

MEDIA EXPOSURE AND BODY DISSATISFACTION: THE ROLES OF THIN-IDEAL
INTERNALIZATION AND SOCIAL COMPARISON

A Thesis
By
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Abstract

MEDIA EXPOSURE AND BODY DISSATISFACTION: THE ROLES OF THIN-IDEAL INTERNALIZATION AND SOCIAL COMPARISON

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Media exposure is considered to have a prominent influence on body dissatisfaction and other eating disorder symptomatology. Researchers tend to measure media that contain a high proportion of the thin ideal when examining the relationship with body dissatisfaction yet often generalize their conclusions to assert that media as a whole is related to body dissatisfaction. The goal of the present study was to examine the relationship between thin-ideal media and general media and body dissatisfaction while accounting for relationships with thin-ideal internalization and social comparison. A sample of 216 undergraduate female students completed a set of online self-report surveys assessing media exposure, thin-ideal internalization, social comparison, and body dissatisfaction. It was hypothesized that thin-ideal media exposure would directly relate to body dissatisfaction, and this relationship would be mediated by thin-ideal internalization and social comparison. General media exposure was not hypothesized to contribute significantly to the model. Consistent with the hypothesis, thin-ideal media exposure predicted body dissatisfaction, and the relationship was mediated by thin-ideal internalization and social comparison; however, this was not the case after controlling for BMI. Exploratory regression analyses found that BMI and thin-

ideal internalization were the only significant predictors of body dissatisfaction after the inclusion of all other assessed variables. General media exposure did not significantly correlate with or predict body dissatisfaction. These findings suggest that other risk factors should be investigated in tandem with thin-ideal media exposure to understand their influence on body dissatisfaction better. The present study was limited by employment of a homogeneous sample, reliance on self-report measures, and use of a correlational design.

Keywords: thin-ideal, internalization, social comparison, body dissatisfaction, media

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Dedication

I would like to dedicate this thesis to my family, especially those that have stood by my side since day one. Thank you, Mom, for always believing in me, even when I didn't, and being there when I needed my best friend. Thank you, Grandma, for calling to check in on me every day to keep me from feeling alone and for always making sure that I had good food to eat. Thank you, Dad, for all of your speeches on never giving up and for pushing me to be the best person I can be. Thank you to my wonderful fiancée, Jacob, for standing by me through some of the most difficult days of my life, giving me hope for the light at the end of the tunnel, and most of all, for promising to spend the rest of your life with me.

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Media Exposure and Body Dissatisfaction:
The Roles of Thin-Ideal Internalization and Social Comparison

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Abstract

Media exposure is considered to have a prominent influence on body dissatisfaction and other eating disorder symptomatology. Researchers tend to measure media that contain a high proportion of the thin ideal when examining the relationship with body dissatisfaction yet often generalize their conclusions to assert that media as a whole is related to body dissatisfaction. The goal of the present study was to examine the relationship between thin-ideal media and general media and body dissatisfaction while accounting for relationships with thin-ideal internalization and social comparison. A sample of 216 undergraduate female students completed a set of online self-report surveys assessing media exposure, thin-ideal internalization, social comparison, and body dissatisfaction. It was hypothesized that thin-ideal media exposure would directly relate to body dissatisfaction, and this relationship would be mediated by thin-ideal internalization and social comparison. General media exposure was not hypothesized to contribute significantly to the model. Consistent with the hypothesis, thin-ideal media exposure predicted body dissatisfaction, and the relationship was mediated by thin-ideal internalization and social comparison; however, this was not the case after controlling for BMI. Exploratory regression analyses found that BMI and thin-ideal internalization were the only significant predictors of body dissatisfaction after the inclusion of all other assessed variables. General media exposure did not significantly correlate with or predict body dissatisfaction. These findings suggest that other risk factors should be investigated in tandem with thin-ideal media exposure to understand their influence on body dissatisfaction better. The present study was limited by employment of a homogeneous sample, reliance on self-report measures, and use of a correlational design.

Keywords: thin-ideal, internalization, social comparison, body dissatisfaction, media

Media Exposure and Body Dissatisfaction:

The Roles of Thin-Ideal Internalization and Social Comparison

With the increasing use of and exposure to media in contemporary society, researchers have investigated the effects of media exposure on individuals, including areas such as violence, body dissatisfaction, and eating disorder symptomatology (Patton et al., 2014; Stice, Schupak-Neuberg, Shaw, & Stein, 1994). Thus far, findings regarding the relationship between media exposure and eating disorder symptoms have been inconsistent (Ferguson, Muñoz, Garza, & Galindo, 2014). Some researchers find a positive relationship between media use and eating disorder symptomatology (Grabe, Ward, & Hyde, 2008; Stice et al., 1994); some find no relationship (Bell & Dittmar, 2011; Bessenoff, 2006; Borzekowski, Robinson, & Killen, 2000); and others state that the media only influence individuals with pre-existing body concerns (Boyce, Kuijer, & Gleaves, 2013; Hausenblas et al., 2013). The inconsistency in findings is likely influenced by many potential sources, including measurement error, variable operationalization, and interpretation of findings.

Studies examining the relationship between the media and body dissatisfaction tend to focus on media formats that emphasize the thin-ideal; however, more often than not, researchers have drawn conclusions in relation to media in general rather than simply thin-ideal media (Grabe et al., 2008; López-Guimerà, Levine, Sánchez-Carracedo, & Fauquet, 2010; Stice et al., 1994). Some researchers may not see this as a problem, as many believe that the thin-ideal is present in all forms of media (Garner, Garfinkel, Schwartz, & Thompson, 1980; Levine & Murnen, 2009; López-Guimerà et al., 2010; Malkin, Wornian, & Chrisler, 1999; Richins, 1995). There is, however, a difference in types of media. Many

experimental studies use non-appearance related media control groups and find no relationship between media and eating disorder symptoms (Bessenoff, 2006; Hargreaves & Tiggemann, 2002). For example, Harrison and Cantor (1997) measured the amount of time individuals spent watching television or reading magazines in general, as well as how often they consumed media involving the thin-ideal. Although there was a significant amount of time spent watching television that was not related to the thin-ideal, all of the variables regarding television consumption were measured together, and they concluded that media in general related to eating disorder symptomatology. Tiggemann (2003) used comparable methods and concluded that reading magazines, in general, was related to body dissatisfaction, though they measured only fashion magazine consumption, which is arguably high in the portrayal of the thin-ideal. The media as a combined entity is often charged with being a primary cause of body dissatisfaction, yet general media exposure has not been directly studied in relation to body image. Results are often attributed to error or chance when relationships are not found between media and eating pathology, though it is often the conceptualization and measurement of media that are flawed (Ferguson, 2013; Grabe et al., 2008).

Media, though often envisioned as a unified construct, are composed of many different formats and outlets, each potentially interacting uniquely with variables of interest such as body image and the thin-ideal (Bell & Dittmar, 2011). Furthermore, media consumption is the act of intentionally seeking out and taking in information from these various media sources, including but not limited to reading books or magazines, watching television or movies, and listening to the radio (McChesney, 1999). Media exposure, on the other hand, also includes passive consumption of media

information and images. Media consumption and media exposure are often used synonymously. In this literature review and study, media exposure will be used to describe both intentional and passive contact with the media.

As previously mentioned, some researchers propose that media exposure and eating disorder symptoms are related, both directly and indirectly (Harper & Tiggemann, 2008; Kim & Lennon, 2007; Stice et al., 1994). This idea is supported by an increase in eating disorder prevalence over the past several decades that has corresponded with a decrease in ideal weight for women as portrayed by the media (Lin & Kulik, 2002; Stice et al., 1994). The number of studies researching eating disorder symptomatology, especially body dissatisfaction, has increased over the past several decades, at least partially due to the sociocultural emphasis on the thin-ideal in Westernized societies (van den Berg, Thompson, Obrowski-Brandon, & Covert, 2002). While not all media endorse the thin-ideal, much of them do, resulting in frequent exposure to these messages for some individuals (Kim & Lennon, 2007). In fact, the number of advertisements to which individuals were exposed on a daily basis in the United States in the year 2000 was estimated at 5,000, which increased from 3,000 advertisements per day in 1990 (Aufreiter, Elzinga, & Gordon, 2003). Although a bit dated, Myers and Biocca (1992) found that messages regarding attractiveness are in roughly 25% of advertisements on television. Data regarding magazine advertisements was not found.

The media have been proposed as having the most prominent and pervasive influences on the adoption and maintenance of the perception of thin as ideal (Harper & Tiggemann, 2008), particularly via media images of women. The media often present a distorted view of cultural norms, yet these so-called norms are unattainable for the

general population (López-Guimerà et al., 2010). Women who are exposed to idealized media images are more likely to fantasize about the body they aspire to have, further perpetuating the prominence of the thin-ideal image when women begin to seek out this type of media (Jones, Vigfusdottir, & Lee, 2004). Exposure to thin-ideal-specific media has been shown in some studies to have detrimental effects, both socially and psychologically, for women with high levels of exposure (Bessenoff, 2006). Exposure to media-imposed norms on a regular basis has been shown to relate specifically to how individuals view themselves, relating to negative body image and body dissatisfaction (Levine & Smolak, 1996; Stice et al., 1994).

Individuals who endorse high exposure to thin-ideal media are involved in a cyclical process that predisposes them to emotional and cognitive distortions of body image (López-Guimerà et al., 2010). Those who have negative body image are more likely to seek out thin-ideal media, which increases negativity regarding their body image and so forth (Harrison & Cantor, 1997). López-Guimerà et al. (2010) suggest that, based on a review of the literature, prolonged exposure to media messages, especially those that are related to the thin-ideal, is likely to lead to the development of eating disorder symptomatology, particularly body dissatisfaction in women who internalize the thin-ideal.

Malkin et al. (1999) suggest that rather than reflecting actual body image norms, media impose new norms. Becker, Burwell, Navara, and Gilman (2003) studied the prevalence of eating disorder symptomatology in Fiji before and after the introduction of Westernized television. The rate of eating disorders and number of eating disorder symptoms increased substantially following the introduction of Westernized television in

a sample of 129 girls between the ages of 15 and 19. Before the introduction of Westernized TV, less than 3 percent of the sample reported any symptomatology. Following the media introduction, several eating disorder symptoms were endorsed by more than half of the women in the sample, suggesting that Westernized TV relates to disordered eating behaviors (Becker et al., 2003).

Assessing Media Exposure

Media exposure is usually measured by asking participants to rate or record the amount of time spent per week accessing specific types of media, such as the amount of time spent viewing certain television shows or magazines, especially those that are deemed to be highly reflective of the thin-ideal (Bell & Dittmar, 2011; Kim & Lennon, 2007; Stice et al., 1994). With the recent explosion of media sources, such as the internet and social networking, it has become important to study how these media outlets function individually and as a whole. Focusing on only some of these sources, such as television and magazines or thin-ideal-specific media, limits the generalizability of investigations of the media and the potential impact on individuals.

Bell and Dittmar (2011) examined a relatively wide variety of media content exposure in relation to body dissatisfaction and found no relationship between the predictors studied and body dissatisfaction. They broke media into five categories, including internet, television, music videos, magazines, and computer games. Media consumption was operationalized as average number of hours per week spent utilizing each type of media. Subtypes of media use, consisting of categories such as social networking, entertainment, and soap operas, were also described and assessed (Bell &

Dittmar, 2011). However, their media choices did not consist of a comprehensive list, as they excluded other more general realms of media such as sports, gardening, and news.

The exclusion of some forms of media in current measures of media exposure prompted the development of the Davis Assessment of Media Consumption (DAMC; Davis & Dula, 2013). Davis and Dula (2013) designed a media exposure scale that focuses on broad categories of media and does not assess exposure to specific media sources such as a particular television show to avoid cohort dependency (Davis & Dula, 2013). The DAMC assesses exposure to media outlets (e.g., internet, television) and media content (e.g., fashion, sports). The measure includes 40 items relating to media content, including general topics such as nature, crafts, and business-related media. These types of items are often not assessed in eating disorder research as they are not explicitly related to body image. However, the DAMC aimed to measure media exposure in a broad manner to improve conclusions regarding the relationship between general media and eating disorder symptomatology as well as, potentially, to other behaviors (Davis & Dula, 2013; Ferguson, Winegard, & Winegard, 2011; Ferguson et al., 2014). Using this scale of general media exposure, Davis and Dula (2013) found that overall media consumption and eating disorder symptomatology did not significantly correlate, with the exception of a significant correlation between general media and the Bulimia subscale of the EDI-2 ($r = 0.19, p < .01$). Davis and Dula (2013) employed both male and female participants, and relationships were not explored as a function of gender, which likely masked effects for women.

The conclusions drawn regarding media exposure within the eating disorder and body image literature are often unclear, especially relative to internalization of the thin-ideal

(Davis & Dula, 2013). Media exposure and internalization of the thin-ideal have often been conceptually intertwined, though according to Stice et al. (1994), media exposure does not necessarily guarantee the internalization of media messages. Internalization is conceptualized as the adoption of certain beliefs or values as one's own and can be further specified into subtypes of internalization, such as thin-ideal internalization. The Sociocultural Attitudes Towards Appearance Scale-3 (SATAQ-3; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004) and Multidimensional Media Influence Scale (MMIS; Harrison, 2009) have been widely used in body image and eating disorder research as scales that measure media exposure as it relates to body image and other eating disorder symptoms. What has not been taken into consideration, however, is that these scales look primarily at how individuals interpret and internalize the media messages, not the direct media exposure (Davis & Dula, 2013; Ferguson et al., 2011).

