

8 Better than Before

Individual Strategies for Body Image Improvement

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We all have thoughts and feelings about our bodies. They are complex, dynamic, and in some cases even seemingly contradictory. These thoughts and feelings – referred to as our body image – have the potential to shape not only our general sense of self, but also our interactions with others and our psychological and behavioral health. Body image has become a vibrant area of scholarly study and has garnered a great deal of popular interest due to the large number of people, especially adolescent girls and women, who are dissatisfied with their bodies (Cash, 2002; Gillen & Markey, 2015; Markey & Gillen, 2017). At the extreme, body dissatisfaction has been shown to predict eating disorders (Stice, 2002), depression (Gillen, Markey, & Markey, 2012), and impaired social functioning (e.g., anxiety, compromised sexual interactions; Cash & Fleming, 2002; Goins, Markey, & Gillen, 2012; Wiederman, 2002). Although body image is often investigated in terms of body *dissatisfaction*, recent research has illuminated the utility of a similar, but distinct, construct: positive body image.

Positive body image is described as the extent to which one experiences love, confidence, respect, appreciation, and acceptance of one's physical appearance and abilities (Wood-Barcalow, Tylka, & Augustus-Horvath, 2010). People who have a high positive body image are apt to accept their physical selves, and focus on the functionality rather than just the aesthetics of their body (Andrew, Tiggemann, & Levina, 2016; Bailey, Gammage, van Ingen, & Ditor, 2015; Wood-Barcalow et al., 2010). It has also been suggested that positive body image may help individuals engage in “protective filtering,” wherein negative information about appearance and the body is rejected and positive information is accepted (Andrew, Tiggemann, & Clark, 2015; Wood-Barcalow et al., 2010). In other words, positive body image includes affective, cognitive, and behavioral characteristics and is not merely the absence of body dissatisfaction (Andrew et al., 2016; Tylka, 2011).

Positive body image is conceptualized as having various facets and has been measured using a variety of new assessments that tap into these facets. Perhaps the most often used measure is the Body Appreciation

Scale (BAS and BAS-2; Avalos, Tylka, & Wood-Barcalow, 2005; Tylka & Wood-Barcalow, 2015), which assesses body acceptance and respect for and favorable opinions toward the body. Body functionality (Rubin & Steinberg, 2011) refers to recognition of the functions the body provides and includes capabilities ranging from athletic endeavors to interpersonal communication. The Embodied Image Scale (EIS; Abbott & Barber, 2010) is one assessment tool that allows for consideration of the body's positive capacities, not just negative attributes (Alleva, Martijn, Van Breukelen, Jansen, & Karos, 2015). Another element of positive body image is body gratitude (Dunaev, Brochu, & Markey, 2017). Gratitude can be defined as a "wider life orientation towards noticing and appreciating the positive in the world" (Wood, Froh, & Geraghty, 2010, p. 2), and has most often been assessed using qualitative approaches (e.g., "list characteristics of your body that you are grateful for"). Finally, body image flexibility has been assessed using the Body Image Acceptance and Action Questionnaire (BI-AAQ; Sandoz, Wilson, Merwin, & Kellum, 2013). Flexibility refers to a self-compassionate approach to the body in that individuals are encouraged to embrace their physical selves and work to alter their negative thoughts and feelings about their bodies.

This discussion of measures is not comprehensive, but is relevant to our discussion of intervention research that follows. It is also important to note that research suggests individuals may hold both positive and negative views of their bodies (e.g., different aspects of their physical selves) simultaneously; this is not easily captured by a single assessment tool. For example, in one study (Bailey, Kline, & Gammage, 2016) composed of analyses of middle-aged and older women's body images, results suggest that women experienced negative and positive body image simultaneously. That is, they were capable of feeling satisfied with their bodies while wishing they were younger and believing that youth contributed to beauty. They also often reported feeling positively about one aspect of their bodies while being dissatisfied with another. And they made relative evaluations of their bodies: "[I'm] grateful that I'm not out of shape so I think for my age it's not bad but I'm always trying to make it better" (Bailey et al., 2016, p. 93).

With the complexity of body image being increasingly acknowledged (Andrew et al., 2016), and research examining positive body image attracting more attention in the past decade (Webb, Wood-Barcalow, & Tylka, 2015), interventions aiming to improve different facets of positive body image have begun to emerge (e.g., appreciation, functionality, gratitude; Alleva et al., 2015; Dunaev et al., 2017). Although education and intervention efforts to *decrease* body *dissatisfaction* have proliferated across the past thirty years, the integration of positive body

image into this area of study and practice is relatively new. Similar to other scholars' discussions on this topic (Tylka & Wood-Barcalow, 2015; Webb et al., 2015), we contend that decreasing body dissatisfaction and increasing positive body image are not synonymous. Yet they *can* be viewed as two sides of the same coin. For instance, there is some preliminary evidence to suggest that interventions that have been effective at reducing negative body image may also be useful for enhancing positive body image (Halliwell, Jarmna, McNamara, Risdon, & Janowski, 2015). Thus, in order to flesh out our discussion of interventions aimed at enhancing positive body image, we include relevant research that has examined efforts to decrease body dissatisfaction as well.

Further, many previously implemented efforts tend to rely on educational and community settings (Alleva et al., 2015). Our purpose in this chapter is to describe interventions that may aid *individuals* in improving their body image on their own. We define "individual efforts" as those in which a single individual can take part, separate from social settings and (usually) without the aid of a researcher or clinician. Individual-level strategies provide a unique opportunity to engage individuals in positive body image enhancement outside the confines of a professional or formal setting, allowing users greater privacy and more flexibility in accessing these programs. This can include activities such as engaging in prespecified writing activities (e.g., reflections or keeping a diary), exercising or participating in some other type of physical activity, or completing various therapies that could be adapted for computer-based delivery (e.g., cognitive behavioral therapy, mindfulness training, media literacy). Considering the amount of time and effort required to implement societal-level changes (e.g., requiring disclaimers on photos, banning underweight runway models), it is important that we investigate strategies which individuals can use now and implement for themselves. This is not to say that individual efforts could not be pursued following some instruction from a clinician, an educator, or even a book. Individual efforts aimed at improving elements of positive body image may be initiated in clinical and community settings or even schools, and then practiced within individuals' homes.

