

RE-IMAGINING THE BODY: IDENTITY AND VALUES-BASED PREDICTORS OF
BODY APPRECIATION AND THE IMPACT OF A SINGLE-SESSION
CLASSROOM-BASED INTERVENTION FOR ADOLESCENTS

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Re-imagining the Body: Identity and Values-Based Predictors of Body Appreciation and
the Impact of a Single-Session Classroom-Based Intervention for Adolescents

Abstract

By

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Body image research has historically focused on body dissatisfaction and its connection to disordered eating, though there has been a more recent shift to explore positive body image. While there is a growing literature investigating the causes, consequences, and correlates of positive body image in adults, relatively little is known about these relationships during adolescence. Adolescence is a time of significant development in various domains, including the physical, as well as a time when beliefs about the self and world are explored. As such, adolescence is a natural time to examine links between body image, identity, and personal values. The current study explored the relationship between positive body image and religious and spiritual (r/s) values in particular through a two-part approach that took place in high schools. In part one of the study, adolescents ($N = 85$; 75.3% self-identified girls) completed various questionnaire measures pertaining to personal values and body image. Higher levels of sanctification of the body and self-worth contingent upon perceptions of God's love predicted more body appreciation. For adolescent girls in particular, the relationship between sanctification of the body and body appreciation was partially mediated by internalization of the thin ideal. In part two of the study, adolescents ($N = 83$) engaged in one of three conditions

(traditional, values/identity, control) that entailed small group discussion and personal letter-writing activities pertaining to body image. None of the conditions contributed to statistically significant improvements in body image, though participants' qualitative responses revealed that adolescents found the activities to be meaningful and beneficial. Research findings help explain relationships between identity, personal values, and positive body image during adolescence and reveal prevention program elements that may help foster positive body image.

Introduction

Body Image Overview

Body image entails cognitive, perceptual, affective, and behavioral components (e.g. Banfield & McCabe, 2002; Cash, 2011). In other words, body image encompasses how individuals perceive, think, and feel about their bodies, as well as how they behave in response to these processes. Poor body image can be detrimental to an individual's sense of self, especially when individuals stake their self-worth in body weight (Clabaugh, Karpinski, & Griffin, 2008) or appearance (Crocker & Knight, 2005). Body dissatisfaction is a strong predictor of disordered eating (Stice & Shaw, 2002). Coupled with overvaluation of shape and weight in assessing self-worth, body dissatisfaction is considered the core pathology of eating disorders (Fairburn, 2008). Even when an eating disorder is not present, body dissatisfaction remains pervasive among women in particular (Tylka, 2004). Termed "normative discontent" (Rodin, Silberstein, & Striegel-Moore, 1984), it is almost more expected that women are dissatisfied with rather than appreciative of their bodies.

Body image is especially relevant during adolescence given changes in the body due to puberty; (re)negotiation of parental, peer, and romantic relationships; and identity development processes (Markey, 2010). During pubertal development, boys experience more rapid increases in muscle, whereas girls experience more rapid increases in fat. Boys are generally moving closer to traditional societal ideals of masculinity with an emphasis on muscularity, whereas girls are moving further away from traditional societal ideals of femininity with an excessive emphasis on thinness (Mulgrew, 2020). As such, early-maturing girls and late-maturing boys tend to endorse more body dissatisfaction

than do adolescent counterparts (McCabe & Ricciardelli, 2004), and girls tend to experience increases in body dissatisfaction during early adolescence (Bearman, Presnell, Martinez, & Stice, 2006).

Body dissatisfaction predicts various negative psychological outcomes, regardless of the presence or absence of disordered eating behaviors. Body dissatisfaction predicts depressive symptoms in adolescent girls (Stice & Bearman, 2001) and is associated with impairments in quality of life in physical and psychosocial domains for adolescents (Griffiths et al., 2017). Body image is highly intertwined with self-esteem in adolescents and emerging adults (Wichstrøm & von Soest, 2016), as adolescents with poor body image experience lower self-esteem and are less likely to engage in romantic relationships (Davison & McCabe, 2006).

Though adolescent girls tend to experience more body dissatisfaction than do adolescent boys (e.g. Bearman, et al., 2006; Davison & McCabe, 2006; Murnen 2011), adolescent boys display similar patterns between body dissatisfaction and self-esteem (Cohane & Pope Jr., 2001; Davison & McCabe, 2006) and body dissatisfaction and quality of life impairments (Griffiths et al., 2017). However, body dissatisfaction in adolescent boys may look different in form than it does in adolescent girls. Adolescent boys tend to report wanting to be bigger or more muscular (Cohane & Pope Jr., 2001; Karazsia, Murnen, & Tylka, 2017), whereas adolescent girls tend to report wanting to be thinner. Boys' dissatisfaction with current levels of muscularity predicts higher levels of negative affect and an increased likelihood of using steroids (Cafri, van den Berg, & Thompson, 2006).

Importantly, not all boys experiencing body dissatisfaction are concerned with

muscularity. When examining body dissatisfaction in adolescent boys, it is important to differentiate between weight and muscularity concerns, as one, both, or none may be present (Jones & Crawford, 2005). Additionally, adolescent girls may also experience a drive for muscularity (McCreary & Sasse, 2000). More recently, social media has been used as a platform to encourage pursuit of muscularity and the “fit ideal” rather than the thin ideal, purportedly promoting a healthy lifestyle, where the majority of images feature women (e.g., Tiggemann & Zaccardo, 2018). Given the detrimental effects of the pursuit of the thin ideal, one might speculate that pursuit of the muscular ideal could be protective for girls. However, evidence suggests this is not actually true. Internalization of the muscular ideal among girls does not moderate the impact of thin ideal internalization on negative body image or eating outcomes. In fact, muscular ideal internalization is also positively associated with disordered eating among young women (Uhlmann, Donovan, Zimmer-Gembeck, Bell, & Ramme, 2018). Further, exposure to images that promote strength and fitness (“fitspiration”) actually contributes to more body dissatisfaction, less appearance self-esteem, and increased negative mood in young women (Prichard, Kavanagh, Mulgrew, Lim, & Tiggemann, 2020; Tiggemann & Zaccardo, 2015).

Positive Body Image

Body image and eating research has historically focused on symptomatology and disorder, though more recent research has incorporated positive psychology and healthy body image (Halliwell, 2015; Tylka & Piran, 2019). Though predictors and outcomes of body dissatisfaction are relevant and important, body image extends beyond dissatisfaction. A lack of body dissatisfaction does not inevitably entail body appreciation

(Homan & Cavanaugh, 2013), and various assessment tools measure positive body image specifically (Webb, Wood-Barcalow, & Tylka, 2015). Like body image more broadly, positive body image is multifaceted. It includes body appreciation (gratitude for what the body is able to do), body love and acceptance (positive affect for and comfort in one's body), a multidimensional understanding of beauty, inner-positivity, filtering body-related input in a healthy and protective manner, respect for the body, and self-compassion (Cook-Cottone, 2015). Men/boys typically endorse higher levels of body appreciation than do women/girls, and gender differences in body appreciation are especially pronounced during adolescence (He, Sun, Zickgraf, Lin, & Fan, 2020).

Positive body image is uniquely associated with psychosocial correlates. In adults, appreciation for the functionality of the body positively predicts body appreciation (Alleva, Tylka, Kroon, & Kroon van Diest, 2017). Among young women, more self-compassion and perceived body acceptance by others, as well as less appearance media consumption, social comparison, self-objectification, and thin ideal internalization, are associated with more body appreciation (Andrew, Tiggemann, & Clark, 2016a). For adolescent girls in particular, perceived body acceptance by others predicts body appreciation over the course of one year, and body appreciation in turn predicts improved health outcomes. Specifically, a positive body image predicts less dieting, increased participation in sports and activities, and a lower likelihood of initiating drinking or cigarette smoking (Andrew, Tiggemann, & Clark, 2016b). Relatively little is known about the predictors and outcomes of positive body image in adolescent boys, which is one gap in the research the current study sought to address.

Sociocultural Influences on Body Image

Appearance Ideals and Social Comparison

Western society tends to value the thin female body, termed the “thin ideal” (Thompson & Stice, 2001). Adolescent girls experience pressure to be thin from a variety of sources including the media, family members, and peers. Pressure to be thin is linked to higher levels of depression, stress, guilt, shame, insecurity, and body dissatisfaction among women (Stice & Shaw, 1994). While virtually all girls living in Western society are exposed to the thin ideal, not all girls develop eating disorders or display high levels of body dissatisfaction. Body dissatisfaction is more likely to result when someone internalizes the thin ideal and incorporates this ideal into self-evaluation (Thompson & Stice, 2001). Thin ideal internalization can result in increased self-policing and body dissatisfaction (Stice & Shaw, 2002; Stice & Whitenton, 2002).

The immediate social environment is particularly relevant to adolescent body image, as adolescents are especially likely to be impacted by peers and the media (Shroff & Thompson, 2006). Though adolescents make comparisons to models and celebrities, they are especially likely to make social comparisons to same-sex peers. Making weight comparisons to peers predicts body dissatisfaction for both boys and girls, whereas shape comparisons by girls and face comparisons by boys also predict body dissatisfaction (Jones, 2001). Adolescent focus groups reveal that peer influences on body image tend to be overwhelmingly negative (Kenny, O’Malley-Keighran, Molcho, & Kelly, 2017). Both adolescent boys and girls feel significant pressure to conform to appearance ideals, and striving to attain these ideals can contribute to feelings of anxiety, depression, and low self-esteem as well as dangerous self-harm or extreme weight loss behaviors. Boys tend to compare hair style, muscularity, and athletic ability mostly at school. Girls tend to

compare weight and clothing size at school and through social media (Kenny et al., 2017).

Highly visual social media sites, such as Instagram and Snapchat, are especially potent avenues for social comparison. Adolescents who frequently use these sites demonstrate high levels of body dissatisfaction (Marengo, Longobardi, Fabris, & Settanni, 2018). Similarly, adolescents who watch more tween media and who discuss appearance more with their friends are more likely to see physical attractiveness as both beneficial and desirable. As a result, they are more likely to internalize appearance ideals that contribute to lasting dysfunctional beliefs about appearance (Trekels & Eggermont, 2017). Exposure to idealized images through media contributes to body dissatisfaction, negative mood, and increased appearance comparisons especially among adolescent girls; effects are particularly strong for those with more appearance investment (Hargreaves & Tiggemann, 2004). As aforementioned, mere exposure to appearance ideals does not cause body dissatisfaction. Internalization of these ideals, in which adolescents buy into the ideals and use them to evaluate themselves and possibly others, is key. Among adolescent boys and girls alike, media internalization predicts body image self-discrepancy. Perceived discrepancies between the ideal and current reality seem to contribute to poor body image (Rousseau & Eggermont, 2018).

Objectification Theory and Contingencies of Self-Worth

Appearance may become the very foundation upon which individuals—girls and women in particular—base their worth. Fredrickson and Roberts's Objectification Theory (1997) is one helpful framework for conceptualizing gender differences in body image. According to Objectification Theory, consistent objectification and sexualization

of the female body establish women as objects to be gazed upon by others. As a result of this objectification, a female's sense of worth may become rooted in her physical appearance and sexual capabilities. When women and girls are living in such a context of constant objectification, the objectification can become internalized. This self-objectification can lead to increased monitoring of one's body and appearance, which contributes to higher levels of shame, anxiety, and other forms of psychopathology such as depression and disordered eating. Objectification Theory further posits that viewing one's body from an external perspective can also lead to decreased awareness and appreciation of internal body experiences (Fredrickson & Roberts, 1997).

Empirical findings support Objectification Theory. When young adolescents discuss the body, girls tend to focus more on appearance and looking good, whereas boys tend to focus on athletic performance (Tatangelo & Ricciardelli, 2013). These patterns suggest that boys and girls tend to view and relate differently to their bodies. Specifically, adolescent girls endorse more body surveillance, body shame, appearance anxiety, and disordered eating than do adolescent boys (Slater & Tiggemann, 2010). Body shame mediates the relationship between self-objectification and disordered eating in undergraduate women (Noll & Fredrickson, 1998), and self-objectification predicts body dissatisfaction, which in turn predicts disordered eating (Kroon van Diest & Perez, 2013). A review and meta-analysis of 53 studies revealed that self-objectification predicted more disordered eating cognitions and behaviors, with links especially strong for women (Schaefer & Thompson, 2018). Among undergraduate women, self-worth based on appearance predicts increased self-objectification, which in turn predicts more appearance anxiety and lower self-esteem (Adams, Tyler, Calogero, & Lee, 2017).

Appearance-contingent self-worth also predicts less body appreciation among women (Homan & Tylka, 2015; Siegel, Huellemann, Hillier, & Campbell, 2020).

Though boys and men may not be systematically objectified as are girls and women, they are not immune to appearance ideals and objectification. On a broader level, Objectification Theory draws attention to the detrimental impact that appearance ideals and self-objectification can have on an individual, regardless of gender identity. Among both adolescent girls and boys, internalization of media ideals predicts increased self-objectification over time, which in turn predicts more body shame and appearance anxiety (Dakanalis et al., 2015). Additionally, overvaluation, dissatisfaction, and preoccupation with body shape and weight predict psychological distress and disordered eating behaviors in adolescent boys (Mitchison et al., 2017). It is clear that hyperfocus on body shape and weight can contribute to unhealthy cognitions and behaviors in adolescent boys as well.

Objectification Theory highlights various negative psychological variables that are present when one's sense of self-worth is based in appearance. However, appearance is just one domain upon which one might base their self-worth. People tend to derive self-worth from multiple domains, often described as contingencies of self-worth (Crocker & Wolfe, 2001). Self-worth based on external contingencies (i.e. appearance, others' approval, academic achievement) tends to relate to poorer psychological outcomes than self-worth based on more internal contingencies (i.e. virtue, perceptions of God's love) (Crocker & Knight, 2005). Self-worth may worsen or improve depending on what domains an individual bases his or her worth, as well the level of investment in each domain. For instance, having a disposition of gratitude predicts less investment in

domains of appearance and the approval of others. Such a disposition predicts more body appreciation and less engagement in eating and body comparisons (Homan & Tylka, 2018). Relatedly, self-worth based in God's love predicts less body surveillance and more appearance satisfaction (Overstreet & Quinn, 2012).

Religion/Spirituality and Body Image

Self-worth contingent upon God's love is one way, among many, that body image can relate to religion and spirituality (r/s). Among adolescents, the perception of the self as spiritual is linked to positive health behaviors (James & Miller, 2017). Further, though young men have lower levels of body dissatisfaction than do young women, r/s profiles for both men and women relate to body image. Specifically, those whose religious beliefs and activities are motivated by personal or social benefits (extrinsic motivations) rather than by internalization of religious beliefs (intrinsic motivation) experience more body dissatisfaction (Audette, Barry, Carlucci, & Hardy, 2018). Further, young women who experience divine struggle (Exline, Homolka, & Harriott, 2015), question aspects of their faith (Boyatzis & McConnell, 2006), or perceive an anxious attachment to God (Homan & Cavanaugh, 2013) are more likely to endorse body image concerns and experience less body satisfaction and appreciation.

Conversely, strong and internalized religious beliefs and a perceived secure attachment to God are associated with fewer body image concerns (Akrawi, Bartrop, Potter, & Touyz, 2015), as well as more focus on function of the body rather than its appearance (Homan & Cavanaugh, 2013). Women with a perceived secure attachment to God are less likely to engage in social comparisons that can contribute to body dissatisfaction (Homan & Lemmon, 2015) and are less likely to experience disordered

eating symptoms as a result of perceived sociocultural pressure to be thin (Strenger, Schnitker, & Felke, 2016). Further, young adult women who identify as religious or spiritual are more likely to turn to faith to cope with body image distress (Jacobs-Pilipski, Winzelberg, Wilfley, Bryson, & Taylor, 2005), such as through engaging in spiritual reading or recalling aspects of religious scripture (Smith-Jackson, Reel, & Thackeray, 2011). Themes that emerge from semi-structured interviews with women suggest that r/s can help keep body concerns in perspective, remind women that they have limited control over their bodies, and teach women that their bodies are gifts from God (Buser & Parkins, 2013).

Sanctification of the body, or the attribution of sacred qualities to the body (Mahoney et al., 2005), also reveals connections between r/s and body image. Among college students, sanctification of the body is associated with more body satisfaction (Mahoney et al., 2005), and young women may perceive their bodies to be gifts from God that are entrusted to their care (Buser & Mclaughlin, 2019). The body may be viewed as a manifestation of God, and self-worth is seen as contingent upon the sacred rather than appearance. Those who perceive their bodies as sacred show less investment in external appearance and greater satisfaction and appreciation with the body (Goulet, Henrie, & Szymanski, 2016; Jacobson, Hall, & Anderson, 2013). In adults, sanctification of the body also predicts less body objectification and depersonalization (i.e. dissociation from the body). Women who view their bodies as sacred and integral to their being are more in tune with body processes and feel more connected to their bodies (Jacobson et al., 2013; Jacobson, Hall, Anderson, & Willingham, 2016).

Various studies highlight both the helpful and harmful ways that r/s may be associated with body image. However, the picture is limited given that the majority of these studies rely on samples of college-aged women. Though body image is clearly relevant for men and adolescents, very little is known about how it relates to r/s in these populations. This is another gap in the literature the current study sought to address. The current study also examined how findings pertaining to r/s and body image may apply to body image prevention programming.

Body Image and Eating Prevention Programming

There are a limited number of professionals trained to treat eating disorders (Levine, McVey, Piran, & Ferguson, 2012), and body dissatisfaction—even without accompanying disordered eating behaviors—can be debilitating and distressing. As such, it is essential to extend intervention efforts beyond the scope of treating already developed eating disorders, such as through prevention. Prevention among youth may be universal (focused on entire population rather than those at elevated risk), selective (focused on those with at least one significant risk factor), or indicated (focused on those who may endorse multiple risk factors and perhaps some symptoms of the disorder) (Weisz, Sandler, Durlak, & Anton, 2005).

Early prevention programs for body image and eating tended to be didactic, individualistic, and universal in nature, focusing on psychoeducation. Teaching material provided information about eating disorders and associated risks and outcomes. Though these strategies often increased participants' knowledge about eating disorders, they did not reduce risk factors (Stice, Becker, & Yokum, 2013). The second generation of prevention programs also included psychoeducation, though information pertained more

specifically to the thin ideal, sociocultural pressure to be thin, and healthy weight control behaviors. Third-wave strategies tended to focus more on selective audiences and used an interactive format to target specific risk factors for eating disorders. Third-wave programs have been most successful at reducing disordered eating risk factors, though reduction of disorder onset has been limited (Stice et al., 2013).

Body image and eating prevention programs demonstrate larger effects when they are selected (vs. universal), interactive (vs. didactic), multisession (vs. single-session), female-only (vs. co-educational), administered to those 15 years of age or older, use validated measures, and are administered by intervention professionals. Smaller effects tend to be seen over time, as the follow-up period increases, and programs with an emphasis on psychoeducation tend to have a limited impact (Stice, Shaw, & Marti, 2007). The effectiveness of body image and eating prevention programs is also influenced by the level of intervention. Media literacy approaches tend to be most effective for universal audiences; dissonance-based approaches work best for selective audiences (though cognitive behavior therapy, healthy weight, media literacy, and psychoeducational strategies can also be effective); and cognitive behavior therapy (CBT) strategies are best for indicated audiences. Additionally, universal programs tend to demonstrate smaller effects, which may be due to floor effects and program administration to an overall healthy sample (Watson et al., 2016).

Based on these findings, one may reason that prevention efforts ought to focus on selective audiences endorsing risk factors in order to maximize effectiveness. In other words, programs should target older adolescent girls endorsing high levels of body dissatisfaction. However, it is essential to consider the tradeoff between depth and

breadth. Even though targeted approaches may result in larger effect sizes, they reach fewer people (Stice et al., 2013). Given the relevance of body image to adolescence, whether or not body dissatisfaction has become entrenched, universal prevention programming that targets a broad audience should also be employed.

School-Based Strategies

Schools are common platforms for administering universal prevention programs. School-based programs can reach large numbers of youth and can be directly incorporated into the school curriculum. The most effective school-based body image and eating programs are those that engage students with interactive strategies, incorporate parents, focus on media literacy, and build self-esteem (O’Dea, 2005). Though many school-based programs tend to focus on disordered eating and seek to reduce the incidence of eating disorders, interventions taking place in schools can also be beneficial to body image per se. A review of universal intervention programs taking place in secondary school classrooms (Yager, Diedrichs, Ricciardelli, & Halliwell, 2013) revealed that effective body image programs are those that are interactive in nature and target younger participants with higher risk status. A more recent review of school-based programs (Kusina and Exline, 2019) extended these findings, indicating that the most successful programs were those that were interactive in nature, contained multiple sessions, and used dissonance-based strategies.

Dissonance-Based Interventions

Dissonance-based interventions for body image and eating are based in the theory of cognitive dissonance (Festinger, 1962) coupled with the dual-pathway model of disordered eating (Stice, 2001). The theory of cognitive dissonance posits that people are

in a state of cognitive dissonance when they have various pieces of information that are psychologically inconsistent with each other. People are naturally motivated to reduce feelings of dissonance by making competing pieces of information more consistent with each other (Festinger, 1962). In dissonance-based interventions for body image and eating, women verbalize costs of pursuing the thin ideal and identify how the thin ideal is incongruent with their personal values, beliefs, and behaviors. As a result, women build discrepancy with their own endorsement of the thin ideal. To alleviate dissonance, they must either reduce their internalization of the thin ideal or alter their own values, beliefs, and behaviors. Ideally, investment in personal values, beliefs, and behaviors outweighs commitment to the thin ideal, leading to reduced endorsement of the thin ideal (Stice et al., 2008). The dual-pathway model posits that thin ideal internalization and pressure to be thin both lead to body dissatisfaction (Stice, 2001). Therefore, dissonance-based interventions reduce body dissatisfaction by reducing commitment to the thin ideal.

