Future Directions for Positive Body Image Research

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Abstract

The emergence of positive body image research during the last 10 years represents an important shift in the body image literature. The existing evidence provides a strong empirical basis for the study of positive body image and research has begun to address issues of age, gender, ethnicity, culture, development, and intervention in relation to positive body image. This article briefly reviews the existing evidence before outlining directions for future research. Specifically, six areas for future positive body image research are outlined: (a) conceptualization, (b) models, (c) developmental factors, (d) social interactions, (e) cognitive processing style, and (f) interventions. Finally, the potential role of positive body image as a protective factor within the broader body image literature is discussed.

Keywords: body appreciation, positive body image, future directions, protective factors, cognitive processing, development

Future Directions for Positive Body Image Research

Over the last 10 years, research has begun to address the construct of positive body image (Avalos, Tylka, & Wood-Barcalow, 2005; Menzel & Levine, 2007; Piran & Teall, 2012). This represents an important shift in the field from a primary focus on body image disturbances (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999) to a comprehensive exploration of the body image concept (Cash & Pruzinsky, 2002). Research into positive body image challenges us to consider ways to promote psychological health and well-being, in addition to alleviating distress. The existing evidence on positive body image is compelling, and substantial progress has been made in our understanding of positive body image. There is a firm empirical foundation of the study of positive body image and the literature has begun to address age, gender, ethnicity, culture, developmental issues, and the promotion of positive body image. Additional research is now needed to extend our understanding of the conceptualization of positive body image, predictors and consequences of positive body image, and methods of promoting positive body image. This paper is organized around six key areas for future positive body image research: (a) conceptualization, (b) models, (c) developmental factors, (d) social interactions, (e) cognitive processing style, and (f) interventions. Addressing each area in turn, current research findings are summarized and then future research questions and challenges are discussed.

Conceptualization of Positive Body Image

The theoretical conceptualization of positive body image has been informed by accounts of adolescent girls and boys (Frisén & Holmqvist, 2010) and young adult women (Wood-Barcalow, Tylka, & Augustus-Horvath, 2010) identified as being highly satisfied with their appearance. Several facets of positive body image emerged from these accounts which include: holding favorable opinions of the body, respecting the body, feeling gratitude towards the body, rejecting societal ideals of attractiveness, inner positivity influencing outer

demeanor, and a broad conceptualization of beauty (see Tylka and Wood-Barcalow, 2015, this issue). Similarly, interviews of girls and women have informed Piran's developmental theory of embodiment, which conceptualizes positive body image as a state of body-self integration that is characterized by feeling "at one" with the body (see Piran, 2015, this issue; Piran & Teall, 2012). This state of embodiment involves feeling competent, free to act and express individuality through the body, and free to challenge sociocultural standards. It involves being connected to the needs and desires of the self and also to the needs and desires of others (Piran & Teall, 2012). There is considerable overlap between the conceptualization of positive body image and embodiment (Menzel & Levine, 2011). Drawing on this research and theory, Menzel and Levine (2011) identified three central components of positive body image: (a) appreciating the body's appearance and function, (b) being aware of and attentive to the body's experiences and needs, and (c) possessing a positive cognitive style for processing body-related messages in a self-protective way.

The relationship between positive and negative body image. Theoretically, positive and negative body image represent two higher-order factors which each comprise of a number of lower-order dimensions (Menzel & Levine, 2011). There is some disagreement about the number of dimensions contributing to negative body image, but there is evidence for distinct perceptual, evaluative, affective, cognitive (investment and distortion), and behavioral components (Menzel, Krawczyk, & Thompson, 2011). Moreover, there are specific measures of each of these dimensions which, after Thompson's (2004) critique of early measurement practice in the field, tend to be carefully applied in negative body image research. In contrast, the literature on components of positive body image is much less well developed. Piran and Teall (2006) constructed the Embodiment Scale for Women and use this in their work on embodiment. However, this scale has not yet been published. The Body Appreciation Scale (BAS; Avalos et al., 2005) is the most widely used measure of positive

body image and assesses an overall positive orientation to the body. The original BAS aimed to assess 4 components of positive body image: favorable opinions of one' body, body acceptance, attention to bodily needs, and a protective cognitive style to reject harmful media messages about appearance (Avalos et al., 2005). The BAS, then, incorporates all three of the components identified by Menzel and Levine (2011). Recently, the BAS has been revised to accommodate emerging evidence around positive body image (Tylka & Wood-Barcalow, 2015). The BAS-2 retains five original items and includes an additional five items based on new evidence in the field. It has a slightly modified focus on appreciation of the body, broadly defining beauty, body acceptance, and inner positivity influencing outer demeanor (Tylka & Wood-Barcalow, 2015).

The BAS has been validated across a diverse range of cultures. In primarily Western samples, the scale has repeatedly evidenced a unidimensional structure (Avalos et al., 2005; Lobera & Ríos, 2011; Swami, Hadji-Michael, et al., 2008; Swami, Stieger, Haubner, & Voracek, 2008), which is replicated in data from women and men (Swami et al., 2008). Moreover, the BAS measures the same construct equivalently in U.S. women and men (Tylka, 2013) allowing gender comparisons to be made on this measure.

However, interesting cultural differences arise in the structure of body appreciation, as assessed by the BAS. A factor relating to body acceptance and respect emerges in both Western and non-Western samples. However, a second factor emerges in Malaysian (Swami & Chamorro-Premuzic, 2008), Indonesian (Swami & Jaafar 2012), Brazilian (Swami, Campana, et al., 2011) and Korean (Swami et al., 2012) samples. The second factor represents items related to autonomy over, and adaptive investment, in the body (Swami & Jaafar, 2012); its emergence suggests that these experiences of the body are not universally related to body appreciation. It remains to be seen whether the revised BAS-2 exhibits a unidimensional structure cross-culturally. One of the goals for the revision was to remove

items loading onto the second factor, so it is possible that these cultural variations may not be evident in the newest version of the scale. However, the cross-cultural differences in the factor structure of the BAS raise interesting questions about the conceptualization of positive body image and body appreciation. Further research is needed to explore the basis for the cultural differences found with the original BAS.

Considering current options for assessing body image, there are many more validated measures of negative body image than of positive body image. In addition, the negative body image literature typically uses measurement of specific, lower-order components of negative body image, e.g., body satisfaction or body shame. In contrast, the positive body image literature tends to uses a single measure, the BAS, which taps into a broader, higher-order assessment of positive body image. This difference has implications for interpretation of the relationship between the two constructs.

Theoretically, positive body image and negative body image are independent constructs (Avalos et al., 2005). Positive body image involves accepting and appreciating the body as it is, even though there may be aspects of appearance that an individual would like to change. Therefore, an individual may report high levels of body appreciation but also be dissatisfied with the way that their body looks. An independence model is also the dominant conceptualization of positive and negative mood (Watson & Clarke, 1997; Menzel & Levine, 2011), and this conceptualization is supported by robust evidence of a 2-factor structure to mood scales, a relatively low correlation between the dimensions (e.g., $r = -.13$, Watson & Clarke, 1997), and unique relationships between each dimension and other variables. For example, negative mood is associated with stress, poor coping, and frequent unpleasant events (Watson, Clark, & Tellegan, 1988). In contrast, positive mood is associated with social activity, social satisfaction, and frequent pleasant events (Watson et al., 1988).