Interventions for Individual-Level Body Image Improvement

Writing Exercises for Positive Body Image Enhancement

Writing-based interventions have been used to address a number of mental and physical health concerns, including those related to body

image. These writing exercises can be long-term, for instance keeping daily diary entries for a number of weeks, or short-term, such as responding to a single writing prompt for an experimental study. One potential approach to enhancing positive body image may be through using writing activities to actively cultivate appreciation for the body by focusing on its more positive aspects (e.g., functionality, health).

In one recent study, Alleva and colleagues (2015) randomly assigned eighty-one women to either a body functionality treatment group ($n = 41$) or a control group ($n = 40$). Participants in the treatment condition completed three fifteen-minute writing assignments over the course of roughly a week, with each writing assignment focusing on different aspects of body functionality (e.g., physical capabilities, health, self-care). Participants in the control condition did similar writing assignments on the topic of creativity. Results indicated that when compared to participants in the control group, participants in the body functionality group reported higher body functionality satisfaction, higher appearance satisfaction, lower self-objectification, and greater body appreciation (Alleva et al., 2015).

In a follow-up study, Alleva, Veldhuis, and Martijn (2016) examined whether focusing on body functionality could buffer against the negative effects of thin, idealized media models. In this experiment, seventy undergraduate women were randomly assigned to either a treatment ($n = 35$) or control ($n = 35$) group. Participants in the treatment group were given a description of body functionality and were asked to write about the functions of their body and why those functions are meaningful. Participants in the control group were asked to write about the details of routes they frequently travel. All participants were then shown a series of fifteen images, twelve of which contained images of thin, idealized female models. The results of this study showed the women in the functionality group reported higher levels of functionality satisfaction and body appreciation when compared to the control group. No significant effects were found for appearance appreciation or self-objectification, suggesting that a focus on body functionality may buffer against the negative effects of thin-ideal imagery for some aspects of body image (e.g., body appreciation) but not others (e.g., appearance satisfaction; Alleva et al., 2016).

In addition to focusing on body functionality, writing interventions can also be used to foster a sense of gratitude toward life in general and one's body in particular. A growing body of research has found robust associations between gratitude and well-being, including improvements in depression, generalized anxiety, drug and alcohol dependence, relationship quality, positive affect, and stress (Wood et al., 2010). One suggested

reason for this is that gratitude exercises may enhance well-being by encouraging individuals to focus on assets rather than deficits and to recognize things they might have otherwise taken for granted (Seligman, Steen, Park, & Peterson, 2005). When applied to body image, focusing on things for which one is grateful may encourage individuals to consider positive things about their body that they might frequently overlook.

Three studies have examined the effect of writing-based gratitude interventions on body image. In the first of these studies, Geraghty and colleagues (2010) randomly assigned British men and women to a gratitude diary group ($n = 40$), a thought monitoring and restructuring group ($n = 22$), or a waitlist control group ($n = 120$). Participants in the gratitude condition were given diaries and instructed to list six things they felt grateful for (in general) each day for two weeks. Participants in the thought monitoring and restructuring condition were given workbooks and instructed to record and positively restructure negative body thoughts. Results indicated that participants in the gratitude condition reported significantly lower levels of body dissatisfaction when compared to a control waitlist condition, and similar levels compared to the thought monitoring and restructuring group. Furthermore, participants in the gratitude condition were significantly more likely to complete the two-week intervention when compared to the monitoring and restructuring condition (Geraghty, Wood, & Hyland, 2010).

In a replication study, Wolfe and Patterson (2017) found that undergraduate female participants assigned to a general gratitude diary condition ($n = 35$) experienced more marked increases in body esteem and decreases in body dissatisfaction when compared to control (education about body image; $n = 45$) and cognitive restructuring diary ($n = 28$) conditions. The authors also found that participants in the gratitude condition were more likely to complete the study and reported significant increases in positive mood and decreases in depressive symptoms when compared to the cognitive restructuring condition. However, the authors found no differences in changes in body appreciation between the groups (Wolfe & Patterson, 2017).

In one additional study, Dunaev, Brochu, and Markey (2017) tested the effects of a body-specific gratitude writing exercise on body image. In this study, young men and women were randomly assigned to either a body gratitude ($n = 185$) or control ($n = 184$) condition. Participants in the body gratitude condition were instructed to think about and write down (at least) three aspects of their body that they were grateful for, including the health, physical appearance, or functionality of their body. Participants in the control condition were instructed to think and write about their ideal vacation. Following this brief intervention, participants

in the body gratitude condition reported significantly higher appearance esteem and lower body dissatisfaction when compared to participants in the control condition (Dunaev et al., 2017).

Conclusions and Recommendations Writing-based interventions are relatively simple, require less time and effort than many societal and institutional interventions, and are easily accessible to individuals. Previous research in the area of writing-based interventions and body image suggests that paradigms such as Pennebaker and Beall's (1986) expressive writing exercises may not be optimal if they require participants to ruminate on negative body-related thoughts and experiences (Earnhardt, Martz, Ballard, & Curtin, 2002; Lafont & Oberle, 2014; O'Connor, Hurling, Hendrickx, & Wood, 2011). Instead, based on the limited data available, it appears that approaches focused on cultivating body appreciation and highlighting positive body attributes may be a better direction for improving body image overall. This area of research is in its infancy, however. Although some studies used positive body image constructs (Alleva et al., 2015, 2016; Wolfe & Patterson, 2017), most of what is known about body image and writing-based interventions is based on research using measures of negative body image (i.e., body dissatisfaction).