The Mediational Role of Thin-Ideal Internalization and Social Comparison

Although several researchers have concluded that media exposure is related to body dissatisfaction (Grabe et al., 2008; Stice et al., 1994), much of the evidence suggests that the relationship between the two is not direct, but mediated via other variables. For example, body dissatisfaction, consisting of negative emotions and cognitions related to one's appearance, (Munoz & Ferguson, 2012), is a key component of eating disorders (Ridolfi, Myers, Crowther, & Ciesla, 2011). The relationship between media exposure and body dissatisfaction is likely mediated by variables such as thin-ideal internalization and social comparison (Clark & Tiggemann, 2007; Stice et al., 1994). Thin-ideal internalization has been conceptualized in most body image and eating

disorder literature as the extent to which individuals adopt societal ideals related to thinness and attractiveness as their own (Van Diest & Perez, 2013).

Individuals' perspectives and interpretations of thin-ideal media can serve as risk factors for, protective factors against, or have no impact on the development of eating disorders (Myers & Crowther, 2007). Research demonstrates strong associations between thin-ideal internalization and eating disorder symptomatology (Suisman et al., 2012), and the internalization of the thin-ideal is thought to be one of the most prominent factors involved in the development of eating disorders (Ballentine & Ogle, 2005). Therefore, low internalization may be a protective factor against the development of eating disorder symptomatology, whereas high internalization could be a risk factor for the development of eating disorders, even independent of the context of media (Vartanian, 2009).

Harper and Tiggemann (2008) suggested that even relatively subtle cues in the media can be interpreted and internalized by consumers, especially by those who tend to have high levels of internalization of the thin-ideal (Vartanian, 2009). Individuals who are high in internalization, as measured by the SATAQ-3 (Thompson et al., 2004) or the Ideal-Body Stereotype Scale-Revised (IBSS-R; Stice & Agras, 1998), are more likely to compare themselves to perceived ideals than individuals who are low in internalization, increasing their likelihood of developing negative body image and subsequently eating disorder symptomatology (Tyłka & Subich, 2004; Vartanian, 2009).

Stice et al. (1994) examined the relationship between thin-ideal media exposure, internalization, and eating disorder symptomatology, while also examining other potential mediators such as body dissatisfaction and gender-role endorsement. Thin-ideal media

exposure was operationalized as the self-reported number of specific types of magazines (e.g., fashion, health) read during the past month and number of hours spent watching certain television genres (e.g., comedy, drama) within the past month. The rationale behind the use of these questions was the high proportion of the thin-ideal represented in these types of media versus other types of media. Stice et al. (1994) found that the relationship between thin-ideal media and eating disorder symptomatology was greater than the relationship between thin-ideal internalization and eating disorder symptomatology. Stice et al. concluded that there was a direct relationship between media exposure and eating disorder symptomatology, as well as a relationship between media exposure and body dissatisfaction specifically; however, their definition of media was limited to only thin-ideal media.

Yamamiya, Cash, Melnyk, Posavac, and Posavac (2005) examined the impact of media exposure on body dissatisfaction using an experimental design. They presented 123 Caucasian, college-age women, between the ages of 18 and 29, with both information and slides, consisting of either control stimuli (e.g., information about parenting and slides containing images of automobiles) or experimental stimuli (e.g., slides containing photos of models and information regarding artificial beauty). Participants were also asked to complete self-report surveys of internalization of the thin-ideal and body image. Participants were randomly assigned to four conditions: control-info/control-slides, control-info/experimental-slides, experimental-info/experimental-slides, experimental-info/dissonance-induction/experimental-slides. Researchers also manipulated dissonance by having the participants write a persuasive argument against the thin-ideal the media transmit to determine if dissonance decreased the likelihood of body dissatisfaction. The body image of

individuals who were low in internalization was unaffected by media exposure in the experimental manipulation, whereas individuals high in internalization reported decreased body satisfaction with as little as 5 minutes of exposure to stimuli. The dissonance-induction addition to the procedure did not produce significant results (Yamamiya et al., 2005).

Experimental studies that focus on media, thin-ideal internalization, and body image are able to determine relationship directionality and draw causal conclusions that correlational studies cannot, but exposure to the thin-ideal is often overemphasized in these studies and creates a higher chance for it to be internalized (Hargreaves & Tiggemann, 2002). Participants are typically presented with multiple images of models or advertisements featuring thin women in short periods of time. This type of exposure could be viewed as bombarding participants with the thin-ideal rather than allowing exposure to occur under more natural circumstances, limiting the generalizability of the results. Individuals in their daily lives encounter the thin-ideal through more subtle avenues and are not consistently presented with only idealized images (Hargreaves & Tiggemann, 2002). Real-life exposure to the thin-ideal is often more indirect than that of experimental studies, which reduces one's likelihood of only internalizing thin-ideal-related information (Grabe et al., 2008; Kim & Lennon, 2007).

Along with thin-ideal internalization, the relationship between body image and the media is often attributed to social comparison, as the media are avenues through which individuals learn to engage in such comparisons (Tiggemann & Polivy, 2010). Social comparison theory was developed by Festinger (1954) and proposes that individuals define the self and evaluate self-opinions based on the comparisons they make between themselves and others (Kim & Lennon, 2007). Individuals evaluate their

own appearance based on their beliefs about the appearance of others to determine whether or not they are average and to develop an understanding of what is socially acceptable (Richins, 1995). With only subjective criteria available to assess their bodies and develop opinions, individuals may form their ideal body image through viewing media images and by comparing themselves to those who appear in the media (Knobloch-Westerwick & Crane, 2012) or to their peers (Ferguson et al., 2014). Social comparison can occur in two different directions, upward and downward (Richins, 1995). Upward comparisons occur when individuals compare themselves to those whom they perceive as better in some regard. Downward comparisons, which are often intended to increase self-esteem, occur when individuals compare themselves to others whom they perceive as inferior in some respect. Social comparison can lead to negative body image, as many people compare themselves to high standards such as models or celebrities, considering them to be normative (Richins, 1995).

With the constant presence of the media, social comparisons may occur frequently and may contribute to body dissatisfaction and eating concerns. Hargreaves and Tiggemann (2009) examined the role of social comparison on body dissatisfaction by showing 104 college males either 15 ideal appearance-based commercials or 15 non-appearance-based commercials and measuring body satisfaction before and after viewing the commercials. Social comparison was measured by two items on a 7-point Likert scale (1 = not at all to 7 = very much) that asked participants to indicate how often they compared their own appearance to the actors in the commercials and wanted to be like the actors in the commercials. High frequency of social comparison related to less body satisfaction and greater disordered eating behaviors (Hargreaves & Tiggemann, 2009).

Heinberg and Thompson (1992) tested the relationship between social comparison and body dissatisfaction by asking 297 women and men to rate the importance of six groups (friends, family, classmates, students, celebrities, and U.S. citizens) in relation to their comparison of themselves to that group. Friends were ranked as having the highest level of importance, followed by peers (students and classmates) and celebrities being ranked equally, and US citizens and family being ranked as least important. For women, high importance ratings for celebrities correlated with higher levels of body dissatisfaction. This study suggests that media have the ability to influence the body dissatisfaction of individuals due to their comparisons with the figures in the media (Heinberg & Thompson, 1992). Similarly, Heinberg and Thompson (1995) found that college women who were exposed to commercials consisting of idealized images were more likely than women who were exposed to non-appearance related commercials to report body dissatisfaction after viewing the commercials. Women in the experimental group were also more likely to report self-to-model comparisons than those in the control groups (Heinberg & Thompson, 1995). Theory and research support social comparison as a mechanism through which individuals interpret and internalize media messages (Kim & Lennon, 2007).

Eyal and Te'eni-Harari (2013) contributed to the literature by directly examining the motivations for engaging in social comparison, primarily through participants' identification with their favorite television character. The motivations for social comparison consisted of self-improvement (i.e., solving a problem or situation), self-evaluation (i.e., appraising one's status relative to others), and self-enhancement (i.e., protecting one's self-esteem), and each was hypothesized to relate differently to body

image. As individuals likely develop more meaningful relationships with their favorite character, as opposed to characters in general, it was thought that their favorite character would have a more prominent influence on their self-perceptions and lead to more accurate findings in regard to media exposure. Participants for the study consisted of 391 seventh and eighth grade students from a central region of Israel and included both boys and girls. Participants completed self-report questionnaires associated with thin-ideal media exposure, body image, social comparison and motivations for social comparison, and body shape discrepancy. Participants were instructed to indicate their favorite same-sex television character, and pictures of these characters were coded by researchers according to their body shape based on the Contour Drawing Rating Scale (Thompson & Gray, 1995). Findings suggested that there was a direct and negative relationship between thin-ideal media exposure and body image. This relationship was partially mediated by social comparison motivations, with self-enhancement directly relating to negative body image and self-improvement being related to negative body image indirectly through body shape discrepancy (Eyal & Te'eni-Harari, 2013).

Present Study

The present study examined the relationships among media exposure, social comparison, thin-ideal internalization, and body dissatisfaction by utilizing self-report measures to assess each construct independently. Although specific types of media (e.g. thin-ideal media) have been associated with body dissatisfaction (Cusumano & Thompson, 2001; Jenkins-Guarnieri, Wright, & Johnson, 2013), it is often concluded that media as a whole is related to body dissatisfaction (Grabe et al., 2008; López-Guimerà et al., 2010; Stice et al., 1994), though general media exposure is rarely measured. However, evidence

from both correlational and experimental studies indicates there is a difference in the effects of thin-ideal media and other media (Bessenoff, 2006; Hargreaves & Tiggemann, 2002). Thin-ideal internalization and social comparison have been examined in previous research as mediators in the relationship between thin-ideal media and body dissatisfaction (Clark & Tiggemann, 2007; Knobloch-Westerwick & Crane, 2012) and have been found to predict body dissatisfaction (Ballentine & Ogle, 2005; Heinberg & Thompson, 1995; Suisman et al., 2012). However, the present study is the first study to incorporate these constructs into a model using general media exposure. It was hypothesized that thin-ideal media exposure would significantly relate to body dissatisfaction and that the relationship between thin-ideal media exposure and body dissatisfaction would be mediated by independent measures of thin-ideal internalization and social comparison (see Figure 1).

In addition, although authors frequently interpret data from studies regarding thin-ideal media and body dissatisfaction as supporting a relationship between general media exposure and body dissatisfaction (Grabe et al., 2008; López-Guimerà et al., 2010; Stice et al., 1994), this is a largely untested interpretation. Thus, it was hypothesized that general media exposure would not significantly relate to body dissatisfaction. In addition, body mass index (BMI), which is a measurement of body fat based on an individual's height and weight, was controlled for, as it has been identified in previous literature as a potent predictor of body dissatisfaction and has relationships with both thin-ideal internalization and social comparison (Van Diest & Perez, 2013).

Method

Participants

A statistical power analysis using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) indicated that approximately 150-200 women were required to obtain the small to moderate effects found between thin-ideal media and body dissatisfaction in previous literature ($f^2 = .05$, $\alpha = .05$, $1-\beta = .95$; Grabe et al., 2008; Groesz, Levine, & Murnen, 2002). Participants were 211 female Appalachian State University undergraduate students, with a mean age of 19.26 ($SD = 1.35$). One hundred ninety-one participants (90.5%) reported being White/Caucasian, 3 (1.4%) were Black/African-American, 9 (4.3%) were Hispanic/Latino, 1 (0.5%) was American-Indian, 4 (1.9%) were Asian-American, 2 (0.9%) self-described as Other, and 1 (0.5%) did not report race/ethnicity. Participants' BMIs were calculated, with values ranging from 13.98-58.55 ($M = 23.56$, $SD = 5.44$). Body mass indices fall into four broad categories: Underweight (<18.5), Normal Weight (18.5-25), Overweight (25-30), and Obese (>30) (World Health Organization [WHO], 2006). In this sample 12 (5.7%) were Underweight, 149 (70.6%) were Normal Weight, and 29 (13.7%) were Overweight, and 21 (10%) were Obese.

Measures

Demographic information. Participants were asked to indicate demographic information such as their gender, age, ethnicity, height, and weight. This information was not gathered from or construed as a single scale, and each item was analyzed separately to ascertain individual characteristics of the sample and to compare these characteristics to samples from previous studies. Additionally, height and weight were utilized to calculate BMI.

Media exposure. The Davis Assessment of Media Consumption (DAMC; Davis & Dula, 2013; see Appendices A & B) is a 48-item measure created to assess general media exposure that consists of two major subscales (i.e., Types of Media Outlets and Topics of Media Content). Individuals indicate how often they are exposed to specific media outlets (e.g., social network sites, movies, television) and media topics (e.g., sports, history, fashion). Davis and Dula (2013) conducted a principle components factor analysis that analyzed the Types and Topics subscales separately utilizing a sample of 253 undergraduate students. For the analysis of the Topics subscale, a scree plot was utilized to distinguish factors with Eigenvalues of greater than 1.0. Of the 10 factors that emerged from this criterion, only 4 were distinct within the scree plot. Items from all other factors were removed from the item pool, yielding 41 items for the Topics subscale. The internal consistency for the Topics subscale was .91 (Davis & Dula, 2013).