When we apply these criteria to measures of positive and negative body image, we

find a different pattern of relationships. There are typically moderate to large negative

correlations between measures of positive and negative body image (Tylka & Wood-

Barcalow, 2015) but unique relationships between positive and negative body image and

other variables (e.g., Avalos et al., 2005; Tylka & Wood-Barcalow, 2015). Body appreciation

is positively correlated with favorable appearance evaluation and body esteem and negatively

correlated with body dissatisfaction, body surveillance, and body shame in both men and

women (Avalos et al., 2005; Lobera & Ríos, 2011; Swami et al., 2008; Tylka & Wood-

Barcalow, 2015). In women, it is also negatively correlated with social physique anxiety,

body image avoidance and body checking (Avalos et al., 2005; Lobera & Ríos, 2011; Swami

et al., 2012; Tylka & Wood-Barcalow, 2015). The correlation between body appreciation and

body dissatisfaction is large for women (e.g., BAS-2 and a short form of the Body Shape

Questionnaire, $r = -.73$) and men (e.g., BAS-2 and the Male Body Attitudes Scale, $r = -.64$;

Tylka & Wood-Barcalow, 2015) and seems inconsistent with these being independent

constructs. However, the BAS-2 is deliberately nonspecific in its reference to the body and

allows participants to decide whether they respond to these items in relation to the body's

appearance, function, or health (Tylka & Wood-Barcalow, 2015). This is in contrast to the

measures traditionally used in the body evaluation literature, which focus on body appearance

and often on shape and weight. Research that examines measures of appearance evaluation

alongside the BAS (or BAS-2) may prime participants to respond to BAS items in relation to

the appearance of the body and consequently inflate this correlation. Therefore, it is possible

that part of the correlation between positive and negative body image may be attributed to

measurement and methodological issues. In addition, body appreciation is less strongly

related to the maladaptive investment in appearance component of negative body image (rs =

-.53 and -.47, between BAS-2 and internalization of sociocultural ideals in women and men,

respectively; Tylka & Wood-Barcalow, 2015), which is more consistent with an

independence model.

There is convincing evidence that positive and negative body image display unique relationships with other variables. Body appreciation predicts additional variation in well-being after accounting for body dissatisfaction (Avalos et al., 2005; Tylka & Wood-Barcalow, 2015). Also, body appreciation and body dissatisfaction appear to be differentially related to depression. For example, among young women body dissatisfaction is strongly related to negative affect (Stice, 2001), but body appreciation is not related to depression after accounting for attachment and perfectionism (Iannantuono & Tylka, 2012). Body appreciation and body dissatisfaction also show distinct relationships with age. Despite the negative correlation between body appreciation and body dissatisfaction, research suggests that both may increase with age. Body dissatisfaction is either uncorrelated (e.g., Tiggemann & McCourt, 2013) or positively correlated with age among adult women (Swami, Tran, Stieger, & Voracek, 2014), and body appreciation tends to be positively associated with age in women between early and late adulthood (Swami et al., 2014; Tiggemann & McCourt, 2013). Moreover, there is a weaker association between body dissatisfaction and body appreciation among older women than among younger women (Tiggemann & McCourt, 2013). It appears that women become more appreciative of their bodies and more dissatisfied with their bodies as they age, which is support for their differentiation.

Body appreciation and weight dissatisfaction also appear to be differently impacted by involvement in specific activities such as dance (Swami & Harris, 2012). Advanced contemporary dancers are higher on body appreciation but also higher on weight dissatisfaction than their beginner counterparts. This finding suggests that contemporary dance may facilitate a positive relationship with the body, through mastery, awareness and competence. However, it may also be associated with increased dissatisfaction with the weight of the body due to emphasis on body size within the discipline.

Overall, this evidence suggests positive and negative body image are two distinct but negatively correlated higher-order factors of body image, each comprising of several lower order dimensions (Menzel & Levine, 2011). However, the lack of delineation of specific components of positive body image limits our ability to evaluate the structure of the broader positive body image construct.

Future research on the conceptualization of positive body image. The ubiquity of the BAS in the positive body image literature allows clear comparability between studies and has provided extremely valuable insights into the relationship between positive and negative body image. In addition, the early work on negative body image was hampered by the multitude of measurement tools tapping into different constructs being treated as interchangeable in the literature (Thompson, 2004). So the dominance of a single measure can be seen as an advantage. However, we should be attentive to what exactly is being measured as positive body image, and which, usually more specific, aspect of negative body image it is measured against.

Certainly, more research is needed to examine the relationship between positive and negative body image. The specific components of positive body image need to be much more clearly conceptualized and measured. There is a robust unidimensional structure to the BAS and BAS-2 in Western samples, which is to be expected from a relative brief measure. However, by developing measures that specifically tap into lower-order components of positive body image, we can begin to examine the interplay between them. Some of the measures articulated in Webb, Wood-Barcalow, and Tylka (2015, this issue) could be used for this purpose, although additional measures need to be developed (e.g., a measure for adaptive investment). It may be particularly helpful to distinguish between an adaptive investment in the body's well-being and a protective cognitive processing style. In Cash's model of body image development, body dissatisfaction can be relatively benign if it is

experienced in the absence of an investment in the appearance of the body (Cash, 1994).

Equally, acceptance of the body may only have a neutral impact if it is experienced in the

absence of an awareness and attentiveness to the body's needs. Although, the BAS items

have the advantage of allowing participants to generate for themselves the most salient

aspects of their bodies, this limits our interpretation of comparisons with negative body

image. In addition, the BAS does not clearly address appreciation of body competencies

(Menzel & Levine, 2011).

Currently, research has only addressed trait positive body image. Models of body

image conceptualize body dissatisfaction as incorporating both trait and state components

(Cash, Fleming, Alindogan, Steadman, & Whitehead, 2002). Trait body dissatisfaction is

considered to be stable across a range of situations. In contrast, state body dissatisfaction is

thought to fluctuate around trait levels on a moment-by-moment basis in response to

contextual factors. Several validated measures of state body dissatisfaction exist. In some

cases these instruments have been specifically developed as state measures, e.g. Body Image

State Scale (Cash et al., 2002) and visual analogue measures (Heinberg & Thompson, 1995).

In other cases there are both trait and state versions of the same measure, e.g. the Physical

State Anxiety Scale (Reed, Thompson, Brannick, & Sacco, 1991). It is likely that positive

body image also consists of trait and state elements and it would be valuable to develop

measures to differentiate between these stable and momentary components. It is possible that

the BAS could be adapted and validated as a measure of state positive body image. Some

items could easily be reworded to tap into state evaluations, for example 'Right now I feel

good about my body' and 'Right now I feel that my body has at least some good qualities'.

Other items may require more adjustment, for example 'My behaviour reveals my positive

attitude toward my body; for example, I hold my head high and smile' may need to be

rephrased, for example 'Right now my body posture reveals my positive attitude toward my

body'. In addition, it would be fruitful to develop state measures of the specific components of positive body image. The development of these measures to tap into moment-to-moment changes in positive body image will allow us to explore the dynamic nature of positive body image and the impact of contextual factors and cumulative influences within models of positive body image.

As specific scales and subscales of positive body image become more clearly identified and measured, we will be able to extend our understanding of the links between positive and negative body image. These conceptual developments will also inform interventions and therapeutic practice. This theme of understanding the components and psychological processes of positive body image runs through the subsequent discussion.