In body image and eating disorder prevention, dissonance-based strategies tend to be particularly effective for selective audiences (Stice, Marti, Shaw, & Rohde, 2019; Watson et al., 2016). However, dissonance-based approaches can also be effective at the universal level (Kusina & Exline, 2019; Stice, Shaw, Becker, & Rohde, 2008). Further, though dissonance-based interventions are typically assessed based on their impact on body dissatisfaction, such strategies can also be used to foster positive body image (Halliwell & Diedrichs, 2019).

Limitations of Programs

Though many body image and disordered eating prevention programs have demonstrated success, they tend to be limited in scope and impact. Paralleling trends in

the broader eating disorder research, prevention research has tended to rely on samples of white, well-educated, young adult women. Further, relatively few programs have focused on body image per se, and efforts have historically targeted disorder and symptom reduction. Given links between positive body image and psychological functioning, it is prudent to develop prevention programs that foster positive body image and prevent body dissatisfaction from becoming entrenched.

Universal audiences are particularly appropriate for such strategies, as they are composed of generally healthy individuals. Because these samples do not endorse significant eating concerns that must be immediately addressed, intervention strategies can seek to foster positive body image and personal flourishing beyond merely reducing levels of body dissatisfaction. School-based intervention strategies can be beneficial to body image per se, though follow-up effects tend to be limited (Kusina & Exline, 2019; Yager et al., 2013). Further, while these programs may have a large impact on knowledge (Yager et al., 2013), effects on changing actual body image tend to range from small to medium (Kusina & Exline, 2019; Yager et al., 2013). It is important to consider other potential avenues of entry within prevention programming to maximize effectiveness, such as through incorporation of the concept of embodiment (Piran & Teall, 2012) or identity-related processes (Corning & Heibel, 2016).

Identity Development, Embodiment, and Positive Body Image

The body may relate to one's identity in a multitude of ways, ranging from positive to negative (Kling, Wängqvist, & Frisé, 2018). For example, overall appearance or particular aspects of appearance may serve as part of one's identity (e.g., the "overweight friend"); the body's ability to perform tasks may be essential to identity

(e.g., the body gives one the ability to be a mother); appearance-related cognitions and/or presentations influence and are influenced by engagement in social interactions (e.g., dress and groom a certain way to present self a certain way in social situations); and appearance-related attitudes and behaviors may be part of identity (e.g., thinking about the body and dissatisfaction is the core of who one is and drives one's daily behaviors) (Kling et al., 2018). An eating disorder may even serve as a source of identity for an individual and be a barrier to recovery (Corning & Heibel, 2016). The relationship between eating symptomatology and identity appears bidirectional (Verschuere et al., 2018). Eating pathology during adolescence can hinder identity development, and identity confusion is also predictive of eating pathology. On the other hand, identity synthesis is protective against eating pathology (Verschuere et al., 2018), and a stable identity trajectory is linked to body esteem (Nelson et al., 2018).

The Developmental Theory of Embodiment (DTE; Piran & Teall, 2012) considers identity processes and emphasizes a multidimensional understanding and experiencing of the body. Embodiment extends beyond body (dis)satisfaction and considers how body relations include three broader domains: the physical, the mental, and the social. Experiences in any of these domains can move one closer to or further from healthy embodiment (Piran & Teall, 2012). When viewed through a DTE lens, body image programming should extend beyond the prevention of risk factors and incorporate protective factors as well. Body conversations ought not to perpetuate the body as object—with which one is (dis)satisfied—but rather ought to integrate the broader domains within which the body operates.

Identity-Based Prevention Strategies

The DTE draws attention to the importance of discovering and appreciating elements of identity that are not related to physical appearance. Prevention programs that specifically target body esteem are limited in scope because they, yet again, focus on the body as a source of esteem. One might consider different sources of self-worth as pieces of a pie, as is commonly done in treatment for an eating disorder (Fairburn, 2008). The entire pie represents self-esteem, and each piece represents a different contingency of self-worth. Traditional prevention strategies attempt to make the “body/appearance” slice of the pie positive rather than negative, ultimately improving self-esteem by improving body esteem. Identity-based approaches, on the other hand, do not merely attempt to shift the “body/appearance” piece from negative to positive, but also seek to reduce the size of this piece all together. By adjusting the size of the pie pieces and introducing new pieces of the pie that are more within an individual’s control, self-worth improves (Fairburn, 2008).

Identity-building approaches may be especially helpful to incorporate in body image and disordered eating prevention programs in order to help individuals identify and claim various aspects of their identity that do not rely on body image and eating (Corning & Heibel, 2016). Given the salience of identity-development processes during adolescence (Erikson, 1956) body image programs with a focus on identity may be especially meaningful to adolescents. Use of self-affirmation or discussion of religious and spiritual values are two ways that identity could be incorporated into programming.

Self-Affirmation. Self-affirmation techniques that incorporate elements of one’s identity demonstrate promise. For instance, college women demonstrated less body

dissatisfaction when engaged in a self-affirmation activity (Bucchianeri & Corning, 2012). The activity prompted them to rank order their personal values and then write an essay about why the top-ranked value is important to them and how it has been helpful in their lives. The women who participated in this activity also indicated greater openness to learning about the dangers of body dissatisfaction and indicated that they would attempt to criticize their bodies less (Bucchianeri & Corning, 2012). Among undergraduate men and women who were exposed to advertisements that endorsed conventional appearance ideals, students who focused more on external contingencies of self-worth were more likely to engage in behaviors that sought to attain these ideals. Conversely, students who endorsed lower levels of external contingencies of self-worth were more likely to engage in behaviors seeking to resist the ideals. However, all students who participated in a self-affirmation activity were less likely to engage in behaviors seeking appearance ideals despite being exposed to advertisements that promoted these ideals (Williams, Schimel, Hayes, & Usta, 2014).

Self-affirmation approaches can also be successful among younger participants. When girls participated in a self-affirmation task that encouraged them to reflect on their engagement in acts of kindness, they demonstrated higher levels of body satisfaction compared to girls who did not participate in the self-affirmation activity. The affirmation activity increased girls' self-esteem by shifting the basis of self-worth from body shape and weight to other, more protective contingencies (Armitage, 2012).

Religion and Spirituality. For some adolescents, religion and spirituality (r/s) may be a major facet of identity (King, 2003). R/s may be especially salient during adolescence given changes that take place in physical, cognitive, and social development

that prime adolescents to experience changes in r/s as well (King & Boyatzis, 2015). R/s can provide a countercultural narrative during the identity development process that subverts self-objectification and conventional appearance ideals. Some religious teachings encourage individuals to love and care for their bodies (Mizevich, 2012) and can help people feel grateful for rather than contemptuous of their bodies. Specifically, when young adults write about why they are grateful for their bodies, they endorse more positive evaluations of personal appearance and less internalized weight bias and body dissatisfaction (Dunaev, Markey, & Brochu, 2018). Relatedly, reading religious body affirmations can improve weight esteem by increasing feelings of being loved and accepted in undergraduate women (Inman, Snyder, & Peprah, 2016). Women who identify as spiritual endorse more body appreciation in part because they experience more gratitude and less self-objectification (Tiggemann & Hage, 2019). R/s teachings can also inspire self-compassion, which is a protective factor against poor body image (Albertson, Neff, & Dill-Shackleford, 2015; Braun, Park, & Gorin, 2016) and moderates the relationship between overvaluation of shape and weight and disordered eating (Linardon, Susanto, Tepper, & Fuller-Tyszkiewicz, 2020).

Though r/s have yet to be directly incorporated into body image and eating programming for adolescents, an elaboration of aforementioned identity-based approaches can specifically incorporate r/s values and identities. Identity-based approaches already seek to help individuals define themselves in ways that are not related to appearance. R/s can be explicitly integrated into conversation when working with those who endorse r/s values. Incorporation of r/s may tap into participants' core beliefs, ultimately serving as a positive and relatively stable basis of self-worth with a lasting

positive impact on body image. The current study was a direct exploration of the incorporation of identity and values—including aspects related to r/s—into a body image intervention for adolescents.

The Current Study

There were two main goals of the current study. First, the study sought to expand understanding of the long-standing relationship between thin ideal internalization and body dissatisfaction. Specifically, does a comparable relationship exist when considering appearance ideals more broadly and not just the thin ideal? Further, does the relationship hold when measuring positive body image per se and not body dissatisfaction? These questions parallel the growing research on body image that seeks to be more gender-inclusive and attempts to incorporate measures that capture positive elements of body image beyond dissatisfaction. Further, how do religion and spirituality (r/s) relate to internalization of appearance ideals and positive body image? Though a relatively small literature exists exploring the relationships between r/s and body image, the majority of these studies rely on samples of white, Judeo-Christian, college-aged women (Akrawi et al., 2015). The current study utilized a gender-inclusive adolescent sample to help address these gaps.

The second goal of the current study was to assess the impact and understanding of an activity that explicitly incorporated religion and spirituality into an identity- and values-based discussion pertaining to appearance ideals and body image. Does intentionally incorporating aspects of identity—including r/s—have a comparable or even larger impact on cultivating positive body image than does a more traditional intervention approach? Further, is such an activity feasible and acceptable to adolescents? The current

study was not a prevention trial, but rather a brief preliminary pilot intervention of a values-based activity that incorporated r/s with an adolescent sample. Findings from the current study can help inform the decision of whether or not it is worth pursuing future prevention programming that explicitly incorporates r/s.

Hypotheses

Several hypotheses were proposed to pursue the goals of the current study and address the aforementioned questions. Hypothesis sets 1-3 make predictions about relationships among variables of interest captured by self-report measures. Hypothesis 4 pertains to the impact of the brief intervention activities. Figures 1 and 2 depict hypotheses.

Hypothesis 1: Internalization of Appearance Ideals and Body Appreciation

More internalization of appearance ideals will predict less body appreciation.

Hypothesis Set 2: Contingencies of Self-Worth/Sanctification and Internalization of Appearance Ideals

Self-worth based more in appearance will predict more internalization of appearance ideals. Self-worth based more in God's love and sanctification of the body will predict less internalization of appearance ideals.

Hypothesis Set 3: Contingencies of Self-Worth/Sanctification and Body Appreciation

Self-worth based more in appearance will predict less body appreciation. Self-worth based more in God's love and sanctification of the body will predict more body appreciation. These relationships will be mediated by internalization of appearance

ideals. See Figures 1 and 2 outlining these predicted pathways with internalization of appearance ideals as the hypothesized mediators.

Hypothesis 4: Body Image Activities

Participants in both the dissonance- and values-based conditions will report significantly more positive body image immediately following participation in body image activities compared to participants in the control condition.

Method

Participants

A sample of 85 adolescents from private high schools in Northern Ohio participated in the study. Table 1 presents descriptive characteristics of the sample in detail. To summarize, three quarters of the sample identified as girls, and the majority of students were in their first or second year of high school with a mean age of 15 years. The sample was predominantly white, and most students identified as heterosexual.

Responses to remaining demographic questions indicate that most students came from highly educated families, with 44.7% of participants reporting that their parents graduated from college and 37.6% indicating that their parents completed graduate or professional school. The majority of the sample endorsed belief in God/Higher Power, with 48.2% of participants indicating that they believed in God/Higher Power without a doubt, and 36.5% indicating that they believed in God/Higher Power despite some doubts. The majority (62.4%) of participants identified as both religious and spiritual, while 10.6% of participants identified as neither religious nor spiritual.

Procedure

Recruitment

The researcher recruited high schools in Northern Ohio through email, phone calls, and in-person meetings. Initial emails and follow-up emails (Appendix A) were sent in February and March 2019. The researcher participated in phone calls and in-person meetings to discuss the project in more detail with interested schools during spring and summer 2019. Significant efforts were made to recruit students from schools representing a range of demographic characteristics pertaining to gender, ethnicity/race, socioeconomic status, and (non)religious and spiritual backgrounds. Though various schools expressed initial interest, all schools that followed through with data collection were private schools. Further, two of the three schools were affiliated with Catholicism, one of which was an all-girls school. Only one student participated from the third school, which was not religiously affiliated.

In fall 2019, the researcher sent information about the study and consent forms (Appendices B and C) to parents/guardians of students at participating schools. Some schools preferred to send this information to parents/guardians of only freshman and sophomore students, while others shared the information with parents/guardians of all students. The information was shared via e-mail or the school electronic newsletter. Parents/guardians received information about the study and a link to complete an electronic consent form.

Data Collection

Data collection took place from October 2019 through January 2020, for a total of five data collection sessions. The researcher was present for every data collection session.

Only students with parental/guardian consent were invited to participate, and students participated in only one session. Though body image programs tend to be more effective if multi-session, even a single session can contribute to improvements in body image (see review in Kusina & Exline, 2019). In the current study, sessions varied in location and format, based on schools' preferences and daily schedules. One session took place prior to the school day; another session took place after the school day; and three sessions took place during school hours. For sessions taking place during school hours, one school preferred to pull students out of their classrooms, while another school allowed students to remain in in-tact classrooms. All data collection sessions entailed two parts, both a self-report questionnaire and a discussion-based activity with an accompanying writing exercise.

Part One. The questionnaire incorporated an assent form (Appendix E) or consent form (Appendix D) for students eighteen years and older, as well all measures described below (Appendices M-U) to address the proposed hypotheses. The first portion of the study took approximately 20-30 minutes to complete. All participants during a data collection session completed the questionnaire at the same time.

Part Two. After participants completed the questionnaire in one large group, they were divided into smaller groups to complete part two of the study. Groups were assigned prior to data collection. The researcher selected alternating names from the list of students with parent/guardian consent to assign to different groups. However, groups were occasionally adjusted on the day of data collection due to students being absent or not being available during a certain time due to testing or other academic commitments. Each small group was assigned to one of three conditions.

The first condition (Appendix G), “Traditional,” is consistent with traditional dissonance-based intervention strategies. The current study used elements from the “Happy Being Me” program developed by Paxton and colleagues (e.g. Dunstan, Paxton, & McLean, 2017; Richardson & Paxton, 2010). Participants discussed appearance ideals of boys and girls as well as emotional, social, and physical problems caused by pursuit of these ideals. Following the discussion, they engaged in a dissonance-based letter-writing activity in which they wrote to a younger version of themselves about the problems associated with pursuing appearance ideals. Stice and colleagues (Stice et al., 2008) have used similar letter-writing activities to create dissonance in participants. “Traditional” was included in the current study as a point of comparison for the “Values/Identity” condition.

In the “Values/Identity” condition (Appendix H), participants also examined appearance ideals of boys and girls. Then they were provided with a list of values (Appendix I) a person might have and were asked to rank order their top ten values. Ranking of personal values is consistent with affirmation-based activities that are incorporated in identity-based prevention programs for body image and eating (e.g. Corning & Heibel, 2016). Participants then discussed how they selected their values, as well as how pursuit of appearance ideals is discrepant with their identity and personal values, including religious and spiritual values. Participants then wrote a letter to a younger version of themselves about how pursuit of appearance ideals can interfere with their personal values.

The third condition (Appendix J), “School,” served as the control condition. Students were asked to engage in a memory task pertaining to their daily routine one year

prior. The researcher asked about one year prior, rather than the present day, to limit feelings of stress about current activities and commitments. Students then wrote a letter to their younger selves detailing their daily schedule from a year prior. The researcher retained letter writing to a younger self to remain consistent with the other two conditions

Follow-Up. Following the writing activity, participants responded to qualitative questions about their experience with and perceptions of the activities (Appendix K). They also completed measures of body appreciation and state body image once again to see if the brief intervention had an immediate impact on body image. Once students completed all portions of the study, they were provided with debriefing information and a list of national and local mental health resources (Appendix L). Students also had the option to enter their names into a raffle to win one of ten gift cards to Target, valued at \$15 each. Only one school allowed students to enter the raffle. Part two of the study, combined with follow-up measures, took approximately 30 minutes to complete. Of note, two students did not return to complete this portion of the study, which resulted in a sample size of 83 participants.

Measures

Descriptive statistics from the current study (*n*, range, mean, standard deviation, and coefficient alpha) are reported in Table 2.

Body Appreciation

The 10-item Body Appreciation Scale-2 (BAS-2; Tylka & Wood-Barcalow, 2015) is a positive measure of trait body image that rates items on a 5-point scale (1 = *never*, 5 = *always*). All items are averaged to form a single score of body appreciation (e.g. “I feel good about my body”), and a higher score indicates more body appreciation. Past

research has found The BAS-2 to demonstrate excellent internal consistency among both women ($\alpha = .97$) and men ($\alpha = .96$) and 3-week test-retest reliability (ICCs = .9)(Tylka & Wood-Barcalow, 2015). The scale also demonstrates construct and criterion-related validity, as it is inversely related to body dissatisfaction and disordered eating and positively related to appearance evaluation and intuitive eating (Tylka & Wood-Barcalow, 2015). The BAS-2 demonstrates an invariant factor structure across genders (Lemoine et al., 2018; Tylka & Wood-Barcalow, 2015) and has been validated for use with adolescents (Lemoine et al., 2018). In the current study, the BAS-2 demonstrated excellent internal consistency both at baseline ($\alpha = .96$) and follow-up ($\alpha = .96$).

State Body Image

Whereas the Body Appreciation Scale-2 is a measure of trait body image, the Body Image States Scale (BISS; Cash, Fleming, Alindogan, Steadman, & Whitehead, 2002) assesses how an individual feels about aspects of the body and appearance in the present moment. The measure entails six items rated on a 9-point scale (1 = *Extremely dissatisfied*, 9 = *Extremely satisfied*). An average is computed, with a higher score indicating more positive body image in the present moment. The BISS demonstrates convergent validity with various established measures of trait body image (Cash et al., 2002). The BISS also demonstrates acceptable internal consistency for adolescent girls (Kleemans, Daalmans, Carbaat, Anschütz, & Published, 2018). In addition to the BAS-2, the BISS was used to evaluate the impact of the discussion-based and letter-writing activity on body image, since baseline and follow-up measures were administered during a single session over a short period of time. For the current study, the BISS demonstrated excellent internal consistency at both baseline ($\alpha = .90$) and follow-up ($\alpha = .90$).

Internalization of Appearance Ideals

The Sociocultural Attitudes Towards Appearance Questionnaire-4 (SATAQ-4; Schaefer et al., 2015) was used to capture internalization of appearance ideals and perceived pressure to obtain these ideals. The SATAQ-4 contains 22 items that are rated on a 5-point scale (1 = *definitely disagree*, 5 = *definitely agree*) and form five factors. These five factors entail two internalization factors (Internalization: Thin/Low Body Fat, Internalization: Muscular/Athletic) and three perceived pressure factors (Pressures: Family, Pressures: Peers, Pressures: Media). Scores are averaged for each respective factor, with a higher score indicating increased internalization or more perceived pressure. The SATAQ-4 subscales demonstrate acceptable to good internal consistency ($\alpha = .87-.95$) and convergent validity with measures of disordered eating, body satisfaction, and self-esteem among U.S. and non-U.S. women and U.S. men (Schaefer et al., 2015). The SATAQ-4 also demonstrates reliability and validity when administered to Japanese adolescent girls (Yamamiya et al., 2016) and boys, though pressures from family and peers formed one factor for boys (Yamamiya et al., 2019).

Of note, in a sample of college men three items from the Internalization: Thin/Low Body Fat subscale cross-loaded onto the Internalization: Muscularity/Athletic subscale. It may be the case that an Internalization: Muscularity/Low-Body Fat subscale may be more appropriate for use with men, as low body fat is often part of the muscular ideal (Schaefer et al., 2015). A revised version of the SATAQ-4 was created in an attempt to better capture nuances in appearance ideals and internalization (SATAQ-4R; Schaefer, Harriger, Heinberg, Soderberg, & Thompson, 2017). However, the SATAQ-4R entails two different scales, one to be used with men and one to be used with women. One goal

of the current study was to be gender inclusive and incorporate all gender identities in the same analyses. Given that the factor structure of the SATAQ-4 is largely replicable in men and women (Schaefer et al., 2015), the original SATAQ-4 was used in the current study. The internalization subscales were the focus of the current study. The Internalization: Muscular/Athletic subscale demonstrated good internal consistency ($\alpha = .88$), while the Internalization: Thin/Low Body Fat subscale demonstrated acceptable internal consistency ($\alpha = .75$).

Contingencies of Self-Worth

The Contingencies of Self-Worth Scale (CSWS; Crocker, Luhtanen, Cooper, & Bouvrette, 2003) measures various contingencies upon which individuals base their self-worth. The CSWS includes the domains of Appearance, God's Love, Academic Competence, Family Support, Competition, Academic Competence, Virtue, and Approval from Others. Participants responded to questions based on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*), and averages were determined for each subscale. Higher scores indicate self-worth increasingly based on the respective domain. Of note, the seven subscales are not mutually exclusive. A participant may have self-worth contingent upon all of the domains to varying degrees. The researcher was particularly interested in appearance-contingent (e.g. "When I think I look attractive, I feel good about myself") and God's love-contingent (e.g. "My self-esteem would suffer if I didn't have God/Higher Power's love") self-worth in the current study.

Though another scale has been developed to assess contingencies of self-worth specifically in adolescents (Burwell & Shirk, 2006), the scale does not incorporate a subscale to capture self-worth based in God's love or other religious/spiritual variables.

