



# Media Exposure and the Subsequent Effects on Body Dissatisfaction, Disordered Eating, and Drive for Thinness: A Review of the Current Research

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## Abstract

Over the past four decades, the prevalence of eating disorders in the United States has doubled. Not surprisingly, during the same period, mass media has increasingly progressively thinner representations of the female body. Previous psychological research has found small to moderate positive relationships between media exposure and eating disorder symptomatology. This literature review expands on prior studies by looking at the role social comparison and cultivation theories play in media's impact on body dissatisfaction, drive for thinness, and disordered eating. It also examines specific personal qualities and types of media that may strengthen or weaken this relationship. Limitations to be addressed in future work are also discussed.

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## Introduction

According to the American Psychiatric Association, approximately 0.5% to 3.0% of the population suffers from disordered eating (APA, 1994). Females develop anorexia nervosa (AN) and bulimia nervosa (BN), the two eating disorders mainly associated with a drive for thinness, about ten times more frequently than do males (Eating Disorders Coalition, 2006). Among females, the most recent lifetime prevalence statistics of AN and BN range from 0.5% to 3.7% and 1.1% to 4.2%, respectively. Moreover, since the 1960s, eating disorder incidence rates have doubled (Eating Disorders Coalition, 2006). Interestingly, during the same period of time, mass media has increasingly portrayed progressively thinner representations of the female body. In a renowned content study, Garner and colleagues (1980) reported that the body measurements and weights of *Playboy* centerfolds and Miss America Pageant contestants decreased dramatically between 1959 and 1978. More recently, Wiseman and colleagues (1992) observed that this trend

continued through 1988. Television has also contributed to this obsession with thinness. For example, Fouts and Burggaff (2000) found that thinner female characters in television situation comedies received more compliments from men than did heavier characters.

The current paper reviews recent literature on the possible links between the media and eating disorder symptomatology. Numerous studies have been conducted over the past thirty years to examine the links between media exposure and its subsequent effects on body image, drive for thinness, and eating patterns. Moreover, two previous literature reviews summarize the relationship between the media and body image, eating pathology, and drive for thinness. Thompson and Heinberg (1999) focus on the media's influence on body image disturbance and eating pathology in women by way of thin-internalization. Their study found that women who are exposed to slender images have a tendency to internalize and idealize such body types, thereby igniting feelings of body dissatisfaction.

Similarly, a recent study by Levine and Harrison (2004) evaluates the media as both a means of perpetuating as well as preventing negative body images and disordered eating patterns. This study broadly evaluates how internalization of thinness might derive from media exposure and presents relevant theories. Levine and Harrison (2004) focus on human characteristics, such as gender and race, and attempt to show how these differences can lead to increased or decreased media susceptibility. The authors comprehensively review of the evidence, detailing the results of numerous studies and experiments. Ultimately, Levine and Harrison (2004) suggest that there are small to moderate positive relationships when we consider media exposure and its effects on body image, disordered eating, and thin-idealization.

Building on the work of Thomson and Heinberg (1999) and Levine and Harrison (2004), the present review attempts to broaden the scope of their concern. The content in this review is three-fold. Like Levine and Harrison, it explores how social comparison theory (Festinger, 1954) may serve as a pathway between media consumption and body dissatisfaction, drive for thinness, and disordered eating. However, this paper also looks at media and its effects through the cultivation theory, which is not considered in these two previous studies. It shows that there are personal qualities that may moderate or exacerbate the relationship between media exposure and body dissatisfaction, disordered eating, and drive for thinness. Finally, this review breaks down the umbrella heading of "media" to further examine the specific types of media that aid in inducing body dissatisfaction, disordered eating, and drive for thinness.

### *Criteria for Inclusion*

Media exposure and body image is a widely studied topic. In order to limit my review, it is restricted to only studies conducted after 1990. Further, because the media's portrayal of the body has rapidly changed over the past few decades, using only the most up-to-date articles increases the likelihood that all the participants have been exposed to similar types of body images in media. Additionally, because eating disorders plague females more than males at a ratio of 10:1, I only included studies that used female participants. However, if a study used both female and male participants, it was included. Although I do not seek to devalue the importance of eating disorders among males, the majority of the studies found that were male only discussed steroid use and muscle building (e.g., Harvey & Robinson, 2003; Barta, 2002). Previous research also suggests that women's ideal female body are somewhat thinner than men's ideal female body. Thus, the effects of media consumption on females may be more pronounced than its effects on males. Therefore, I exclude male-only studies, while incorporating female-only studies into the non-sex dominated sections of my paper. Furthermore, although I tried to focus specifically on television and magazine exposure, I quickly learned that this would be impossible,

as the magazine and television articles were mostly studies, while the articles involving commercials and slides involved experimental manipulations. Also, four studies I included talked about exposure to sports media. Three also examined entertainment television and magazines, while one focused specifically on sports media alone. Furthermore, the methodologies of these studies vary greatly, and in as many cases as possible, I try to explain exactly what the authors did in order to provide equitable analysis. Finally, although the majority of articles cited are empirical, two previous literature reviews are also included.