In the present study, only the 41-item Topics subscale was utilized, as its content was more pertinent to the hypotheses, and as the inherent overlap between the two subscales had the potential to alter findings. Participants indicated the average number of hours of media exposure per day for each topic, ranging from 0-24 hours. Items were summed and were multiplied by 7 to represent an average week of media exposure (0-168 hours), with higher scores indicating greater media exposure. In addition, participants responded to a 5-point Likert-type scale for each item ranging from 0 “Never” to 4 “As Frequently As Possible.” These items were averaged to generate a scale total. In the present study, DAMC Likert-type (DAMC-LT) and hourly ratings (DAMC-HR) of the Topics subscale yielded internal consistencies of .88 and .86, respectively.

Thin-Ideal Media Exposure (TIME; Stice et al., 1994). A 6-item measure (see Appendix C) created by Stice et al. (1994) was utilized to assess the number of hours individuals report being exposed to thin-ideal media. The items measure the number of hours individuals report reading specific types of magazines (e.g., fashion, fitness) and the number of hours individuals spend watching certain television genres (e.g., comedy, drama) across the past week. Stice et al. conceptualized these six items as being representative of thin-ideal media, as they contain a high proportion of the thin-ideal relative to other forms of media that are not as appearance-focused. Two items were added for this study (reality shows and social media), as they represent current types of thin-ideal media, and all items were modified to reflect “the average week” rather than “within the past month.” Participants indicate a number of hours between 0 and 168 that they are exposed to certain types of thin-ideal media in an average week.

The TIME produced a test-retest reliability of .76 in a previous study (Stice et al., 1994). The internal consistency for this measure in the present study, however, was only .41. The updated measure (i.e., two additional items included) produced a Cronbach’s alpha of .46. Due to the low internal consistency for both versions of the measure, a principle components factor analysis of the modified 8-item measure was conducted. Items with an Eigenvalue of 1.0 and a factor loading of .6 were maintained for the scale, and all other items were eliminated, as they did not meaningfully contribute to the scale. The final measure included two of Stice’s original items (drama and fashion) and one of the added items (reality shows). The revised measure, Thin Ideal Media Exposure based on the current factor analysis (TIME-FA), yielded an internal consistency of .72. This revised measure was used in subsequent analyses.

Thin-Ideal Internalization and Social Comparison. The 38-item Sociocultural Attitudes Toward Appearance Questionnaire-3 Revised (SATAQ-3R; Thompson et al., 2004; see Appendix D) is a measure designed to assess sociocultural influences on appearance and consists of 5 subscales including: Pressures, Importance, Social Comparison, Awareness and Internalization. Responses range from 1 “Definitely Disagree” to 5 “Definitely Agree.” Specifically, the Internalization subscale and the Social Comparison subscales of the SATAQ were used to measure participants’ attitudes and beliefs about themselves as they relate to media portrayals of body image, as these subscales have been closely related to body dissatisfaction within previous literature. The Internalization subscale consists of 9 items such as “I would like my body to look like the people who are on TV,” and the Social Comparison subscale consists of 4 items including “I compare my body to the bodies of TV and movie stars.” Items are averaged to determine a scale score for each subscale, with higher scores indicating higher levels of each. The SATAQ has established content, convergent, and divergent validity, including internal consistencies above .80 for the Internalization and Social Comparison subscales (Thompson et al., 2004). In the current study, the Internalization and Social Comparison subscales yielded Cronbach’s alphas of .90 and .92, respectively.

Body dissatisfaction. The Eating Disorder Inventory-2 (EDI-2; Garner, 1991; see Appendix E) is a 91-item measure designed to assess the presence or absence of eating disorder symptomatology. The EDI-2 Body Dissatisfaction scale was used in the present study to measure body dissatisfaction. The scale consists of 9 items such as “I think that my stomach is too big,” and responses are rated from “Never” to “Always.” Zero is assigned to responses that indicate clinically significant diagnostic criteria are absent.

Scores of 1, 2, and 3 indicate the presence and severity of symptoms, with 3 being the highest. Items are summed within each subscale and contribute to the scale score. Total Body Dissatisfaction subscale scores range from 0 to 27. Validity for the EDI-2 is supported throughout the literature, with convergent validity data in relation to other self-report eating disorder scales. Internal consistency for the Body Dissatisfaction subscale is .92 (see Garner, 1991 for a review). The internal consistency yielded within the present study was .87.

Procedure

Participants were recruited via the SONA System, an online survey system utilized by Appalachian State University undergraduate students who are enrolled in Psychology courses. Age and gender were used as inclusion variables, allowing only women aged 18 or older to participate. Participation was voluntary; data were collected anonymously; and participants were awarded course credit for completing the surveys in accordance with instructors' policies. An informed consent statement was presented to participants before they began the study (See Appendix F), and all procedures were in compliance with the American Psychological Association's ethical guidelines (American Psychological Association [APA], 2010) and were approved by the university's Institutional Review Board on November 18, 2014 (see Appendix G). After consenting, participants completed the demographics questionnaire as well as the DAMC, TIME, SATAQ-3R and the EDI-2. The order of measures was randomized across participants.

Results

Five participants did not provide either height or weight, reducing the sample size to 216, as substitutions were inappropriate for this data. Three participants' data were

removed as they did not answer more than 50 percent of the DAMC-HR questions. Finally, two participants were removed due to reporting a number of hours of media exposure exceeding the possible maximum (i.e., greater than 168 hours in one week). After removal of the above 10 participants, the total number of participants included in analyses was 211.

One individual was missing one item from the SATAQ-INT, and one person was missing one item from the SATAQ-SC. There were no participants missing data for the EDI-BD or TIME-FA. Thirty individuals were missing data from the DAMC-HR, ranging from one item to thirteen items. Eight participants were missing between one and three items from the DAMC-LT. Item-level missing data were estimated for participants not excluded due to missing data using SPSS's linear trend at point function. As the DAMC has not been utilized in previous research, analyses were conducted to examine how the measure behaved with and without individuals who were missing data from this scale, and there were no differences in the pattern of findings. Descriptive statistics for all variables are reported in Table 1.

The relationships between the DAMC, TIME-FA, and EDI-BD were first examined using bivariate correlations (See Table 2). TIME-FA significantly correlated with both the DAMC-LT and DAMC-HR. Neither DAMC measure significantly correlated with EDI-BD. The remaining relationships with EDI-BD were all significant (i.e., TIME-FA, SATAQ-INT, SATAQ-SC, and BMI). The strongest bivariate relationship was between the SATAQ-INT and the SATAQ-SC. Similarly, collinearity between SATAQ-INT and SATAQ-SC subscales was found to be outside normal limits

with a Variance Inflation Factor (VIF) of 2.5; this will be discussed and examined with exploratory analyses below.

Mediation Analyses

It was hypothesized that thin-ideal media exposure would predict body dissatisfaction and that the relationship between thin-ideal media exposure and body dissatisfaction would be mediated by thin-ideal internalization and social comparison. Mediation analyses were conducted following the multiple regression procedure outlined by Baron and Kenny (1986), with certain criteria needing to be met: (a) variations in the levels of thin-ideal media exposure (TIME-FA) would significantly account for variations in thin-ideal internalization (SATAQ-INT) and social comparison (SATAQ-SC), (b) variations in thin-ideal internalization (SATAQ-INT) and social comparison (SATAQ-SC) would significantly account for variations in body dissatisfaction (EDI-BD), and (c) when the relationships between thin-ideal media exposure (TIME-FA) and thin-ideal internalization (SATAQ-INT) and social comparison (SATAQ-SC), and between thin-ideal internalization (SATAQ-INT) and social comparison (SATAQ-SC) and body dissatisfaction (EDI-BD) are controlled, a previously significant relationship between thin-ideal media exposure (TIME-FA) and body dissatisfaction (EDI-BD) would no longer be significant (see Figure 1).

Four sets of mediation analyses were completed: 1) without any control variables, 2) utilizing BMI as a control variable, 3) utilizing the DAMC-LT and BMI as control variables, and 4) utilizing the DAMC-HR and BMI as control variables. The first four analyses included both SATAQ-INT and SATAQ-SC as mediators to present the findings in line with original hypotheses; however, SATAQ-INT and SATAQ-SC were highly

correlated with one another and presented a multicollinearity problem justifying exploratory mediation analyses using only the SATAQ-INT.

Consistent with the primary hypothesis, when no control variables were considered, TIME-FA significantly predicted EDI-BD, $b = .213$, 95% CI [.050, .378], $t = 2.57$, $p = .011$, accounting for 3.1% of the variance in EDI-BD scores. TIME-FA significantly predicted SATAQ-INT, $b = .025$, 95% CI [.003, .047], $t = 2.23$, $p = .027$, but not SATAQ-SC, $b = .022$, 95% CI [-.006, .050], $t = 1.55$, $p = .123$. SATAQ-INT and SATAQ-SC both significantly predicted EDI-BD, $b = 1.719$, 95% CI [.261, 3.177], $t = 2.32$, $p = .021$ and $b = 1.152$, 95% CI [.012, 2.294], $t = 1.99$, $p = .048$, respectively. When SATAQ-INT and SATAQ-SC were included as mediators, TIME-FA no longer significantly predicted EDI-BD, $b = .145$, 95% CI [-.007, .298], $t = 1.88$, $p = .062$. Thus, in this first, non-controlled model, the requirements for mediation were met (see Figure 2).

When controlling for BMI, TIME-FA no longer significantly predicted EDI-BD, $b = .085$, 95% CI [-.064, .233], $t = 1.12$, $p = .263$. Similarly, TIME-FA did not significantly predict SATAQ-INT or SATAQ-SC, $b = .022$, 95% CI [-.001, .044], $t = 1.88$, $p = .062$ and $b = .017$, 95% CI [-.012, .046], $t = 1.16$, $p = .247$, respectively. SATAQ-INT significantly predicted EDI-BD, $b = 1.651$, 95% CI [.363, 2.938], $t = 2.53$, $p = .012$. SATAQ-SC did not significantly predict EDI-BD, $b = .911$, 95% CI [-.098, 1.921], $t = 1.78$, $p = .077$. When SATAQ-INT and SATAQ-SC were included as mediators, the relationship between TIME-FA and EDI-BD remained insignificant, $b = .034$, 95% CI [-.104, .171], $t = .48$, $p = .632$. The requirements for mediation were not met (see Figure 3).

When controlling for BMI and DAMC-LT, TIME-FA again no longer significantly predicted EDI-BD, $b = .072$, 95% CI [-.080, .225], $t = .94$, $p = .350$. TIME-

FA did not significantly predict SATAQ-INT or SATAQ-SC, $b = .021$, 95% CI [-.003, .044], $t = 1.75$, $p = .081$ and $b = .014$, 95% CI [-.015, .044], $t = .96$, $p = .340$, respectively. Again, SATAQ-INT significantly predicted EDI-BD, $b = 1.660$, 95% CI [.370, 2.950], $t = 2.54$, $p = .012$. SATAQ-SC did not significantly predict EDI-BD, $b = .896$, 95% CI [-.117, 1.909], $t = 1.74$, $p = .083$. When SATAQ-INT and SATAQ-SC were included as mediators, the relationship between TIME-FA and EDI-BD remained insignificant, $b = .025$, 95% CI [-.116, .167], $t = .35$, $p = .725$ (see Figure 4).

When controlling for BMI and DAMC-HR, TIME-FA similarly no longer significantly predicted EDI-BD, $b = .073$, 95% CI [-.079, .224], $t = .95$, $p = .345$. TIME-FA did not significantly predict SATAQ-INT or SATAQ-SC, $b = .017$, 95% CI [-.006, .040], $t = 1.45$, $p = .149$ and $b = .010$, 95% CI [-.019, .039], $t = .71$, $p = .482$, respectively. SATAQ-INT significantly predicted EDI-BD, $b = 1.65$, 95% CI [-.097, 1.932], $t = 2.53$, $p = .012$. SATAQ-SC did not significantly predict EDI-BD, $b = .917$, 95% CI [-.105, .175], $t = 1.78$, $p = .076$. When SATAQ-INT and SATAQ-SC were included as mediators, the relationship between TIME-FA and EDI-BD remained insignificant, $b = .035$, 95% CI [-.105, .175], $t = .50$, $p = .619$ (see Figure 5).

Exploratory Analyses

Exploratory Hierarchical Multiple Regression Analyses. Four three-stage hierarchical multiple regression analyses were utilized to address the high multicollinearity between SATAQ-INT and SATAQ-SC. Although the absence of multicollinearity is an assumption which must be met to conduct regression analyses without bias, both SATAQ-INT and SATAQ-SC were included in the first two models to determine which of the two variables (e.g., SATAQ-INT, SATAQ-SC) accounted for the most independent variance in

EDI-BD. The additional assumptions of this statistical analysis were tested (i.e., linearity, normality, homoscedasticity), and all assumptions were met. The two initial analyses were identical aside from the sequencing of entry. In the first model, TIME-FA was entered at stage one, SATAQ-INT at stage two, and SATAQ-SC at stage three, based on a theory outlined by Matera, Nerini, and Stefanile (2013) in which internalization is proposed as a necessary predecessor of social comparison. In the second model, SATAQ-SC was entered at stage two, and SATAQ-INT was entered at stage three. The EDI-BD score served as the criterion variable in all analyses.