For the current study, “God” items were slightly altered to read “God/Higher Power” in order to be more inclusive of all religious/spiritual beliefs. Past research has found that the CSWS subscales demonstrate good internal consistency ($\alpha = .82-.96$), 3-month to 8.5-month test-retest reliability, and convergent validity with various measures among college students (Crocker et al., 2003). By error, the researcher only administered half of the 36-item CSWS in the current study. This resulted in excellent internal consistency for the God’s Love subscale ($\alpha = .91$), though unacceptable internal consistency for the Appearance subscale ($\alpha = .14$). Therefore, the researcher elected to omit appearance-contingent self-worth from analyses.

Sanctification of the Body

The Manifestation of God in the Body Scale (Mahoney et al., 2005) measured the degree to which participants perceive their bodies as sacred. Participants responded to items (e.g. “My body is created in God’s image”) on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*) that were averaged to form a total score. The scale demonstrates good internal consistency ($\alpha = .98$) among both college students (Mahoney et al., 2005) and adolescents (Kopp, Chini, Dimitriou, & Grossoehme, 2017). In the current study, this scale was only administered to adolescents who endorsed some degree of belief in God/Higher Power. The scale demonstrated excellent internal consistency ($\alpha = .98$).

Religiosity

The Religious Commitment Inventory for Adolescents (RCI-A; Miller, Shepperd, & McCullough, 2013) served as a measure of religious belief and participation. This measure was also only administered to participants who endorsed some degree of belief

in God/Higher Power. Eleven statements (e.g. “My religious beliefs lie behind my whole approach to life”) were rated on a 5-point scale (1 = *not at all true of me*, 5 = *totally true of me*) and averaged to find a total score. A higher score indicates higher integration of religion into daily life. The RCI-A demonstrates good internal consistency ($\alpha = .96$) as well as 6-month test-retest reliability ($r = .80$). The RCI-A can be used in diverse (non)religious populations, and it demonstrates concurrent validity with other measures of r/s beliefs and practices (Miller et al., 2013). The RCI-A demonstrated excellent internal consistency in the current study ($\alpha = .92$).

Identity Development

The values/identity-focused activity that was used in the current study may have had a differential impact on those who have a stronger sense of their identities compared to those who do not. A measure of identity development was incorporated to empirically examine this possibility. The identity subscale (e.g. “I’ve got a clear idea of who I want to be”) from the Erikson Psychosocial Stage Inventory (EPSI; Rosenthal, Gurney, & Moore, 1981) was used to measure the degree of adolescent identity development. The wording of one item (“I have a strong sense of what it means to be female/male”) was slightly reworded (“I have a strong sense of my personal gender”) to be gender inclusive. The subscale contains twelve items that are rated on a 5-point scale (1 = *hardly ever true*, 5 = *almost always true*), and a higher score indicates a more synthesized and stable sense of identity. The subscale has demonstrated adequate internal consistency ($\alpha = .71-.78$) and good convergent and discriminant validity with related measures in former research (Rosenthal et al., 1981). The subscale demonstrated good internal consistency in the current study ($\alpha = .82$).

Self-Objectification

The Objectified Body Consciousness-Youth (OBC-Y) Scale (Lindberg, Hyde, & Mckinley, 2006) measured adolescents' tendency to view their bodies as objects. The OBC-Y scale contains three subscales: Surveillance (e.g. "I often worry about how I look to other people"), Body Shame (e.g. "When I'm not the size I think I should be, I feel ashamed"), and Control Beliefs (e.g. "I can weigh what I'm supposed to if I try hard enough"). Items were rated on a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*) and averaged to form a value for each subscale. Higher values indicate more self-objectification. Scale creators found adequate/good internal consistency for the body shame ($\alpha = .79$) and surveillance ($\alpha = .88$) subscales, though poor internal consistency for the control beliefs subscale ($\alpha = .44$) (Lindberg et al., 2006). These findings align with the current study, in which the body shame ($\alpha = .82$) and surveillance ($\alpha = .90$) subscales demonstrated good/excellent internal consistency, while the control beliefs subscale demonstrated poor internal consistency ($\alpha = .37$). Scale creators also found all three subscales to demonstrate adequate 2-week test-retest reliability ($r = .62 - .81$), as well as correlations between surveillance/body shame subscales and lower self-esteem (Lindberg et al., 2006).

Social Desirability

To account for the potential impact of social desirability on findings, the Revised Children's Manifest Anxiety Scale (RCMAS)—Lie scale (Reynolds & Richmond, 1978) was used as a measure of social desirability. Participants responded true or false to nine items (e.g. "I am always nice to everyone") describing socially desirable behaviors or characteristics in an absolute manner. "True" responses were scored as 1, while "False"

responses were scored as 0. Responses were summed across the nine items, with a higher score indicating a greater tendency to respond in a socially desirable manner. The RCMAS—Lie Scale demonstrates concurrent validity with the Marlowe-Crown Social Desirability Scale when administered to adolescents (Hagborg, 1991) and demonstrated adequate internal consistency in the current study ($\alpha = .76$).

Social Media Use

The researcher also sought to capture the degree of social media use among participants. Participants were asked, “About how many hours per day do you spend on social media websites (e.g. Instagram, Snapchat, Twitter, Facebook, etc.)”? Responses were then divided into three categories: no use (0 hours), moderate use (≤ 2 hours per day), and frequent use (> 2 hours per day). These categories and use of a single question to measure social media consumption were based on the approach used in prior research investigating links between social media and body image (Marengo et al., 2018).

Demographic Variables

Participants were asked various questions pertaining to demographic characteristics, including age, year in school, gender identity, sexual orientation, race/ethnicity, highest level of school completed by parent(s), current height and weight, and questions pertaining to religious and spiritual beliefs. Appendix V details these questions and response options.

Results

All analyses were conducted using IBM SPSS Statistics Data Editor. Table 2 displays descriptive statistics (n, range, mean, standard deviation, and alpha) for all variables of interest. The majority of scales displayed good to excellent internal

consistency, while the Internalization: Thin/Low Body Fat of the SATAQ-4 and the RCMAS-Lie Scale demonstrated acceptable internal consistency. As mentioned earlier, the appearance subscale of the Contingencies of Self-Worth Scale demonstrated unacceptable internal consistency ($\alpha = .14$). As such, this variable was omitted from analyses, and hypotheses pertaining to this variable were not tested.

Various statistical techniques were used to address hypotheses. Correlational and regression-based analyses assessed relationships among variables from part one of the study, specifically to address hypothesis sets 1-3. Tables 3 and 4 display bivariate correlations using pairwise deletion to capture general patterns among the data. Multiple mediation analyses were then used following the method outlined in Preacher and Hayes (2008) using Hayes's PROCESS macro for SPSS (Hayes, 2020). This macro allows one to test direct and indirect pathways between variables and uses bootstrapping to statistically test for the presence of mediation. Figure 3 presents the conceptual model for multiple mediation, and Figures 4-7 display standardized regression coefficients of the various multiple mediation models. For each model depicted in Figures 4-7, five thousand bootstrap samples were generated to calculate 95% confidence intervals for each indirect effect. Indirect effects were statistically significant (i.e. mediation was present) if the value of 0 did not fall within the generated confidence interval for the proposed intervening variable. See Table 5 for tests of indirect effects.

Of note, social desirability was a potential concern in this study since the researcher inquired about religious and spiritual matters at religiously-affiliated schools. As Table 3 demonstrates, social desirability was significantly and positively related to self-worth based in God's love and sanctification of the body. However, social

desirability was not significantly associated with any other primary variables of interest, including variables capturing internalization of appearance ideals and positive body image. As such, social desirability was not included in multiple mediation analyses. Positive links between social desirability and r/s variables may be best understood as an adolescent's tendency to endorse virtuous characteristics.

Analysis of variance (ANOVA) was used to evaluate the impact of the brief body image intervention, specifically to address hypothesis 4. Multiple mixed 3 x (2) ANOVAS were conducted, with time serving as the within-subjects factor and intervention group (i.e. "Traditional," "Identity/Values," and "Control") serving as the between-subjects factor. Separate analyses were run for trait body image and state body image as the outcome variables of interest. The nonparametric Kruskal-Wallis test was used when the assumption pertaining to the homogeneity of variance between intervention groups was violated. Quantitative and qualitative reports of participants' perceptions of the research activities are also provided.

One aim of the current study was to use a gender-inclusive adolescent sample. As such, analyses contained all participants included in the same sample (identified as "entire sample" throughout this manuscript). However, the final sample was largely composed of adolescents who identified as girls (75.3%), so it is unlikely that the findings truly represent a gender-diverse sample. After running analyses with the full sample, analyses were also conducted with the subset of the sample that identified as girls (noted as "self-identified girls" throughout this manuscript). These findings are presented alongside the findings from the full sample to allow for informal comparisons. Comparable analyses using the subset of self-identified boys were not conducted due to

insufficient power. However, independent samples t-tests compared means of key variables for self-identified girls ($n = 64$) and self-identified boys ($n = 18$). Boys ($M = 4.4$, $SD = .8$) endorsed significantly more body appreciation than girls ($M = 3.8$, $SD = .9$; $t_{76} = 2.3$, $p = <.05$), whereas girls ($M = 3.7$, $SD = 1.2$) endorsed more self-surveillance than boys ($M = 2.8$, $SD = 1.0$; $t_{80} = -3.0$, $p = <.01$). There were no other significant gender differences.

Hypothesis Testing

Hypothesis 1: Internalization of Appearance Ideals and Body Appreciation

The first hypothesis predicted that more internalization of appearance ideals would predict less body appreciation. Analyses partially supported this hypothesis. Bivariate correlations for both the entire sample and self-identified girls demonstrated strong negative correlations between internalization of the thin ideal and body appreciation. The more someone internalizes the thin ideal, the less body appreciation they experience. This pattern was not seen for internalization of the muscular ideal. Bivariate correlations between internalization of the muscular ideal and body appreciation were not significant for either the entire sample or the sample of self-identified girls (see Tables 3 and 4).

The strong negative relationship between thin ideal internalization and body appreciation remained in more conservative multiple mediation analyses (Figures 4-7), in which both thin ideal internalization and muscular ideal internalization were simultaneously included as predictors of body appreciation. This remained true for both the entire sample and the sample of self-identified girls. However, contrary to prediction, more internalization of the muscular ideal positively predicted body appreciation ($\beta = .26$,

$p < .05$) when included in multiple mediation models. As aforementioned, internalization of the muscular ideal did not correlate with body appreciation in the sample of self-identified girls ($r = -.00$). A follow-up simple regression with internalization of the muscular ideal as the predictor and body appreciation as the outcome was run for the sample of self-identified girls, and a nonsignificant relationship ($\beta = -.00, p = .98$) was found. When a multiple regression with both thin ideal internalization and muscular ideal internalization predicting body appreciation was run for the sample of self-identified girls, a positive relationship between internalization of the muscular ideal and body appreciation was found once again ($\beta = .34, p < .01$). It appears that the unexpected positive relationship between internalization of the muscular ideal and body appreciation is only present when internalization of the muscular ideal is considered in conjunction with internalization of the thin ideal. As seen in Table 4, internalization of the thin ideal and muscular ideal are positively correlated with each other ($r = .46, p < .01$). When both variables are considered together, it may be the case that thin ideal internalization better captures the variance associated with the negative elements of internalization of appearance ideals, whereas remaining variance captured by muscular ideal internalization indicates aspirations to be strong and fit.

Hypothesis Set 2: Contingencies of Self-Worth/Sanctification and Internalization of Appearance Ideals

The second set of hypotheses asserted that self-worth based more in God's love and sanctification of the body would negatively predict internalization of appearance ideals. This set of hypotheses was partially supported. In both the entire sample and the sample of self-identified girls, self-worth based in God's love was not significantly

associated with internalization of the thin ideal or the muscular ideal. Sanctification of the body was also not significantly associated with internalization of the muscular ideal in either sample or with internalization of the thin ideal in the entire sample, though it was significantly negatively associated with internalization of the thin ideal in the self-identified girls' sample. For girls, increased sanctification of the body predicted less internalization of the thin ideal (Tables 3 and 4).

This same pattern of results was found when testing the multiple mediation models (Figures 4-7). Self-worth based in God's love did not significantly predict internalization of appearance ideals for either the entire sample or the girls-only sample. Sanctification of the body did not significantly predict internalization of appearance ideals for the entire sample, though it did significantly negatively predict internalization of the thin ideal for the sample of self-identified girls. Higher levels of sanctification of the body were associated with less internalization of the thin ideal. When considering these r/s variables as predictors of internalization of appearance ideals, sanctification of the body appears to be especially relevant for girls.

Hypothesis Set 3: Contingencies of Self-Worth/Sanctification and Body Appreciation

The third set of hypotheses asserted that both self-worth based more in God's love and higher levels of sanctification of the body would positively predict body appreciation. Further, these direct effects would be mediated by internalization of appearance ideals. Again, this set of hypotheses was partially supported. In both the entire sample and the girls-only sample, God's love-contingent self-worth and sanctification of the body were strongly and positively correlated with body appreciation (Tables 3 and 4). These relationships were also present in the multiple mediation models,

in which self-worth based more in God's love and higher levels of sanctification of the body positively predicted more body appreciation in both samples. Those who endorse self-worth based in God's love endorse more body appreciation, as do those who perceive their bodies to be a manifestation of God (Figures 4-7).

Though positive direct effects between r/s values and body appreciation were consistently present, there is limited support that these relationships are mediated by internalization of appearance ideals (see Table 5). In the full sample, neither internalization of the thin ideal nor internalization of the muscular ideal mediated the relationship between God's love contingent self-worth or sanctification of the body and body appreciation. Internalization of appearance ideals also did not mediate the relationship between self-worth based in God's love and body appreciation in the sample of self-identified girls, though internalization of the thin ideal did significantly mediate the relationship between sanctification of the body and body appreciation. For girls, sanctification of the body predicts less internalization of the thin ideal, which in turn predicts more body appreciation (Figures 4-7).

Hypothesis 4: Body Image Activities

The final hypothesis pertained to the impact of the brief intervention on body image. It was predicted that engagement in both the Traditional and Values/Identity conditions of the intervention would improve body image immediately following the intervention, whereas participation in the Control condition would not impact body image. Both trait body image using the Body Appreciation Scale-2 (BAS-2) and state body image using the Body Image States Scale (BISS) were used as outcome variables in separate analyses to assess the impact of the intervention. Table 6 presents relevant

baseline characteristics for the three conditions for the entire sample. Oneway ANOVAs (F-statistic) were conducted for baseline characteristics across groups to assess comparability of groups at baseline. The nonparametric Kruskal-Wallis test (H-statistic) was used when the assumption pertaining to the homogeneity of variance between intervention groups was violated. Though the three intervention groups differed in size, age ($H_2 = 3.07, p = .22$), BMI ($F_{2,80} = 1.26, p = .29$), trait body image ($H_2 = .30, p = .86$), and state body image ($H_2 = .02, p = .99$) did not significantly differ between groups at baseline.

Analyses were then run to assess the impact of the brief intervention on state and trait body image. Table 8 presents mean values for state and trait body image at baseline and follow-up for the three intervention groups for the entire sample. Two mixed 3 x (2) ANOVAS were conducted—one with an outcome of trait body image and one with an outcome of state body image—to assess for a main effect of time, main effect of intervention group, and interaction effect of time by group. For both analyses, the assumption of homogeneity of variance between groups was violated. Therefore, the nonparametric Kruskal-Wallis test was used to test a main effect of group at post-intervention for both measures of body image. Contrary to prediction, none of the intervention groups significantly differed at follow-up pertaining to trait body image ($H_2 = .38, p = .83$) or state body image ($H_2 = .39, p = .82$). Test statistics are also presented in Table 8. Though the Kruskal-Wallis test does not assess within-group or interaction effects, graphical representations (Figure 8) further illustrate the lack of effect of the intervention on body image.

Parallel analyses were run for the sample of self-identified girls to see if findings differed. Table 7 presents relevant baseline characteristics for the three conditions for the sample of self-identified girls. Again, though the three intervention groups differed in size, age ($H_2 = 4.8, p = .09$), BMI ($F_{2,59} = 1.21, p = .31$), trait body image ($F_{2,56} = .05, p = .95$), and state body image ($H_2 = .07, p = .97$) did not significantly differ between groups at baseline. Table 8 presents mean values for state and trait body image at baseline and follow-up for the three intervention groups for the sample of self-identified girls. Two mixed 3 x (2) ANOVAS were conducted—one with an outcome of trait body image and one with an outcome of state body image—to assess for a main effect of time, main effect of intervention group, and interaction effect of time by group. Again, the assumption of homogeneity of variance between groups was violated for both analyses. Therefore, the nonparametric Kruskal-Wallis test was used to test a main effect of group at post-intervention for both measures of body image. As was the case with the entire sample, none of the intervention groups significantly differed at follow-up pertaining to trait body image ($H_2 = .23, p = .89$) or state body image ($H_2 = .11, p = .95$). Test statistics are presented in Table 8. Though the Kruskal-Wallis test does not assess within-group or interaction effects, graphical representations (Figure 8) further illustrate the lack of effect of the intervention on body image when considering only those who identify as girls.

Participants' Perceptions of Research Activities

The researcher was not only interested in the impact of the brief intervention on adolescent body image, but also in adolescents' perceptions of the research activities. Participants were asked open-ended and closed-ended questions pertaining to their perceptions, with quantitative responses to the latter summarized in Table 9. Participants

agreed that the research activities made sense and disagreed that the research activities were confusing. They somewhat agreed that they found the activities to be interesting and enjoyable and expressed some willingness to participate in similar activities in the future. Participants also somewhat agreed that the activities made them think in new ways.

Participants offered various positive perspectives of the research activities when asked, “Which part of the activity was most meaningful to you? Why?” Many participants stated that they enjoyed completing the questionnaire because it encouraged self-reflection. One participant stated, “The part of the activity that was most meaningful to me was doing the first survey. It made me think more deeply about myself and I kind of got to know myself a little bit better. I had a chance to be honest with myself and I think that every teen should take that survey.”

Various participants also enjoyed the group discussion because they were able to relate to each other and think in new ways. Even though statistical analyses do not reveal a significant impact of the body image interventions, individual participant responses suggest that the intervention did have some degree of impact on adolescents’ cognitions and emotions. One participant liked “When we came up with the ideal boy and girl. It’s meaningful because I realized how wrong it was,” while another participant liked “Talking about how it is impossible to live up to the ‘ideal girl.’ It shows that I’m good as myself.” Another participant remarked that they enjoyed the discussion “because it showed me that it’s okay to look the way I look.” Participants also noted that they liked the letter-writing activity, with one participant stating, “I liked the letter to a younger version of myself because it made me realize that if I can say all these things to make my

‘younger self’ feel better, then I can say those same things to myself when I’m feeling down or upset.”

Participants also appeared receptive to discussions of their values. One participant wrote that they most liked “The values aspect. It makes you step back and recognize what you put above all else.” Participants acknowledged that focusing on their personal values can be beneficial, with one participant remarking, “I think listing the ideal values that we value the most—not what other people do—because it made me look at my body a different way,” while another stated, “Talking about our values was most meaningful because it made me realize how much I am worth. I am not defined by looks, but more for attitude.” Some participants found it especially meaningful to consider their religious/spiritual values, with one participant stating, “The part of the activity that was most meaningful to me was discussing how we don’t have to be perfect because we are made in God’s image.” Both quantitative and qualitative data capturing participants’ perspectives of the research activities suggest that adolescents’ perceptions were more positive than negative, and engaging in similar activities in a school setting is likely acceptable to adolescents.

Supplemental Analyses

Though the researcher did not specify hypotheses pertaining to all variables in the current study, many of the variables are closely related to those in tested hypotheses and are particularly relevant when considering adolescent body image. Examination of bivariate correlations in Tables 3 and 4 can provide an overall picture of how these additional variables relate to constructs of primary interest.

Self-Objectification

Due to poor psychometric properties of the Appearance-Contingent Self-Worth subscale in the current study, the researcher was unable to address hypotheses pertaining to this variable. However, examination of components of self-objectification can help inform understanding of the relationship between views about appearance and body appreciation. The Body Shame subscale of the Objectified Body Consciousness-Youth (OBC-Y) Scale (Lindberg et al., 2006) captures an attitude of shame that stems from perceived failure to look a certain way. Tables 3 and 4 reveal strong negative correlations between body shame and body appreciation and strong positive correlations between body shame and thin ideal internalization in both the entire sample and the sample of self-identified girls. Significant negative correlations were also observed between body shame and sanctification of the body in both samples. In the sample of self-identified girls, more body shame was also significantly associated with more internalization of the muscular ideal. In sum, girls who experience higher levels of body shame are more likely to internalize appearance ideals and less likely to experience body appreciation. Adolescents experiencing high levels of body shame are less likely to view their bodies as sacred.

The Surveillance subscale of the OBC-Y can also be used to examine links between self-objectification and body image. Self-surveillance of the body was strongly and positively linked to internalization of the thin ideal and strongly and negatively linked to body appreciation in the entire sample and the sample of self-identified girls. Body surveillance was also significantly negatively related to sanctification of the body in self-identified girls. In sum, girls are less likely to perceive their bodies as sacred if

they engage in more body surveillance. Adolescents who engage in self-surveillance are also more likely to internalize the thin ideal and less likely to experience body appreciation.

Identity Development

The “Values/Identity” condition of the brief body image activity addressed adolescents’ personal values and sense of identity. The intervention did not have a statistically significant impact on body image, though correlational data reveal that identity development is relevant to body image and religious/spiritual values of adolescents. For both the entire sample and the sample of self-identified girls, identity development was strongly, positively related to state and trait body image. Moderate positive correlations were also observed between identity development and God’s love-contingent self-worth, sanctification of the body, and religiosity. There was a moderate negative correlation between identity development and thin ideal internalization. In other words, adolescents with a more synthesized sense of identity are less likely to internalize the thin ideal. They are more likely to endorse self-worth based in God’s love, sanctification of the body, and religiosity. They are also more likely to experience positive body image.