Tentative findings provide support for the notion that writing-based interventions can successfully be used to both decrease negative body image and improve positive body image. Specifically, evidence suggests writing about body functionality can improve body appreciation and functionality satisfaction (Alleva et al., 2015, 2016), and writing about gratitude (general or body-specific) can decrease body dissatisfaction and increase body esteem (Dunaev et al., 2017; Geraghty et al., 2010; Wolfe & Patterson, 2017). Additionally, writing-based interventions that focus on positive aspects of one's body or life (e.g., gratitude) may result in lower intervention attrition rates when compared to writing about negative aspects (e.g., restructuring negative body thoughts; Geraghty et al., 2010; Wolfe & Patterson, 2017). Thus, a gratitude intervention may be more sustainable over time compared to other types of interventions.

Beyond the sheer dearth of studies in the area of writing-based interventions and positive body image, there are other limitations that should be addressed. First, because few studies employed pre- and postintervention measurements alongside control and comparison groups, little is known about the presence, magnitude, or endurance of these effects. Second, no work has examined the potential boundary conditions of these effects. For instance, we do not know how long (e.g., five minutes, daily, weekly) or how structured a writing intervention

has to be in order to improve body image. We also do not know what types of individuals (e.g., women, individuals high in body dissatisfaction) may respond more positively to these types of interventions. Thus, much more research is needed in this area to determine the potential efficacy of writing-based interventions for positive body image enhancement.

Exercise-Based Positive Body Image Enhancement

The physical benefits of regular exercise (e.g., walking, aerobic exercise, weightlifting, sports) are well established and discussed, yet less attention is focused on the potential mental health benefits of exercise, particularly as they relate to body image. However, the link between exercise and body image is relatively clear – exercise can contribute to the acquisition of the thin and muscular bodies that are idealized and promoted in Western media (Markey, 2014). Many individuals may thus engage in exercise for the purpose of reshaping their bodies – whether the end goal is weight loss or muscle gain – to more closely approximate these body ideals (Hausenblas & Fallon, 2006). Although it is typically not the case that individuals are able to achieve these body ideals via exercise alone, as actual objective changes in body size and shape are not an inevitable result (Markey, 2014), the extant literature suggests that engaging in physical activity may have a positive impact on body image.

Meta-analyses of hundreds of correlational and experimental studies provide strong empirical support for the small-to-moderate negative association between exercise and body dissatisfaction (Campbell & Hausenblas, 2009; Hausenblas & Fallon, 2006; Reel et al., 2007), yet there are far fewer studies exploring the association between exercise and *positive body image constructs* (e.g., body appreciation, body functionality). A handful of studies have qualitatively approached this question. For instance, Wood-Barcalow and colleagues (2010) interviewed college-aged women ($N = 15$) who had been identified as having positive body image and found that many of these women reported exercising regularly. Frisén and Holmqvist (2010) found similar results in interviews with body positive Swedish adolescent boys and girls ($N = 30$) who reported being physically active and enjoying exercise. Finally, Krane and colleagues (2004) found that female college athletes ($N = 21$) reported feeling empowered by and proud of their strong bodies.

At least two quantitative studies have specifically looked at the association between exercise and positive body image (Béres, Czeglédi, & Babusa, 2017; Homan & Tylka, 2014). The first study found that college-aged women ($N = 321$) who frequently engaged in moderate exercise also

reported greater body appreciation, internal body orientation, and body functionality satisfaction. Further, these effects were weaker for women who reported exercising for reasons of appearance (Homan & Tylka, 2014). The second study used an experimental design to examine the effects of a single-exercise session on body appreciation. A total of 322 Hungarian women were randomly assigned to complete either one hour of aerobic exercise in a fitness class ($n = 155$) or one hour of aerobic exercise at home using an exercise video ($n = 167$). Results indicated that women in both groups showed a moderate improvement in body appreciation following the one-hour exercise session. Further, no significant differences in body appreciation were found between the two groups (Béres et al., 2017). These two studies provide preliminary evidence for the positive association between exercise and positive body image.

Conclusions and Recommendations Exercise-based positive body image interventions may be a particularly promising avenue for future research, as they have the capacity to confer both physical and mental health benefits. Based on the limited evidence, it appears that exercise has the potential both to reduce negative body image (Campbell & Hausenblas, 2009; Hausenblas & Fallon, 2006) and to enhance positive body image (Béres et al., 2017). Furthermore, it appears to be the case that exercise can be beneficial whether it is performed in a gym setting or at home (Béres et al., 2017). Researchers interested in positive body image should thus consider their work as an extension of the already well-developed literature on exercise and body image by including measures of both positive and negative body image.

In addition to the need for more studies that demonstrate the effects of exercise on positive body image (e.g., randomized control trials with pre- and postintervention measurements), there are a number of other under-explored topics in this area. In particular, few studies have tested for mediators and moderators of these effects. Understanding the characteristics of the exerciser (e.g., gender, age, reason for exercising) and the exercise program (e.g., duration, type of exercise, intensity) that might result in the most body image benefits, or why exercise improves body image (e.g., improvements in self-efficacy, objective physical fitness changes), is important for developing more effective and efficient exercise-based interventions (Martin Ginis, Bassett-Gunter, & Conlin, 2012).

Online Positive Body Image Enhancement

Widespread access to smartphones, tablets, and computers makes online dissemination of interventions a viable option for body image

enhancement. The online body image-related intervention that has been subject to the greatest degree of empirical testing, *StudentBodies*, is a structured cognitive behavioral online intervention designed for adolescent girls and women that addresses risk factors for eating disorders (e.g., body image, drive for thinness, nutritional and exercise knowledge and attitudes; Winzelberg & Taylor, 1998). This program requires that participants log in (at least) weekly for eight weeks, read the content for that week (e.g., nutrition basics, cultural images of beauty), and complete an assignment related to that content (e.g., self-monitoring exercises to promote cognitive restructuring). Based on a meta-analysis of ten randomized controlled trials (six in the United States and four in Germany), this intervention has been shown to be moderately effective for reducing negative body image and other eating disorder-related attitudes (Beintner, Jacobi, & Taylor, 2011).