In the first regression model, TIME-FA was entered at stage one and accounted for a significant 3.1% of the variance in self-reported body dissatisfaction, $F(1, 209) = 6.60, p = .011$. Introducing SATAQ-INT at stage two accounted for an additional and significant 14.2% of the variance in EDI-BD, $F(2, 208) = 21.77, p < .001$. When SATAQ-SC was included in the model, it explained an additional and significant 1.6% of variance in EDI-BD, $F(3, 207) = 16.04, p = .048$. Together, the predictor variables accounted for 17.7% of the variance in EDI-BD, and only SATAQ-INT and SATAQ-SC remained significant predictors in the final model (see Table 3 for additional statistics).

In the second regression model, TIME-FA was entered at stage one, and again accounted for a significant 3.1% of the variance in EDI-BD, $F(1, 209) = 6.60, p = .011$. Introducing SATAQ-SC at stage two accounted for an additional and significant 13.7% of the variance in EDI-BD, $F(2, 208) = 20.92, p < .001$. When SATAQ-INT was included in the model, it explained an additional and significant 2.1% of variance in EDI-BD, $F(3, 207) = 16.04, p = .021$. Again, the predictor variables accounted for 17.7% of the variance

in EDI-BD, and only SATAQ-INT and SATAQ-SC remained significant predictors in the final model (see Table 4 for additional statistics).

Based on these analyses, it was decided that the remaining analyses would include SATAQ-INT as a predictor, as it accounted for the most independent variance in EDI-BD, and that SATAQ-SC would be removed in order to address the multicollinearity problem and to ensure that all of the assumptions of the regression were met. Exploratory analyses only utilized the DAMC-HR to limit the number of tests conducted. In addition, the DAMC-LT produced similar findings as the DAMC-HR in the earlier analysis and is the measure least consistent with previous measurements of media exposure (i.e., hourly ratings versus Likert-type scales).

In the third exploratory regression model, BMI was included as a control variable. At stage one, BMI significantly explained 24.5% of the variance in EDI-BD, $F(1, 209) = 67.67, p < .001$. In stage two, TIME-FA contributed 0.5% of the variance in the regression model but was not significant, $F(2, 208) = 34.51, p = .263$. Introducing SATAQ-INT at stage three accounted for an additional and significant 11.2% of the variance in EDI-BD, $F(3, 207) = 39.04, p < .001$. Together, the predictor variables accounted for 36.1% of the variance in EDI-BD, and BMI and SATAQ-INT remained significant predictors in the final model (see Table 5 for additional statistics).

In the fourth exploratory regression model, both BMI and DAMC-HR were included as control variables and were entered at stage one and accounted for 24.9% of the variance in EDI-BD, $F(2, 208) = 34.40, p < .001$. Introducing TIME-FA at stage two accounted for an insignificant 0.3% of the variation in EDI-BD, $F(3, 207) = 23.22, p = .345$. Adding SATAQ-INT to the regression model significantly explained an additional 11.0% of the variation in

EDI-BD, $F(4, 206) = 29.14, p < .001$. When all predictor variables were included in the regression model, only BMI and SATAQ-INT were significant predictors of EDI-BD.

Together, the predictor variables accounted for 36.1% of the variance in EDI-BD (see Table 6 for additional statistics).

Exploratory Mediation Analyses. Four additional exploratory mediational models that did not include SATAQ-SC were conducted due to the high multicollinearity between SATAQ-INT and SATAQ-SC and the recommendation of previous literature to remove the variable that accounts for the least amount of independent variance (Field, 2013; see Table 3). When no control variables were considered, TIME-FA significantly predicted EDI-BD, $b = .214, 95\% \text{ CI } [.050, .378], t = 2.57, p = .011$, accounting for 3.1% of the variance in EDI-BD scores. TIME-FA significantly predicted SATAQ-INT, $b = .025, 95\% \text{ CI } [.003, .047], t = 2.23, p = .027$. SATAQ-INT significantly predicted EDI-BD, $b = 2.851, 95\% \text{ CI } [1.912, 3.790], t = 5.99, p < .001$. When SATAQ-INT was included as a mediator, TIME-FA no longer significantly predicted EDI-BD, $b = .143, 95\% \text{ CI } [-.011, .297], t = 1.83, p = .069$. Thus, the requirements for mediation were again met when BMI was not included in the model (see Figure 6).

When BMI was first added into the model, TIME-FA again did not significantly predict EDI-BD, $b = .085, 95\% \text{ CI } [-.064, .233], t = 1.12, p = .263$. TIME-FA did not significantly predict SATAQ-INT, $b = .022, 95\% \text{ CI } [-.001, .044], t = 1.88, p = .062$. SATAQ-INT significantly predicted EDI-BD, $b = 2.541, 95\% \text{ CI } [1.711, 3.372], t = 6.03, p < .001$. When SATAQ-INT was included as a mediator, TIME-FA did not significantly predict EDI-BD, $b = .030, 95\% \text{ CI } [-.109, .168], t = .425, p = .671$. The requirements for mediation were not met (see Figure 7).

When BMI and DAMC-LT were considered, TIME-FA did not significantly predict EDI-BD, $b = .072$, 95% CI [-.080, .225], $t = .936$, $p = .350$. TIME-FA did not significantly predict SATAQ-INT, $b = .021$, 95% CI [-.003, .044], $t = 9.18$, $p = .081$. SATAQ-INT significantly predicted EDI-BD, $b = 2.535$, 95% CI [1.703, 3.368], $t = 6.00$, $p < .001$. When SATAQ-INT was included as a mediator, TIME-FA did not significantly predict EDI-BD, $b = .020$, 95% CI [-.122, .162], $t = .279$, $p = .781$. The requirements for mediation were not met (see Figure 8).

When BMI and DAMC-HR were controlled for, TIME-FA again did not significantly predict EDI-BD, $b = .073$, 95% CI [-.079, .224], $t = .946$, $p = .345$. TIME-FA did not significantly predict SATAQ-INT, $b = .017$, 95% CI [-.006, .040], $t = 1.45$, $p = .149$. SATAQ-INT significantly predicted EDI-BD, $b = 2.542$, 95% CI [1.699, 3.386], $t = 5.94$, $p < .001$. When SATAQ-INT was included as a mediator, TIME-FA did not significantly predict EDI-BD, $b = .030$, 95% CI [-.111, .171], $t = .420$, $p = .675$. The requirements for mediation were not met (see Figure 9).

Discussion

The present study was the first to investigate the relationship between general and thin-ideal media exposure and body dissatisfaction while considering the potential role of thin ideal internalization and social comparison among a sample of college women. Though previous researchers have often interpreted their findings to indicate that there is a relation between general media exposure and body dissatisfaction (Grabe et al., 2008; Lopez-Guimera et al., 2010; Stice et al., 1994), this relationship was not hypothesized and was not found in the present study. Also consistent with hypotheses, thin-ideal media exposure did relate significantly with body dissatisfaction, and the relationship was

mediated through thin-ideal internalization and social comparison; however, the relationship between thin-ideal media exposure and body dissatisfaction was no longer significant after controlling for body size. In a number of analyses, body size and adoption of the thin-equates-beauty ideal accounted for just over one-third of the variance in body dissatisfaction, suggesting that non-media variables likely account for the majority of individual body dissatisfaction.

As noted above, exposure to general media did not have a significant relationship with body dissatisfaction. While previous research has not directly assessed general media exposure, findings from studies measuring thin-ideal media exposure have been generalized to represent all forms of media (Davis & Dula, 2013; Ferguson et al., 2011). This lack of relationship was hypothesized and expected, given the inherent differences between more specific thin-ideal media and general media (i.e., varied prevalence of the thin ideal). It appears that general media exposure is not associated with higher self-reported belief in “thin as ideal” or social comparison, nor is it related to body dissatisfaction, as indicated by the lack of correlation between these constructs within this study.

Consistent with previous research (Grabe et al., 2008; Stice et al., 1994), experience with more thinness-equates-beauty media was only slightly related with personal body dissatisfaction. Exposure to media espousing thin as ideal, however, did not significantly predict body dissatisfaction after controlling for body size. This finding was somewhat surprising given the well-established and well-accepted relationship between thin-ideal media exposure and body dissatisfaction in the literature (Grabe et al., 2008; Groesz et al., 2002). A small, but significant, relation was found between thin-ideal

media exposure and body size although the nature of the relationship is not clear given the correlational data. It may be that individuals who have higher levels of body dissatisfaction, often those with larger body size (Coker & Abraham, 2014), may choose to seek out media that represent their ideal, rather than the reverse scenario where thin-ideal media exposure leads to body dissatisfaction. Additionally, high levels of thin-ideal media are generally not the only type of media to which an individual is exposed long-term or even on a daily basis, lessening the potential negative effects of media that depict thin as ideal. For example, in this study, participants reported, on average, less than 3 hours of thin-ideal media exposure per week out of the reported average 20 hours of general media exposure. These findings suggest that even exposure to specific media types geared toward the thin ideal may not be as influential as previously hypothesized. However, the thin-ideal media exposure scale used in the present study has not been utilized in previous research.

Having a larger body size, as indicated by height and weight, was, by far, the best predictor of body dissatisfaction when all other constructs (general media exposure, thin-ideal media exposure, thin-ideal internalization, and social comparison) were considered. This is supported by previous research indicating that individuals with larger bodies are more at risk than individuals with smaller bodies to experience body discontent (Coker & Abraham, 2014; DeBraganza & Hausenblas, 2010). The larger the discrepancy between the ideal image and an individual's actual body size and shape, the higher an individual's body dissatisfaction (Coker & Abraham, 2014), suggesting that those with larger bodies may have larger discrepancies than those with smaller bodies, and may, therefore, have higher body dissatisfaction. When body size was considered in relation to body

dissatisfaction, internalization of the belief that thin is ideal was the only other construct that significantly related to body dissatisfaction. Many studies (e.g, Davis & Dula, 2013; Stice et al., 1994; Tylka & Subich, 2004), however, do not include body size as a control variable, which can complicate comparisons between the present findings and previous findings.

Consistent with previous research (Clark & Tiggemann, 2007; Clay, Vignoles, & Dittmar, 2005; Stice et al., 1994) and the present study's hypotheses, having adopted the thinness-equates-beauty personal ideal was found to be a significant predictor of body dissatisfaction even after controlling for the relationship between body size and dissatisfaction. Thin-ideal internalization has been found to mediate the relationship between thin-ideal media and body dissatisfaction and has been implicated as a prominent risk factor for developing eating disorders (Ballentine & Ogle, 2005; Matera et al., 2013; O'Brien et al., 2009). Clay et al. (2005) notes an important distinction between being passively aware of or exposed to the thin ideal and actively internalizing those standards. Adoption of a thinness ideal has been identified as a more accurate predictor of body dissatisfaction than mere awareness of this cultural ideal, as knowledge of this norm alone generally is not related to body dissatisfaction in the literature (Clay et al., 2005). Not all individuals exposed to media are dissatisfied with their bodies, indicating that exposure is not sufficient. Matera et al. (2013) suggested a stepped process for media influence in which awareness precedes internalization that can then lead to social comparison (Clay et al., 2005; Matera et al., 2013). The justification for this model is that one must be aware of an ideal to internalize it, and this desire must have increased importance and must be deemed an appropriate source of comparison before the evaluation can actually occur.

The results from the present study are consistent with Madera's model provided that body size is not included as a control variable.

In the present study, social comparison did not emerge as a significant predictor of body dissatisfaction when other variables were considered, though it did have a relationship with body dissatisfaction. This is likely due to the strong relationship between internalization of thin as ideal and social comparison, where social comparison did not significantly predict body dissatisfaction above and beyond thin-ideal internalization. Additionally, the internalization questions from the SATAQ have comparison components, which serve to explain the overlap between the two constructs. For example, questions that begin with "I would like my body to look like" imply a comparison. It may be pertinent in future research to utilize two distinct questionnaires that examine thin-ideal internalization and social comparison, rather than subscales from the same measure as was done in the present study.

Larger body size and degree to which women internalize thin as ideal were the only predictors of body dissatisfaction among this sample when all other constructs were considered. The present findings tend to corroborate other research findings that suggest it is not the media *per se* that relates to body dissatisfaction, but instead, the relationship is the result of underlying psychological processes that embrace the belief that a lean physique is desirable even when an individual has a larger body size (Bell & Dittmar, 2011; Coker & Abraham, 2014). Though the media is a prominent portrayer of information such as the thin ideal (Levine & Murnen, 2009), it is clear that there are other factors involved in the relationship with body dissatisfaction, including peer factors and non-media variables. Such an interpretation is consistent with the large amount of

variability still unaccounted for in body dissatisfaction and the small effect sizes found within the present study and the extant literature on the relationship between media and body dissatisfaction (Ferguson et al., 2011; Ferguson et al., 2014; Lev-Ari, Baumgarten-Katz, and Zohar, 2014).

Throughout the literature (Clark & Tiggemann, 2008; Clay et al., 2005; Ferguson et al., 2014) there is an emphasis on sociocultural models for body dissatisfaction, primarily the Tripartite model (van den Berg et al., 2002), which includes the influence of peers, family, and media. However, media exposure has often been the primary contributor cited in research due to its widespread influence (Grabe et al., 2008; Harper & Tiggemann, 2008; Stice et al., 1994). For example, Becker et al. (2003) implicates the introduction of Westernized (i.e., thin-ideal) media in Fiji as the cause of the increase in participants' eating disorder symptomatology. This study, however, did not examine peer interactions or other influential factors that may have contributed to the increase as well. Peer social comparison research is limited and should be considered as a predictor of body dissatisfaction, as peers are seen as a reliable source for learning about oneself (Lev-Ari et al., 2014), prevalent in daily life (Matera et al., 2013), and more likely to be a source of comparison than images found in the media (Ferguson, 2014). Peer influence is primarily examined in adolescent girls, and even then, much of the research focuses on teasing and peer pressure (i.e. direct communications from others), rather than internal constructs such as social comparison (Lev-Ari et al., 2014; Webb & Zimmer-Gembeck, 2014).