Social Media Use

Social media use tends to be pervasive to the adolescent experience. In the current study, participants endorsed a high degree of social media use. Half (51.8%) of the sample reported that they use social media 3 hours or more per day, and 43.5% of the sample indicated that they use social media 1-2 hours per day. However, social media use

did not significantly correlate with any of the variables of interest, including body image and religion/spirituality.

Discussion

The current study supports and extends the literature pertaining to body image and religion/spirituality (r/s) in various ways. There has been a well-established positive link between thin ideal internalization and body dissatisfaction. The current study demonstrates that thin ideal internalization also predicts body appreciation, a construct that is related to yet distinct from body dissatisfaction. The current study also explores r/s variables and mediating pathways that are predictive of positive body image, making a notable contribution to extant literature by exploring these relationships in adolescents and using a gender-inclusive sample. Another contribution of the current study was the inclusion of a brief school-based intervention for adolescent body image that explicitly incorporated adolescents' values, including r/s values. While there were no significant differences between groups on body image measures, qualitative responses and feedback solicited from participants indicated that the activities were feasible and acceptable. Inclusion of this brief pilot intervention can inform decisions to use longer interventions in the future that require more time and resources.

Summary of Predicted Findings

Internalization of Appearance Ideals and Body Appreciation

As predicted, the more adolescents internalized the thin ideal, the less body appreciation they experienced. This finding complements the consistent finding that thin ideal internalization positively predicts body dissatisfaction (Thompson & Stice, 2001). It was also hypothesized in the current study that more internalization of the muscular ideal

would predict less body appreciation. Unexpectedly, internalization of the muscular ideal was not associated with body appreciation in correlational analyses. The same pattern of results was found for the entire sample and for the sample of self-identified girls.

However, when multiple mediation analyses were run for self-identified girls, more internalization of the muscular ideal actually positively predicted body appreciation when it was considered in conjunction with thin ideal internalization. This was surprising, since past research has found that internalization of the muscular ideal contributes to disordered eating among young women (Uhlmann et al., 2018) and viewing images that promote strength and fitness can contribute to body dissatisfaction (Prichard, Kavanagh, Mulgrew, Lim, & Tiggemann, 2020; Tiggemann & Zaccardo, 2015). For girls, it appears that thin ideal internalization is more relevant to body appreciation than is muscular ideal internalization. When both types of internalization are considered together, internalization of the thin ideal may better capture variance associated with pursuit of an unrealistic appearance ideal, whereas remaining variance attributed to internalization of the muscular ideal may better capture one's desire to be strong and fit. Appreciation for the strength and functionality of one's body is actually predictive of more body appreciation (e.g. Alleva et al., 2017), and internalization of the athletic ideal is less harmful than internalization of the thin ideal for undergraduate women (Homan, 2010).

Measurement issues may have also contributed to surprising findings pertaining to muscular ideal internalization. When the SATAQ-4 was administered to young adult men, three items from the Thin/Low Body Fat subscale cross-loaded onto the Muscular/Athletic subscale (Schaefer et al., 2015). The SATAQ-4R was created as a revised version of the scale to better capture gendered nuances in appearance ideals. One

change in the scale is that words pertaining to athleticism and the desire to look athletic were removed, and the updated Muscular subscale focuses exclusively on muscularity. Another change in the revised scale is that two separate scales were created, one to be administered to women/girls, and one to be administered to boys/men (Schaefer et al., 2017). One of the goals of the current study was to utilize a gender-inclusive sample and combine boys and girls in the same analyses, so the original version of the SATAQ-4 was used. However, this may have resulted in a subscale that did not properly capture internalization of the muscular ideal.

Contingencies of Self-Worth and Sanctification of the Body

Though hypotheses pertaining to appearance-contingent self-worth were not tested, hypotheses pertaining to self-worth based in God's love and sanctification of the body were partially supported. In the entire sample and the sample of self-identified girls, higher levels of God's love-contingent self-worth and sanctification of the body were associated with more body appreciation. These findings were expected, given comparable links between these *r/s* variables and body appreciation that have often been observed in adults (e.g. Goulet et al., 2016; Jacobson et al., 2013; Mahoney et al., 2005; Overstreet & Quinn, 2012).

Unexpectedly, neither God's love-contingent self-worth nor sanctification of the body were associated with either type of internalization of appearance ideals for the entire sample. However, when only self-identified girls were considered, more endorsement of sanctification of the body was associated with less endorsement of the thin ideal. Correlation patterns were comparable to those found in multiple mediation analyses, in which thin ideal internalization and muscular ideal internalization were

posited as mediators between r/s variables and body appreciation. Muscular ideal internalization did not mediate the relationship between God's love-contingent self-worth or sanctification of the body and body appreciation for either sample, whereas thin ideal internalization did partially mediate the relationship between sanctification of the body and body appreciation for self-identified girls. In other words, girls who perceive their bodies as sacred are less likely to internalize the thin ideal. In turn, they experience more body appreciation.

Sanctification of the body seems to be especially relevant to adolescent girls' internalization of the thin ideal. Though God's-love contingent self-worth predicted more body appreciation, it was not significantly associated with thin ideal internalization. Perhaps this is because sanctification of the body and thin ideal internalization both explicitly pertain to views of the body, whereas self-worth contingent upon God's love does not. Further, whereas sanctification of the body is its own unique construct, God's love is just one potential contingency of self-worth that competes with various other contingencies of self-worth. The current study considered God's love-contingent self-worth independently of other potential contingencies, despite the fact that multiple contingencies tend to coexist. As such, the degree to which one derives self-worth from perceptions of God's love did not control for levels of other contingencies. Adolescents who endorse the same degree of God's love-contingent self-worth may endorse different levels of other contingencies of self-worth, such as appearance-contingent self-worth, that are known to strongly relate to thin ideal internalization. Though God's love-contingent self-worth may be one piece of the metaphorical pie, there may be other slices that are larger. It is also important to note that all participants responded to the Contingencies of

Self-Worth Scale, whereas only participants who endorsed some degree of belief in God/Higher Power responded to the Manifestation of God in the Body Scale. Analyses that incorporated the latter relied upon a subset of adolescents for whom beliefs about God/Higher Power are especially salient. As such, r/s beliefs are more likely to be relevant to other aspects of daily life, such as endorsement of appearance ideals.

Impact of a Brief, School-Based Body Image Intervention

Given observed past and present links between internalization of appearance ideals—thin ideal internalization in particular—and body appreciation, it stands to reason that interventions that directly target internalization will lead to improvements in body appreciation. Dissonance-based strategies, such as those employed in the current study, seek to introduce cognitive dissonance pertaining to internalization of appearance ideals, which should ultimately result in improvements in body image. Though dissonance-based interventions for body image tend to focus on reducing body dissatisfaction, it has also been found that dissonance-based interventions can lead to improvements in body appreciation (Halliwell & Diedrichs, 2019).

In the current study, none of the conditions of the brief intervention, including those that employed dissonance-based activities, led to improvements in adolescent body image. Though contrary to hypotheses, findings are not entirely surprising. Reviews of body image and eating prevention programs have found that programs demonstrate larger effect sizes when they are selective, multisession, and focused on girls/women (Stice et al., 2007). Further, universal programs tend to demonstrate smaller effects since they are administered to generally healthy samples (Watson et al., 2016). A recent review of dissonance-based programs in particular (Stice et al., 2019) found that interventions were

most effective for girls/women if they took place over multiple sessions, included more dissonance-based activities, and required a baseline level of body dissatisfaction for participation.

The current study entailed a universal intervention, and participants were not required to endorse a certain degree of body dissatisfaction in order to participate. Further, the brief discussion and letter-writing activity took no more than 30 minutes for all participants, and many participants did not require this entire time. Ultimately, the length of the intervention and follow-up period were very short, and the number of dissonance-based activities was minimal. Use of more dissonance-based activities taking place over multiple sessions would likely instill more dissonance pertaining to ascription to appearance ideals and also would allow participants more time to process various cognitions pertaining to these ideals. Just as unhelpful cognitions develop over time as they are reinforced by experience, it takes time for more adaptive cognitions to take their place. Even though the current intervention did not appear to have an impact on adolescent body image, it may have still prompted adolescents to think in new ways that perhaps will serve as a foundation for future change.

Adolescents' Perceptions of Research Activities

Participants' responses to open-ended questions revealed largely positive perceptions of the research activities and also indicated that the activities helped participants think in new ways. Participants described different parts of the research as most meaningful to them, ranging from completing the questionnaire, discussing appearance ideals in small groups, and writing letters to their younger selves. Various participants noted that it was helpful to reflect on their personal values and how these

values relate to their views of themselves. Some participants explicitly stated that thinking about their values helped them to think about their bodies differently and accept themselves as they are. Though the brief intervention did not have a measurable impact as captured by scores on various body image scales, participant responses suggest that the intervention made sense to them and was in fact meaningful. It seems that similar, but extended, activities are worth pursuing in the future.

Summary of Supplemental Findings

Self-Objectification

Findings from correlational analyses pertaining to self-objectification and body image variables are consistent with extant literature that links self-objectification to increased appearance anxiety (e.g. Dakanalis et al., 2015), body image concerns, and disordered eating (Kroon van Diest & Perez, 2013; Schaefer & Thompson, 2018). In the current study, participants who endorsed more body shame and more self-surveillance experienced less body appreciation. They also were more likely to endorse internalization of the thin ideal. More internalization of the muscular ideal was also associated with more body shame and surveillance in self-identified girls. Conversely, those who viewed their bodies as sacred were less likely to experience body shame, and girls who viewed their bodies as sacred were less likely to engage in self-surveillance. Viewing the body as sacred appears to directly contradict viewing the body as object. These findings pertaining to self-objectification and sanctification of the body support and extend past work that has examined similar relationships in adults. Specifically, sanctification of the body predicts less body objectification and depersonalization (Jacobson et al., 2013), and spirituality predicts less self-objectification in women (Tiggemann & Hage, 2019).

Identity Development

Correlational analyses pertaining to identity development and body image were also consistent with past research that has found a positive link between a stable identity trajectory and body esteem (Nelson et al., 2018) and negative link between identity development and eating pathology (Verschuere et al., 2018). In the current study, adolescents with a more synthesized sense of identity internalized the thin ideal less, engaged in less self-surveillance, and experienced less body shame. They also endorsed more body appreciation, self-worth based in God's love, sanctification of the body, and religiosity. It is clear that identity development, including aspects of identity related to r/s values, is linked to body image variables. A stronger sense of identity is associated with more positive body image. These findings support the explicit incorporation of values and identity into body image programming.

Social Media Use

Despite consistent links found between consumption of appearance-related media and negative body image (Huang, Peng, & Ahn, 2020), the current study found no significant relationships between social media use and body image variables. Small correlations appeared in expected directions, especially when considering only self-identified girls, but none of these correlations were significant. It is likely that there was not enough power in the current study to detect small effects, and the question used to assess social media use was limited. Participants were merely asked to estimate how much time they spend on social media daily, yet the content of this media was not assessed. Not all social media use is linked to negative body image outcomes. For instance, there is evidence that viewing content that presents positive messages pertaining

to bodies that are diverse in shape, size, and color can actually lead to increases in body appreciation in young women (Cohen, Fardouly, Newton-John, & Slater, 2019).

Furthermore, a positive and proactive school environment and appropriate parental oversight of social media can help adolescent girls feel positively about their bodies despite high social media use (Burnette, Kwitowski, & Mazzeo, 2018).

Limitations and Future Directions

The current study has various strengths, including its specific focus on positive body image and its use of a gender-inclusive adolescent sample to explore links between r/s and body image. However, the study is not without its limitations, which are discussed below in conjunction with recommendations for future research.

Study Design

Given that data collection took place within schools, the researcher sought to accommodate school preferences and had to operate within school constraints. Though it was the researcher's initial intention to conduct the study during school hours with in-tact classrooms, this was only occasionally possible. Two schools preferred data collection prior to or after the school day, whereas the third school preferred to pull students out of class for data collection during the school day. One school was able to accommodate the researcher during class time using an in-tact class for one data collection session. To minimize missed class time, many students returned to class following part one of data collection and completed part two of data collection after doing so. As a result, time between survey completion and the discussion-based activities ranged from 0-60 minutes, and some students engaged in class activities between these time points whereas other

students did not. As such, time and activities between baseline body image measures and follow-up body image measures varied in an inconsistent manner.

The researcher also sought to randomly assign students to groups prior to data collection. However, many students did not attend data collection despite receiving permission or were unable to be present during a certain portion of the data collection window. Various last minute adjustments were made to pre-determined groups in an attempt to make group sizes even. At one school, only one student attended data collection. This student participated in the activities with the researcher one-on-one and did not experience a true group discussion. Furthermore, due to school characteristics some groups were comprised entirely of girls, whereas other groups were a combination of boys and girls. Some schools requested that only younger students participate in data collection, whereas other schools opened up data collection to all students. In addition, the researcher went to all participating schools on two occasions, which may have allowed for information transmission about the study from students who participated in the first round of data collection to students who participated in the second round of data collection. In sum, the researcher had limited control over ensuring complete consistency between all elements of the study design at the various schools and between intervention groups. Despite these differences, intervention groups appeared largely comparable pertaining to baseline characteristics.

Measurement and Statistical Considerations

Since every school is a particular environment with a unique culture, it is prudent to consider how interventions may impact students at different schools. However, analyses in the current study did not use clustering based on school given the

demographic similarities between participating schools and the relatively small sample size. Sample size also contributed to limitations in statistical power, as seen by various small correlation and regression coefficients that were not statically significant. Further, all analyses used data gathered from self-report measures.

Analyses also did not control for body mass index (BMI), which demonstrates links with body image. Though findings pertaining to links between BMI and body appreciation have been mixed, a recent meta-analysis found a small negative correlation between BMI and body appreciation, suggesting that body appreciation decreases as BMI increases (He, Sun, Lin, & Fan, 2020). However, the relationship between BMI and body image is nuanced, since individuals at any weight can experience body appreciation or body dissatisfaction. For example, one characteristic of anorexia nervosa is intense fear of gaining weight or becoming fat, despite the presence of a significantly low body weight (APA, 2013). One goal of the current study was to assess the impact of a universal intervention for all students rather than to create and assess an intervention for those with a certain BMI or degree of body dissatisfaction. Nevertheless, when evaluating future programs it may be helpful to consider BMI as a moderator of effectiveness.

Sample Characteristics and Sociocultural Considerations

The researcher also sought to utilize a gender-inclusive sample with adolescents from diverse demographic backgrounds. However, this goal was largely unmet given the demographics of schools who expressed interest and followed through with study participation. Though participants were not explicitly asked about religious affiliation, all but one participant were students at Catholic schools. Though students in Catholic schools are likely to ascribe to a range of (non)religious/spiritual identities, the majority

of participants endorsed belief in God/Higher Power. Further, the sample entailed predominantly white, heterosexual girls who came from relatively well-educated families. It is important to keep these sample characteristics in mind when interpreting findings from the current study. It is recommended that future body image research continue to work to incorporate diverse samples especially pertaining to characteristics that may be salient to identity, such as gender identity, religion/spirituality, and race/ethnicity. Further, it is essential to use measurement strategies that are relevant to various cultural identities.

Gender Identity. As aforementioned, the original version of the SATAQ-4 was used in the current study so that all gender identities were included in the same analyses. However, this approach likely failed to capture real differences in appearance ideals and expectations that are ascribed to societal perceptions of gender. In future work, it is likely best to use scales that appropriately capture appearance ideals and experiences unique to different gender identities. Such an approach will allow for a more nuanced understanding of experiences common to those with particular gender identities.

It is important to consider gender identity not only pertaining to measurement of various constructs, but also pertaining to formation of groups when engaging in body image activities. Past research findings are inconsistent when considering the differential impact of body image programs for adolescents depending on whether boys and girls are combined or separate in intervention groups (Kusina & Exline, 2019). Body image and eating prevention programs have largely focused on girls and women, and relatively little is known about program effectiveness for boys. Developers of recent body image programs note that while it may be more practical in the long-term to develop universal

body image programs that include adolescents with all gender identities, it is likely helpful to first focus on programs that include only self-identified boys in order to better understand what is consistently helpful for boys (e.g. Doley, Mclean, Griffiths, & Yager, 2020). It will also be important for future programming to consider experiences of adolescents who do not identify as cisgender, as body image struggles are especially common in transgender youth (McGuire, Doty, Catalpa, & Ola, 2016).

Religion/Spirituality. Measures used to capture r/s predictors of body image in the current study were also limited in that they largely reflected Christian theology. Though these measures were likely appropriate for the majority of participants given their religious backgrounds, measures may have failed to capture elements of religion and spirituality from non-Christian faith traditions that may relate to body image. In some faith traditions, perceptions of God's love may not be integral to r/s beliefs, and self-worth may be contingent upon different elements of r/s such as engagement in religious practices. It is possible that in other traditions, the body may not be viewed as inherently sacred as suggested by the concept of sanctification but rather as a means to engage in r/s practices that allow one to strive toward sanctity.

Various studies have revealed differences in body image both within and between r/s groups. For instance, among Jewish women specifically, degree of orthodoxy predicts body image. Secular Jewish women endorse a more negative body image than do modern-Orthodox or ultra-Orthodox women. More positive body image among ultra-Orthodox women is attributed to stronger religious faith and less media exposure (Geller et al., 2018). Further, compared to Christian women and Atheist women, veiled Muslim women have reported fewer shape and weight concerns, less body dissatisfaction, less

internalization of appearance ideals and perceived pressure to conform to ideals, and less engagement in physical comparison (Wilhelm et al., 2018). Wearing the hijab appears to be especially relevant to body image. For example, veiled Muslim women in German-speaking countries report less body-checking behaviors than do unveiled women (Wilhelm et al., 2018), and French Muslim women who wear the hijab endorse better body image compared to those who do not (Kertechian & Swami, 2016). The hijab appears relevant to adolescent body image as well. For instance, Serbian adolescent Muslim girls wearing the hijab, compared to Serbian adolescent Muslim girls who do not wear the hijab and Serbian Orthodox adolescent girls, are less likely to internalize Western appearance ideals and experience body dissatisfaction (Durovic, Tiosavljevic, & Sabanovic, 2016).

Degree of orthodoxy and wearing the hijab are specific examples of how elements particular to certain faith traditions may relate to body image. It is important that future research consider particular r/s beliefs and practices within faith traditions so as to appropriately inquire about these aspects of r/s and capture them accordingly with measurement scales. It is also important to consider the greater context in which participants reside. For example, the experiences and expectations of Muslim women living in predominantly Islamic contexts is likely to differ from those of Muslim women living in contexts in which they are a minority. It is also important to consider aspects of the greater cultural context beyond just r/s, as appearance ideals and ways of relating to the body are heavily influenced by sociocultural factors.

Race/Ethnicity. The current study focused on Western appearance ideals in the context of the United States. Depending on the cultural context in which future

explorations of body image and r/s take place, understanding of the body and appearance ideals may vary. Whereas Western cultures are often individualistic and perceive the body as belonging to the individual, non-Western cultures that are more collective in nature may view various close others as also being responsible for one's body. Further, bigger bodies may be preferred in places where food is scarce and malnourishment is prevalent, and body ideals are likely to vary depending on gender roles ascribed to different bodies (Anderson-Fye, 2011).

Ethnicity has been found to moderate the relationship between awareness of appearance ideals and internalization of these ideals, as well as the relationship between internalization of appearance ideals and body dissatisfaction. Specifically, the relationship between appearance ideals and body dissatisfaction appears stronger for European American women compared to Mexican American and Spanish American women (Warren, Gleaves, Cepeda-Benito, Fernandez, & Rodriguez-Ruiz, 2005). Relatedly, the relationship between self-objectification and disordered eating is stronger among Caucasian and Asian American women compared to African American women (Schaefer & Thompson, 2018), and Black women are less likely to engage in self-surveillance and disordered eating than are white women (Schaefer et al., 2018).

Aforementioned findings are only a subset of the seemingly infinite number of cultural comparisons that can be made. Such findings ultimately reveal that there are meaningful differences pertaining not only to how cultural groups relate to their bodies but also in how different groups understand and engage in r/s. It is essential to consider differences both between and within various cultural identities to ensure that measures appropriately capture constructs and the work is maximally meaningful to participants

(Swami, 2018). Culture-specific approaches are indicated, as attempting to create programs and measures that are “one size fits all” may ignore real cultural differences. Much work appears to remain in terms of incorporating cultural factors into prevention strategies, and successfully doing so will require increased dialogue between researchers and members of the community in which the research takes place (Levine, 2020).

Considerations for Future Body Image Interventions

In addition to ensuring that programming is culture-sensitive, future body image interventions are likely to be more effective if they take place over multiple sessions and a longer period of time. It has been consistently found that longer, more involved programs lead to more improvements in body image (e.g. Stice et al., 2019). Though cross-sectional work provides a helpful snapshot of how r/s variables may relate to body image and how adolescents perceive the overlap of body image and r/s, longitudinal work allows for multiple intervention time points and a better understanding of how identities and cognitions may evolve over time. Further, given that de-internalization of appearance ideals is the proposed mechanism of change in dissonance-based interventions (Stice et al., 2008), it is recommended that internalization of appearance ideals be measured at multiple time points. This would allow researchers to examine not only if prevention approaches lead to changes in body image, but also if these changes occur as theorized.