Various other, less empirically tested programs have also been developed. For instance, *Food, Mood, and Attitude* is a computer-based program also designed to address risk factors for eating disorders (e.g., body dissatisfaction). Following two one-hour sessions of computer-based activities (e.g., media images and thin-ideal internalization; coping strategies), female undergraduate ($n = 118$) students showed decreases in weight and shape concern and thin-ideal internalization when compared to a control group ($n = 115$; Franko et al., 2005). Another program, *BodiMojo*, focuses on body image enhancement for adolescents. Participants in this intervention completed an online four-week program, including games, quizzes, videos, and tailored feedback on topics ranging from media literacy and physical appearance comparisons to exercise and nutrition. This program was effective for improving body appearance satisfaction and decreasing body dissatisfaction for girls ($n = 113$) when compared to a control group (normal health classes). However, these effects had disappeared when measured three months later, and furthermore the program had no significant effects for boys ($n = 65$) when compared to the control group (Franko, Cousineau, Rodgers, & Roehrig, 2013).

Although only a limited number of online or computer-based programs have been developed and tested to reduce negative body image, many interventions to enhance positive body image could be adapted for online delivery. For instance, Gledhill and colleagues (2017) developed a program to train women to more accurately judge the body sizes of computer-developed 3D female figures. After four daily laboratory-based training sessions, participants across two studies showed reduced weight and shape concerns when compared to a control group (Gledhill et al., 2017). Further, interventions aimed at improving media literacy, which

have been shown to be particularly effective for improving body image in school settings (Yager, Diedrichs, Ricciardelli, & Halliwell, 2013), could potentially be adapted into self-guided online activities. Finally, techniques that encourage mindfulness have been shown to improve body image (Alberts, Thewissen, & Raes, 2012; see Chapter 6 in this book by Cook-Cottone) and are amenable to online delivery (Krusche, Cyhlarova, & Williams, 2013). For instance, breathing exercises, simple meditation exercises, self-care, yoga postures, and stretching could all be directed via online sources. These are actually already available online through YouTube, but have not been tested for online positive body image enhancement to date. Each of these potential positive body image enhancement intervention strategies – the ability to accurately judge body sizes and evaluate media information and the focus on self-care – could improve individuals' ability to engage in protective filtering and focus on positive embodiment.

Beyond specific programming, online spaces can also be used to access body image-relevant content (e.g., photos, inspirational stories) and discussion groups. For instance, although research suggests that social media use (e.g., Facebook, Instagram) may increase body *dissatisfaction* (Manago, Ward, Lemm, Reed, & Seabrook, 2015; Meier & Gray, 2014; Tiggemann & Slater, 2013; Tiggemann & Zaccardo, 2015), less is known about how social media may be used to improve body image and cultivate positive body image specifically. The recent proliferation of social media hashtags related to body positivity and acceptance (e.g., #bodypositive, #lovetheskinyourein; Marcus, 2016) makes this an important area for future body image research. It may be the case the individuals can learn to intentionally curate their online spaces in a way that allows for exposure to positive body image enhancing content (e.g., photos, quotes) with the touch of a button. In the future, interventions that educate individuals to make social media a source of positive body image enhancement may be particularly appealing.

Conclusions and Recommendations Online interventions have been successfully used in the field of public health (e.g., promoting sexual health among adolescents; see Stevens, Dunaev, Malven, Bleakley, & Hull, 2016), yet remain underutilized in body image research. The paucity of body image research in the area of this particular modality is striking given that internet-based interventions are highly customizable and thus amenable to various approaches to body image improvement (e.g., cognitive behavioral, dissonance-based, mindfulness). They also allow participants relative anonymity while discussing sensitive topics, are accessible from virtually anywhere, and may provide a more actively

engaging experience than some more traditional school- or community-based programs (Yager & O'Dea, 2008). Further, there is abundant empirical support for the use of self-help techniques to improve body image and address various other psychosocial issues (e.g., depression, anxiety; Gould & Clum, 1993; Hrabosky & Cash, 2007; Yager & O'Dea, 2008).

Current evidence suggests that previously tested online and computer-based programs have been useful for decreasing body dissatisfaction (e.g., weight concerns, shape concerns; Beintner et al., 2011; Franko et al., 2005, 2013), yet these programs have yet to specifically focus on positive body image constructs. Further, there is good evidence to suggest that a number of strategies may enhance body image (e.g., media literacy, perceptual training, mindfulness training), yet have not been tested for online-delivered positive body image enhancement interventions. As can be seen, additional research is needed to understand how the internet, including professionally designed programming and pre-existing content (e.g., photos, hashtags, social networking sites), might affect positive body image.

Future Directions

Correlates of Positive Body Image

There are a variety of known correlates and predictors of positive body image that may serve as targets for interventions to increase positive body image. The logic is that if the predictor (e.g., self-esteem) is improved or enhanced, positive body image may be as well. Although not all of these correlates and predictors have been empirically examined in an intervention context, we review them to assist future researchers as they consider designing interventions and studies to examine their efficacy.

Body image research in general (e.g., Groesz, Levine, & Murnen, 2002), and research focusing on positive body image in particular (e.g., Andrew et al., 2015), points to the negative impact of appearance-driven media consumption. Thus, limiting media consumption may be one potential way to improve positive body image, but may prove extremely difficult in an increasingly digital world. As mentioned above, one approach to limiting the deleterious effects of the media is through education and media literacy programming. An example of one such program is Wilksch and Wade's (2009) eight-session media literacy program for girls and boys in the eighth grade. Weight and shape concerns declined following this program – a finding that may be indicative of positive body image enhancement.

Another avenue that may be conducive to increasing positive body image is the cultivation of perceived appearance acceptance by others (Andrew et al., 2016). Individuals tend to report appreciating their own bodies when they feel that others do as well (Markey, Markey, & Birch, 2004). One way to make salient this perceived acceptance is through communication with valued others (e.g., parents, friends, significant others). Interventions to improve communication among individuals and those closest to them as a means of enhancing positive body image are rare. However, in a recent study (Markey et al., 2017) in which researchers asked romantic couples to discuss their bodies and weight, results suggested that doing so led participants to have more realistic body ideals than they reported before the intervention. Future research should consider the extent to which communication interventions among different types of dyads (e.g., parent–child) may increase positive body image.