Limitations and Future Research

This study was completed utilizing solely self-report measures, which have inherent biases and limitations. The DAMC is a face valid measure with limited support

for its use; however, much of the previous literature on media exposure has similarly utilized the reporting of hours as the media measurement of choice (Bell & Dittmar, 2011; Kim & Lennon, 2007; Stice et al., 1994). There was a large amount of data missing from the DAMC, specifically the DAMC-HR, suggesting potential problems with participant compliance or understanding of this measure (e.g., length of measure, redundancy with DAMC-LT). Validating and updating the measure may be worthwhile as no general media exposure measure currently exists in the literature. Additionally, the measure of thin-ideal media exposure utilized in a commonly cited study (Stice et al., 1994) produced an unacceptably low internal consistency that differed from that reported in previous literature (Stice, 1994). It is possible that this measure has become outdated and no longer accurately represents the current conceptualization of thin-ideal media. Though an update to this measure was attempted and included current media types that are representative of the thin ideal, the measure included only three items. A comparison between the reliability of each of the measures within this study compared to real-time measures ecological momentary assessment (EMA) of media exposure would serve to highlight the potential discrepancies of self-report models in the present study's results, such as recall bias. EMA through the use of pagers has been found in the literature to be more generalizable than self-report measures in addition to being a more reliable and valid assessment of behaviors such as smoking (Scharf, Martino, Setodji, Staplefoote, & Shadel, 2013), sedentary behavior (Biddle, Gorely, Marshall, & Cameron, 2009), and social comparison (Leahey & Crowther, 2008).

Furthermore, this study consisted of a highly homogenous sample, with all participants being college-age women between the ages of 18 and 24, who predominantly

identified as White/Caucasian. As this sample was homogenous, future research could be aimed at identifying differences among a heterogeneous group of individuals in terms of race, gender, and sexual orientation. Thus far, differences in presentation of body dissatisfaction have been found between Caucasian women and those of ethnic minorities (DeBraganza & Hausenblas, 2010), and between men and women, though recent literature suggests that these differences may not be as drastic as originally perceived (Dakanalis et al., 2015). While body dissatisfaction is present in both sexes, the focus of the dissatisfaction is different, with women focusing on thinness and men being more concerned with muscularity (Blond, 2008; Mayo & George, 2014; Ochner, Gray, & Brickner, 2009). Participants' body dissatisfaction in the present study fell at the 47th percentile compared to body dissatisfaction norms for college women (Garner, 1991), suggesting that this sample is comparable to those examining body dissatisfaction and media exposure within the literature; however, studies examining heterogeneous samples' body dissatisfaction are scant, creating an opportunity for growth within the body dissatisfaction literature.

This study is correlational, thus the direction of the effects cannot be determined, and results do not indicate causality or eliminate third variable possibilities. Additionally, blame is often placed on the media for its role in increasing body dissatisfaction among consumers (Becker et al., 2003; Harper & Tiggemann, 2008; Malkin et al., 1999); however, it should be noted that humans create the media and are not merely passive consumers of media. While advertising was not explicitly assessed within this study, it acts as a direct communication of the thin ideal and is deliberate in its delivery of shame related to body size and physical imperfections, as opposed to more subtle presentations

of thinness in other forms of media (Puhl & Heuer, 2009; Wan, Ansons, Chattopadhyay, & Leboe, 2013). Many forms of advertising aim to exploit perceived flaws in consumers and to persuade them to purchase a product to address personal imperfections (Dimofte, Goodstein, & Brumbaugh, 2014; Richins, 1995).

Finally, there are a variety of factors that could contribute to body dissatisfaction, only a small number of which were assessed in this study. For example, this study looked primarily at media-related factors, with no investigation of other sources of influence, such as peer and social interactions. Fat stigma and body shaming have been noted as mechanisms through which body dissatisfaction is increased and also as processes that are encouraged by the media in relation to the thin ideal (Puhl & Heuer, 2009; Pila et al., 2015), establishing these factors as sources for future research. Ideally, these mechanisms, in addition to those examined here, would be addressed in tandem to assess their contribution to body dissatisfaction and disordered eating behaviors to gain a more holistic understanding of body dissatisfaction processes.

Body dissatisfaction and its predictors are a crucial research topic, not only due to the high prevalence of body dissatisfaction, but also due to the risks associated with body dissatisfaction, especially in college-age women such as those in the present sample (Coker & Abraham, 2014). Body dissatisfaction has been defined as the cognitive-affective component of body image and is associated with negative thoughts and emotions regarding one's appearance, such as guilt and shame (Leahey & Crowther, 2008; Pila, Sabiston, Brunet, Castonguay, & O'Loughlin, 2015; Ridolfi et al., 2011). Research indicates that over half of adolescent girls and college-age women are dissatisfied with their bodies (Grabe et al., 2008), and approximately 8-13.5% of college women meet

criteria for an eating disorder (Ward & Hay, 2015). Body dissatisfaction has been identified as the single most important predictor for future eating disturbances, as it often precedes eating disordered behaviors and can also predict the severity of eating concerns (Coker & Abraham, 2014). The relationship between body dissatisfaction and eating disorders is complex, with eating disorders often developing as a method to manage body dissatisfaction (Ward & Hay, 2015). Media exposure as a risk factor for eating disorders may be overstated in some previous research (Ferguson et al., 2011; Grabe et al., 2008), which indicates the need for research on other important predictors of body dissatisfaction with the goal of reducing its impact overall.

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Table 1.

Descriptive Statistics

	<i>M</i>	<i>SD</i>
General Media - Hourly Rating	21.32	15.25
General Media - Likert-Type Scale	0.80	0.41
Thin-Ideal Media (TIME-FA)	2.71	4.90
Thin-Ideal Media (Stice, 1994)	8.19	8.00
Internalization	3.08	0.81
Social Comparison	3.22	1.02
Body Dissatisfaction	7.75	6.04
BMI	23.56	5.44

Note. M = Mean; SD = Standard Deviation.

Table 2.

Correlations between Media Measures, SATAQ subscales, BMI, and EDI Subscale

	DAMC- LT	TIME- FA	SATAQ- INT	SATAQ-SC	BMI	EDI-BD
DAMC-HR	.55***	.18*	.11	.12	-.09	.02
DAMC-LT	-	.19**	.04	.06	-.12	-.01
TIME-FA	-	-	.16*	.15	.22***	.18*
SATAQ-INT	-	-	-	.77***	.12	.40***
SATAQ-SC	-	-	-	-	.13	.39***
BMI	-	-	-	-	-	.50***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$; HR = Hourly Rating; LT = Likert-Type Scale.

Table 3.

Hierarchical Regression Statistics for the Prediction of EDI-BD

	Model	<i>b</i>	SE <i>b</i>	β
1	Constant	7.080	.468	
	TIME-FA $R^2 = .031 (p < .05)$.214	.083	.175*
2	Constant	-1.525	1.502	
	TIME-FA	.143	.078	.117
	SATAQ-INT $\Delta R^2 = .142 (p < .001)$	2.851	.476	.382***
3	Constant	-1.751	1.495	
	TIME-FA	.145	.077	.119
	SATAQ-INT	1.719	.740	.230*
	SATAQ-SC $\Delta R^2 = .016 (p < .05).$	1.153	.579	.196*

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 4.

Hierarchical Regression Statistics for the Prediction of EDI-BD with Altered Entry Sequencing

	Model	<i>b</i>	SE <i>b</i>	β
1	Constant	7.080	.468	
	TIME-FA	.214	.083	.175*
	$R^2 = .031 (p < .05)$			
2	Constant	.169	1.260	
	TIME-FA	.165	.078	.135*
	SATAQ-SC	2.187	.374	.372***
	$\Delta R^2 = .137 (p < .001)$			
3	Constant	-1.751	1.495	
	TIME-FA	.145	.077	.119
	SATAQ-SC	1.153	.579	.196*
	SATAQ-INT	1.719	.740	.230*
	$\Delta R^2 = .021 (p < .05)$			

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 5.

Hierarchical Regression Statistics for the Prediction of EDI-BD with BMI Control

	Model	<i>b</i>	SE <i>b</i>	β
1	Constant	-5.273	1.613	
	BMI	.549	.067	.495***
	$R^2 = .245 (p < .001)$			
2	Constant	-5.102	1.619	
	BMI	.532	.068	.479***
	TIME-FA	.085	.075	.069
	$\Delta R^2 = .005 (p > .05)$			
3	Constant	-11.949	1.879	
	BMI	.496	.064	.447***
	TIME-FA	.030	.070	.024
	SATAQ-INT	2.541	.421	.340***
	$\Delta R^2 = .112 (p < .001)$			

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 6.

Hierarchical Regression Statistics for the Prediction of EDI-BD with BMI and DAMC-HR Controls

	Model	<i>b</i>	SE <i>b</i>	β
1	Constant	-5.966	1.742	
	BMI	.556	.067	.501***
	DAMC-HR	.025	.024	.063
	$R^2 = .249 (p < .001)$			
2	Constant	-5.704	1.765	
	BMI	.540	.069	.486***
	DAMC-HR	.021	.024	.053
	TIME-FA	.073	.077	.059
	$\Delta R^2 = .003 (p > .05)$			
3	Constant	-11.943	1.942	
	BMI	.496	.064	.447***
	DAMC-HR	.000	.023	-.001
	TIME-FA	.030	.071	.025
	SATAQ-INT	2.542	.428	.341***
	$\Delta R^2 = .110 (p < .001)$			

* $p < .05$, ** $p < .01$, *** $p < .001$.

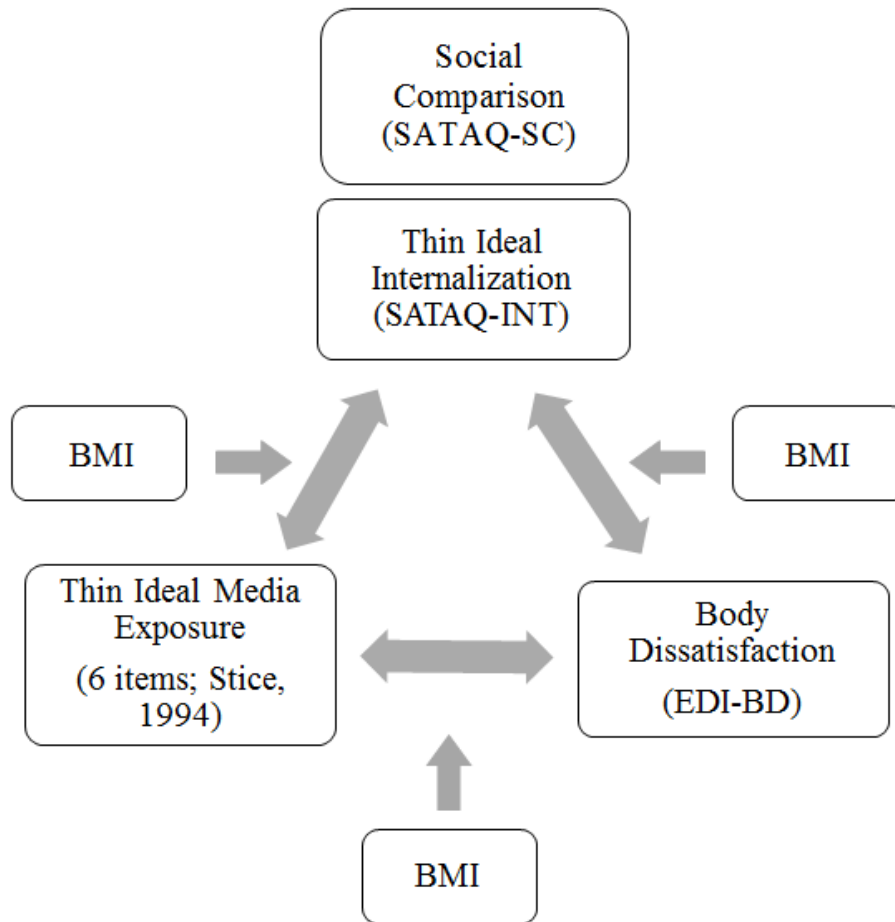


Figure 1. Proposed relationship between media exposure and body dissatisfaction with both thin-ideal internalization and social comparison as potential mediators and BMI as a control variable.