Dissonance-based approaches have proven to be effective at reducing body dissatisfaction, particularly among young women who endorse body image concerns (Stice et al., 2019), and such approaches can also foster positive body image directly (Halliwell & Diedrichs, 2019). Nevertheless, other prevention approaches may be especially relevant when engaging in universal prevention that focuses on cultivating

positive body image beyond reducing body dissatisfaction. One potentially fruitful avenue of research is utilizing body image programs that do not explicitly discuss body image but rather encourage individuals to relate to their bodies in diverse ways. Such approaches are consistent with the Developmental Theory of Embodiment (DTE), which considers body-related processes that extend beyond appearance.

Yoga has been posited as one approach that can help cultivate positive embodiment, likely in part because it cultivates appreciation for the strength and function of one's body. Brief yoga interventions have led to body image improvements in both young adult women (Halliwell, Dawson, & Burkey, 2019) and preadolescents (Halliwell, Jarman, Tylka, & Slater, 2018). For similar reasons, exposure to nature can also foster positive body image. Recent work has found that exposure to nature predicts body appreciation in women in part because women experience more appreciation for body functioning (Swami et al., 2019). Programs that seek to foster self-compassion may be especially beneficial (Kelly, Miller, Vimalakanthan, Dupasquier, & Waring, 2019), as self-compassion has demonstrated consistent links with positive body image (Turk & Waller, 2020).

Though approaches with a limited emphasis on appearance have demonstrated promise among young adult women in particular, it is largely unknown how such approaches apply to adolescent body image or may be incorporated in school-based prevention programming. Importantly, improvements in body image appear to occur not only in response to using individual strategies that focus on altering body image, but also in response to changing social contexts. Interviews conducted with young adults who experienced and overcame poor body image during adolescence reveal that finding social

contexts that were characterized by belonging and acceptance, as well as developing a sense of personal agency and empowerment, served an instrumental role in improving body image (Gattario & Frisén, 2019). Future body image programs may particularly benefit from not only considering the social contexts in which adolescents operate, but also working to directly change these contexts.

Clinical Implications

Despite limitations, the current study offers numerous clinical implications. There is clear evidence that religion and spirituality (r/s) are relevant to body image.

Adolescents who perceive their bodies as sacred or base their self-worth in perceptions of God's love experience more body appreciation. Sanctification of the body seems to be especially relevant for adolescent girls, who are less likely to internalize the thin ideal and in turn more likely to experience body appreciation if they perceive their bodies to be a manifestation of God. Girls are also less likely to engage in self-surveillance, and adolescents are less likely to experience body shame, if they perceive their bodies to be sacred. Directly addressing r/s beliefs and practices when discussing body image with r/s adolescents in prevention and intervention contexts is likely meaningful and beneficial. When appropriate, working with adolescents to cultivate and strengthen certain r/s values may result in less self-objectification and improved body image.

Considering personal values and how these values can result in improved psychological functioning aligns with tenets of Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 2012), a third-wave theoretical orientation that can be implemented into both group and individual interventions. More recent work has explored how principles of ACT can help promote positive embodiment specifically

(Webb, 2019), and prevention programs for body image and eating that incorporate ACT demonstrate promise with adults (Linardon et al., 2018). Values-based approaches may be especially meaningful for adolescents who have a relatively clear sense of their personal values and identity, as the current study demonstrated that a more synthesized sense of identity is related to more body appreciation and less self-objectification and internalization of the thin ideal. Identity clarification also appears linked to r/s values, as adolescents with a more synthesized sense of identity also endorsed more religiosity, sanctification of the body, and self-worth based in God's love.

Working with adolescents to clarify their personal values—including r/s values when relevant—and to solidify their identities appears likely to result in more positive body image. Though findings from the current study revealed no significant impact of the intervention on body image for groups of participants, individual responses suggest that the body image activities were indeed meaningful and impactful for certain adolescents. Various adolescents stated that the activities helped them to view their bodies more positively, and numerous adolescents enjoyed participating in group discussion, values-clarification, and letter-writing activities. These and related verbal and writing-based strategies may help facilitate understanding of personal values and identity as part of intervention and prevention strategies. Such strategies are not an attempt to instill particular beliefs in adolescents, but rather a method to help clarify values and beliefs that are already meaningful, both to improve self-understanding and to foster positive body image.

Conclusion

Body image is inextricably linked to psychological well-being and is especially relevant during adolescence, a time of significant physical, cognitive, emotional, social, and personal development. Much work has examined contributors and consequences of body dissatisfaction in adolescents, though relatively little work has explored factors contributing to positive body image. The current study sought to gain a better understanding of how various personal values—especially religious and spiritual values—are linked to positive body image. Findings indicate that perceptions of the body as sacred and God’s love as a source of self-worth are linked to positive body image. Personal values may be explored using discussion-based and writing activities. The more adolescents understand their personal values, including r/s values, and how their identities relate to their daily lives, the more likely they are to flourish.

Tables

Table 1
Participant Characteristics

	<i>n</i>	%
<u>Gender Identity</u>		
Boy	18	21.2
Girl	64	75.3
Prefer not to say/Other	3	3.6
<u>Sexual Orientation</u>		
Heterosexual/straight	76	89.4
Homosexual/gay/lesbian	1	1.2
Bisexual	4	4.7
Asexual	1	1.2
Prefer not to say/Other	3	3.6
<u>Race/Ethnicity*</u>		
African American/Black	5	5.9
American Indian/Native American/Alaska Native	2	2.4
Asian/Pacific Islander	4	4.7
Middle Eastern	2	2.4
Latinx/Hispanic	5	5.9
White/Caucasian/European American	72	84.7
Prefer not to say/Other	2	2.4
<u>Grade in School</u>		
9 th /Freshman	34	40.0
10 th /Sophomore	33	38.8
11 th /Junior	10	11.8
12 th /Senior	8	9.4

Note. $N = 85$. Participants were on average 15.3 years old ($SD = 1.2$) and mean BMI was 22.3 ($SD = 4.5$).

*Participants were able to select all racial/ethnic backgrounds with which they identified, allowing sum of category percentages to exceed 100%.

Table 2
Descriptive Statistics for Variables of Interest for Entire Sample

Scale	N	M	SD	Possible Range	Observed Range	Cronbach's α
BAS-2	81	3.9	.96	1-5	1-5	.96
FU BAS-2	82	3.9	.93	1-5	1-5	.96
BISS	83	5.7	1.79	1-9	1-8.5	.90
FU BISS	82	5.8	1.79	1-9	1-9	.90
<u>SATAQ-4</u>						
Thin	82	3.2	.89	1-5	1.6-5	.75
Muscular	85	3.1	1.02	1-5	1-5	.88
<u>CSWS</u>						
God's Love	85	5.0	1.67	1-7	1-7	.91
Appearance	85	5.0	.94	1-7	3-7	.14
Manifestation	76	5.5	1.19	1-7	2-7	.98
RCI-A	77	2.9	.95	1-5	1-4.82	.92
EPSI-I	85	3.4	.70	1-5	1.92-4.83	.82
<u>OBC-Y</u>						
Surveillance	85	3.5	1.16	1-5	1-5	.90
Body Shame	85	2.3	1.07	1-5	1-5	.82
Control Beliefs	85	3.7	.68	1-5	2-5	.37
RCMAS-L	85	2.4	2.09	0-9	0-9	.76

Note. BAS-2= Body Appreciation Scale-2; FU BAS-2 = BAS-2 at follow-up; BISS = Body Image States Scale; FU BISS = BISS at follow-up; SATAQ-4 = Sociocultural Attitudes Towards Appearance Questionnaire-4; Thin = Internalization: Thin/Low Body Fat; Muscular = Internalization: Muscular/Athletic; CSWS = Contingencies of Self-Worth Scale; Manifestation = Manifestation of God in the Body Scale; RCI-A = Religious Commitment Inventory for Adolescents; EPSI-I = Erikson Psychosocial Stage Inventory—Identity Scale; OBC-Y = Objectified Body Consciousness-Youth Scale; RCMAS-L = Revised Children's Manifest Anxiety Scale—Lie scale.

Table 3*Correlations between Variables of Interest for Entire Sample*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. BAS-2	--											
2. BISS	.86**	--										
3. SATAQ-4, Thin	-.45**	-.40**	--									
4. SATAQ-4, Muscular	.04	.09	.44**	--								
5. CSWS, God's Love	.39**	.33**	.06	.19	--							
6. Manifestation	.47**	.50**	-.19	.11	.78**	--						
7. RCI-A	.23*	.30**	-.09	.18	.71**	.64**	--					
8. EPSI-I	.75**	.63**	-.31**	.07	.31**	.37**	.29**	--				
9. OBCY, Surveillance	-.50**	-.48**	.46**	.12	-.05	-.22	-.02	-.52**	--			
10. OBCY, Body Shame	-.61**	-.63**	.54**	.21	-.10	-.26*	-.07	-.59**	.71**	--		
11. RCMAS-L	.19	.16	-.01	.08	.30**	.26*	.22	.15	-.24*	-.09	--	
12. Social Media Use	-.09	-.10	.06	.09	-.07	-.10	-.13	-.10	.10	.12	-.11	--

Note. * $p < .05$; ** $p < .01$

BAS-2= Body Appreciation Scale-2; BISS = Body Image States Scale; SATAQ-4 = Sociocultural Attitudes Towards Appearance Questionnaire-4; Thin = Internalization: Thin/Low Body Fat; Muscular = Internalization: Muscular/Athletic; CSWS = Contingencies of Self-Worth Scale; Manifestation = Manifestation of God in the Body Scale; RCI-A = Religious Commitment Inventory for Adolescents; EPSI-I = Erikson Psychosocial Stage Inventory—Identity Scale; OBC-Y = Objectified Body Consciousness-Youth Scale; RCMAS-L = Revised Children's Manifest Anxiety Scale—Lie scale.

Table 4*Correlations between Variables of Interest for Self-Identified Girls*

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. BAS-2	--											
2. BISS	.87**	--										
3. SATAQ-4, Thin	-.60**	-.49**	--									
4. SATAQ-4, Muscular	-.00	.08	.46**	--								
5. CSWS, God's Love	.41**	.33**	-.09	.17	--							
6. Manifestation	.54**	.55**	-.37**	.04	.79**	--						
7. RCI-A	.21	.29*	-.18	.14	.72**	.70**	--					
8. EPSI-I	.73**	.65**	-.38**	.11	.32**	.43**	.32*	--				
9. OBCY, Surveillance	-.50**	-.51**	.52**	.20	-.07	-.27*	-.07	-.49**	--			
10. OBCY, Body Shame	-.66**	-.66**	.60**	.27*	.10	-.37**	-.15	-.59**	.69**	--		
11. RCMAS-L	.13	.12	-.11	-.01	.26*	.28*	.25	.14	-.28*	-.17	--	
12. Social Media Use	-.11	-.07	.14	.21	-.11	-.13	-.20	-.17	.17	.08	-.12	--

Note. * $p < .05$; ** $p < .01$

BAS-2= Body Appreciation Scale-2; BISS = Body Image States Scale; SATAQ-4 = Sociocultural Attitudes Towards Appearance Questionnaire-4; Thin = Internalization: Thin/Low Body Fat; Muscular = Internalization: Muscular/Athletic; CSWS = Contingencies of Self-Worth Scale; Manifestation = Manifestation of God in the Body Scale; RCI-A = Religious Commitment Inventory for Adolescents; EPSI-I = Erikson Psychosocial Stage Inventory—Identity Scale; OBC-Y = Objectified Body Consciousness-Youth Scale; RCMAS-L = Revised Children's Manifest Anxiety Scale—Lie scale.

Table 5*Bootstrapped 95% Confidence Intervals for the Indirect Effects of Internalization of Appearance Ideals Corresponding with Figures 4-7*

	Effect	Boot SE	Boot LLCI	Boot ULCI
<u>Figure 4</u>				
SATAQ-4, Thin	-.02	.07	-.17	.12
SATAQ-4, Muscle	.04	.03	-.00	.11
<u>Figure 5</u>				
SATAQ-4, Thin	.09	.07	-.00	.26
SATAQ-4, Muscle	.02	.02	-.03	.06
<u>Figure 6</u>				
SATAQ-4, Thin	.07	.09	-.11	.24
SATAQ-4, Muscle	.04	.04	-.02	.13
<u>Figure 7</u>				
SATAQ-4, Thin	.25*	.09	.09	.42
SATAQ-4, Muscle	.01	.04	-.08	.08

Note. SATAQ-4 = Sociocultural Attitudes Towards Appearance Questionnaire-4; Thin = Internalization: Thin/Low Body Fat; Muscular = Internalization: Muscular/Athletic; Effect = indirect effect size (standardized); Boot SE = standard error of bootstrapped 95% confidence interval; Boot LLCI = lower-limit of the bootstrapped 95% confidence interval; Boot ULCI = upper-limit of the bootstrapped 95% confidence interval.

* indicates statistically significant indirect effect (mediation is present).

Table 6*Characteristics at Baseline by Intervention Group for Entire Sample*

	Traditional		Values/Identity		Control	
Group Size	34		29		20	
M_{age} (SD_{age})	15.0 (.9)		15.8 (1.7)		15.3 (.9)	
M_{BMI} (SD_{BMI})	21.8 (4.0)		23.4 (4.6)		21.8 (5.0)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<u>Gender Identity</u>						
Boy	9	26.5	5	17.2	4	20.0
Girl	23	67.6	24	82.7	15	75.0
Prefer not to say/Other	2	5.9	0	0.0	1	5.0
<u>Grade in School</u>						
9 th /Freshman	14	41.2	14	48.3	6	30.0
10 th /Sophomore	15	44.1	2	6.9	14	70.0
11 th /Junior	3	8.8	7	24	0	0.0
12 th /Senior	2	5.9	6	20.7	0	0.0

Table 7*Characteristics at Baseline by Intervention Group for Self-Identified Girls*

	Traditional		Values/Identity		Control	
Group Size	23		24		15	
M_{age} (SD_{age})	15.0 (1.0)		15.8 (1.5)		15.0 (.8)	
M_{BMI} (SD_{BMI})	21.8 (2.9)		23.4 (4.5)		21.7 (4.8)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<u>Grade in School</u>						
9 th /Freshman	9	39.1	9	37.5	6	40.0
10 th /Sophomore	11	47.8	2	8.3	9	60.0
11 th /Junior	1	4.3	7	29.2	0	0.0
12 th /Senior	2	8.7	6	25.0	0	0.0

Table 8*Means, Standard Deviations, and ANOVA Statistics for Entire Sample and Self-Identified Girls*

	Variable	Traditional		Values/Identity		Control		Kruskal-Wallis Test			
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	Effect	Test Statistic (<i>H</i>)	<i>df</i>	<i>p</i>
Entire Sample	BAS-2										
	Pre-	3.9	1.1	4.0	.7	3.8	1.1	Group	.30	2	.86
	Post-	3.8	1.1	3.9	.6	3.8	1.1	Group	.38	2	.83
	BISS										
Self-Identified Girls	Pre-	5.7	1.9	6.0	1.2	5.5	2.3	Group	.02	2	.99
	Post-	5.8	2.0	6.0	1.2	5.5	2.2	Group	.39	2	.82
	BAS-2										
	Pre-	3.8	1.0	3.9	.7	3.8	1.1	Group	.23	2	.89
	Post-	3.7	1.1	3.9	.6	3.7	1.1	Group	.23	2	.89
	BISS										
	Pre-	5.7	1.9	6.0	1.1	5.4	2.5	Group	.07	2	.97
	Post-	5.8	2.0	6.0	1.1	5.7	2.3	Group	.11	2	.95

Note. BAS-2= Body Appreciation Scale-2; BISS = Body Image States Scale.

Table 9*Participant Perceptions of Research Activities*

	<i>N</i>	<i>M</i>	<i>SD</i>	Range
"I would be willing to participate in a similar activity in the future."	81	5.6	1.4	1-7
"The activity was confusing."	80	2.2	1.4	1-7
"I enjoyed the activity."	82	5.4	1.4	1-7
"The activity was interesting."	82	5.8	1.1	1-7
"I learned something new from the activity."	81	4.8	1.7	1-7
"The activity made sense."	80	6.0	1.2	1-7
"The activity made me think in new ways."	82	5.1	1.6	1-7

Note. Participants responded using the following scale: 1 = "Totally Disagree," 2 = "Disagree," 3 = "Somewhat Disagree," 4 = "Neither Agree nor Disagree," 5 = "Somewhat Agree," 6 = "Agree," 7 = "Totally Agree."

Figures

Figure 1

Predicted Pathways between Contingencies of Self-Worth and Body Appreciation

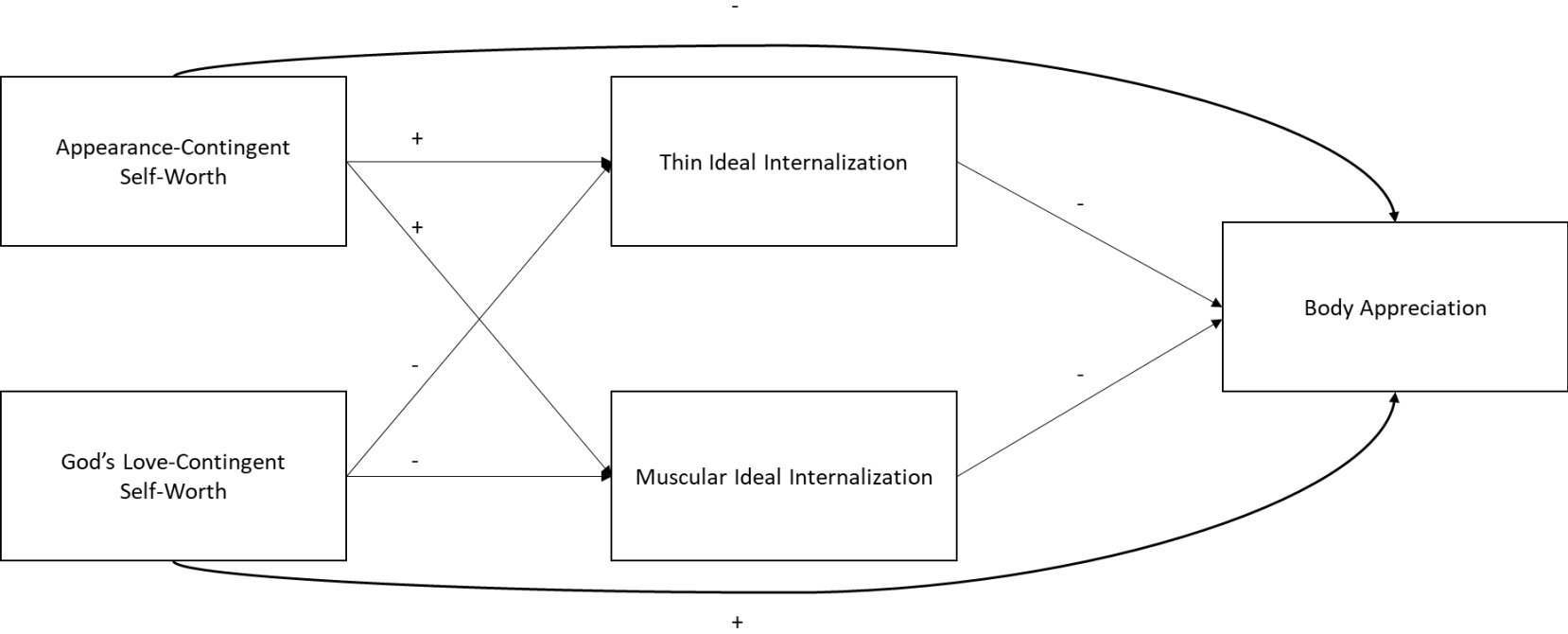


Figure 2

Predicted Pathways between Sanctification of the Body and Body Appreciation

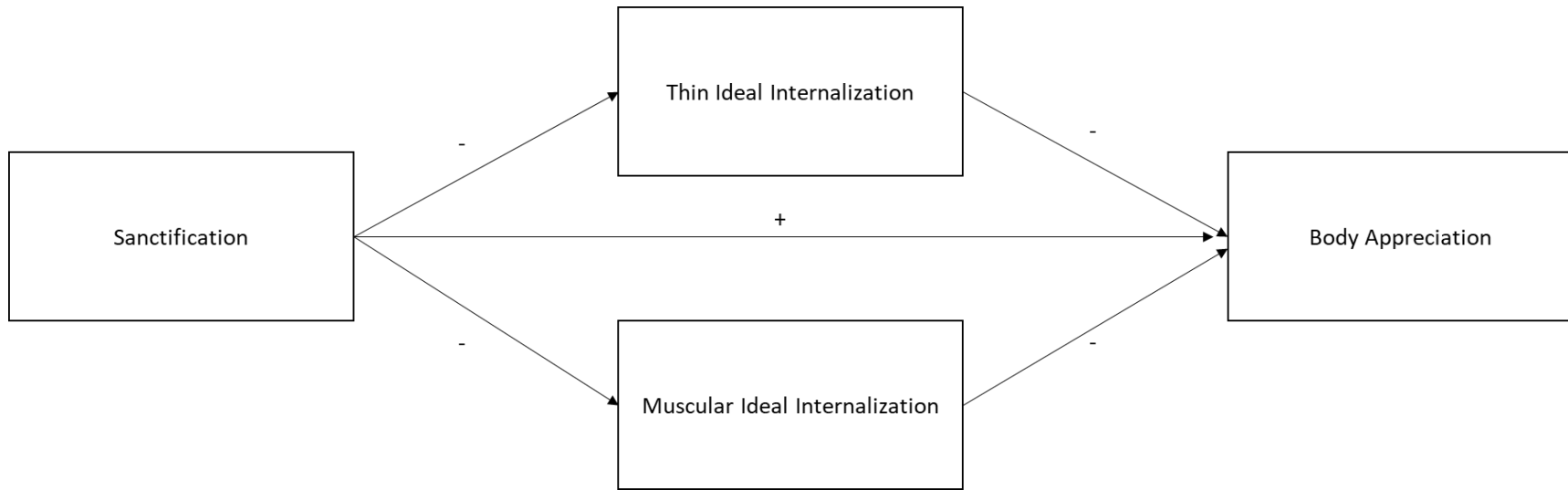
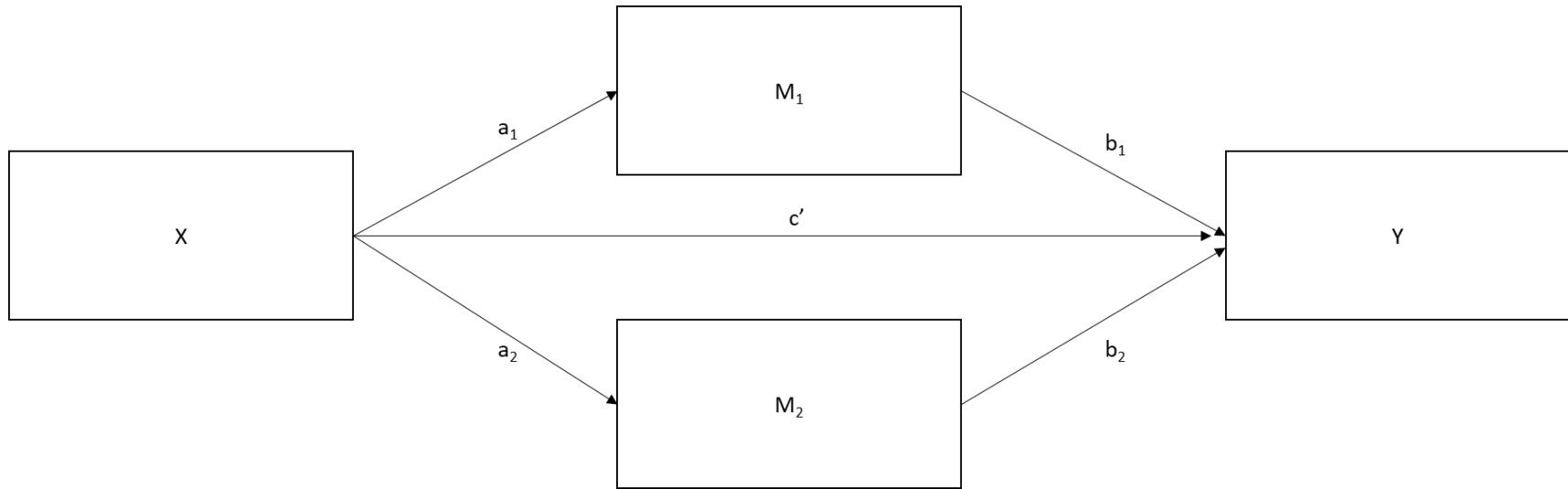