Because the link between eating behaviors and body image is undeniable (Markey, 2014), researchers have examined the potential of eating-based interventions as a means of improving positive body image. For example, in a recent intervention targeting preadolescents (McCabe, Connaughton, Tantangelo, Mellor, & Busija, 2017), four sixty-minute educational sessions plus one recap session were capable of improving not only eating behaviors (i.e., fruit and vegetable consumption) but also body esteem. Considering the vast majority of American adults fail to meet recommendations for daily fruit and vegetable intake (Moore & Thompson, 2015), improving body image while simultaneously increasing health behaviors is a laudable goal.

Research dating back to Harter's landmark studies (e.g., Harter, 1999) indicates the correlation between individuals' perception of their appearance and their general sense of self. An implication of this and other work (e.g., Clay, Vignoles, & Dittmar, 2005) is that improving self-esteem, broadly construed, may bolster positive body image. For example, evidence for this comes from O'Dea and Abraham's (2000) *Everybody's Different* intervention among 11–14-year-olds. This study found that improvements in body image and self-esteem were linked and persisted across twelve months. These findings have been replicated by several other studies, suggesting that self-esteem enhancement techniques can increase body image, and potentially positive body image in particular (Steiner-Adair et al., 2002).

Future Research Recommendations and General Conclusions

The purpose of this chapter was to identify published studies that, broadly speaking, might be used to inform individuals on the best means

of cultivating or enhancing their positive body image. Perhaps most striking is the overall paucity of research efforts in this area. This research is in its infancy, and many scholars within and outside of the field may be just beginning to embrace positive body image as a distinct construct from negative body image. Nevertheless, the studies reviewed here provide preliminary evidence for effective individual-level strategies for improving positive body image. Although some intervention strategies were able to produce changes in both negative and positive body image (Alleva et al., 2015), others were effective at reducing body dissatisfaction but not at improving body appreciation (Béres et al., 2017; Wolfe & Patterson, 2017). These results provide further evidence for the distinctness of positive body image as a construct and make more salient the need to develop interventions specifically aimed at addressing positive body image.

There are a number of general issues that need to be addressed in order to develop more effective and efficient positive body image enhancement interventions. First, researchers in the area need to adopt more rigorous methods, specifically in terms of study design. In our review, we found very few studies using randomized controlled trials with pre- and posttest measures. Without these types of studies, inferences about causal relationships and the magnitude of change attributable to any particular intervention strategy cannot be made. Additionally, in order to determine the endurance of these effects, interventions should include posttest measures at various time points following the intervention (e.g., one day later, one week later). Finally, researchers conducting these studies should consider adopting open science practices (e.g., preregistration of studies, making data accessible online) to increase the reproducibility and transparency of their work.

Most studies to date that have examined issues of positive body image employ samples of girls and women, and most often comprise undergraduate students. Although girls and women tend to exhibit more negative body image (Gillen & Markey, 2015), recent research suggests that boys and men also report high levels of body dissatisfaction (Bearman, Martinez, Stice, & Presnell, 2006). The development of interventions to improve positive body image and the studies examining these interventions that follow need to include both male and female participants. However, given the distinct body image concerns for girls/women and boys/men – with the former frequently desiring thinness and the latter frequently desiring muscularity – it may be appropriate to develop interventions that are gender specific. Similarly, researchers should design and test interventions aimed at individuals across the lifespan. For instance, because of their different body image concerns,

interventions that are appropriate for children and adolescents are unlikely to be effective for middle-aged individuals (Dunaev, Schulz, & Markey, 2016).

If the field is to continue to progress, there also must be more attention paid to theory. Theories help identify important aspects of the attitude or behavior change process, such as mediators and moderators, and as such provide vital information about viable intervention points. For instance, designing an optimal exercise-based intervention requires understanding characteristics of the exerciser (e.g., gender, age), the exercise program (e.g., type of exercise, intensity of exercise), and various other relevant issues (e.g., accessibility). Comprehensive theoretical models will allow researchers to examine how these variables interact to shape attitude and behavior change and ultimately help to improve positive body image.

Future interventions in this area should also incorporate a variety of outcome measures. Although the Body Appreciation Scale is frequently used as a positive body image measure, studies should seek to assess multiple components of positive body image (e.g., body gratitude, body acceptance). Doing so will allow for a more comprehensive assessment of positive body image that encompasses a variety of issues (e.g., aesthetics, functionality). Similarly, if we are to continue to understand what interventions might be effective for both enhancing positive body image and decreasing negative body image, studies must continue to incorporate negative body image constructs alongside positive body image constructs. Finally, interventions should determine what the long-term effects of positive body image enhancement are by utilizing longitudinal designs and behavioral outcomes.

Several decades of research has revealed the deleterious effects of body dissatisfaction and the value of interventions aimed to reduce this dissatisfaction (Gillen & Markey, 2017; McCabe, et al., 2017). However, following the more general trend in the field of psychology, with attention moving from reducing illness and impairment toward an emphasis on optimization of the human experience, the field of body image has begun to move toward an examination of positive body image. This shift signals an appreciation of the value of not just “settling for” one’s body, but embracing it (Andrew et al., 2016a). In this chapter, we have presented a variety of potential avenues for intervention to improve positive body image, and preliminary evidence to support them. In particular, writing exercises appear to offer opportunities for self-reflection, appreciation, and gratitude that may encourage positive body image and improvements in mental health more generally. Second, exercise may not only enhance both physical and mental health, but also has the potential to improve positive body image. Exercise can take place in a variety of

contexts (e.g., with or without others present), but is inherently self-directed and, when framed positively (i.e., not as obligatory), may have lasting benefits. Finally, online interventions offer privacy, access, and endless opportunities to spread positive messages pertaining to body image, and may enhance body appreciation and focus on functionality and limit the valuation of beauty ideals.