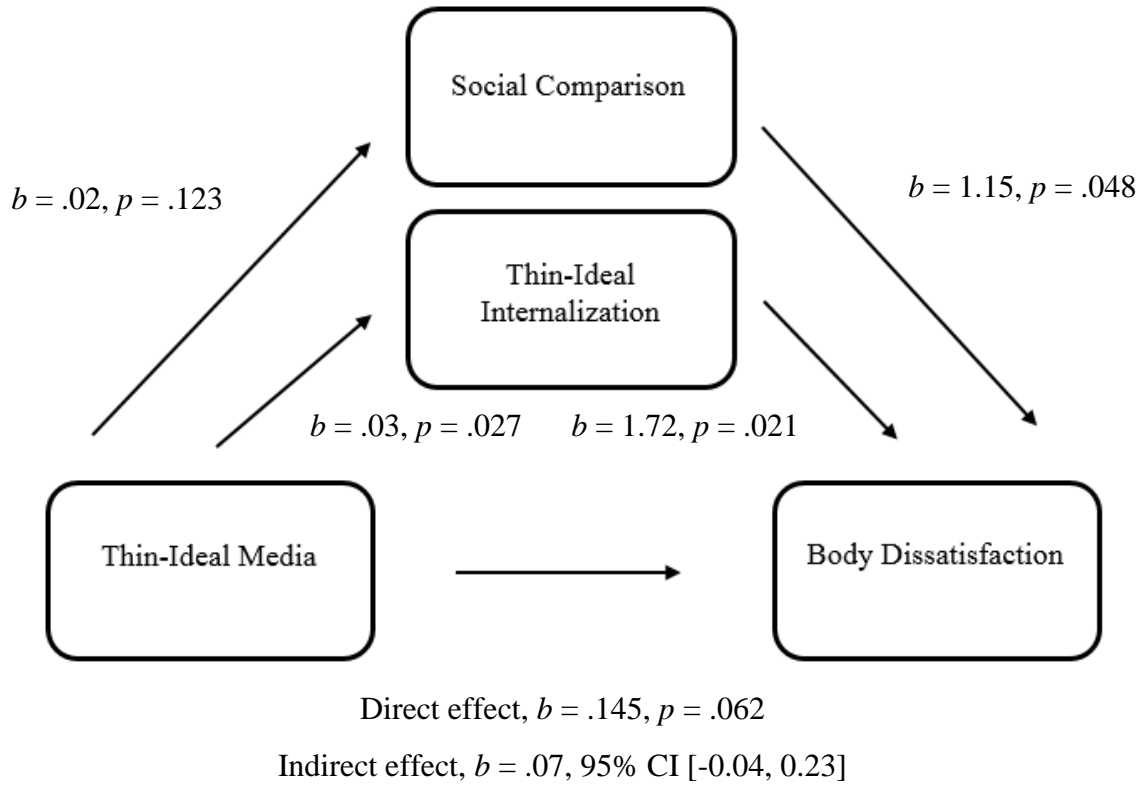


Figure 2. Mediation model with no controls.

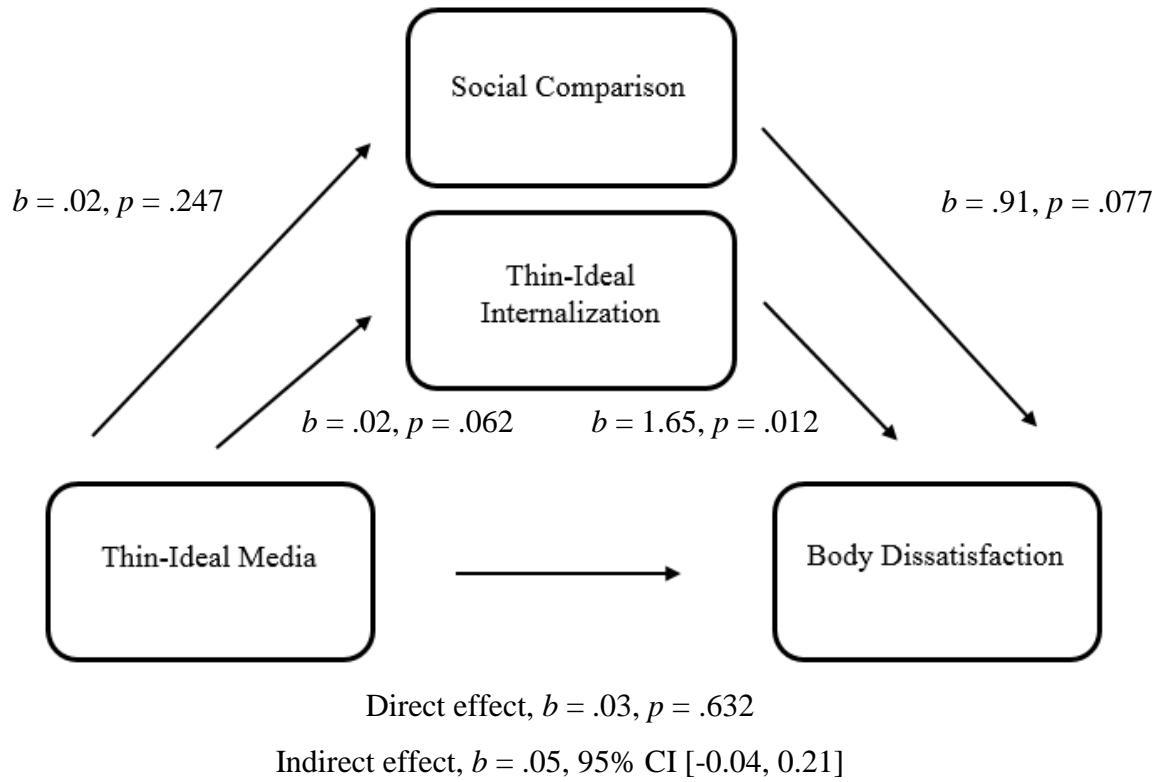


Figure 3. Mediation model with BMI as the control variable.

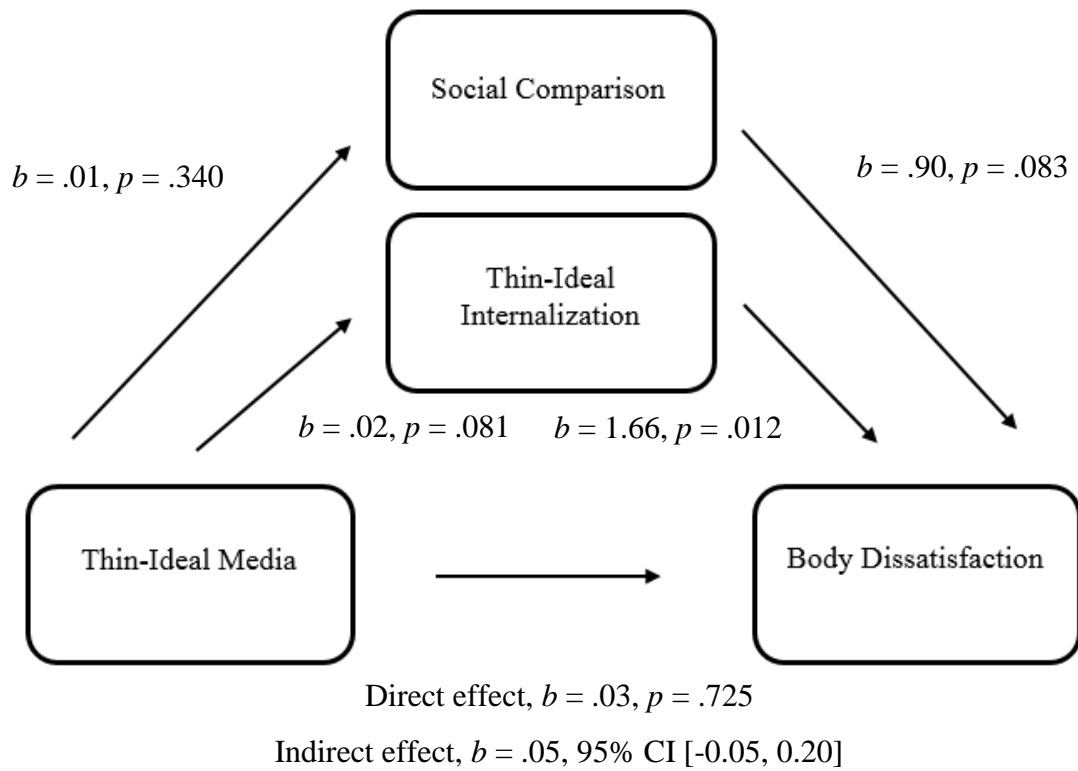


Figure 4. Mediation model with BMI and the Likert-Type measure of general media exposure as the control variables.

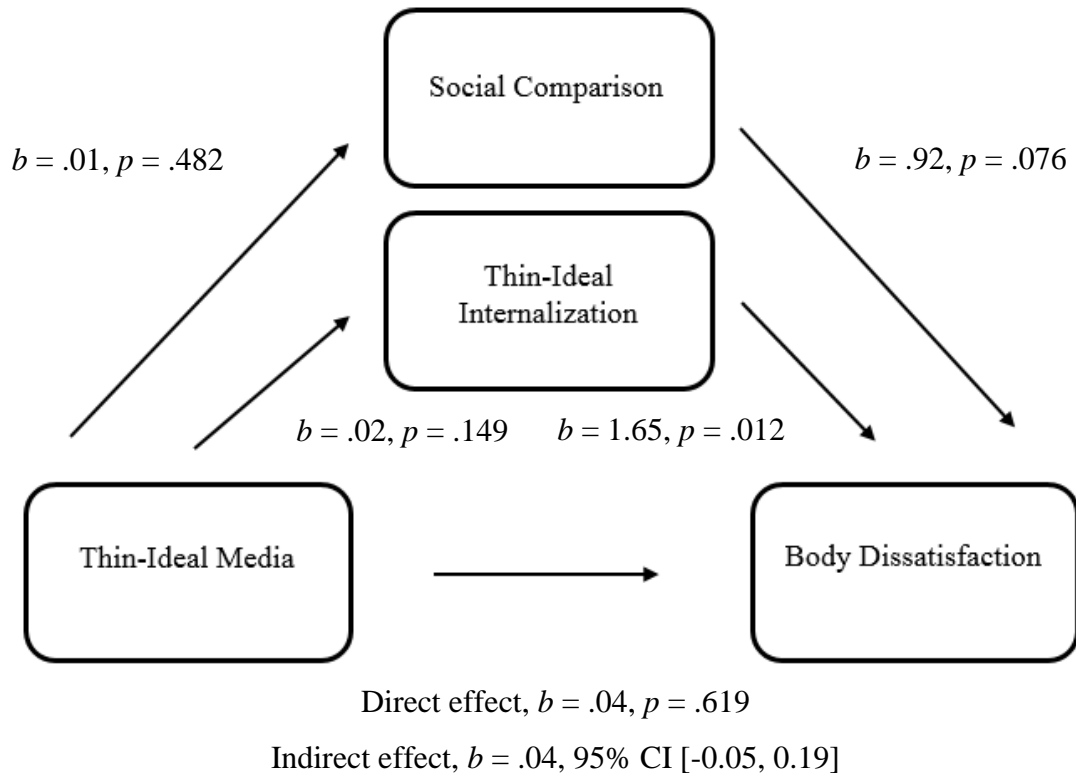


Figure 5. Mediation model with BMI and the hourly rating of general media exposure as the control variables.

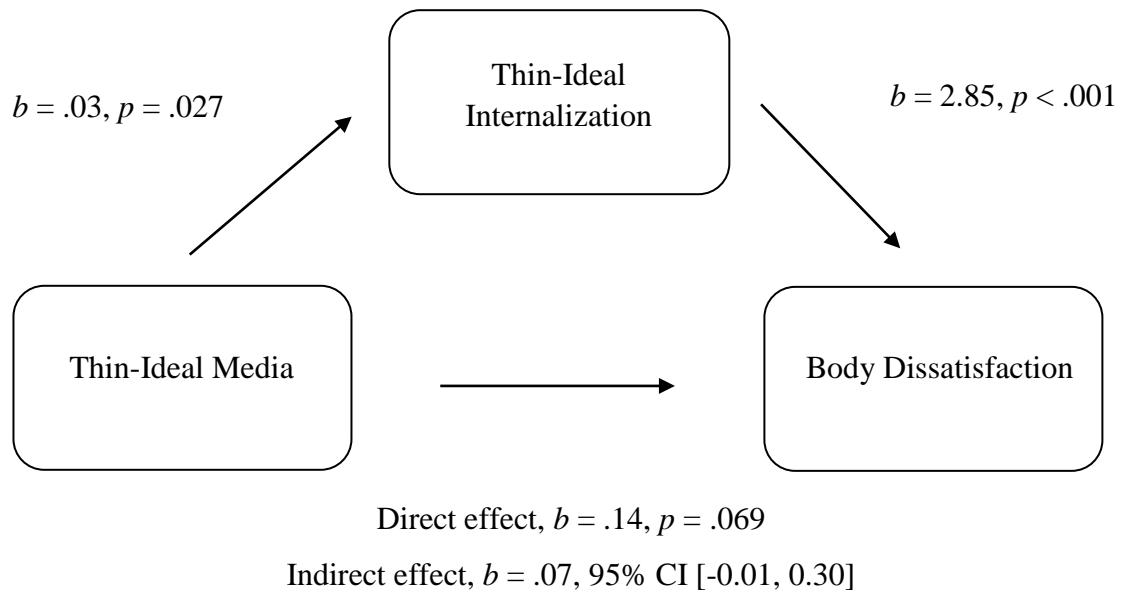


Figure 6. Mediation model with no control variable and the removal of SATAQ-SC.