Models of Positive Body Image

Theoretical models of positive body image provide useful frameworks to understand the correlates of positive body image and to posit causal links between these factors. Research, predominantly in the U.S. and U.K., indicate that body appreciation is positively associated with numerous and diverse indicators of well-being including self-esteem, proactive coping, optimism, positive affect, self-compassion, life satisfaction and subjective happiness (Avalos et al., 2005; Swami et al., 2008, 2014; Tylka & Kroon Van Diest, 2013; Wasylkiw, MacKinnon, & MacLellan, 2012). Body appreciation is also positively associated with intuitive eating (Avalos & Tylka, 2006; Hahn Oh, Wiseman, Hendrickson, Phillips, & Hayden, 2012), sexual functioning (Satinsky, Reece, Dennis, Sanders, & Bardzell, 2012), and physical activity, when the motive to exercise is not appearance-based (Homan & Tylka, 2014).

Two models of positive body image (Avalos & Tylka, 2006; Menzel & Levine, 2011) formulate positive body image, where individuals are connected to and attentive to their bodies, as a direct alternative to an objectified body consciousness (Fredrickson & Roberts,

1997), where the body is viewed from an observers' perspective and evaluated based on appearance. These models propose that factors which foster self-objectification also undermine positive body image. The acceptance model of intuitive eating posits that perceived social support and body acceptance by others predict an individual's ability to resist adopting an observers' perspective on the body, leading to body appreciation and intuitive eating (Avalos & Tylka, 2006). The model has received empirical support in cross-sectional studies with women in emerging, early, and middle adulthood (Augustus-Horvath & Tylka, 2011; Avalos & Tylka, 2006). Embodiment models of positive body image identify, on one hand, environmental factors that limit girls' opportunities for positive connectedness with the body (Piran & Teall, 2013) and, in contrast, embodying activities that foster positive body image (Menzel & Levine, 2011). Embodying activities enhance: an awareness of the experience of the body, connectedness with the body, and feelings of competence and empowerment. These activities are thought to lead to positive body image directly, and also indirectly, by reducing objectification (Menzel & Levine, 2011). There is also evidence that women who participate in embodying activities, such as belly dancing (Tiggemann, Coutts, & Clark, 2014), report higher body appreciation than women who do not engage in these activities. Moreover, the relationship between belly dance participation and positive body image is mediated by lower self-surveillance, supporting an indirect relationship between embodying activities and positive body image (Tiggemann et al., 2014).

A third model of positive body image focuses on caregiver messages and attachment. The model is derived from interview accounts of influences that fostered positive body image (Frisén & Holmqvist, 2010; Wood-Barcalow et al., 2010) and from existing models of negative body image. Preliminary support for this model is provided in a cross-sectional study with undergraduate women. Retrospective accounts of restrictive/critical eating messages and attachment anxiety were associated with lower levels of body appreciation and

intuitive eating among young adult women (Iannantuono & Tylka, 2012).

A fourth model, which has recently been developed, embeds positive body image within an affect regulation framework (Webb, Butler-Ajibade, & Robinson, 2014). This model broadens positive body image to include both body appreciation and body image flexibility. Grounded in Acceptance and Commitment Therapy, *body image flexibility* is a mindset in which individuals willingly hold negative thoughts, emotions, bodily sensations and perceptions in mindful compassionate awareness and choose to pursue valued and adaptive behaviors (Sandoz, Wilson, Merwin, & Kellum, 2013). In short, body image flexibility is self-compassion directed toward the body. In Webb et al.'s affect regulation framework for positive body image, high body appreciation and body image flexibility help individuals pursue valued action when an individual encounters body image-related threats (e.g., weighing oneself, body-related teasing, clothes become tight-fitting) that often elicit body comparison, body dissatisfaction, and negative affect. According to the affect regulation framework, the ability to be self-compassionate towards the body (i.e., body image flexibility) and embrace appreciation, love, and respect for the body (i.e., body appreciation) help those with positive body image treat their bodies kindly and respectfully (e.g., engage in intuitive eating, accept the body while acknowledging its flaws, engaging in enjoyable activity), even when they encounter body image-related threats. Research has begun to show support for these pathways, such as links between body image flexibility and intuitive eating (Schoenefeld & Webb, 2013).

Future research on models of positive body image. The examination of models of positive body image is in its infancy, and there is huge potential for future research in this area. The next steps for such research are to examine models of positive body image among more diverse populations, to examine the causal relationships within these models, and to expand these models to address a broader range of issues.

To date, model testing has focused on adult women in the U.S. who are predominantly White, well-educated, able-bodied and heterosexual. There are several reasons to hypothesize that these models may not apply equally well to different demographic groups. Models of negative body image developed from research with heterosexual women have needed adaptation to accommodate data for heterosexual men (Tylka, 2011), gay men (Tylka & Andorka, 2012), and lesbian and bisexual women (Huxley, Halliwell & Clarke, 2014). The experiences of each of these groups include specific and unique correlates of negative body image, and it is likely that the same will be true for positive body image.

Considering ethnicity, differences in prospective predictors of self-objectification have been found between Caucasian and African American women (Fitzsimmons-Craft, 2012). Furthermore, ethnicity has been found to be related to specific experiences of, and attitudes towards, appearance ideals (Capodilupo, 2014; Warren, 2005) and interpersonal influences (Freedman, Carter, Sbrocco, & Gray, 2006). The positive body image literature has examined links between ethnicity and body appreciation among women in the U.K. Of the ethnic groups sampled, Swami, Airs, Chauhan, Leon, and Towell (2009) found that Hispanic women reported the highest body appreciation, followed by African Caribbean, Caucasian, and South Asian women with levels of body appreciation significantly decreasing between each group. In contrast, there were no significant differences in body appreciation between different ethnic groups of women in Malaysia (Swami & Chamorro-Premuzic, 2008). Therefore, together this research suggests that models of positive body image may also differ according to ethnicity.

To date, there has been no investigation of positive body image among individuals with a visible difference, or disfigurement. However, positive experiences and adjustment in visible difference have been explored. Consistent with the broader positive psychological movement, research indicates that some individuals perceive positive gains associated with

their visible difference (Moss & Rosser, 2012). There is substantial variability in levels of

body dissatisfaction reported by individuals with a visible difference, and this body

dissatisfaction is not associated with the objective severity of the visible difference (Rumsey

& Harcourt, 2004). It may be that positive body image has a useful role to play in

understanding body image among individuals with visible differences. Clearly, there is

substantial model development and refinement to be done in exploring common and unique

predictors of positive body image among diverse populations.

Currently, all of the research on models of positive body image is cross-sectional.

These cross-sectional studies have an important role in documenting the pattern of

relationships between variables. However, cross-sectional studies only allow a measure of

association to be calculated; they provide no information about causal relationships (Baltes,

Reese, & Nesslroade, 1988; Creswell, 1994). The theoretical models posit that some causal

relationships are more plausible than others. For example, theoretically it is likely that

restrictive/critical eating messages damage body appreciation and previous research on

negative body image found that parental emphasis on thinness predicts increased weight

concerns among adolescent girls one year later (Field, Carmago, Taylor, Berkely, Roberts, &

Colditz, 2001). However, it is also plausible that low levels of body appreciation lead to

greater awareness of, attention to, or in this specific case recollection of, critical comments

and result in lower levels of perceived social support. One component of positive body image

assessed in the BAS is a self-protective cognitive style that may orientate individuals to

attend selectively to appearance-related comments. Indeed, adolescents with positive body

image report placing little importance on negative comments about their appearance from

family or friends (Frisén & Holmqvist, 2010).