Figure 3

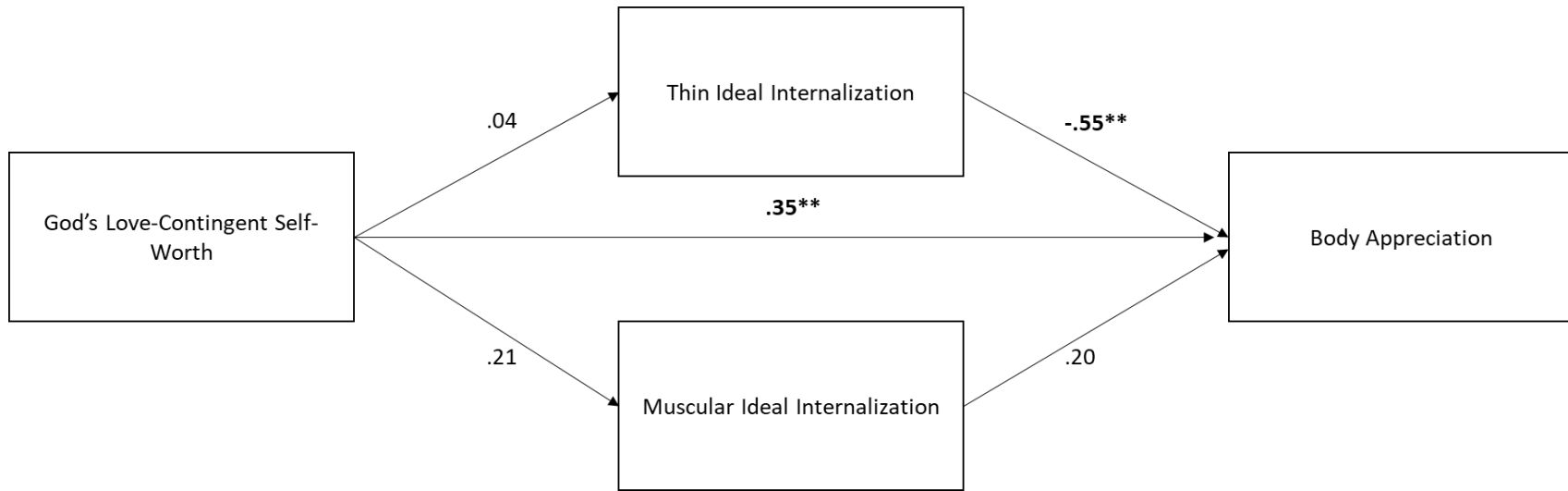
Conceptual Model for Multiple Mediation



Note. X represents the predictor variable, where Y represents the outcome variable. M₁ and M₂ represent hypothesized intervening variables, where c' represents the direct effect between X and Y and a_1b_1 and a_2b_2 represent mediated effects.

Figure 4

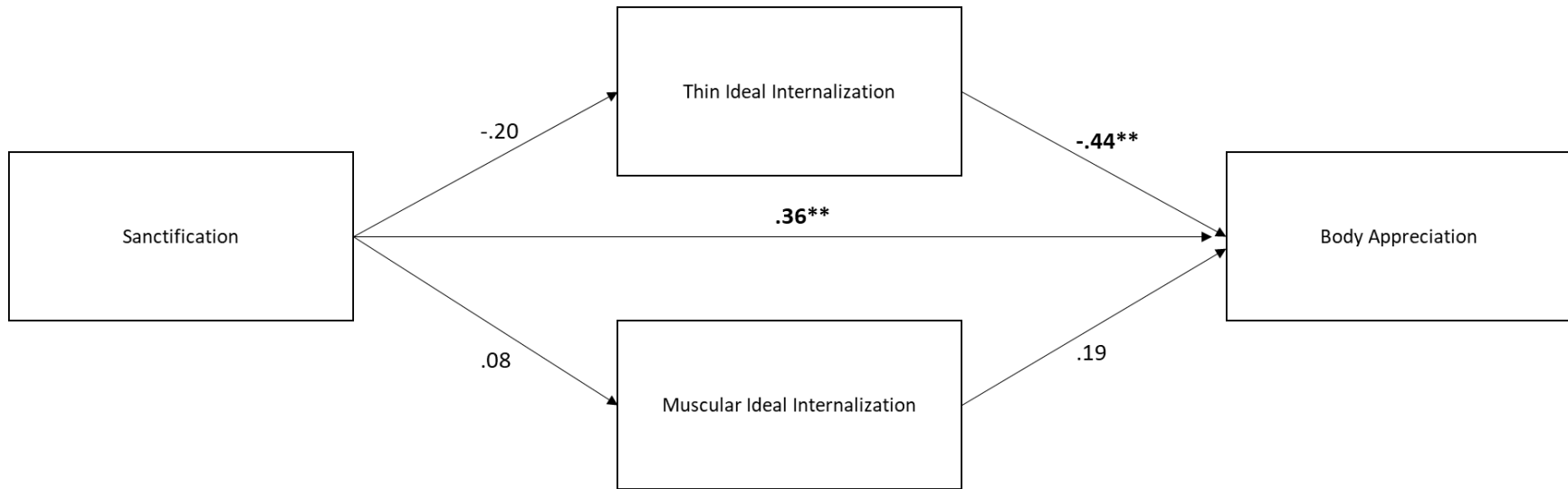
Multiple Mediation Model Examining Relationship between God's Love-Contingent Self-Worth and Body Appreciation with Thin Ideal Internalization and Muscular Ideal Internalization as Intervening Variables for Entire Sample



Note. Reported values are standardized regression coefficients. * $p < .05$; ** $p < .01$. Significant values are emphasized in bold.

Figure 5

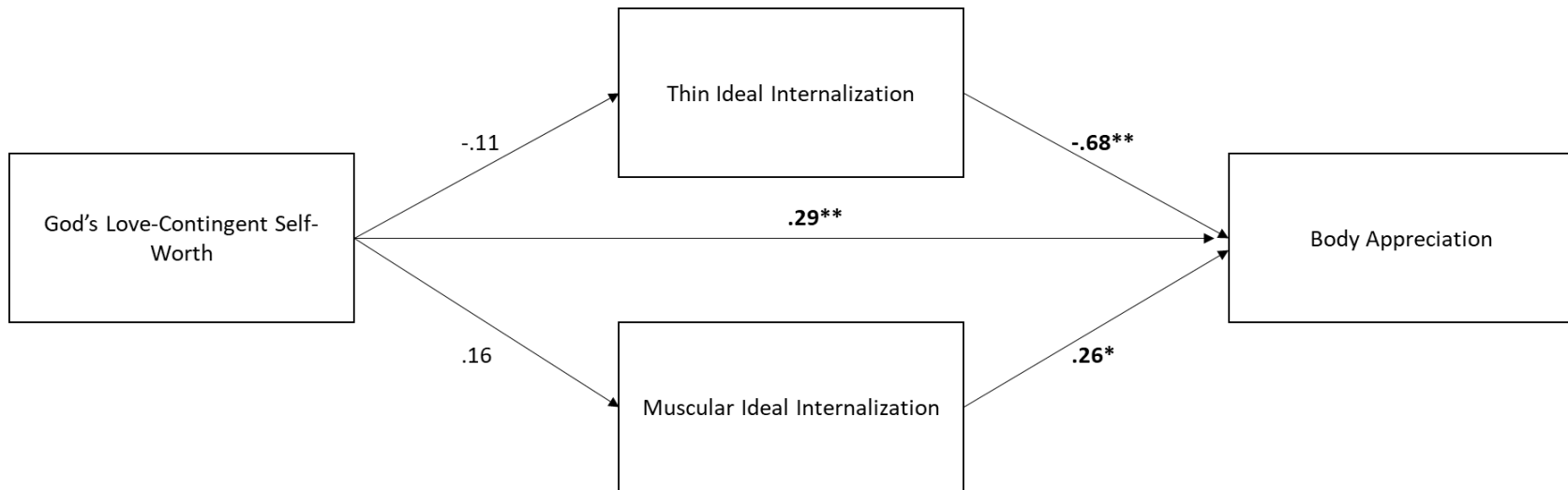
Multiple Mediation Model Examining Relationship between Sanctification of the Body and Body Appreciation with Thin Ideal Internalization and Muscular Ideal Internalization as Intervening Variables for Entire Sample



Note. Reported values are standardized regression coefficients. * $p < .05$; ** $p < .01$. Significant values are emphasized in bold.

Figure 6

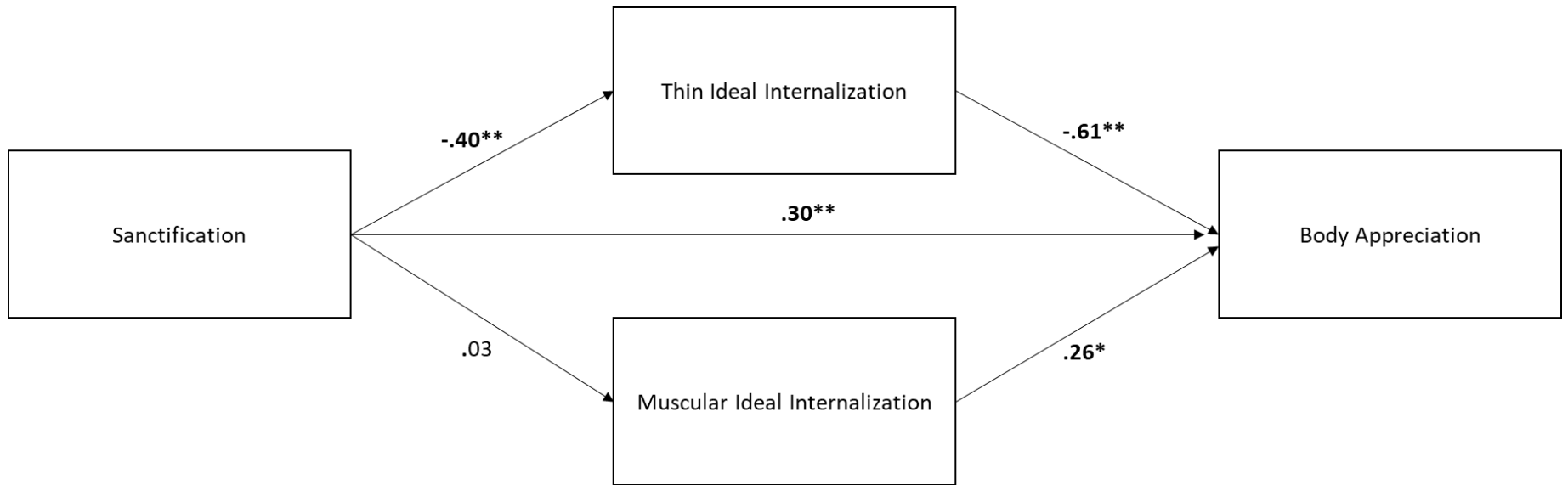
Multiple Mediation Model Examining Relationship between God's Love-Contingent Self-Worth and Body Appreciation with Thin Ideal Internalization and Muscular Ideal Internalization as Intervening Variables for Self-Identified Girls



Note. Reported values are standardized regression coefficients. * $p < .05$; ** $p < .01$. Significant values are emphasized in bold.

Figure 7

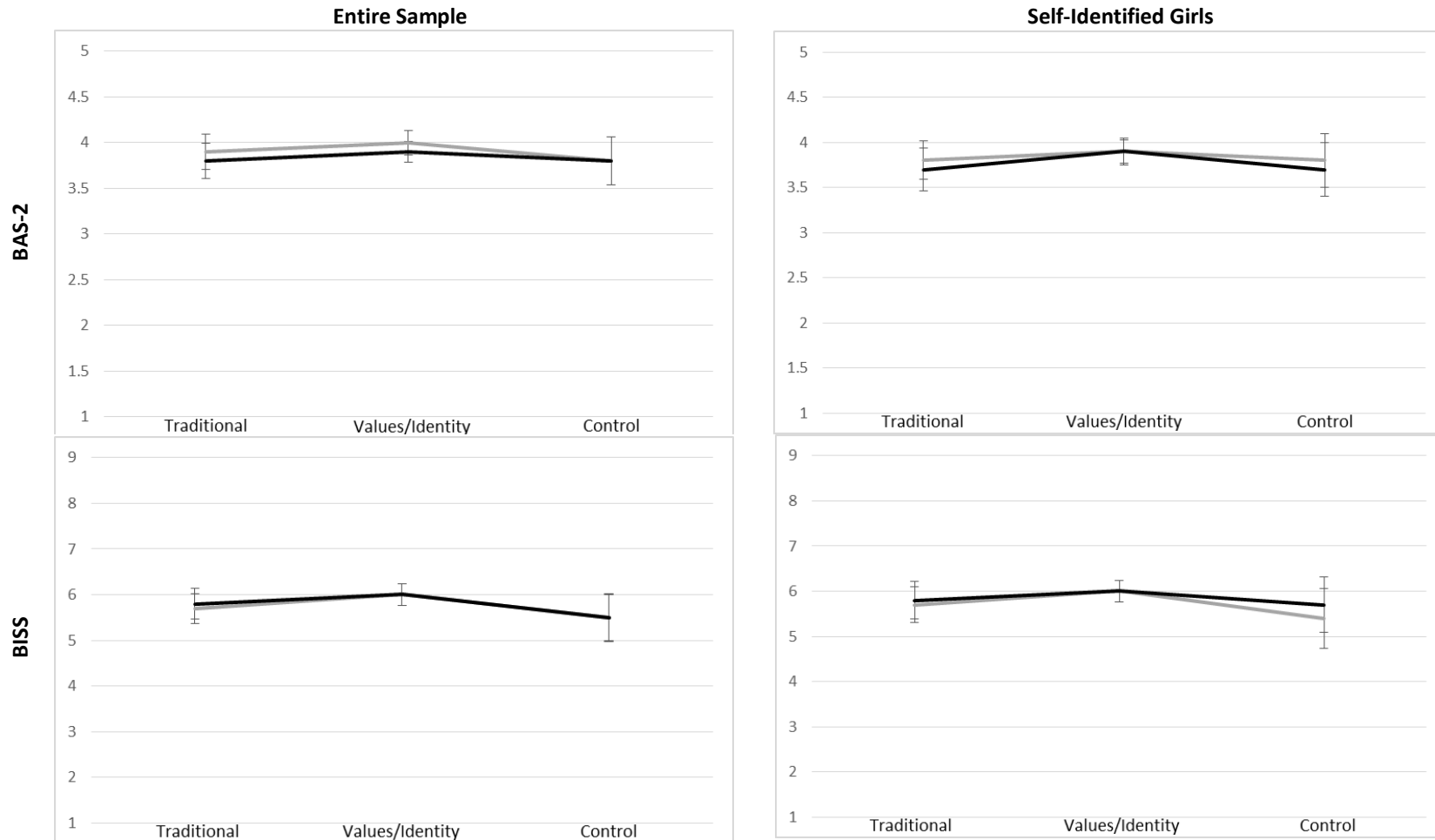
Multiple Mediation Model Examining Relationship between Sanctification of the Body and Body Appreciation with Thin Ideal Internalization and Muscular Ideal Internalization as Intervening Variables for Self-Identified Girls



Note. Reported values are standardized regression coefficients. * $p < .05$; ** $p < .01$. Significant values are emphasized in bold.

Figure 8

Mean Values for Trait and State Body Image by Group at Pre- and Post-Intervention for Entire Sample and Self-Identified Girls



Note. BAS-2 = Body Appreciation Scale-2; BISS = Body Image States Scale. Error bars represent standard error of the mean. Gray line represents pre-intervention; black line represents post-intervention.

Appendices

Appendix A—Initial Recruitment E-mail to Schools

Hello,

My name is Jessica Kusina. I am a PhD student studying Clinical Psychology at Case Western Reserve University. My advisor is Dr. Julie Exline. I am in the process of planning for my dissertation research, and that is why I am reaching out to you today. I am hopeful that your school will partner with me in my research by having your students serve as research participants. [*Insert personal connection to school/individual, if relevant*].

Broadly, I am interested in how personal values and beliefs are related to views of the self, especially views pertaining to self-worth and body image. Various programs, often taking place in schools, have been put into place to help teens feel better about themselves and their bodies. My dissertation will explore how we can make these programs more effective. I want to tap into teens' sense of identity and values because these beliefs can be a particularly powerful entry point for impacting views of oneself.

My study would take approximately 60-75 minutes and would comprise of a survey and discussion-based activity. I would come in person to facilitate the research. The survey and topics of discussion would inquire about identity, personal beliefs (including a few questions about religious and spiritual beliefs), self-image and eating habits. If your school chooses to participate, I would be happy to create a summary of responses that I could share with you, focusing on how students from your school responded to the survey. If this study sounds reasonable and interesting to implement in your school, I'd be happy to set up a time for a phone call or meeting to answer additional questions. I am not planning to implement the study until fall 2019, though I am reaching out early to inquire about interest.

Thank you so much for your time and consideration. I look forward to discussing more the prospect of working with [*insert school name here*] to gather this important information. Please be in touch at your earliest convenience via e-mail or my personal cell phone: 419-356-8673.

Thanks again, and have a wonderful rest of your day!

With gratitude,

Jessica Kusina

Appendix B—Recruitment E-mail to Parents/Guardians

To all parents of [Name of School] students,

[Name of School] is excited to announce that we have teamed up with researchers at Case Western Reserve University to conduct a study about identity, personal beliefs, self-image, and eating habits with our students. The study includes two main parts, both of which will take place at a single time during the week of [school's designated dates]. The first part of the study is a one-time *anonymous* survey that students will complete. The second part of the study is a brief discussion about personal and societal expectations for the self and/or for school, followed by a brief letter-writing activity in which the students reflect on how these expectations may impact their lives. Both parts of the study will be led by a CWRU researcher. Student participation is completely voluntary. As a benefit of participating, [Name of School] will receive a summary report of how well our students are doing and how this compares to other local (unnamed) schools. The report will not reveal any student names or individual responses. Case Western Reserve University researchers believe that this report can help us identify and better address mental health needs. The researchers are also happy to provide a presentation to school staff, parents, and students of the study's general findings and implications. **At the bottom of this email is a link to an online consent form asking your permission for your child to participate in the study. Please read it and thoughtfully consider whether you would like to give your consent. Only students with parental/guardian consent will be eligible to participate.**

If you have any additional questions or concerns, please feel free to contact me (Administrator phone number and email). Thank you!

Sincerely,
[Name of Administrator]
[Administrative Position], [Name of School]

Link: [link here]

Appendix C—Parent/Guardian Informed Consent Form



INFORMED PARENT/GUARDIAN CONSENT DOCUMENT

Re-Imagining the Body: Identity- and Values-Based Predictors of Body Appreciation and the Impact of a Single-Session Classroom-Based Intervention for Adolescents

You are being asked to give your consent for your child to participate in a research study about identity, personal beliefs (including a few questions about religious and spiritual beliefs), self-image, and eating habits. Your child was selected as a possible participant because he or she is a student attending [*insert name of school here*].