Although we have identified a number of areas that require additional research before firm conclusions can be made about the efficacy of different intervention approaches, we believe this presents an exciting opportunity for body image researchers. We are hopeful that the next decade of body image research will focus not only on positive body image, but also on the individually directed interventions that can improve positive body image. These interventions may be especially valuable to a number of vulnerable populations. For example, individuals without access to or coverage for mental health treatment, young people experiencing their first body image concerns, and individuals who may not believe their body dissatisfaction requires formal treatment may all be amenable to participating in individually directed options for the improvement of positive body image.

References

- Abbott, B. D., & Barber, B. L. (2010). Embodied image: Gender differences in functional and aesthetic body image among Australian adolescents. *Body Image, 7*, 22–31. doi:10.1016/j.bodyim.2009.10.004
- Alberts, H. J. E. M., Thewissen, R., & Raes, L. (2012). Dealing with problematic eating behavior: The effects of a mindfulness-based intervention on eating behavior, food cravings, dichotomous thinking and body image concern. *Appetite, 58*, 847–851. doi:10.1016/j.appet.2012.01.009
- Alleva, J. M., Martijn, C., Van Breukelen, G. J. P., Jansen, A., & Karos, K. (2015). Expand your horizon: A programme that improves body image and reduces self-objectification by training women to focus on body functionality. *Body Image, 15*, 81–89. doi:10.1016/j.bodyim.2015.07.001
- Alleva, J. M., Veldhuis, J., & Martijn, C. (2016). A pilot study investigating whether focusing on body functionality can protect women from the potential negative effects of viewing thin-ideal media images. *Body Image, 17*, 10–13. doi:10.1016/j.bodyim.2016.01.007
- Andrew, R., Tiggemann, M., & Clark, L. (2015). The protective role of body appreciation against media-induced body dissatisfaction. *Body Image, 15*, 98–104. doi:10.1016/j.bodyim.2015.07.005
- Andrew, R., Tiggemann, M., & Levina, C. (2016). Predicting body appreciation in young women: An integrated model of positive body image. *Body Image, 18*, 34–42. doi:10.1016/j.bodyim.2016.04.003

- Avalos, L., Tylka, T. L., & Wood-Barcalow, N. (2005). The body appreciation scale: Development and psychometric evaluation. *Body Image, 2*, 285–297. doi:10.1016/j.bodyim.2005.06.002
- Bailey, K. A., Gammage, K. L., van Ingen, C., & Ditor, D. S. (2015). “It’s all about acceptance”: A qualitative study exploring a model of positive body image for people with spinal cord injury. *Body Image, 15*, 24–34. doi:10.1016/j.bodyim.2015.04.010
- Bailey, K. A., Kline, L. E., & Gammage, K. L. (2016). Exploring the complexities of body image experiences in middle age and older adult women within an exercise context: The simultaneous existence of negative and positive body images. *Body Image, 17*, 88–99. doi:10.1016/j.bodyim.2016.02.007
- Bearman, S. K., Martinez, E., Stice, E., & Presnell, K. (2006). The skinny on body dissatisfaction: A longitudinal study of adolescent girls and boys. *Journal of Youth and Adolescence, 35*, 217–229. doi:10.1007/s10964-005-9010-9
- Beintner, I., Jacobi, C., & Taylor, C. B. (2011). Effects on an internet-based prevention programme for eating disorders in the USA and Germany: A meta-analytic review. *European Eating Disorder Review, 20*, 1–8. doi:10.1002/erv.1130
- Béres, A., Czeglédi, E., & Babusa, B. (2017). Effects of a single aerobic exercise session on body image. *Mentálhigiéné és Pszichoszomatika, 18*, 84–104. doi:10.1556/0406.18.2017.1.4
- Campbell, A., & Hausenblas, H. A. (2009). Effects of exercise interventions on body image: A meta-analysis. *Journal of Health Psychology, 14*, 780–93. doi:10.1177/1359105309338977
- Cash, T. F. (2002). A “negative body image”: Evaluating epidemiological evidence. In T. F. Cash & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, and clinical practice* (pp. 269–276). New York: Guilford Press.
- Cash, T. F., & Fleming, E. C. (2002). The impact of body image experiences: Development of body image quality of life inventory. *International Journal of Eating Disorders, 31*, 455–460. doi:10.1002/eat.10033
- Cash, T. F., & Hrabosky, J. I. (2003). The effects of psychoeducation and self-monitoring in a cognitive-behavioral program for body-image improvement. *Eating Disorders, 11*, 255–270.
- Clay, D., Vignoles, L., & Dittmar, H. (2005). Body image and self-esteem among adolescent girls: Testing the influence of sociocultural factors. *Journal of Research on Adolescence, 15*, 451–477. doi:10.1111/j.1532-7795.2005.00107.x
- Dohnt, H. K., & Tiggemann, M. (2008). Promoting positive body image in young girls: An evaluation of ‘Shapesville.’ *European Eating Disorders Review, 16*, 222–233. doi:10.1002/erv.814
- Dunaev, J., Brochu, P. M., & Markey, C. H. (2018). An attitude of gratitude: The effects of body-focused gratitude on weight bias internalization and body image. *Body Image, 7* (25), 9–13. doi:10.1016/j.bodyim.2018.01.006
- Dunaev, J., Schulz, J. L., & Markey, C. H. (2016). Cosmetic surgery attitudes among midlife women: Appearance esteem, weight esteem, and fear of