Longitudinal designs that repeatedly measure the same phenomena within the same

group of individuals are needed to examine causality within models of positive body image.

By analyzing the pattern of relationships over time, first the change in each variable can be established and second, an examination of which factors at the first wave of measurement predict change in variables across time can be conducted. Using baseline levels of a predictor to account for change in a different variable over time allows the direction of causal influence to be established (Farrington, 1991). There are a number of factors that complicate the detection of causal relationships. The study period must reflect an appropriate period of change for the variables of interest. Prospective associations between adolescent girls' body dissatisfaction and negative health outcomes have been demonstrated across periods ranging from 8 months to 4 years (Wertheim, Paxton, & Blaney, 2004). Also, the period of time can influence the nature of the predictive relationships identified. Although Field et al. (2001) found that girls' weight concerns were predicted by parental emphasis on weight across a year, research across a longer 5-year time frame did not find a prospective impact of parent dieting or encouragement of child weight loss (Paxton, Eisenberg, & Neumark-Sztainer, 2006). Paxton et al. argued that parental dieting environment and messages may have a significant proximal impact on body image but, across a longer timeframe, other factors such as BMI are stronger predictors. Similarly, Slater and Tiggemann (2012) found that participation in sport was negatively related to self-objectification among 14-year-old girls; however, this relationship only emerged longitudinally across a 1-year time span and there was no correlation between sports participation and self-objectification in the baseline data.

Theoretical models of positive body image also propose a number of mediated relationships. Mediators are steps in a causal sequence and explain the psychological process through which a predictor effects change in an outcome variable (Baron & Kenny, 1986). For example, Menzel and Levine (2011) proposed that embodying activities have a mediated, indirect, effect on positive body image by reducing self-objectification. Analysis of mediation often uses cross-sectional or two time-point longitudinal data. These analyses provide

valuable insight into the relationship between variables, particularly in an emerging area of research. However, testing mediational models over two time points is problematic, as the step-by-step influence of the predictor on growth in the mediator, and mediator on outcome cannot be measured. Generally, mediation relationships are cumulative, so, for instance, repeated exposure to media displaying idealized bodies may lead individuals to internalize these appearance ideals, and this internalization then drives negative evaluations of appearance (Tiggemann, 2011). Gollob and Reichardt (1991) argued that three waves of measurement are needed to test simple mediational relationships with one mediator. This allows the impact of the predictor on the mediator to be established between Waves 1 and 2 and then the impact of the mediator on the outcome to be established between Waves 2 and 3. Another approach that can be used in positive body image research is to explore "upward spirals," or combinations of protective factors that trigger self-perpetuating cycles and trajectories of positive psychological growth (Garland et al., 2010). Fitzsimmons and Bardone-Cone (2011) studied a "downward spiral," whereby initial weight concern predicted subsequent weight concern through body surveillance. A similar reciprocal-influence design (Burns et al., 2008) could be used to study, for instance, whether initial levels of body appreciation predict subsequent body appreciation through participation in enjoyment-based activity such as yoga and/or self-compassion interventions. To date, no research has examined mediated relationships in models of positive body image with longitudinal data.

Some of the predictive relationships in models of positive body image are also well-suited to experimental investigation. In an experimental study, researchers need to be able to manipulate the predictor variable. This is particularly appropriate for proposals within Menzel and Levine's embodiment model of positive body image. Cross-sectional comparisons of positive body image between those who do and those who do not participate in potentially embodying activities have been conducted (e.g., Swami & Harris, 2012;

Tiggemann et al., 2014). The next step is to examine the impact of these embodying activities experimentally. Changes in levels of positive body image could be examined through randomly allocating participants to an embodying activity or a control activity. Investigations of the impact of exercise interventions on negative body image have used this methodology (see Hausenblas & Fallon, 2006). Other research has examined the body image journey of participants involved in physical activities, for example examining changes in body awareness over a 2-month period of enrollment in Hatha Yoga practice (Impett, Daubenmier, & Hirschman, 2006). Ideally, experimental research needs to randomly allocate participants to condition and include a control group who are not engaged in the embodying activities. Participants should also be naïve to the specific aims of the study. These design issues are crucial to allow changes in positive body image to be confidently attributed to the activity rather than, for example, natural fluctuations over time or demand characteristics.

There is scope to expand the range of predictors and outcomes addressed in models of positive body image. The embodiment model identifies a range of activities that may prompt positive body image and, therefore, identifies potential recommendations for protective or beneficial behaviors. Currently, forms of dance, yoga, and sport have been examined as embodying activities (Menzel & Levine, 2011). Future research should examine other physical activities that may also promote positive body image. Embodying activities allow individuals to experience their bodies in a non-objectified way and include elements of mind-body integration, body awareness, and body competence (Menzel & Levine, 2011). A central element in Menzel and Levine's (2011) formulation of embodiment is mind-body integration and loss of self-consciousness. These are also key features of Csikszentmihalyis (1975) concept of flow (Menzel & Levine, 2011). Physical activities like hiking, rock climbing, scuba diving, martial arts, horse riding (Menzel & Levine, 2011), swimming, and mountain biking and non-physical activities (e.g., receiving a massage) may also be embodying and

foster positive body image. In addition, it would be interesting to examine potentially embodying activities where physical activity is involved but is not the primary goal of the activity. Activities that have been examined in relation to flow experience that necessitate accomplished body movement but with non-body related goals include activities such as music performance (Wrigley & Emmerson, 2011) and acting (Martin & Cutler, 2002). These activities may also promote positive body image through an appreciation of the body's capabilities and mind-body connection. Acting and music performance clearly differ on the extent to which the visual is emphasized. The influence of an audience viewing embodying activities on the relationship between those activities and positive body image is another interesting area for future research (Tiggemann et al., 2014).

Currently, theorizing and research around models of positive body image has focused on physical and psychological health. There is emerging research and political interest in the broader impact of body image for social, academic, and occupational engagement and success (e.g., Halliwell, Diedrichs, & Orbach, 2014). As discussed in more detail later, body image concerns are associated with social avoidance and impaired social interactions (Dove, 2010; Mills, Fuller-Tyszkiewicz, & Holmes, 2014). Negative body image is also linked to reduced levels of performance and achievement. Weight dissatisfaction, but not BMI, is related to lower academic grades among adolescence girls in Finland (Mikkila, Lahit-Koski, Pierine, Virane, & Rimpela, 2003), China (Xie et al., 2006), and both girls and boys in the U.S. (Florin, Shults, & Stelttler, 2011). Moreover, adopting an observer's view on the self, the antithesis of embodiment (Menzel & Levine, 2011) and an obstacle to body appreciation (Augustus-Horvath & Tylka, 2011), is associated with reduced performance on mathematical (Helb, King, & Ling, 2004; Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998), cognitive (Quinn, Kallen, Christie, Twenge, & Fredrickson, 2004) and intelligence tests (Gay & Castano, 2010). Self-objectification is also associated with reduced physical performance

(Fredrickson & Harrison, 2005). The relationship between positive body image and academic achievement and performance is unclear. Explanations for the detrimental impact of self-objectification on cognitive performance focus on the reduction of available cognitive resources for the task (e.g., Gay & Castano, 2010). Individuals with positive body image would not be depleted in cognitive resources but, equally, they would not have any additional resources available. This balance would suggest that positive body image would not predict performance over and above the contribution made by negative body image. However, if positive body image is associated with lack of self-consciousness (Menzel & Levine, 2011; Piran & Teall, 2013), it should also facilitate academic and physical engagement and may be positively related to achievement. This represents an interesting area for investigation.