Researchers at Case Western Reserve University (CWRU) are conducting this study.

KEY INFORMATION

Purpose

The purpose of this research is to gain a better understanding of how personal values and beliefs of adolescents relate to views of the self, especially self-worth and body image. The research also seeks to evaluate potential methods that may make school-based programs that seek to improve adolescent body image more effective.

Procedures and Duration

Your child will be asked to complete a questionnaire during class that asks various questions pertaining to identity, personal beliefs, self-image, and eating habits. Then, your child will participate in a discussion-based activity led by the researcher that examines societal and personal expectations for appearance or academic commitments. Then your child will write a brief letter to a younger version of themselves that will incorporate elements from the discussion. Following the writing exercise, your child will give feedback about their perceptions of the activity. In total, the questionnaire and activity should take about 60-75 minutes.

Reasons You Might Choose to Volunteer For This Study

You may wish for your child to participate so that he or she engages in reflection about personal values and aspects of his or her identity. Further, your child will have the opportunity to explore how values and identity influence views of the self, and your child may experience improvements in body image.

Reasons You Might Choose Not to Volunteer For This Study

There are no known risks, harms, or discomforts associated with this study beyond those encountered in daily life. Your child may find some of the survey questions to be uncomfortable.

Voluntary Participation:

If you decide that your child is able to participate in the research, it should be because you want to volunteer. There is no penalty or loss of benefits for not participating or for discontinuing your child's participation.

DETAILED CONSENT

You are being asked to give your consent for your child to participate in a research study about identity, personal beliefs (including a few questions about religious and spiritual beliefs), self-image, and eating habits. Your child was selected as a possible participant because he or she is a student attending [insert name of school here]. We hope to recruit 150-200 students to volunteer for this research. Please read this form and ask any questions that you may have before agreeing to allow your child to participate.

Procedures

If you agree to allow your child to participate in this research, we would ask your child to do the following things: complete a questionnaire during class that asks various questions pertaining to identity, personal beliefs, self-image, and eating habits; participate in a discussion-based activity led by the researcher that examines societal and personal expectations for appearance or academic commitments; write a brief letter to a younger version of themselves that will incorporate elements from the discussion; provide feedback about their perceptions of the activity. In total, the questionnaire and activity should take about 60-75 minutes.

Your child can choose to stop participating for any reason at any time. However, if they decide to stop participating in the study, we encourage them to tell the researchers.

Foreseeable Risks and Discomforts

All treatments and procedures may involve some level of risk to you, whether foreseeable or not.

There are no known risks, harms or discomforts associated with this study beyond those encountered in normal daily life. Some of the activities we will ask your child to complete might make your child feel uncomfortable. Your child may refuse to answer any of the questions, take a break, or stop participation in this study at any time.

Anticipated Benefits

The possible benefits your child may experience from the procedures described in this study include increased awareness of personal identity/values and improvements in body image.

Your child's participation will also contribute to increased understanding of factors that relate to adolescent body image and will help advance strategies that seek to improve body image. Researchers hope to use this information to for future use in academic and clinical settings.

Compensation

There will be no costs to you for study participation.

Your student may be compensated for his or her participation. The researcher will offer students who complete the study the opportunity to submit their names and contact information to be entered into a drawing to win a \$15 Target gift card. Ten students will win these gift cards. Some schools may opt to not allow students to enter a drawing for a gift card. In this case, students will not be compensated for their participation

All schools will be offered a summary report describing students' responses at that school. The report will not disclose individual responses or names of participating students.

Alternative(s) to Participation

You have the option to not allow your child to participate in this research study.

Voluntary Nature of the Study

Your permission for your child's participation in this study is voluntary. If you choose not to give your child permission to participate, it will not affect your or your child's current or future relations with the University or with [*Insert name of school here*]. There is no penalty or loss of benefits for not participating or for discontinuing your participation. This will be explained to your child verbally and in writing prior to the start of the study.

You are free to withdraw permission for your child to participate in this study at any time. **If you decide to withdraw permission for participation from this study you should notify the research team immediately.** If you elect to withdraw your child from this research study, the researchers will discuss with you what they intend to do with your child's study data. Researchers may choose to analyze the study data already collected or they may choose to exclude your child's data from the analysis of study data and destroy it, as per your request. Any data provided by students who later choose not to participate will be destroyed. If your child completes the survey and turns it in and then later decides he or she no longer wants to participate, it will be impossible to destroy your child's specific data because this data will be anonymous and combined with all of the other students' data.

Confidentiality

The records of this research will be kept confidential. Any time information is collected, there is a potential risk for loss of confidentiality. Every effort will be made to keep your information confidential; however, this cannot be guaranteed.

In any sort of report we might publish, we will not include any information that will make it possible to identify a participant. Research records will be protected by passwords and will be kept in password-protected accounts, accessed on password-protected computers. Access will be limited to the researchers, the University review board responsible for protecting human participants, and regulatory agencies.

Subject Identifiable Data

Some information that identifies your child will be kept with the research data. The researcher will retain the name of your child's school and your child's age and grade in school. These identifiers will be retained so that the researcher can run analyses based on school, age, and grade-level, if necessary. Your child's name and contact information (i.e. phone number and/or e-mail address) will only be collected if your child wishes to enter the drawing for compensation. This information will be kept in a separate document so it is not linked to questionnaire responses but will allow the researcher to complete the drawing for compensation. This consent form, containing your child's name, will also be stored separately from your child's questionnaire responses.

Data Storage

Research data will be maintained in a secure location. Only authorized individuals will have access to it.

Research data will be stored in a password-protected document, stored in a password-protected account, accessed on a password-protected computer.

Data Retention

Your identifiable information which are collected for this research may have the identifiers removed and be used for future research studies or distributed to another investigator for future research studies without your additional informed consent. The researchers intend to keep the research data indefinitely, given that the questionnaire data will be de-identified.

Results

If desired by the school, [*insert name of school here*] will receive a report of the group results, not individual students' results, of the data collected at your school along with information on how this compares to other local unnamed schools. The researchers may also give a presentation of the study's general findings to school staff, parents, and/or students.

Significant New Findings

If any significant new findings develop that may affect your decision to participate these will be provided to you.

Contacts and Questions

The researchers conducting this study are Jessica Kusina, M.A., and Julie Exline, Ph.D. If you have any questions, concerns, or complaints about the study, you may contact

Jessica at 419-356-8673 or jrk165@case.edu. You may contact Dr. Exline at 216-368-8573 or jaj20@case.edu. Jessica Kusina is a doctoral candidate in CWRU's Clinical Child Psychology Ph.D. Program and is using this study as her dissertation project, supervised by Dr. Exline.

If the researchers cannot be reached, or if you would like to talk to someone other than the researcher(s) about: (1) questions, concerns or complaints regarding this study, (2) research participant rights, (3) research-related injuries, or (4) other human subjects issues, please contact Case Western Reserve University's Institutional Review Board at (216) 368-4514 or write: Case Western Reserve University; Institutional Review Board; 10900 Euclid Ave.; Cleveland, OH 44106-7230.

If you agree to have your child participate in this study, please check the appropriate option, type your child's name and your name, and electronically submit the consent document. If you do not agree to have your child participate, please check the appropriate option, type your child's name and your name, and electronically submit the consent document.

You and your child's cooperation is greatly appreciated. Please complete and submit this form electronically within one week of receiving it.

Thank you,

Jessica R. Kusina, M.A.
Doctoral Candidate
Department of Psychological Sciences
Case Western Reserve University
Cell: 419-356-8673
E-mail: jrk165@case.edu

Julie J. Exline, Ph.D.
Professor
Department of Psychological Sciences
Case Western Reserve University
Office: 216-368-8573
E-mail: jaj20@case.edu

Parent Statement of Consent

PLEASE CHECK ONE:

YES, I CONSENT as the parent/guardian of a child attending [*insert name of school here*] for my child to participate in this research.

NO, I DO NOT CONSENT as a parent/guardian of a child attending [*insert name of school here*], for my child to participate in this research.

Your “signature” below certifies the following:

- You are at least 18 years of age.
- You are a parent/guardian of the below listed child.
- You have read (or been read) the information provided above.
- You have received answers to all of your questions and have been told who to call if you have any more questions.
- You have freely decided whether or not to give your permission for your child to participate in this research.
- You understand that you are not giving up any of your legal rights.

Typed Name of Child

Typed Name of Parent/Guardian

Date

Appendix D—Informed Consent Form for Adult Students (18+ years old)



INFORMED STUDENT CONSENT DOCUMENT

Re-Imagining the Body: Identity- and Values-Based Predictors of Body Appreciation and the Impact of a Single-Session Classroom-Based Intervention for Adolescents

You are being asked to give your consent to participate in a research study about identity, personal beliefs (including a few questions about religious and spiritual beliefs), self-image, and eating habits. You were selected as a possible participant because you are a student attending [insert name of school here].

Researchers at Case Western Reserve University (CWRU) are conducting this study.

KEY INFORMATION

Purpose

The purpose of this research is to gain a better understanding of how teens think and feel about themselves. The researchers also want to see how to make mental health programs more helpful for teenagers.

Procedures and Duration

If you agree to participate, the following will take place:

1. You will fill out a survey online, in which you will answer questions about personal beliefs, identity, self-image, and eating habits. You can skip any questions you do not want to answer.
2. You will be invited to participate in a discussion-based activity led by the researcher that looks at social and personal expectations for appearance or school.
3. You will be asked to write a brief letter to a younger version of yourself, which will include what you thought or talked about in the discussion.
4. You will be asked to give feedback about your experiences with the survey, discussion, and letter-writing activity.

Reasons You Might Choose to Volunteer For This Study

You might enjoy thinking about your personal values and beliefs about yourself and the world. The study might inspire you to think a bit differently, which might be helpful to you.

Reasons You Might Choose Not to Volunteer For This Study

The researchers do not expect the study to be harmful, risky, or uncomfortable, beyond what you feel in daily life. You might find some of the questions the researchers ask to be uncomfortable. You do not have to answer these questions.

Voluntary Participation:

You do not have to be in the study. No one will be mad at you if you don't want to do this. If you don't want to be in this study, you just have to tell the researchers. You can say yes now and change your mind later. It is up to you to decide.

DETAILED CONSENT

You are being asked to participate in a research study about identity, personal beliefs (including a few questions about religious and spiritual beliefs), self-image, and eating habits. You were selected as a possible participant because you are a student attending [insert name of school here]. We hope to recruit 150-200 students to volunteer for this research. Please read this form and ask any questions that you may have before agreeing to participate.

Procedures

If you agree to participate, the following will take place:

1. You will fill out a survey online, in which you will answer questions about personal beliefs, identity, self-image, and eating habits. You can skip any questions you do not want to answer.
2. You will be invited to participate in a discussion-based activity led by the researcher that looks at social and personal expectations for appearance or school.
3. You will be asked to write a brief letter to a younger version of yourself, which will include what you thought or talked about in the discussion.
4. You will be asked to give feedback about your experiences with the survey, discussion, and letter-writing activity.

You can decide to stop participating at any time. If you would like to stop, please let the researcher know.

Foreseeable Risks and Discomforts

All treatments and procedures may involve some level of risk to you, whether foreseeable or not.

The researchers do not expect the study to be harmful, risky, or uncomfortable, beyond what you feel in daily life. You might find some of the questions the researchers ask to be uncomfortable. You do not have to answer these questions.

Anticipated Benefits

You might enjoy thinking about your personal values and beliefs about yourself and the world. The study might inspire you to think a bit differently, which might be helpful to you.

Compensation

There will be no costs to you for study participation.

You may be compensated for your participation. The researcher will offer students who complete the study the opportunity to submit their names and contact information to be entered into a drawing to win a \$15 Target gift card. Ten students will win these gift cards. Some schools may opt to not allow students to enter a drawing for a gift card. In this case, students will not be compensated for their participation

All schools will be offered a summary report describing students' responses at that school. The report will not share names of participating students or their individuals responses.

Alternative(s) to Participation

You have the option to not participate in this research study.

Voluntary Nature of the Study

Your participation in this study is voluntary. If you choose not to participate, it will not affect your current or future relations with the University or with [*insert name of school here*]. There is no penalty or loss of benefits for not participating or for discontinuing your participation.

You are free to withdraw your participation from this study at any time. **If you decide to withdraw participation from this study you should notify the research team immediately.** If you elect to withdraw from this research study, the researchers will discuss with you and your parents what they intend to do with the study data. Researchers may choose to analyze the study data already collected or they may choose to exclude your data from the analysis of study data and destroy it, as per your parent's request. Any data provided by students who later choose not to participate will be destroyed. If you complete the survey and turn it in and then later decide you no longer want to participate, it will be impossible to destroy your specific data because this data will be anonymous and combined with all of the other students' data.

Confidentiality

The records of this research will be kept confidential. Any time information is collected, there is a potential risk for loss of confidentiality. Every effort will be made to keep your information confidential; however, this cannot be guaranteed.

In any sort of report we might publish, we will not include any information that will make it possible to identify you. Research records will be protected by passwords and will be kept in password-protected accounts, accessed on password-protected computers. Access will be limited to the researchers, the University review board responsible for protecting human participants, and regulatory agencies.

Subject Identifiable Data

Some information that identifies you will be kept with the research data. The researcher will retain the name of your school and your age and grade in school. These identifiers will be retained so that the researcher can run analyses based on school, age, and grade-level, if necessary. Your name and contact information (i.e. phone number and/or e-mail address) will only be collected if you wish to enter the drawing for compensation. This information will be kept in a separate document so it is not linked to questionnaire responses but will allow the researcher to complete the drawing for compensation.

Data Storage

Research data will be maintained in a secure location. Only authorized individuals will have access to it.

Research data will be stored in a password-protected document, stored in a password-protected account, accessed on a password-protected computer.

Data Retention

Your identifiable information which are collected for this research may have the identifiers removed and be used for future research studies or distributed to another investigator for future research studies without your additional informed consent. The researchers intend to keep the research data indefinitely, given that the questionnaire data will be de-identified.

Results

If desired by the school, [*insert name of school here*] will receive a report of the group results, not individual students' results, of the data collected at your school along with information on how this compares to other local unnamed schools. The researchers may also give a presentation of the study's general findings to school staff, parents, and/or students.

Significant New Findings

If any significant new finding develop that may affect your decision to participate these will be provided to you.

Contacts and Questions

The researchers conducting this study are Jessica Kusina, M.A., and Julie Exline, Ph.D. If you have any questions, concerns, or complaints about the study, you may contact Jessica at 419-356-8673 or jrk165@case.edu. You may contact Dr. Exline at 216-368-8573 or jaj20@case.edu. Jessica Kusina is a doctoral candidate in CWRU's Clinical Child Psychology Ph.D. Program and is using this study as her dissertation project, supervised by Dr. Exline.

If the researchers cannot be reached, or if you would like to talk to someone other than the researcher(s) about: (1) questions, concerns or complaints regarding this study, (2) research participant rights, (3) research-related injuries, or (4) other human subjects issues, please contact Case Western Reserve University's Institutional Review Board at

(216) 368-4514 or write: Case Western Reserve University; Institutional Review Board; 10900 Euclid Ave.; Cleveland, OH 44106-7230.

If you agree to participate in this study, please check the appropriate option and electronically submit the consent document. If you do not agree to participate, please check the appropriate option and electronically submit the consent document.

Your cooperation is greatly appreciated.

Thank you,

Jessica R. Kusina, M.A.
Doctoral Candidate
Department of Psychological Sciences
Case Western Reserve University
Cell: 419-356-8673
E-mail: jrk165@case.edu

Julie J. Exline, Ph.D.
Professor
Department of Psychological Sciences
Case Western Reserve University
Office: 216-368-8573
E-mail: jaj20@case.edu

Student Statement of Consent

PLEASE CHECK ONE:

- YES, I AGREE TO PARTICIPATE**
- NO, I DO NOT AGREE TO PARTICIPATE**

Appendix E—Student Assent Form



CASE WESTERN RESERVE UNIVERSITY INFORMED ASSENT DOCUMENT

Re-Imagining the Body: Identity- and Values-Based Predictors of Body Appreciation and the Impact of a Single-Session Classroom-Based Intervention for Adolescents

Participating in this study is totally voluntary. Please read about the study below. Feel free to ask questions about anything that you do not understand before deciding if you want to be in the study. A researcher listed below will be around to answer your questions.

WHY ARE YOU HERE?

The researchers want to tell you about a research study looking at teenager's beliefs about the world and views of themselves. They want to see if you would like to be in this study.

WHY ARE THEY DOING THIS STUDY?

Julie Exline, PhD, Jessica Kusina, MA, and some other researchers are doing this study to learn more about teenagers' personal beliefs and views of themselves.

WHAT WILL HAPPEN TO YOU?

These things will happen if you want to be in the study:

1. You will fill out a survey online, in which you will answer questions about personal beliefs, identity, self-image, and eating habits. You can skip any questions you do not want to answer.
2. You will be invited to participate in a discussion-based activity led by the researcher that looks at social and personal expectations for appearance or school.
3. You will be asked to write a brief letter to a younger version of yourself, which will include what you thought or talked about in the discussion.
4. You will be asked to give feedback about your experiences with the survey, discussion, and letter-writing activity.

WILL THE STUDY HURT?

The researchers do not expect the study to be harmful, risky, or uncomfortable, beyond what you feel in daily life. You might find some of the questions the researchers ask to be uncomfortable. You do not have to answer these questions.

WILL YOU GET BETTER IF YOU ARE IN THE STUDY?

You might enjoy thinking about your personal values and beliefs about yourself and the world. The study might inspire you to think a bit differently, which might be helpful to you.

HOW WILL YOUR INFORMATION BE PROTECTED?

All of your answers will be safely kept on a password-protected document in a password-protected account. Only the listed researchers will be able to read your answers to questions in this study. Your name will not be linked with these answers, so the researchers will not actually know who said what. The researchers will not tell anyone what you tell us unless you give us permission. You should know, however, that we may tell local authorities if harm to you, harm to others, or if child abuse or neglect becomes a concern.

WHAT IF YOU HAVE ANY QUESTIONS?

You can ask questions any time. You can ask now or you can ask later. You can talk to the researchers, your mom and dad, or you can talk to someone else. You may ask any questions you have now. If you have any additional questions, concerns or complaints about the study, you may contact Jessica Kusina at 419-356-8673 or jrk165@case.edu. You may contact Dr. Exline at 216-368-8573 or jaj20@case.edu. Jessica Kusina is a doctoral candidate in CWRU's Clinical Child Psychology Ph.D. Program and is using this study as her dissertation project, supervised by Dr. Exline.

If the researchers cannot be reached, or if you would like to talk to someone other than the researcher(s) about; (1) questions, concerns or complaints, (2) your rights, (3) research-related injuries, or (4) other issues, please contact Case Western Reserve University's Institutional Review Board at (216) 368-6925 or write: Case Western Reserve University; Institutional Review Board; 10900 Euclid Ave.; Cleveland, OH 44106-7230.

DO YOU HAVE TO BE IN THE STUDY?

You do not have to be in the study. No one will be mad at you if you don't want to do this. If you don't want to be in this study, you just have to tell the researchers. You can say yes now and change your mind later. It is up to you to decide.

Student Statement of Assent

PLEASE CHECK ONE:

- YES, I AGREE TO PARTICIPATE**
- NO, I DO NOT AGREE TO PARTICIPATE**

Appendix F—Study Administration Script

(As students enter/get settled, hand out strips of paper with student codes on them. Instruct students to keep this number until the study is complete.)

(Text to speak is in bold. Text to modify according to the situation is in italics.)

Good [*morning or afternoon*] **everyone.** _____ (Name of school) **has teamed up with researchers from Case Western Reserve University to conduct a study. Right now you have the opportunity to decide if you want to participate in this study. If you do not think your parents gave permission for you to do this study, please raise your hand now.** [If any students raise their hand, check the provided list of students with parent consent to determine if the student's parent has given permission and inform the student if they do or do not have parental permission.]

(Remind students to hold onto their slip of paper with number on it)

(Instruct students to enter study link: <http://bit.ly/CWRUstudy>)

[Participating students will click on link, which will first open to the assent document]

You will now be given a few minutes to read through this page where you will learn more about the study, how research is generally conducted, and decide if you want to do the survey. Here are some of the important points you will read about:

- 1. Researchers from Case Western Reserve University are conducting the study and I am helping them with it for today.**
- 2. The purpose of this study is to help the researchers better understand teenagers' beliefs about the world and views about themselves.**
- 3. Whether you participate in this study is up to you.**
- 4. You do not have to participate in the study just because your parents gave their permission.**
- 5. You can choose to not be in the study at any time for any reason. If you choose to stop, please raise your hand to let me know.**
- 6. If you agree to participate in this study, you will fill out a survey online, be invited to participate in a brief discussion, and will write a brief letter to yourself reflecting on material from the discussion.**
- 7. The study does not have any big risks beyond your normal life. Some questions might make you feel uncomfortable. You can skip any questions, take a break, or stop participating at any time.**
- 8. We will do our absolute best to make sure your answers are never shared with anyone. This means that your parents, the school staff, including myself, and other people will never know what answers you specifically give.**
- 9. A report of the general results will be given to the school. This report will not contain your names or specific answers. [*If the school agreed to this: Once you complete the study, you will also have the opportunity to enter your name to win a \$15 gift card to Target*]**

10. If you choose not to do the study, your options are to *[describe appropriate options for your school, such as read quietly, work on homework, attend a different class, etc. Do not punish them with a distasteful activity for not participating in the study]*

11. The researchers conducting this study are Jessica Kusina and Dr. Julie Exline. If you have any questions or concerns about the study, you may talk with them at the listed numbers.