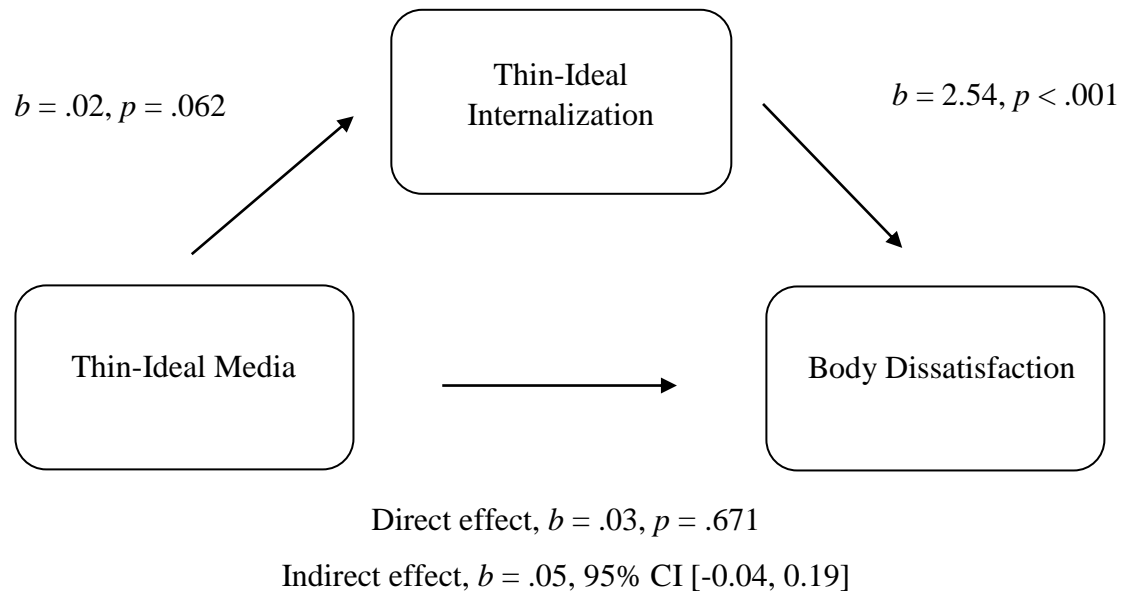


Figure 7. Mediation model with BMI as the control variable and the removal of SATAQ-SC.

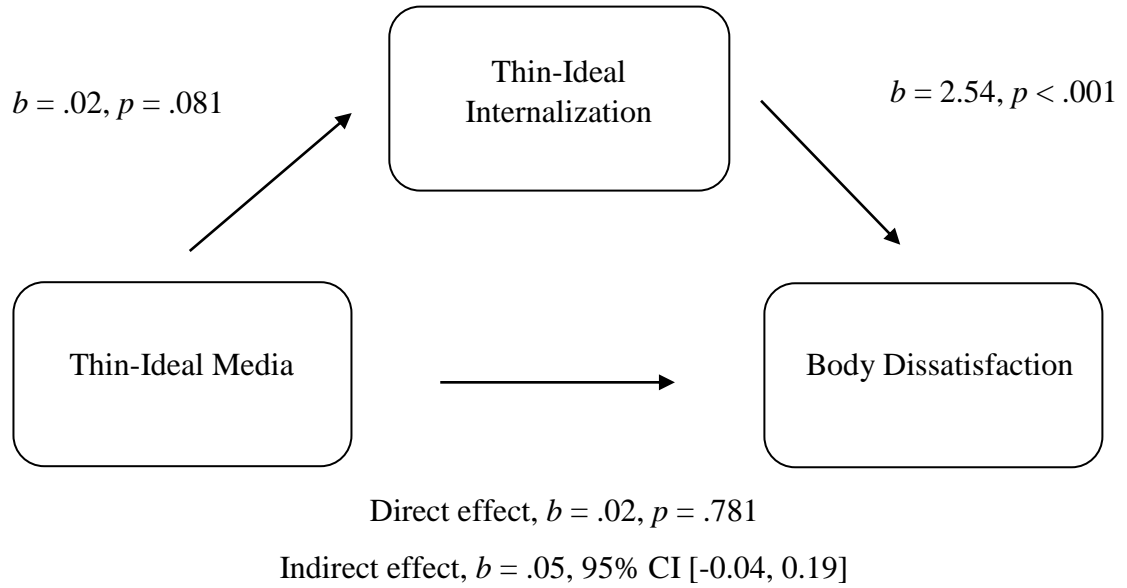


Figure 8. Mediation model with BMI and DAMC-LT as the control variables and the removal of SATAQ-SC.

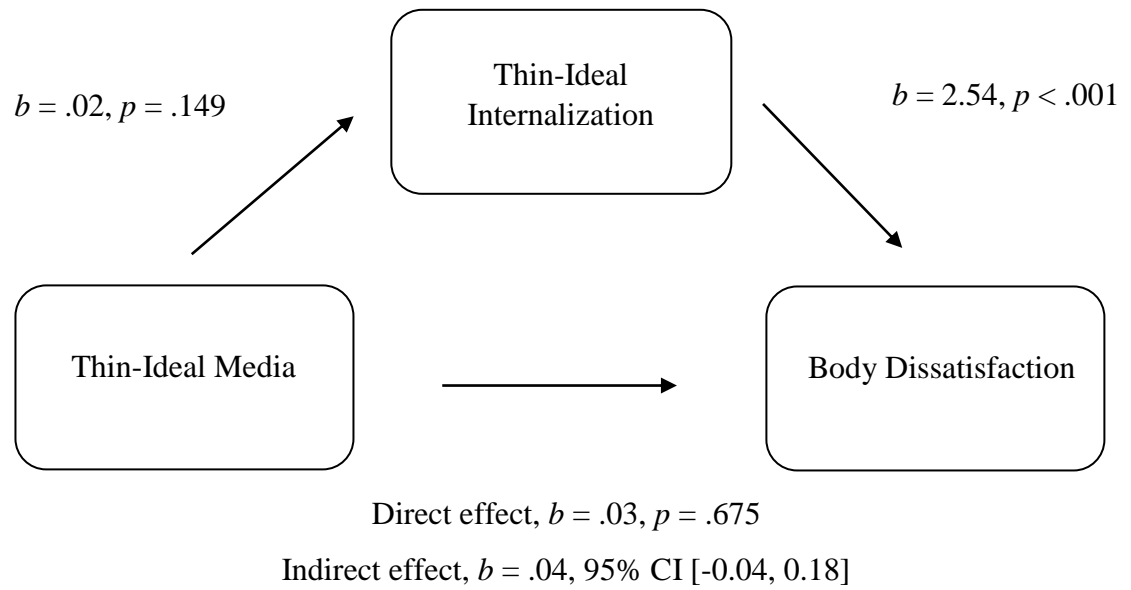


Figure 9. Mediation model with BMI and DAMC-HR as the control variables and the removal of SATAQ-SC.

Appendix A

Davis Assessment of Media Consumption – Likert Scale (DAMC-LT)*

Please answer each of the following items as honestly as possible. Please read each item carefully, and then select your answer. If none of the choices seem to be ideal, then select the answer that comes closest to your ideal. **THERE ARE NO RIGHT OR WRONG ANSWERS.** Select your answers quickly and do not spend too much time analyzing your answers.

1. I use the Internet/World Wide Web.
A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
2. I watch Movies (of any type).
A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
3. I use Interactive Software (Apps) on a Phone/Mobile/Tablet Device.
A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
4. I use Interactive Software on a Laptop/Desktop Computer.
A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
5. I engage in Social Networking on Computers/Electronic Devices (of any type).
A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
6. I watch Television programs (of any type; on a traditional TV and/or any other computer/electronic device).
A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
7. I listen to Radio programs (of any type; on a traditional radio and/or any other computer/electronic device).
A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible

With ALL of the above listed types of media outlets in mind (and any you may think of not listed above), how often do you seek out the following types of information/content?

8. Culture/Foreign
A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
9. Travel/Geography
A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
10. Hunting/Fishing
A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
11. Sports/Athletics
A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
12. Automotive/Mechanics/Racing
A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible

13. History/Documentary
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
14. Guns/Weaponry/Ammunition/Military
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
15. Pornography/Erotica
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
16. Business/Finance/Economics
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
17. Style/Fashion
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
18. Beauty/Grooming/Upkeep
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
19. Biography/Autobiography
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
20. Performing Arts/Theater
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
21. Drama
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
22. Action/Adventure/Thriller
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
23. Horror
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
24. Romance/Love Stories
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
25. Mystery/Crime/Suspense
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
26. Reality
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
27. Sci-Fi/Fantasy/Role-Play
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
28. Science
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
29. Computers/Electronics/Technology/Robotics
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
30. Fitness/Health
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible

31. General News/Current Affairs
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
32. Comics/Cartoons/Anime/Manga/Graphic Novels
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
33. Nature/Recreation
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
34. Education
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
35. Personal Profession/Career
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
36. Crafts/Hobbies
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
37. Religion/Faith/Spirituality/Theology/Metaphysics
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
38. Paranormal/Aliens/ESP/Ghost/Supernatural/Conspiracy
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
39. Self-Improvement/Self-Help
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
40. Home/Garden
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
41. Poetry/Literature
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
42. Family/Parenting
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
43. Civil Rights/Human Rights/Social Issues
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
44. Entertainment/Celebrity
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
45. Real Estate/Property
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
46. For Children (Literature/Entertainment/Education/Cartoons)
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
47. Politics
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible
48. Wedding/Parties/Event Planning
 A. Never B. Rarely C. Sometimes D. Often E. As Frequently as Possible

Appendix B

Davis Assessment of Media Consumption – Hourly Rating (DAMC-HR)

Please answer each of the following items as honestly as possible. Indicate the amount of exposure to each type of media you have on a daily basis. **THERE ARE NO RIGHT OR WRONG ANSWERS.** Report your answers quickly and do not spend too much time analyzing your answers.

1. I use the Internet/World Wide Web. _____ hours per day
2. I watch Movies (of any type). _____ hours per day
3. I use Interactive Software (Apps) on a Phone/Mobile/Tablet Device.
_____ hours per day
4. I use Interactive Software on a Laptop/Desktop Computer. _____ hours per day
5. I engage in Social Networking on Computers/Electronic Devices (of any type).
_____ hours per day
6. I watch Television programs (of any type; on a traditional TV and/or any other computer/electronic device). _____ hours per day
7. I listen to Radio programs (of any type; on a traditional radio and/or any other computer/electronic device).
_____ hours per day

With ALL of the above listed types of media outlets in mind (and any you may think of not listed above), how often do you seek out the following types of information/content?

8. Culture/Foreign _____ hours per day
9. Travel/Geography _____ hours per day
10. Hunting/Fishing _____ hours per day
11. Sports/Athletics _____ hours per day
12. Automotive/Mechanics/Racing _____ hours per day
13. History/Documentary _____ hours per day
14. Guns/Weaponry/Ammunition/Military _____ hours per day
15. Pornography/Erotica _____ hours per day
16. Business/Finance/Economics _____ hours per day
17. Style/Fashion _____ hours per day
18. Beauty/Grooming/Upkeep _____ hours per day

19. Biography/Autobiography _____ hours per day
20. Performing Arts/Theater _____ hours per day
21. Drama _____ hours per day
22. Action/Adventure/Thriller _____ hours per day
23. Horror _____ hours per day
24. Romance/Love Stories _____ hours per day
25. Mystery/Crime/Suspense _____ hours per day
26. Reality _____ hours per day
27. Sci-Fi/Fantasy/Role-Play _____ hours per day
28. Science _____ hours per day
29. Computers/Electronics/Technology/Robotics _____ hours per day
30. Fitness/Health _____ hours per day
31. General News/Current Affairs _____ hours per day
32. Comics/Cartoons/Anime/Manga/Graphic Novels _____ hours per day
33. Nature/Recreation _____ hours per day
34. Education _____ hours per day
35. Personal Profession/Career _____ hours per day
36. Crafts/Hobbies _____ hours per day
37. Religion/Faith/Spirituality/Theology/Metaphysics _____ hours per day
38. Paranormal/Aliens/ESP/Ghost/Supernatural/Conspiracy _____ hours per day
39. Self-Improvement/Self-Help _____ hours per day
40. Home/Garden _____ hours per day
41. Poetry/Literature _____ hours per day
42. Family/Parenting _____ hours per day
43. Civil Rights/Human Rights/Social Issues _____ hours per day
44. Entertainment/Celebrity _____ hours per day
45. Real Estate/Property _____ hours per day
46. For Children (Literature/Entertainment/Education/Cartoons) _____ hours per day
47. Politics _____ hours per day
48. Wedding/Parties/Event Planning _____ hours per day

Appendix C

Thin Ideal Media Exposure Measure*

1. How many hours of COMEDY shows do you watch in an average week?
2. How many hours of DRAMA shows do you watch in an average week? **
3. How many hours of GAME shows do you watch in an average week?
4. How many hours do you spend reading ENTERTAINMENT, ARTS, or GOSSIP magazines in an average week?
5. How many hours do you spend reading HEALTH or FITNESS magazines in an average week?
6. How many hours do you spend reading FASHION magazines in an average week? **
7. **How many hours of REALITY SHOWS do you watch in an average week? ****
8. **How many hours do you spend on SOCIAL MEDIA SITES in an average week?**

*Items in bold have been added for this study and were not part of the original measure. Items have also been modified to reflect “the average week” rather than “within the past month.”