Longitudinal and experimental studies are an essential next step to examine the causal relationships proposed in models of positive body image. These methods are able to identify developmental trends in positive body image, to identify the direction of causal relationships, and to examine demographic differences in the predictors and outcomes of positive body image. All of this information is critical to informing policy around health education and the timing of interventions to promote positive body image.

Developmental Factors and Positive Body Image

Positive body image during childhood. The conceptualization of positive body image has foundations in Humanistic theory (Avalos & Tylka, 2006), which posits an innate growth orientation or actualizing tendency. This tendency is associated with a primary focus on what the body needs to thrive, with less attention given to how the body looks. From this perspective, positive body image can be understood, in part, as the expression of the actualizing tendency and the dominant orientation to the body when people are able to align with this actualizing tendency. It follows that the first experience of the body that young children develop should be focused on competence and be increasingly positive as their

competencies develop. It is likely that not all of the components of positive body image are experienced in childhood, for example, awareness but rejection of societal standards of appearance requires a complex understanding of societal pressures. However, theoretically, the orientation towards satisfying bodily needs should be innate. Therefore, we could assume that children's representations and evaluations of their bodies are positive and become increasingly positive as they are able to satisfy these needs. However, if the environment disrupts this orientation by emphasizing strict standards for appearance and disregard for inner experiences, positive body image will be thwarted.

Theoretically, if positive body image stems from an innate growth orientation, environmental influences that disrupt this orientation could reduce levels of positive body image. Consistent with this proposition, young women who identified as having positive body image in early adulthood, reported neutral experiences of body image during childhood which involved little evaluation and little investment, and negative body image during adolescence (Wood-Barcalow et al., 2010). Similarly, Piran and Teall (2013) found that women's experiences of embodiment were most positive in childhood, most negative during adolescence, and somewhere in between the two experiences during adulthood. . They understand this trajectory in relation to the social/environmental factors that severely limit opportunities for girls to experience physical freedom, mental freedom, and social power as they progress into adolescence. The only study of developmental factors in positive body image to date investigated retrospective accounts of caregiver communication and adult attachment style (Iannantuono & Tylka, 2012) discussed above.

As yet, no research has examined positive body image among children. Body image research with children has primarily focused on identifying causes of negative body image (Smolak, 2011). There is evidence that 3-5 year olds internalize body size stereotypes (Spiel, Paxton, & Yager, 2012), and longitudinal research indicates that body dissatisfaction at age 5

predicts body dissatisfaction at ages 7 and 9 which, in turn predicts restrictive eating at age 9 (Davison, Markey, & Birch, 2003).

Future research on positive body image during childhood and adolescence. There are a number of challenges to be addressed in order to facilitate research into positive body image in children and adolescents. The first challenge concerns the measurement of positive body image. There are a number of validated survey measures of body image for adolescent samples (Menzel, Krawczyk, & Thompson, 2011) and some are validated for children as young as eight (e.g., Mendelson, White, & Mendelson, 1996). It is likely that the Body Appreciation Scale could be used or adapted for adolescents. In a recent study, the BAS-2 showed good internal reliability (Cronbach $\alpha = .94$) among a group of 14- and 15-year-old girls (Halliwell, Jarman, McNamara, Risdon & Jankowski, in press). Body image research with younger children is more problematic and hampered by the limited number of validated measures appropriate for this age group (Tremblay & Limbos, 2009). Measures with young children tend to use visual representation, such as silhouette scales, that are well suited to the concrete reasoning style that dominates young childhood (Tremblay & Limbos, 2009). Typically children are asked to select a silhouette that represents the way that actually look and another that represents the way they would like to look. The difference between these figures is used as a measure of body dissatisfaction. Researchers need to be sensitive to the cognitive capacity of children and there is some debate as to whether young children are able to make meaningful and stable evaluations of themselves. However, Tremblay, Lovsin, Zecevic, and Lariviere (2011) found that, under appropriate measurement conditions, 3- to 5-year-old children can provide reliable and useful evaluations of their bodies. Visual measures are not so immediately applicable to the measurement of positive body image. However, it may be possible to represent aspects of body appreciation visually, for example displaying attitudes toward the body in outer demeanor by holding head up high and smiling (Tylka &

Wood-Barcalow, 2015). This should certainly be explored. In addition, efforts to develop

measures of the specific components of positive body image should be attentive to the need

to measure these constructs developmentally.

Developmental influences on positive body image have only been examined in cross-

sectional samples (Iannantuono & Tylka, 2012). Again, longitudinal research is needed to

establish causal relationships. When considering positive body image during childhood and

adolescence, we need to be particularly attentive to shifts between developmental stages and

the potential impact this may have on the nature and direction of causal relationships.

Research on negative body image indicates that the strength of causal relationships or even

the direction of causality may vary according to the specific developmental stage. Parental

dieting environment may be a stronger predictor during pre-adolescence than adolescence,

when other factors beyond the immediate family become more salient (Paxton et al., 2006).

Moreover, reverse causal relationships have been found at different developmental stages.

Archibald, Linver, Graber, and Brooks-Gunn (2002) found that disordered eating among 14-

to 16-year-old girls predicted poorer quality parent-child relationships over a 2-year period.

However, among a younger group of 12- to 13-year-old adolescent girls, problematic family

dynamic led to increased disordered eating across a 1-year period (Archibald, Graber, &

Brooks-Gunn, 1999). Indeed, another study found a bidirectional relationship between body

satisfaction and family connectedness among adolescent girls aged 10-15 but a unidirectional

relationship for their male counterparts where body dissatisfaction predicted changes in

family connectedness across the first year of the study (Crespo, Kielpikowski, Jose, & Pryor,

2010). It is likely that family connectedness provides girls with positive messages about

themselves, about their appearance and acceptance of changes in their bodies as they develop

through puberty (Crespo et al., 2010). Family connectedness may also provide protection

from negative sociocultural appearance pressures for girls (Bearman, Presnell, Martinez, &

Stice, 2006). The reverse direction impact of body satisfaction on subsequent family connectedness found among both girls and boys can be understood from a family systems perspective (Minuchin, 1986) whereby experiences of one member of the family impact on the whole family system. Adolescents with high levels of body dissatisfaction may also experience higher levels of depression and less positive social interactions leading to lower family connectedness (Crespo et al., 2010). In summary, this research emphasizes the importance of examining bidirectional or reverse causal relationships in longitudinal data and being sensitive to specific developmental issues in the data set.