- negative appearance evaluation. *Journal of Health Psychology*, 23 (1), 1–8. doi: 10.1177/1359105316642249
- Earnhardt, J. L., Martz, D. M., Ballard, M. E., & Curtin, L. (2002). A writing intervention for negative body image. *Journal of College Student Psychotherapy*, 17, 19–35. doi:10.1300/j035v17n01_04
- Franko, D. L., Cousineau, T. M., Rodgers, R. F., & Roehrig, J. P. (2013). BodiMojo: Effective internet-based promotion of positive body image in adolescent girls. *Body Image*, 10, 481–488. doi:10.1016/j.bodyim.2013.04.008
- Franko, D. L., Mintz, L. B., Villapiano, M., Green, T. C., Mainelli, D., Fолensbee, L.,... Budman, S. H. (2005). Food, mood, and attitude: Reducing risk for eating disorders in college women. *Health Psychology*, 24, 567–578. doi:10.1037/0278-6133.24.6.567
- 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. doi:10.1016/j.bodyim.2010.04.001
- Geraghty, A. W. A., Wood, A. M., & Hyland, M. E. (2010). Attrition from self-directed interventions: Investigating the relationship between psychological predictors, intervention content and dropout from a body dissatisfaction intervention. *Social Science & Medicine*, 71, 30–37. doi:10.1016/j.socscimed.2010.03.007
- Gillen, M. M., & Markey, C. N. (2015). Body image and mental health. In H. S. Friedman (Ed.), *Encyclopedia of mental health* (2nd ed.). New York: Elsevier.
- (2017). Beauty and the burn: Tanning and other appearance-altering attitudes and behaviors. *Psychology, Health, & Medicine*, 22 (10), 1–7. doi: 10.1080/13548506.2017.1330544
- Gillen, M. M., Markey, C. N., & Markey, P. M. (2012). An examination of dieting behaviors among adults: Links with depression. *Eating Behaviors*, 13, 88–93. doi: 10.1016/j.eatbeh.2011.11.014
- Gledhill, L. J., Cornelissen, K. K., Cornelissen, P. L., Penton-Voak, I. S., Munafò, M. R., & Tóvée, M. J. (2017). An interactive training programme to treat body image disturbance. *British Journal of Health Psychology*, 22, 60–76. doi:10.1111/bjhp.12217
- Gould, R. A., & Clum, G. A. (1993). Meta-analysis of self-help treatment approaches. *Clinical Psychology Review*, 13, 169–186. doi:10.1016/0272-7358(93)90039-O
- Groesz, L. M., Levine, M. P., Murnen, S. K. (2002). The effect of experimental presentation of thin media images on body satisfaction: A meta-analytic review. *International Journal of Eating Disorders*, 31, 1–16. doi: 10.1002/eat.10005
- Goins, L. B., Markey, C. N., & Gillen, M. M. (2012). Understanding men's body image in the context of their romantic relationships. *American Journal of Men's Health*, 6, 240–248. doi: 10.1177/1557988311431007
- Halliwell, E., Jarman, H., McNamara, A., Risdon, H., & Jankowski, G. (2015). Dissemination of evidence-based body image interventions: A pilot study into the effectiveness of using undergraduate students as interventionists in secondary schools. *Body Image*, 14, 1–4. doi:10.1016/j.bodyim.2015.02.002

- Harter, S. (1999). *The construction of the self: A developmental perspective*. New York: Guilford Press.
- Hausenblas, H. A., & Fallon, E. A. (2006). Exercise and body image: A meta-analysis. *Psychology & Health, 21*, 33–47. doi:10.1080/14768320500105270
- 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. doi:10.1016/j.bodyim.2014.01.003
- Hrabosky, J. I., & Cash, T. F. (2007). Self-help treatment for body-image disturbances. In J. D. Latner & G. T. Wilson (Eds.), *Self-help approaches for obesity and eating disorders: Research and practice* (pp. 118–138). New York: Guilford Press.
- Krane, V., Choi, P. Y. L., Baird, S. M., Aimar, C. M., & Kauer, K. J. (2004). Living the paradox: Female athletes negotiate femininity and muscularity. *Sex Roles, 50*, 315–329. doi:10.1023/B:SERS.0000018888.48437.4f
- Krusche, A., Cyhlarova, E., & Williams, J. M. G. (2013). Mindfulness online: An evaluation of the feasibility of a web-based mindfulness course for stress, anxiety, and depression. *BMJ Open, 3*, e003498. doi:10.1136/bmjopen-2013-003498
- Lafont, J., & Oberle, C. D. (2014). Expressive writing effects on body image: Symptomatic versus asymptomatic women. *Psychology, 5*, 431–440. doi:10.4236/psych.2014.55053
- Manago, A. M., Ward, L. M., Lemm, K. M., Reed, L., & Seabrook, R. (2015). Facebook involvement, objectified body consciousness, body shame, and sexual assertiveness in college women and men. *Sex Roles, 72*, 1–14. doi:10.1007/s11199-014-0441-1
- Marcus, S. R. (2016). Thinspiration vs. thickspiration: Comparing pro-anorexic and fat acceptance image posts on a photo-sharing site. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 10*, online edition. doi:10.5817/CP2016-2-5
- Markey, C. H. & Gillen, M. M. (2017). Body image. In R. J. Levesque (Ed.), *Encyclopedia of adolescence* (2nd ed.). New York: Springer.
- Markey, C. H., Gillen, M. M., August, K. J., Markey, P. M., & Nave, C. S. (2017). Does “body talk” improve body satisfaction among same-sex couples? *Body Image, 23*, 103–108. <https://doi.org/10.1016/j.bodyim.2017.08.004>
- Markey, C. N. (2014). *Smart people don't diet: How psychology, common sense, and the latest science can help you lose weight permanently*. New York: Da Capo/Lifelong Books.
- Markey, C. N., Markey, P. M., & Birch, L. L. (2004). Understanding women's body satisfaction: The role of husbands. *Sex Roles: A Journal of Research, 51*, 209–21. doi:10.1023/B:SERS.0000037764.40569.2b
- Martin Ginis, K. A., Bassett-Gunter, R. L., & Conlin, C. (2012). Body image and exercise. In E. O. Acevedo (Ed.), *The Oxford handbook of exercise psychology* (pp. 55–75). Oxford: Oxford University Press.
- McCabe, M. P., Connaughton, C., Tantangelo, G., Mellor, D., & Busija, L. (2017). Healthy me: A gender-specific program to address body image concerns and risk factors among preadolescents. *Body Image, 20*, 20–30. doi:10.1016/j.bodyim.2016.10.007

