177/0361684311420250>
- Trace, S. E., Baker, J. H., Peñas-Lledó, E., & Bulik, C. M. (2013). The genetics of eating disorders. *Annual Review of Clinical Psychology*, *9*, 589–620. <http://dx.doi.org/10.1146/annurev-clinpsy-050212-185546>
- Tribole, E., & Resch, E. (2012). *Intuitive eating: A revolutionary program that works*. New York, NY: St. Martins Griffin.
- Tylka, T. L. (2011). Refinement of the tripartite influence model for men: Dual body image pathways to body change behaviors. *Body Image*, *8*, 199–207. <http://dx.doi.org/10.1016/j.bodyim.2011.04.008>
- Tylka, T. L. (2012). Positive psychology perspective on body image. In T. F. Cash (Ed.), *Encyclopedia of body image and human appearance* (Vol. 2) (pp. 657–663). San Diego, CA: Academic Press.
- Tylka, T. L. (2015). *Positive body image's relationships to physical health indices among college women and men*. (in preparation).
- Tylka, T. L., & Augustus-Horvath, C. L. (2011). Fighting self-objectification in prevention and intervention contexts. In R. M. Calogero, S. Tantleff-Dunn & J. K. Thompson (Eds.), *Self-objectification in women: Causes, consequences, and counteractions* (pp. 187–214). Washington, DC: American Psychological Association.
- Tylka, T. L., Russell, H. L., & Neal, A. A. (2015). Self-compassion as a moderator of thinness-related pressures' associations with thin-ideal internalization and disordered eating. *Eating Behaviors*, *17*, 23–26. <http://dx.doi.org/10.1016/j.eatbeh.2014.12.009>
- van de Veer, E., van Herpen, E., & van Trijp, H. C. M. (2015). How do I look? Focusing attention on the outside body reduces responsiveness to internal signals in food intake. *Journal of Experimental Social Psychology*, *56*, 207–213. <http://dx.doi.org/10.1016/j.jesp.2014.10.003>
- Vocks, S., Tuschien-Caffier, B., Pietrowsky, R., Rustenback, S. J., Kersting, A., & Herpertz, S. (2010). Meta-analysis of the effectiveness of psychological and pharmacological treatments for binge eating disorder. *International Journal of Eating Disorders*, *43*, 205–217. <http://dx.doi.org/10.1002/eat.20696>
- Watson, H. J., & Bulik, C. M. (2013). Update on the treatment of anorexia nervosa: Review of clinical trials, practice guidelines and emerging interventions. *Psychological Medicine*, *43*, 2477–2500. <http://dx.doi.org/10.1017/S0033291712002620>
- Wood-Barcalow, N. L., Tylka, T. L., & Augustus-Horvath, C. L. (2010). "But I like my body": Positive body image characteristics and a holistic model for young-adult women. *Body Image*, *7*, 106–116. <http://dx.doi.org/10.1016/j.bodyim.2010.01.001>