There is a growing experimental and prospective literature on childhood influences on negative body image. This research allows us to better understand the psychological mechanisms that lead to changes in body image. As previously discussed, these methods should be adopted within the positive psychology literature. Not only do we need to examine predictors and outcomes of positive body image developmentally, we also need to examine the potential role of positive body image in moderating some established relationships in the negative body image literature. There is evidence of moderators within developmental models of negative body image. For example, Stice, Spangler, and Agras (2001) found that only adolescent girls who were low on social support reported increased body dissatisfaction after a subscription to a fashion magazine. Perhaps some of the resilience shown in the high social support and positive mood group is also related to positive body image. Of course, currently this assertion is speculative but this represents an important area for future research. There is preliminary evidence that body image flexibility, a positive body image construct, acts as a buffer between body dissatisfaction and disordered eating in college women and men (Sandoz et al., 2013). Furthermore, experimental work with adult women suggests that positive body image can protect against negative media exposure effects (Halliwell, 2013). These promising findings suggest that positive body image should be more thoroughly

investigated as a moderator.

Positive body image during adulthood. A consistent finding emerging from the positive body image research is that women's body appreciation is associated with age (Augustus-Horvath & Tylka, 2011; Swami, Tran, Stieger, & Vorack, 2014; Tiggemann & McCourt, 2013). Two studies have found that body appreciation increases with age among 17 to 75 year olds (Tiggemann & McCourt, 2013) and among a large sample of 9,667 women aged 18 to 90 years (Swami, Tran, Stieger, & Vorack, 2014). However, in a comparison of three age groups of women (Augustus-Horvath & Tylka, 2011), middle adult women (40-65) reported lower levels of body appreciation than emerging adult (18-25) or early adult (26-39) women. Middle adult women also perceived less body acceptance from friends, partners, and society as well as reported lower intuitive eating but were more likely to resist adopting an observer's view of their body than emerging adult or early adult women. Relationships between positive body image and other variables varied with age, and there were stronger pathways between the acceptance model variable in early and middle adult women than in emerging adult women.

Future research on positive body image during adulthood. The discrepancies between the research findings here are intriguing. The age range of the samples used varies between studies, and it may be that the positive association between age and body appreciation is driven by factors experienced after middle adulthood. Aging moves women's actual appearance further away from sociocultural ideals of attractiveness, which emphasises youth and sexual allure, and these ideals contribute to an "invisibility" of older women in Western societies (Grogan, 2011; Sontag, 1978). The increasing divergence from ideals of attractiveness that is inherent in women's aging can explain some evidence of increased body dissatisfaction among older women (e.g., Swami et al., 2014; Tunaley, Walsh, & Nicolson, 1999). However, the majority of research finds that body dissatisfaction is stable among

women through adulthood (Tiggemann, 2011). There is evidence to suggest that women become less invested in their appearance and report lower levels of body surveillance as they age (e.g., Augustus-Horvath & Tylka, 2009; Tiggemann & Lacey, 2009), so perhaps the reduced importance of appearance by means of age-related changes that move women's bodies away from appearance-ideals do not translate into body dissatisfaction. There are a number of developmental factors that impact women's attitudes towards, experiences of, and conceptualization of their bodies. Factors like pregnancy, childbirth, and menopause all draw attention to the functionality of the body and may foster an appreciation of aspects beyond the appearance of the body. Women may develop an increased armoury of experiences that challenge dominant ideals of attractiveness, for example romantic partners' preference for bodies that do not adhere to cultural ideals (Tiggemann, 2011), and this could foster an appreciation of diversity in beauty. Clearly, there is huge variability in women's life experiences and their responses to these experiences. Women have a complex and contradictory relationships with their bodies as they age, for example they are critical of ageism and appearance discrimination, yet at the same time still value appearance and feel the need to conform to appearance standards (Hurd, 2000; Hurd Clarke & Griffin, 2008).

To date, no research has explored positive body image and age among adult men. Research on negative body image suggests that the nature of men's body dissatisfaction changes with age and shifts from dissatisfaction with muscularity in adolescence to dissatisfaction with weight and muscle tone during adulthood (McCabe & Ricciardelli, 2004). There is also evidence that the importance of appearance decreases through adulthood (Cash, Winstead, & Janda, 1986). Cultural notions of how masculinity is constructed are not as universally negative for men, and many key aspects of masculinity, competence, autonomy and self-control, often increase with age. Despite increased societal pressure on men's appearance, Sontag's (1978) analysis of a "double standard of aging" remains relevant.

Investigations of positive body image during adulthood have huge potential to help us make sense of the complex experiences of aging. Against a backdrop of increasing stringent appearance ideals that, particularly for women, emphasize youth, it may be that interventions to promote positive body image are more powerful than interventions targeting body dissatisfaction (Tiggemann & McCourt, 2013). Unsurprisingly, all the quantitative research in this area is cross-sectional, and we need to be attentive to confounds between cohort effects and age effects in these data (Grogan, 2011). Future research should aim to adopt longitudinal designs to follow the same individuals through adulthood.

Positive Body Image and Social Interactions

Positive body image includes an experience of connection with oneself and with others (Piran & Teall, 2012) and, as such, it should be associated with positive social interactions. There has been no quantitative examination of links between positive body image and everyday interaction. There is evidence that negative body image reduces social engagement. In a study involving 1,200 adolescent girls across six countries (U.S., Canada, U.K., Germany, Brazil, and Russia), 60% of girls have avoided an activity because of body image concerns (Dove, 2010). These findings are consistent with data from experiential sampling studies indicating that body dissatisfaction predicts avoidance of social interactions in young women (Mills, Fuller-Tyszkiewicz, & Holmes, 2014) and, for both men and women, body dissatisfaction was also associated with less intimacy, i.e. reporting feeling less interpersonally close to others, in everyday social interactions (Nezlek, 1999).

Positive body image may also impact the content of social interactions around appearance. Again, this is an area that is yet to be explored. There are a number of investigations into links between negative body image and the content of appearance-focused conversations. Specifically, this research has focused on ritualistic conversations about appearance that reinforce dominant appearance ideals known as "fat-talk" (Nichter, 2000).

Several studies have found that body dissatisfaction is correlated with (e.g., Corning &

Gondolli, 2012) and predicts (Arroyo & Harwood, 2012) higher engagement in fat-talk. In

turn, hearing fat talk (Joasnes et al., 2014; Stice et al., 2003) and, even more strongly,

participating in fat-talk (Arroyo & Harwood, 2012; Jones et al., 2014) predicts increased

body dissatisfaction. Thus, fat-talk appears to be prompted by and also fuels negative body

image. Only one study has examined appearance-focused conversations and positive body

image. Wasylkiw and Butler (2014) found that the frequency of engaging in conversations

about dieting and weight loss was negatively correlated to body appreciation (i.e., BAS

scores) among young women. In addition, body appreciation was positively correlated with

the frequency of conversations about exercise, and women's positive attitudes and orientation

toward the body's performance or functionality accounted for this relationship. Taken

together these studies suggest that positive and negative body image may be associated with

different conversations about appearance.

Future research on positive body image and social interactions. Examining

everyday social interactions in relation to positive body image offers an excellent opportunity

to further understand the nature of it and to examine factors that may mediate relationships

between positive body image and broader health outcomes. In particular, it would be helpful

to explore the range of discourses used by women with positive body image to talk about

their bodies and the impact of these ways of talking. It would also be interesting to explore

associations between positive body image and engagement in, and quality of, social

interactions. Experiential sampling techniques, such as ecological momentary assessment,

offer an excellent method for examining this area (e.g., Mills et al., 2014). This method

permits information about the content and also the context of individuals' lives to be

collected as it is experienced in their natural environment. It allows a moment-to-moment

assessment of individuals' experiences through the day to give insight into state fluctuations

in body image. The development of state measures of positive body image would be an important step toward facilitating this research.