- Meier, E., & Gray, J. (2014). Facebook photo activity associated with body image disturbance in adolescent girls. *Cyberpsychology, Behavior, and Social Networking, 17*, 199–206. doi: org/10.1089/cyber.2013.0305
- Moore, L. V., & Thompson, F. E. (2015). Adults meeting fruit and vegetable intake recommendations – United States, 2013. *Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report, 64*. Retrieved from www.cdc.gov/mmwr/preview/mmwrhtml/mm6426a1.htm.
- O'Connor, D. B., Hurling, R., Hendrickx, H., & Wood, H. (2011). Effects of written emotional disclosure on implicit self-esteem and body image. *British Journal of Health Psychology, 16*, 488–501. doi:10.1348/135910710X523210
- O'Dea, J. A., & Abraham, S. (2000). Improving the body image, eating attitudes, and behaviours of young male and female adolescents: A new educational approach that focuses on self-esteem. *International Journal of Eating Disorders, 28*, 43–57. doi:10.1002/(SICI)1098–108X(200007)28:1<43::AID-EAT6>3.0.CO;2-D
- Pennebaker, J. W. & Beall, S. K. (1986). Confronting a traumatic event: Toward an understanding of inhibition and disease. *Journal of Abnormal Psychology, 95*, 274–281. doi:10.1037//0021–843X.95.3.274
- Raedeke, T. D. (2007). The relationship between enjoyment and affective responses to exercise. *Journal of Applied Sport Psychology, 19*, 105–115. doi:10.1016/j.psychsport.2006.10.005
- Reel, J. J., Greenleaf, C., Baker, W. K., Aragon, S., Bishop, D., Cachaper, C., . . . Hattie, J. (2007). Relations of body concerns and exercise behavior: A meta-analysis. *Psychological Reports, 101*, 927–942. doi:10.2466/pr0.101.3.927–942
- Rubin, L. R., & Steinberg, J. R. (2011). Self-objectification and pregnancy: Are body functionality dimensions protective? *Sex Roles, 65*, 606–618. doi:10.1007/s11199–011–9955-y
- Sandoz, E. K., Wilson, K. G., Merwin, R. M., & Kellum, K. K. (2013). Assessment of body image flexibility: The body image-acceptance and action questionnaire. *Journal of Contextual Behavioral Science, 2*, 39–48. doi:10.1016/j.jcbs.2013.03.002
- Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of intervention. *American Psychologist, 60*, 410–421. doi:10.1037/0003–066X.60.5.410
- Stiner-Adair, C., Sjostrom, L., Franko, D. L., Pai, S., Tucker, R., Becker, A. E., & Herzog, D. B. (2002). Primary prevention of risk factors for eating disorders in adolescent girls: Learning from practice. *International Journal of Eating Disorders, 32*, 401–411. doi:10.1002/eat.10089
- Stevens, R., Dunaev, J., Malven, E., Bleakley, A., & Hull, S. (2016). Social media in the sexual lives of African American and Latino youth: Challenges and opportunities. *Media and Communication, 4*, 60–70. doi:10.17645/mac.v4i3.524
- Stice, E. (2002). Risk and maintenance factors for eating pathology: A meta-analytic review. *Psychological Bulletin, 128*, 825–848. doi:org/10.1037/0033–2909.128.5.825

- Tiggemann, M., & Slater, A. (2013). NetGirls: The internet, Facebook, and body image concern in adolescent girls. *International Journal of Eating Disorders*, *46*, 630–633. doi:10.1002/eat.22141
- Tiggemann, M., & Zaccardo, M. (2015). “Exercise to be fit, not skinny”: The effect of fitspiration imagery on women’s body image. *Body Image*, *15*, 61–67. doi:10.1016/j.bodyim.2015.06.003
- Tylka, T. L. (2011). Positive psychology perspectives on body image. In T. F. Cash & L. Smolak (Eds.), *Body image: A handbook of science, practice, and prevention* (pp. 56–64). New York: Guilford Press.
- Tylka, T. L., & Wood-Barcalow, N. L. (2015). What is and what is not positive body image? Conceptual foundations and construct definitions. *Body Image*, *14*, 118–129. doi:10.1016/j.bodyim.2015.04.001
- Webb, J. B., Wood-Barcalow, N. L., & Tylka, T. L. (2015). Assessing positive body image: Contemporary approaches and future directions. *Body Image*, *14*, 130–145. doi: 10.1016/j.bodyim.2015.03.010
- Wiederman, M. W. (2002). Body image and sexual functioning. In T. F. Cash & T. Pruzinsky (Eds.), *Body image: A handbook of theory, research, & clinical practice* (pp. 287–294). New York: Guilford Press.
- Wilksch, S. M., & Wade, T. D. (2009). Reduction of shape and weight concern in young adolescents: A 30-month controlled evaluation of a media literacy program. *Journal of the American Academy of Child & Adolescent Psychiatry*, *48*, 652–661. doi: 10.1097/CHI.0b013e3181a1f559
- Winzelberg, A. J., & Taylor, C. B. (1998). Evaluation of a computer-mediated eating disorder intervention program. *The International Journal of Eating Disorders*, *24*, 339–349.
- Wolfe, W. L., & Patterson, K. (2017). Comparison of a gratitude-based and cognitive restructuring intervention for body dissatisfaction and dysfunctional eating behavior in college women. *Eating Disorders*, *25* (4), 330–344. doi: 10.1080/10640266.2017.1279908
- Wood, A. M., Froh, J. J., & Geraghty, A. W. (2010). Gratitude and well-being: A review and theoretical integration. *Clinical Psychological Review*, *30*, 890–905. doi: 10.1016/j.cpr.2010.03.005
- 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. doi:10.1016/j.bodyim.2010.01.001
- Yager, Z., Diedrichs, P. C., Ricciardelli, L. A., & Halliwell, E. (2013). What works in secondary schools? A systematic review of classroom-based body image programs. *Body Image*, *10*, 271–281. doi:10.1016/j.bodyim.2013.04.001
- Yager, Z., & O’Dea, J. A. (2008). Prevention programs for body image and eating disorders on university campuses: A review of large, controlled interventions. *Health Promotion International*, *23*, 173–189.