12. The school has copies of this form if you would like one. If you cannot reach the researchers using the contact info on this form, you can also call the Institutional Review Board at Case at the number provided.

13. For those of you who chose to participate, please read the questions carefully and answer them based on what you think or feel most of the time. If you do not understand a word or question, skip the question or raise your hand to ask me for help if you feel comfortable doing this.

With all that said, does anyone have any questions? *[Answer questions. Do NOT try to influence students to participate in the study at this time]*

Please take a few minutes to go through the form and decide if you want to participate.

[If the students seem to have a handle on this, stop here and allow the students to give or deny their assent and take the survey]

If you agree to participate in the study, please choose the circle next to “Yes, I want to participate in the study” and then click the button on the bottom of the screen. If you do not want to participate, simply choose the circle next to “No, I do not want to participate” and click the button on the bottom of the page.

Once you are done answering questions, you will receive a message stating that part 1 of the study is complete. Please do something quietly until I prompt you to begin the next part.

Reminders to self:

ANSWERING QUESTIONS: Ok to answer to help students understand, be careful not to influence their responses

RESPECTING PRIVACY: As much as possible, remain in an area of the room where you cannot easily read the students’ answers or see their screens/monitors. Avoid looking at their screens/monitors as much as possible. Do not wander around the room while students are taking the survey.

WITHDRAWING FROM THE STUDY:

If a student says they do not want to participate in the study while still in the middle of taking the online version of the survey, ask the student to type the word “DESTROY” in any text box within the survey and close the window. If they cannot find a text box to type this in, it is likely too late to destroy the info the student has already provided but they can simply stop taking the survey by closing the window. Students cannot withdraw their data from an online version of the study if they have already completed the survey due to the anonymity of the survey.

Appendix G—Script for “Traditional” Activity

Script for “Traditional” Activity (GROUP A)

PART 1: APPEARANCE IDEALS (From *Happy Being Me*)

We have all been exposed to, and likely experience firsthand, “appearance ideals.” These are expectations for the “ideal” body and appearance. For instance, we are often told that the “ideal” girl is thin, whereas the “ideal” boy is muscular. What are some other ideals for boys and girls that you have heard about or experienced?

[Using white board/chalkboard, draw a Venn diagram. Label one circle “boys” and the other circle “girls.” Fill in circles with student responses. Possible responses may include *long legs, slim/skinny, big breasts, clear skin, slim waist, big eyes, plump lips, flat stomach, toned, tanned, long eyelashes, slim legs, long hair, hour glass figure*, etc. for girls; *muscular, broad chest, lean, tall, square jaw, v shape, pecs, six pack, large biceps, broad shoulders, clear skin, slim waist, toned, low body fat* for boys]

PART 2: PROBLEMS CAUSED BY APPEARANCE IDEALS (From *Happy Being Me*)

Appearance ideals can actually lead to a lot of problems, especially when it comes to how we feel, how we interact with others, and our physical health. We will brainstorm some of these problems together.

[Write responses on white board/chalkboard as students come up with them for each of the 3 areas.]

Emotional: How do people feel when they put all of their energy and focus into changing how they look? What is it like to want to look like the ideals, but to not be able to meet them? [Possible responses may include *low self-esteem, disappointment, frustration, etc.*]

Social: What happens in friendship groups when some people focus a lot on their appearance? How are social situations affected when people worry a lot that they don’t look like the ideal?

[Possible responses may include *social isolation, less enjoyment of fun activities because too focused on looking like the ideal, etc.*]

Physical: What are the effects on physical health (e.g. energy levels, nutrition, etc.) when people radically change their eating or exercise habits to try and change their appearance? [Possible responses may include *loss of concentration, feeling tired or weak, etc.*]

PART 3: WRITE A LETTER TO YOUR YOUNGER SELF (Dissonance-based intervention)

We have come up with many great ideas so far. There are endless examples that exist, and certain ones will be more meaningful to you than others. Now we will engage in an activity where you will write a letter to your younger self, maybe 2-3

years ago. I want you to imagine that this younger version of you is really struggling with self-image, especially with appearance ideals. The current you knows that these appearance ideals can lead to a lot of problems. In your letter, you are sharing these problems with the younger you and are helping the younger you understand why appearance ideals are not worth pursuing. You can use examples that we came up with, or any other examples that you think would be meaningful to the younger you.

[10-minute writing activity via Qualtrics]

Appendix H—Script for “Values/Identity” Activity

PART 1: APPEARANCE IDEALS (From *Happy Being Me*)

We have all been exposed to, and likely experience firsthand, “appearance ideals.” These are expectations for the “ideal” body and appearance. For instance, we are often told that the “ideal” girl is thin, whereas the “ideal” boy is muscular. What are some other ideals for boys and girls that you have heard about or experienced?

[Using white board/chalkboard, draw a Venn diagram. Label one circle “boys” and the other circle “girls.” Fill in circles with student responses. Possible responses may include *long legs, slim/skinny, big breasts, clear skin, slim waist, big eyes, plump lips, flat stomach, toned, tanned, long eyelashes, slim legs, long hair, hour glass figure*, etc. for girls; *muscular, broad chest, lean, tall, square jaw, v shape, pecs, six pack, large biceps, broad shoulders, clear skin, slim waist, toned, low body fat* for boys]

PART 2: APPEARANCE IDEALS DISCREPANT WITH VALUES/IDENTITY (Along lines of self-affirmation activities)

Appearance ideals can actually disagree with many of our values and our sense of personal identity. First, let’s think of some types of values a person might have.

[Hand out values clarification sheet]

Values are your personal beliefs that are most important to you and guide your choices in life. Values are closely linked with identity, influencing the person you strive to be. For example, if I value family, it is likely important to me to be a good daughter or son. If I value my faith, it is likely important to me to be a person who lives according to my spiritual or religious beliefs. Looking at this list of values, please take some time to rank order your top 10 values, with 1 being the most important and 10 being the 10th most important.

[Give students time to rank values]

Discuss: Did anyone think of any values not listed on this sheet? How did you decide what order to put your values in?

Now let’s think about how your personal values can disagree with appearance ideals. If you were to focus all of your time/energy/thoughts on appearance, how could this interfere with following your own values or becoming who you want to be? Would anyone like to share an example of what they came up with?

[Some examples: *I believe that you should treat all people with kindness and respect. When I don’t treat myself with kindness and respect, I am not following my own values...My religious and spiritual beliefs tell me that people are worthy of love because they are created by God. When I tell myself that I am only worthy of love if I look a certain way, I am directly violating my own beliefs...etc.*]

PART 3: WRITE A LETTER TO YOUR YOUNGER SELF (Dissonance-based intervention with values integration)

We have come up with many great ideas so far. There are endless examples that exist, and certain ones will be more meaningful to you than others. Now we will engage in an activity where you will write a letter to your younger self, maybe 2-3 years ago. I want you to imagine that this younger version of you is really struggling with self-image, especially with appearance ideals. The current you knows that these appearance ideals can go against your values and who you want to be as a person. In your letter, you are sharing examples of how this could be true. You are helping the younger you understand why appearance ideals are not worth pursuing. You can use examples that we came up with, or any other examples that are particularly meaningful to you, given your own values and identity.

[10-minute writing activity via Qualtrics]

Appendix I—Values Clarification Handout

Values Clarification

Your values are the beliefs that define what is most important to you. They guide each of your choices in life. For example, someone who values family might try to spend extra time at home, while someone who values success in their career may do just the opposite. Understanding your values will help you recognize areas of your life need more attention, and what to prioritize in the future.

Select the 10 most important items from the following list. Rank them from 1-10 with "1" being the most important item.

- | | |
|---|---------------------------------------|
| <input type="checkbox"/> Love | <input type="checkbox"/> Honesty |
| <input type="checkbox"/> Wealth | <input type="checkbox"/> Humor |
| <input type="checkbox"/> Family | <input type="checkbox"/> Loyalty |
| <input type="checkbox"/> Morals | <input type="checkbox"/> Reason |
| <input type="checkbox"/> Success | <input type="checkbox"/> Independence |
| <input type="checkbox"/> Knowledge | <input type="checkbox"/> Achievement |
| <input type="checkbox"/> Power | <input type="checkbox"/> Beauty |
| <input type="checkbox"/> Friends | <input type="checkbox"/> Spirituality |
| <input type="checkbox"/> Free Time | <input type="checkbox"/> Respect |
| <input type="checkbox"/> Adventure | <input type="checkbox"/> Peace |
| <input type="checkbox"/> Variety | <input type="checkbox"/> Stability |
| <input type="checkbox"/> Calmness | <input type="checkbox"/> Wisdom |
| <input type="checkbox"/> Freedom | <input type="checkbox"/> Fairness |
| <input type="checkbox"/> Fun | <input type="checkbox"/> Creativity |
| <input type="checkbox"/> Recognition | <input type="checkbox"/> Relaxation |
| <input type="checkbox"/> Nature | <input type="checkbox"/> Safety |
| <input type="checkbox"/> Popularity | <input type="checkbox"/> _____ |
| <input type="checkbox"/> Responsibility | <input type="checkbox"/> _____ |

Appendix J—Script for “School”/Control Activity**PART 1: DAILY SCHOOL SCHEDULE BRAINSTORM**

Take some time to think back to last school year, focusing on your daily schedule. Specifically, think about what a “week in the life” looked like for you last year. For instance, how did you get to and from school each day? What did your morning routine look like? What did you do during the school day? What did you do after school? Did you participate in any activities? How did you spend your time on the weekends?

[Give students time to think]

Would anyone like to share what a typical day looked like for them?

PART 3: WRITE A LETTER TO YOUR YOUNGER SELF

We have talked about a lot of different examples of students’ possible schedules. Now we will engage in an activity where you will write a letter to your younger self, maybe 2-3 years ago. You are telling your younger self what a typical week is like for a student in high school [junior high] based on your own experiences. You can include the things you just brainstormed, or anything else you can think of that describes what a typical week looked like for you.

[10-minute writing activity via Qualtrics]

Appendix K—Follow-Up Questions to Administer Following Activities

For the following questions, please respond based on your thoughts and feelings about the discussion and writing activity. [Rate on 1-7 scale]

1. I enjoyed the activity.
2. The activity was interesting.
3. The activity made sense.
4. The activity was confusing.
5. The activity made me think in a new way.
6. I learned something new from the activity.
7. I would be willing to participate in a similar activity in the future.

Which part of the activity was most meaningful to you? Why did you find this part most meaningful to you? [*blank space for open-ended responses*]

Is there anything else you would like the researcher to know about your thoughts and feelings about the activity? [*blank space for open-ended responses*]

Appendix L—Debriefing and List of Resources

This study is now complete. Thank you for your time, effort, and attention. Your participation will help advance understanding and cultivation of positive body image in teens. If this study raised emotional issues for you that you would like to discuss with a mental health professional, please refer to the following resources:

National Resources:

Emergency: 911

The National Suicide Prevention Lifeline:

<http://www.suicidepreventionlifeline.org>

1-800-273-8255

The Mental Health Services Locator supported by the Substance Abuse and Mental Health Services Administration: <http://store.samhsa.gov/mhlocator>

The National Alliance on Mental Illness: <http://www.nami.org/>

National Eating Disorders Association (NEDA): <https://www.nationaleatingdisorders.org>

Local Resources:

Cleveland:

Cleveland Mobile Crisis:

216-623-6888

Case Western Reserve University Psychology Therapy Clinic:

<https://psychsciences.case.edu/homepage/psychology-clinic/>

216-368-0719

The Emily Program (Eating Disorders Treatment Center):

<https://emilyprogram.com/contact-us/>

1-866-698-4188

Toledo:

The University of Toledo Psychology Clinic:

<http://www.utoledo.edu/al/psychology/clinic/>

419-530-2717

Harbor Behavioral Health:

www.harbor.org

419-475-4449

River Centre Clinic (Eating Disorder Treatment Center):

<https://www.river-centre.org/>

866-841-2408

**Appendix M—The Body Appreciation Scale—2
(BAS-2; Tylka & Wood-Barcalow, 2015)**

1. I respect my body.
2. I feel good about my body.
3. I feel that my body has at least some good qualities.
4. I take a positive attitude towards my body.
5. I am attentive to my body's needs.
6. I feel love for my body.
7. I appreciate the different and unique characteristics of my body.
8. My behavior reveals my positive attitude toward my body; for example, I hold my head high and smile.
9. I am comfortable in my body.
10. I feel like I am beautiful even if I am different from media images of attractive people (e.g. models, actresses/actors)

**Appendix N—Body Image States Scale
(BISS; Cash et al., 2002)**

1. Right now I feel...
 - Extremely dissatisfied with my physical appearance
 - Mostly dissatisfied with my physical appearance
 - Moderately dissatisfied with my physical appearance
 - Slightly dissatisfied with my physical appearance
 - Neither dissatisfied nor satisfied with my physical appearance
 - Slightly satisfied with my physical appearance
 - Moderately satisfied with my physical appearance
 - Mostly satisfied with my physical appearance
 - Extremely satisfied with my physical appearance

2. Right now I feel...
 - Extremely dissatisfied with my body size and shape
 - Mostly dissatisfied with my body size and shape
 - Moderately dissatisfied with my body size and shape
 - Slightly dissatisfied with my body size and shape
 - Neither dissatisfied nor satisfied with my body size and shape
 - Slightly satisfied with my body size and shape
 - Moderately satisfied with my body size and shape
 - Mostly satisfied with my body size and shape
 - Extremely satisfied with my body size and shape

3. Right now I feel...
 - Extremely dissatisfied with my weight
 - Mostly dissatisfied with my weight
 - Moderately dissatisfied with my weight
 - Slightly dissatisfied with my weight
 - Neither dissatisfied nor satisfied with my weight
 - Slightly satisfied with my weight
 - Moderately satisfied with my weight
 - Mostly satisfied with my weight
 - Extremely satisfied with my weight

4. Right now I feel...
 - Extremely physically attractive
 - Very physically attractive
 - Moderately physically attractive
 - Slightly physically attractive
 - Neither attractive nor unattractive
 - Slightly physically unattractive
 - Moderately physically unattractive
 - Very physically unattractive
 - Extremely physically unattractive

5. Right now I feel

- A great deal worse about my looks than I usually feel
- Much worse about my looks than I usually feel
- Somewhat worse about my looks than I usually feel
- Just slightly worse about my looks than I usually feel
- About the same about my looks than I usually feel
- Just slightly better about my looks than I usually feel
- Somewhat better about my looks than I usually feel
- Much better about my looks than I usually feel
- A great deal better about my looks than I usually feel

6. Right now I feel that I look

- A great deal better than the average person looks
- Much better than the average person looks
- Somewhat better than the average person looks
- Just slightly better than the average person looks
- About the same as the average person looks
- Just slightly worse than the average person looks
- Somewhat worse than the average person looks
- Much worse than the average person looks
- A great deal worse than the average person looks

**Appendix O—Sociocultural Attitudes Towards Appearance Questionnaire-4
(SATAQ-4; Schaefer et al., 2015)**

1. It is important to me to look athletic.
2. I think a lot about looking muscular.
3. I want my body to look very thin.
4. I want my body to look like it has little fat.
5. I think a lot about looking thin.
6. I spend a lot of time doing things to look more athletic.
7. I think a lot about looking athletic.
8. I want my body to look very lean.
9. I think a lot about having very little body fat.
10. I spend a lot of times doing things to look more muscular.
11. I feel pressure from family members to look thinner.
12. I feel pressure from family members to improve appearance.
13. Family members encourage me to decrease my level of body fat.
14. Family members encourage me to get in better shape.
15. My peers encourage me to get thinner.
16. I feel pressure from my peers to improve my appearance.
17. I feel pressure from my peers to look in better shape.
18. I get pressure from my peers to decrease my level of body fat.
19. I feel pressure from the media to look in better shape.
20. I feel pressure from the media to look thinner.
21. I feel pressure from the media to improve my appearance.
22. I feel pressure from the media to decrease my level of body fat.

**Appendix P—Contingencies of Self-Worth Scale, first half
(CSWS; Crocker et al., 2003)**

1. When I think I look attractive, I feel good about myself.
2. My self-worth is based on God/Higher Power's love.
3. I feel worthwhile when I perform better than others on a task or skill.
4. My self-esteem is unrelated to how I feel about the way my body looks.
5. Doing something I know is wrong makes me lose my self-respect.
6. I don't care if other people have a negative opinion about me.
7. Knowing that my family members love me makes me feel good about myself.
8. I feel worthwhile when I have God/Higher Power's love.
9. I can't respect myself if others don't respect me.
10. My self-worth is not influenced by the quality of my relationships with my family members.
11. Whenever I follow my moral principles, my sense of self-respect gets a boost.
12. Knowing that I am better than others on a task raises my self-esteem.
13. My opinion about myself isn't tied to how well I do in school.
14. I couldn't respect myself if I didn't live up to a moral code.
15. I don't care what other people think of me.
16. When my family members are proud of me, my sense of self-worth increases.
17. My self-esteem is influenced by how attractive I think my face or facial features are.
18. My self-esteem would suffer if I didn't have God/Higher Power's love.

**Appendix Q—Manifestation of God in the Body Scale
(Mahoney et al., 2005)**

1. My body is a temple of God.
2. My body is created in God's image.
3. My body is a gift from God.
4. God is present in my body.
5. God uses my body to do God's will.
6. My body is united with God.
7. My body is bonded to the everlasting Spirit of God.
8. A spark of the divine resides in my body.
9. God lives through my body.
10. God is glorified through my body.
11. My body is an instrument of God.
12. The power of God moves through my body.

**Appendix R—Religious Commitment Inventory for Adolescents
(RCI-A; Miller et al., 2013)**

1. I often read books and magazines about my faith.
2. I give money to my religious organization.
3. I try to increase my understanding of my faith.
4. Religion is especially important to me because it answers many questions about the meaning of life.
5. My religious beliefs lie behind my whole approach to life.
6. I enjoy spending time with others of my religious affiliation.
7. Religious beliefs influence all my dealings in life.
8. It is important to me to spend periods of time in private religious thought and reflection.
9. I enjoy participating in religious activities.
10. I am involved in my religious group.
11. I have some influence on the decisions of my religious group.

**Appendix S—Erikson Psychosocial Stage Inventory (EPSI), Identity Scale
(Rosenthal et al., 1981)**

1. I change my opinion of myself a lot.
2. I've got a clear idea of what I want to be.
3. I feel mixed up.
4. The important things in life are clear to me.
5. I've got it together.
6. I know what kind of person I am.
7. I can't decide what I want to do with my life.
8. I have a strong sense of my personal gender.
9. I like myself and am proud of what I stand for.
10. I don't really know what I'm all about.
11. I find I have to keep up a front when I'm with people.
12. I don't really feel involved.

**Appendix T—Objectified Body Consciousness-Youth (OBC-Y) Scale
(Lindberg, Hyde, & McKinley, 2006)**

Surveillance

1. I often compare how I look with how other people look.
2. During the day, I think about how I look many times.
3. I often worry about whether the clothes I am wearing make me look good.
4. I often worry about how I look to other people.

Body Shame

5. I feel ashamed of myself when I haven't made an effort to look my best.
6. I feel like I must be a bad person when I don't look as good as I could.
7. I would be ashamed for people to know what I really weigh.
8. When I am not exercising enough, I question whether I am a good person.
9. When I'm not the size I think I should be, I feel ashamed.

Control Beliefs

10. I think I am pretty much stuck with the looks I was born with.
11. I think I could look as good as I wanted to if I worked at it.
12. I really don't think I have much control over how my body looks.
13. I think my weight is mostly determined by the genes I was born with.
14. I can weigh what I'm supposed to if I try hard enough.

**Appendix U—Revised Children’s Manifest Anxiety Scale (RCMAS)—Lie scale
(Reynolds & Richmond, 1978)**

1. I like everyone I know
2. I am always kind
3. I always have good manners
4. I am always good
5. I am always nice to everyone
6. I tell the truth every single time
7. I never get angry
8. I never say things I shouldn’t
9. I never lie

Appendix V—Demographic Questions

1. How old are you currently, in years?
2. Are you able to read and write in English?
3. What is the name of your school?
4. What grade are you in school?
5. With what gender do you identify—boy, girl, other, prefer not to say?
6. With what sexual orientation do you identify—heterosexual, homosexual, bisexual, asexual, other, prefer not to say?
7. What is the highest level of school completed by your parent(s)—high school or equivalent, college or equivalent, graduate or professional school?
8. Which of these categories best describes your racial/ethnic backgrounds? Please check all that apply—African American/Black, American Indian/Native American/Alaska Native, Asian/Pacific Islander, Middle Eastern, Latinx/Hispanic, White/Caucasian/European American, Prefer not to say, Other
9. What is your current height, in feet and inches?
10. What is your current weight, in pounds?
11. Which of the following categories best describes your beliefs—spiritual but not religious, religious but not spiritual, both religious and spiritual, neither religious nor spiritual?
12. Which statement comes closest to expressing what you believe about God/Higher Power—I don't believe in God/Higher Power, I don't know whether there is a God/Higher Power and I don't believe there is any way to find out, I find myself believing in God/Higher Power sometimes, While I have doubts I feel that I do believe in God/Higher Power, I know that God/Higher Power really exists and I have no doubts about it
13. About how many hours per day do you spend on social media websites (e.g. Instagram, Snapchat, Twitter, Facebook, etc.)—0/None, 1 hour or less, 2 hours, 3 hours, 4 hours or more

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