Theoretically, positive body image should be associated with specific ways of talking about the body. As positive body image is associated with attentiveness to the body's needs and with body acceptance, it may also be associated with lower levels of fat talk. Individuals with positive body image may be more likely to talk about the function of their bodies, talk about the way they are feeling, and talk about acceptance of their bodies. Wasylkiw and Butler (2014) have begun to examine this possibility. In their study, body-related talk was assessed by directly asking participants about the frequency of conversations about exercise and about weight-loss. It would also be valuable to examine naturally occurring body talk among women with positive body image to explore alternative ways of talking about appearance.

Positive Body Image and Cognitive Processing Style

A key, but little researched, component of positive body image is a self-protective cognitive style for processing appearance-related messages (Avalos et al., 2005; Menzel & Levine, 2011; Wood-Barcalow et al., 2010). Consistent with this component, positive body image is associated with a reduced consumption of appearance-focused media (Swami et al., 2008). However, causality is unclear. Women with positive body image could be avoiding appearance-focused media, alternatively low levels of consumption of appearance-focused media may be contributing to positive body image, or there may be a reciprocal relationship between the two. Women with positive body image are also critical of media ideals (Homqvist & Frisén, 2012). Some research suggests that interventions encouraging girls to critique media images reduce the harmful effects of viewing appearance-focused media (e.g., Halliwell & Diedrichs, 2014). However, critical evaluations of media images have been reported among women who are vulnerable to negative exposure effects (Englen-Maddox,

2005), and an awareness that media images are unrealistic and artificial is not sufficient to prevent damage from processing the images (Tiggemann, Slater, Bury, Hawkins, & Firth, 2013). The protective filter reported in qualitative research (Wood-Barcalow et al., 2010) goes beyond avoidance and critique of media messages to involve an explicit intention to filter appearance-related messages. Women with positive body image report an intention to: minimize the importance of negative appearance-related messages, selectively attend to positive appearance-related messages and to interpret ambiguous appearance-related messages as positive and self-enhancing (Wood-Barcalow et al., 2010).

Experimental studies offer an excellent opportunity to examine links between positive body image and cognitive processing style. By manipulating exposure to appearance-related environmental messages, we can examine whether women's responses are dependent on trait levels of positive body image. Essentially, we can see whether the way individuals respond to environmental stimuli differs according to levels of positive body image. A recent experimental study examined the interaction between internalization of the thin ideal, a known vulnerability factor for negative media effects, and body appreciation in moderating the impact of exposure to print advertisements featuring ultra-thin women (Halliwell, 2013). Women who were high on internalization of the thin ideal and low on body appreciation reported greater state appearance dissatisfaction and importance of appearance dissatisfaction after viewing ultra-thin models than control product-only advertisements. However, when women high on internalization of the thin ideal were also high on body appreciation there was no difference in the level of appearance dissatisfaction reported after viewing model and control images. In addition, this group of women rated appearance dissatisfaction as less important in the model than the control condition. These findings suggest that women with positive body image actually downplay the relevance of state appearance-concerns after viewing appearance-focused media.

Future research on positive body image and cognitive processing style. Currently, findings from the one study examining positive body image and responses to appearance-messages need to be replicated before strong conclusions can be drawn. However, the distinction between evaluative and investment components of negative body image in the study offers some insight into a potentially protective cognitive processing style associated with positive body image.

Previous research suggests that some women do not engage in social comparisons with thin-idealized media models because appearance is not a relevant comparison dimension (Halliwell & Diedrichs, 2012). However, it seems that when appearance is a relevant comparison dimension, women with positive body image process appearance-oriented media in a self-protective way. In this study, women rated appearance concerns as less important after viewing models versus control images, which suggests that women are doing more than just ignoring the advertisements. It suggests that they are processing the images in a way that protects their body image. Theoretically, downplaying appearance concerns after viewing appearance-focused media could be consistent with making self-enhancing social comparisons with the models, perhaps by focusing on a non-appearance dimension for comparison (Tiggemann & Polivy, 2010). Alternatively, for women high on positive body image, viewing appearance-focused advertisements may activate thoughts about the artificial nature of the images or the relative importance of other aspects of the self. Both of these possibilities are consistent with the notion of a protective filter being used in the processing of appearance-related messages through minimizing the impact of damaging appearance-messages and selectively attending to self-affirming aspects of the images. Future research should incorporate some more direct measures of cognitive processing by asking about their thoughts whilst viewing the media directly (Tiggemann & Slater, 2004), through word-stem completion (Tiggemann, Hargreaves, Polivy, & McFarlane, 2004) or through open-ended

thought responses (Englen-Maddox, 2005).

Research needs to address links between positive body image in men and responses to environmental messages around appearance. There is certainly evidence that men's body image is influenced by exposure to media appearance ideals (Bartlett, Vowels, & Saucier, 2008). This stream of research also needs to include an examination of how positive body image impacts on internalizing appearance-related messages within a variety of traditional forms of media including TV, film, and music videos, as the impact of these media are not necessarily equivalent (Halliwell & Diedrichs, 2012). In addition, research needs to investigate positive body image in relation to social media. Traditional media tends to focus on a relatively small range of celebrities and actors who are generally quite different from "regular" people (even participants in reality shows are usually quite distant from the viewer). In contrast, the visual landscape of social media is dominated by closely related others, friends, acquaintances, and family, and also features images of the user. This is likely to have a quite different relationship with body image. Future research should investigate positive body image in relation to how individuals contribute to and respond to social media.

A protective processing style should extend to all appearance-related stimuli, and research needs to address a broad range of influences beyond the media (e.g., both negative and complimentary appearance commentary). Positive body image may moderate the impact of hearing appearance-focused conversations, and research identifying moderators of the effects of fat talk is beginning to emerge (e.g., Compeau & Ambwani, 2013). A self-protective cognitive processing style could mean that individuals with positive body image are relatively immune, or at least resilient, to fat talk. Moreover, women with positive body image report avoiding relationships with people who are critical of their appearance (Wood-Barcalow et al., 2010). These women also report interpreting messages from partners and family members as self-enhancing by focusing on positive, rather than any potentially

negative, interpretation of these communications. Further research needs to examine responses to environmental influences including messages from family members, romantic partners, peers and instructors. In addition, research in this area should explore all aspects of a protective filter: minimizing the impact of negative messages, selectively focusing on positive messages and self-enhancing or self-protective processing of ambiguous messages.