** These items were maintained for the final measure following the factor analysis (TIME-FA).

Appendix D

Sociocultural Attitudes Toward Appearance Scale-3 (SATAQ-3R)

1. TV programs are an important source of information about fashion and “being attractive”.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree

2. I’ve felt pressure from TV or magazines to lose weight.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree

3. I would like my body to look like the people who are on TV.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree

4. I wish I looked as athletic as the people in magazines. (Internalization)
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree

5. I compare my body to the bodies of TV and movie stars. (Comparison)
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree

6. Clothes look better on people who are attractive.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree

7. TV commercials are an important source of information about fashion and “being attractive”.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree

8. I’ve felt pressure from TV or magazines to look pretty.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree

9. I would like my body to look like the models who appear in magazines. (Internalization)
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree

10. I wish I looked as athletic as sports stars.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree

11. I compare my appearance to the appearance of TV and movie stars. (Comparison)
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
12. Clothes look better on people who are thin.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
13. Music videos on TV are an important source of information about fashion and “being attractive”.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
14. I’ve felt pressure from TV or magazines to be thin.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
15. I would like my body to look like the people who are in movies. (Internalization)
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
16. I try to look like sports athletes. (Internalization)
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
17. I compare my body to the bodies of people who appear in magazines. (Comparison)
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
18. Clothes look better on people who have an athletic body.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
19. Magazine articles are an important source of information about fashion and “being attractive”.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
20. I’ve felt pressure from TV or magazines to have a perfect body.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
21. I wish I looked like the models in music videos. (Internalization)
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree

22. I compare my appearance to the appearance of people in magazines. (Comparison)
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
23. Attractive people are better liked than unattractive people.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
24. Magazine advertisements are an important source of information about fashion and “being attractive”.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
25. I’ve felt pressure from TV or magazines to diet.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
26. I try to look like the people on TV. (Internalization)
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
27. People who are thin are better looking than people who are overweight.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
28. Pictures in magazines are an important source of information about fashion and “being attractive”.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
29. I’ve felt pressure from TV or magazines to exercise.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
30. I try to look like the people in music videos. (Internalization)
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
31. People who have an athletic body are better looking.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
32. Movies are an important source of information about fashion and “being attractive”.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree

33. I've felt pressure from TV or magazines to change my appearance.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
34. Physically fit people are more attractive.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
35. Movie stars are an important source of information about fashion and "being attractive".
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
36. Good looking people are more successful.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
37. Famous people are an important source of information about fashion and "being attractive".
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree
38. Attractive people are happier.
 a. Definitely Disagree b. Mostly Disagree c. Neither Agree Nor Disagree d. Mostly Agree e. Definitely Agree

Appendix E

Eating Disorder Inventory-2 (EDI-2)

- A. Current weight: _____ pounds
 - B. Height: _____ feet _____ inches
 - C. Highest past weight (excluding pregnancy): _____ pounds
 - a. How long ago did you first reach this weight? _____ months
 - b. How long did you weigh this weight? _____ months
 - D. Lowest weight as an adult: _____ pounds
 - a. How long ago did you first reach this weight? _____ months
 - b. How long did you weigh this weight? _____ months
 - E. What weight have you been at for the longest period of time? _____ months
 - a. At what age did you first reach this weight? _____ years old
 - F. If your weight has changed a lot over the years, is there a weight that you keep coming back to when you are not dieting? ____ Yes ____ No
 - a. If yes, what is this weight? _____ pounds
 - b. At what age did you first reach this weight? _____ years old
 - G. What is the most weight you have ever lost? _____ pounds
 - a. Did you lose weight on purpose? ____ Yes ____ No
 - b. What weight did you lose to? _____ pounds
 - c. At what age did you reach this weight? _____ years old
 - H. What do you think your weight would be if you did not consciously try to control your weight? _____ pounds
 - I. How much would you like to weigh? _____ pounds
 - J. Age at which weight problems began (if any): _____ years old
-
- 1. I eat sweets and carbohydrates without feeling nervous.

a. Never	b. Rarely	c. Sometimes	d. Often	e. Usually	f. Always
----------	-----------	--------------	----------	------------	-----------
 - 2. I think that my stomach is too big.

a. Never	b. Rarely	c. Sometimes	d. Often	e. Usually	f. Always
----------	-----------	--------------	----------	------------	-----------
 - 3. I wish that I could return to the security of childhood.

a. Never	b. Rarely	c. Sometimes	d. Often	e. Usually	f. Always
----------	-----------	--------------	----------	------------	-----------
 - 4. I eat when I am upset.

a. Never	b. Rarely	c. Sometimes	d. Often	e. Usually	f. Always
----------	-----------	--------------	----------	------------	-----------
 - 5. I stuff myself with food.

a. Never	b. Rarely	c. Sometimes	d. Often	e. Usually	f. Always
----------	-----------	--------------	----------	------------	-----------
 - 6. I wish that I could be younger.

a. Never	b. Rarely	c. Sometimes	d. Often	e. Usually	f. Always
----------	-----------	--------------	----------	------------	-----------
 - 7. I think about dieting.

a. Never	b. Rarely	c. Sometimes	d. Often	e. Usually	f. Always
----------	-----------	--------------	----------	------------	-----------
 - 8. I get frightened when my feelings are too strong.

a. Never	b. Rarely	c. Sometimes	d. Often	e. Usually	f. Always
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9. I think that my thighs are too large.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
10. I feel ineffective as a person.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
11. I feel extremely guilty after overeating.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
12. I think that my stomach is just the right size.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
13. Only outstanding performance is good enough in my family.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
14. The happiest time in life is when you are a child.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
15. I am open about my feelings.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
16. I am terrified of gaining weight.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
17. I trust others.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
18. I feel alone in the world.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
19. I feel satisfied with the shape of my body.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
20. I feel generally in control of things in my life.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
21. I get confused about what emotion I am feeling.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
22. I would rather be an adult than a child.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
23. I can communicate with others easily.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
24. I wish I were someone else.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
25. I exaggerate or magnify the importance of weight.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
26. I can clearly identify what emotion I am feeling.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
27. I feel inadequate.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
28. I have done on eating binges where I felt that I could not stop.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
29. As a child, I tried very hard to avoid disappointing my parents and teachers.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
30. I have close relationships.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always

31. I like the shape of my buttocks.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
32. I am preoccupied with the desire to be thinner.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
33. I don't know what's going on inside me.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
34. I have trouble expressing my emotions to others.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
35. The demands of adulthood are too great.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
36. I hate being less than best at things.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
37. I feel secure about myself.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
38. I think about bingeing (overeating).
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
39. I feel happy that I am not a child anymore.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
40. I get confused as to whether or not I am hungry.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
41. I have a low opinion of myself.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
42. I feel that I can achieve my standards.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
43. My parents have expected excellence of me.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
44. I worry that my feelings will get out of control.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
45. I think my hips are too big.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
46. I eat moderately in front of others and stuff myself when they're gone.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
47. I feel bloated after eating a normal meal.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
48. I feel that people are happiest when they are children.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
49. If I gain a pound, I worry that I will keep gaining.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
50. I feel that I am a worthwhile person.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
51. When I am upset, I don't know if I am sad, frightened, or angry.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
52. I feel that I must do things perfectly or not do them at all.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always

53. I have the thought of trying to vomit in order to lose weight.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
54. I need to keep people at a certain distance (feel uncomfortable if someone tries to get too close).
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
55. I think that my thighs are just the right size.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
56. I feel empty inside (emotionally).
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
57. I can talk about personal thoughts or feelings.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
58. The best years of your life are when you become an adult.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
59. I think my buttocks are too large.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
60. I have feelings I can't quite identify.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
61. I eat or drink in secrecy.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
62. I think that my hips are just the right size.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
63. I have extremely high goals.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
64. When I am upset, I worry that I will start eating.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
65. People I really like end up disappointing me.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
66. I am ashamed of my human weaknesses.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
67. Other people would say that I am emotionally unstable.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
68. I would like to be in total control of my bodily urges.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
69. I feel relaxed in most group situations.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
70. I say things impulsively that I regret having said.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
71. I go out of my way to experience pleasure.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
72. I have to be careful of my tendency to abuse drugs.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
73. I am outgoing with people.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
74. I feel trapped in relationships.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always

75. Self-denial makes me feel stronger spiritually.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
76. People understand my real problems.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
77. I can't get strange thoughts out of my head.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
78. Eating for pleasure is a sign of moral weakness.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
79. I am prone to outbursts of anger or rage.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
80. I feel that people give me the credit I deserve.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
81. I have to be careful of my tendency to abuse alcohol.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
82. I believe that relaxing is simply a waste of time.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
83. Others would say that I get irritated easily.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
84. I feel like I am losing out everywhere.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
85. I experience marked mood shifts.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
86. I am embarrassed by my bodily urges.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
87. I would rather spend time by myself than with others.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
88. Suffering makes you a better person.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
89. I know that people love me.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
90. I feel like I must hurt myself or others.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always
91. I feel that I really know who I am.
 a. Never b. Rarely c. Sometimes d. Often e. Usually f. Always

Appendix F
Informed Consent Statement for
“Media and Personal Experiences”

You are invited to participate in a research project about the relationship between media exposure and personal experiences. You will be asked to answer a number of questions related to your use of media, experiences with media, in addition to some personal experiences and basic demographic information. This online survey should take about 60 minutes to complete. Participation is voluntary, and no identifiable information about you will be collected. Even the researchers will not know your individual answers to questions. However, due to the nature of internet access, the security of your survey responses cannot be guaranteed. In an attempt to further protect your responses, you are encouraged to complete the survey in private.

While there are no direct benefits to you, we hope that this research will contribute to the body of knowledge regarding media exposure and personal experiences. The data from this survey will be used as part of a graduate student’s thesis and will have the potential to be published and be used for various student presentations.

Though it is not believed that this survey will pose a risk greater than that experienced in everyday life, there is a possibility that some items could cause mild self-discomfort. In the unlikely event of emotional distress, you should contact the ASU Counseling Center at (828) 262-3180.

You will not be paid for your participation in this study. However, you can earn 2 Experiential Learning Credits (ELCs) for your participation. There are other research options and non-research options for obtaining extra credit or ELCs. One non-research option to receive 1 ELC is to read an article and write a 1-2 page paper summarizing the article and your reaction to the article. More information about this option can be found at: psych.appstate.edu/research. You may also wish to consult your professor to see if other non-research options are available.

Your participation in this study is voluntary, and you may refuse to participate without penalty. If you decide to participate, you may withdraw from the study at any time, and you may refuse to answer any question by choosing the “Decline to Answer” option.

If you have any questions about the research, please contact the Principal Investigator, Alison Davis, via email at davisla2@email.appstate.edu or the faculty advisor, Dr. Lisa Curtin at curtinla@appstate.edu. Questions regarding the protection of human subjects may be addressed to the IRB Administrator, Research and Sponsored Programs, Appalachian State University, Boone, NC 28608, (828) 262-2692, irb@appstate.edu.

Submission of the survey will be interpreted as your informed consent to participate and that you affirm that you are at least 18 years of age.

If you wish to participate please click the button below.

Appendix G
IRB Approval Letter

To: Alison Davis

EMAIL

From: Dr. Lisa Curtin, Institutional Review Board Chairperson

Date: 11/18/2014

RE: Notice of IRB Exemption

Study #: 15-0105

Study Title: Media and Personal Experiences

Exemption Category: (2) Anonymous Educational Tests; Surveys, Interviews or Observations This study involves minimal risk and meets the exemption category cited above. In accordance with 45 CFR 46.101(b) and University policy and procedures, the research activities described in the study materials are exempt from further IRB review.

Study Change: Proposed changes to the study require further IRB review when the change involves:

- an external funding source,
- the potential for a conflict of interest,
- a change in location of the research (i.e., country, school system, off site location),
- the contact information for the Principal Investigator,
- the addition of non-Appalachian State University faculty, staff, or students to the research team, or
- the basis for the determination of exemption. Standard Operating Procedure #9 cites examples of changes which affect the basis of the determination of exemption on page 3.

Investigator Responsibilities: All individuals engaged in research with human participants are responsible for compliance with University policies and procedures, and IRB determinations. The Principal Investigator (PI), or Faculty Advisor if the PI is a student, is

ultimately responsible for ensuring the protection of research participants; conducting sound ethical research that complies with federal regulations, University policy and procedures; and maintaining study records. The PI should review the IRB's list of PI responsibilities.

To Close the Study: When research procedures with human participants are completed, please send the Request for Closure of IRB Review form to irb@appstate.edu.

If you have any questions, please contact the Research Protections Office at [\(828\) 262-2692](tel:(828)262-2692) (Robin).

Best wishes with your research.

Websites for Information Cited Above:

Note: If the link does not work, please copy and paste into your browser, or visit <https://researchprotections.appstate.edu/human-subjects>.

1. Standard Operating Procedure

#9: <http://researchprotections.appstate.edu/sites/researchprotections.appstate.edu/files/IRB20SOP920Exempt%20Review%20Determination.pdf>

2. PI

responsibilities: <http://researchprotections.appstate.edu/sites/researchprotections.appstate.edu/files/PI20Responsibilities.pdf>

3. IRB forms: <http://researchprotections.appstate.edu/human-subjects/irb-forms>

CC:

Curtin Lisa

Lisa Grizzard, Psychology

Vita

Leslie Alison Davis was born in Greeneville, Tennessee, to Brian and Deanna Davis. She graduated from Chuckey-Doak High School in 2009 and attended East Tennessee State University from 2009 until 2013. She graduated with a Bachelor of Science in Psychology in spring 2013, with a minor in Sociology. In fall 2013, she began her graduate study at Appalachian State University, working toward a Master of Arts in Clinical Health Psychology. She was awarded this degree in August 2015. She plans to attend East Tennessee State University beginning in fall 2015, where she will pursue a doctorate degree in Clinical Psychology.