Research in this area needs to be guided by theory. The two most relevant theories to social processing of environmental messages around appearance are Social Comparison Theory (Festinger, 1954) and Schema Theory (Altabe & Thompson, 1996). Links between positive body image and social comparison behaviors need to be explored. For most non-appearance domains, individuals tend to engage in self-serving social comparisons that maintain or enhance their self-esteem. In contrast, the majority of women, but not men, report a quite different and self-depreciating comparison habits for appearance-focused social comparison (Strahan, Wilson, Cressman, & Buote, 2006). Compared to comparisons on non-appearance domains, women report more upward comparisons with distant comparison targets, such as models, that are likely to lead to negative appearance-evaluation. For non-appearance domains women report more downward comparisons with close comparison targets such as friends and family (Strahan et al., 2006). There are also individual differences in comparison habits, and there is evidence that body dissatisfaction is associated with more frequent upward, but not downward, appearance-related social comparisons (O'Brien, Caputi, Minto, Pelples, Hooper, Kell & Sawley, 2009). Positive body image involves a rejection of narrowly defined appearance ideals; therefore, positive body image may influence an individual's choice of comparison target and the direction of appearance-comparisons. Specifically, positive body image maybe associated with fewer upward appearance-comparisons and more frequent downward appearance-comparisons. It may also be associated with more frequent comparisons similar, rather than distant, others. In addition,

positive body image involves valuing the competency of the body, and individuals with positive body image may make more functionality-related comparisons than appearance-related comparisons.

Schema Theory proposes that an individual's processing of appearance-related information depends on the set of self-schemas they hold about themselves and their appearance (Altabe & Thompson, 1996). Research demonstrates that negative body image directs attention to focus on appearance-related environmental messages and influences the interpretation of these messages. For example, research indicates that individuals high on drive for thinness pay preferential attention to specific body areas related to weight (Hewig et al., 2008), and that body dissatisfaction is associated with increased likelihood of interpreting ambiguous appearance-related comments as negative (Altabe, Wood, Herbozo, & Thompson, 2004). It is likely that these cognitive patterns are reversed among individuals with positive body image. However, it seems that body-related messages can be relevant to women with high positive body image (Halliwell, 2013), so attention is not necessarily diverted from these messages. Investigating the possibility that adaptive cognitive-biases are employed by individuals with positive body image will facilitate our theoretical understanding in this area and will also inform interventions efforts to promote adaptive appearance interactions.

Promoting Positive Body Image

Given the evidence of numerous physical and psychological health benefits associated with positive body image (e.g., Avalos et al., 2005) and indications that positive body image may protect against environmental influences detrimental to body image (Halliwell, 2013), there is compelling evidence suggesting that successful interventions should promote positive body image. A number of embodying activities are associated with positive body image. Research has also begun to examine the effectiveness of interventions that are directly derived from the literature on positive body image and psychological well-being. Bush,

Rossy, Mintz, and Schopp (2014) evaluated a 10-week intervention design for adult women with a variety of body image or eating concerns incorporating mindfulness and intuitive eating. Compared to a wait-list control group, female university employees who took part in the intervention reported significantly increased mindfulness, body appreciation, and intuitive eating immediately post-intervention. There was no follow-up data collection, so it is not clear whether the intervention effects were sustained long-term. However, this finding is extremely promising and further work on this intervention is clearly warranted.

Given the prevalence and consequences of negative body image among adolescents (Wertheim & Paxton, 2011) there is also a clear need to target younger groups with body image interventions. Schools, including primary, secondary, and university education, provide an excellent opportunity for accessing large inclusive groups of young people (Diedrichs & Halliwell, 2012). Recent research indicates that an intervention developed for targeting negative body image can also impact positive body image. A 1-hour dissonance-based intervention significantly increased body appreciation among adolescent girls immediately post-intervention, compared to a control group (Halliwell, Jarman, McNamara, Risdon, & Jankowski, in press). This intervention involved participants defining and critiquing the thin-ideal, discussing the costs of pursuing the thin-ideal, challenging fat talk, completing the top 5 body activism list and ended with a self-affirmation exercise. An extended version of the same intervention also improved body appreciation and intuitive eating among university women, compared to controls, immediately post-intervention and at 2-month follow-up (Halliwell & Diedrichs, 2014). The dissonance intervention used in these studies was originally designed as an eating disorder prevention program (Stice & Presnell, 2007) and targets three key risk factors for the development of eating disorders: thin-ideal internalization, body dissatisfaction, and negative affect. This early work examining interventions and positive body image is promising. There is evidence that both an

intervention tailored to address positive body image and an eating disorder intervention increase positive body image.

Future directions in intervention research. A number of effective intervention programs exist to reduce body dissatisfaction (e.g., Stice, Shaw, & Marti, 2007; Yager, Diedrichs, Ricciardelli, & Halliwell, 2013). The first step in extending the literature on promoting positive body image is to identify whether existing effective interventions improve positive body image in a range of populations. Given the brevity of the BAS (original = 13 items, BAS-2 = 10 items) and the Body Image-Acceptance and Action Questionnaire that measures body image flexibility (12 items), it would be useful to routinely these measures in future intervention research. It is also important to further develop and test interventions specifically tailored to address components of positive body image.

In addition, it would be helpful to identify which aspects of effective interventions contribute to promoting positive body image. Although practically it can be an advantage for body image interventions to be multifaceted to maximize chance of positive outcomes, theoretically it is informative to understand which activities facilitate change in specific outcome variables. This allows intervention efforts to be targeted on the most effective strategies. Dismantling studies are helpful here where the various components of the intervention are tested individual against a control group (Roehrig, Thompson, Brannick, & van den Berg, 2006). This research could also further our understanding of the relationship between positive and negative body image. Do different components of body image interventions differentially impact on positive and negative body image? Finally, the role of positive body image in sustaining intervention effects should be explored. If positive body image is a protective factor, increasing positive body image should lead to subsequent gains over time.

Summary and Conclusions

There are a number of important future directions for positive body image research. We need to develop our conceptualization and measurement of positive body image to delineate specific components that contribute to an overall experience of positive body image. We need to broaden the scope of our investigations to address a wider, representative population and additional likely correlates of positive body image. Currently, we know very little about positive body image among men or children. Research has begun to consider ethnicity in relation to positive body image but as yet, no research has examined sexual identity, visible difference, or physical disability. All of these areas offer potential insights into the psychological processes associated with positive body image. In particular, we should be attentive to factors specific to different populations as indicators of additional vulnerability and protective influences. We need to use longitudinal and experimental methods to examine the causal associations proposed by theories of positive body image. This work will allow us to examine developmental factors in positive body image. There is significant potential to explore positive body image and both social interactions and cognitive processing style. Together the developments in all of these areas will inform decisions about the timing and content of interventions to promote positive body image

Positive body image as a protective factor. Cumulatively, the existing research on positive body image suggests that it may act as a protective factor (Tylka, 2014). There is evidence of several pathways through which positive body image may have a protective function. First, positive body image may directly cause future improvements in well-being outcomes (e.g., Avalos et al., 2005). Longitudinal research is needed to further examine this proposition. Second, positive body image may lead individuals to change their behavior to avoid damaging environmental influences such as appearance-focused media (Swami et al., 2008). Longitudinal and experiential sampling research would be particularly valuable to exploring this area. Third, by equipping individuals with a self-protective cognitive style,

previously damaging appearance-focused messages may become more benign. In fact, body image interventions have been shown to increase resilience to appearance-focused media (e.g., Halliwell & Diedrichs, 2014). Experimental and longitudinal designs are best suited to address this issue. All of these mechanisms of protection need further exploration.

In summary, there has been a substantial amount of progress in the area of positive body image over the last 10 years. Currently, there are some fascinating theoretical proposals concerning the role of positive body image in well-being and health, and there are some very exciting avenues for future research in this area.

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