#### *Social Psychology-Driven Explanation: Social Comparison Theory Defined*

According to Leon Festinger's (1954) social comparison theory, individuals have a tendency to rate and evaluate themselves through comparisons with others. Such comparison-based evaluations increase with perceptions of similarity. Social comparison theory differentiates between two types of comparisons: downward and upward. When one downwardly compares, or compares oneself to those perceived as worse off, one exhibits heightened self-esteem and decreased anger (Festinger, 1954). However, when one upwardly compares, or compares oneself to those seen as being superior, increases in depression and anger are felt, as well as a decrease in feelings of self-worth. Because celebrities' images are readily visible to the public, they become social references for many individuals. Though we might not always see celebrities as similar to ourselves, social comparison theory also holds that we seek out individuals with highly valued assets with whom to upwardly compare ourselves.

This theory helps explain the drive for thinness many women with eating disorders express. For the average person, an upward comparison would be a comparison of one's self with a highly thin and attractive media-depicted model (Cattarin, 2000). This helps explain a possible correlation or link between media exposure and its subsequent effects on body image, drive for thinness, and other eating disorder symptoms. If we see individuals on television or in magazines that we perceive as having qualities that are highly discrepant from our own self-image, we are increasingly motivated to close the gap (Botta, 2000). Our upward social comparisons could compel us to eat in a disordered fashion and strive to be thin (Botta, 2000). Hence, social comparison theory appears to be one viable explanation for media's negative effects on body satisfaction.

#### *Media-Driven Explanation: Cultivation Theory Defined*

Cultivation theory was first developed by George Gerbner in the mid-1960s and refers mostly to television exposure. According to this theory, exposure to media "cultivates" beliefs and attitudes that match the media-depicted world, yet the effect of the media does not fully generalize to the real world (Gerbner, 1969). The reality shown on television or in other media creations does not translate into the social reality (McCreary & Sadava, 1999). For example, if a television show depicts a slender and attractive woman consuming junk food and not exercising, incomplete information about the link between diet and fitness are communicated to the viewer. Hence, cultivation theory predicts that people who are exposed to greater degrees of television will have attitudes that are more reflective of the media realities, and less reflective of real-world social realities. Cultivation theory, therefore, also predicts how media exposure might influence attitudes and behaviors concerning body image, drive for thinness, and disordered eating. If individuals are repeatedly exposed to the television "worldview" of the ideal body, one may misinterpret such portrayals as being representative of the "real world" rather than those of the "media world" (Harrison, 2003). Applying cultivation theory to eating disorder etiology, one

hypothesis is that those with increased media exposure may be more susceptible to developing symptoms of eating disorders.

### *The Links between Social Comparison and Cultivation*

How can researchers meld social psychological and media-based theories together to create a comprehensive account of the etiology of eating disorders? Perhaps the more one is exposed to the media, the more one views the media world as being reflective of real world. Therefore, the more we see media images as being synonymous with our everyday lives, the more likely we will be to perceive the individuals showcased in the media as mirror images of ourselves. However, celebrities and other media figures are often portrayed as living more glamorous and fulfilling lives than everyday human beings. Thus, the more we are exposed to such individuals, the more likely we are to upwardly socially compare.

In light of this link, I predict a positive correlation between the level of media exposure and a) higher drives toward thinness, b) greater levels of disordered eating, and c) a stronger internalization of the thin ideal. Although these links were discussed in passing by Levine and Harrison (2004) and Thomson and Heinberg (1999), neither study included all three characteristics of eating disorder symptomatology, nor did they factor the cultivation hypothesis into their analyses.

## **Reviewing the Evidence**

### *The Primary Variables Examined*

Disordered eating symptomatology has been an important variable in studies of media's influence upon adolescents. For example, Harrison and Cantor (1997) examined the concepts of body dissatisfaction and drive for thinness as components of eating disorders, but found disordered eating symptomatology in the aggregate to be the most pronounced effect of media exposure. Although researchers have frequently explored other possible effects of media exposure, such as ineffectiveness or powerlessness (Harrison 1997), self-esteem (Joshi, Herman, & Polivy, 2004), and pressure to be thin (Irving, 1990), disordered eating, body dissatisfaction, and drive for thinness appear most frequently in the literature, and thereby provide the most consistent framework for the analysis below.<sup>1</sup>

### Eating Disorder Symptomatology

According to Harrison and Cantor (1997), disordered eating symptomatology may encompass related variables such as body dissatisfaction, drive for thinness, perfection, and ineffectiveness.<sup>2</sup> Moreover, people exhibiting such pathology are more likely to have symptoms of disordered eating such as skipping meals and limiting calories (more common in AN) and abusing laxatives (more common in BN; Thomsen, Weber, & Brown, 2002). In the reviewed studies, eating disorder symptomatology was most frequently measured using the Eating Attitudes Test (EAT) and the Eating Disorders Inventory (EDI; Bissell & Zhou 2004; Cusumano & Thompson, 1997; Harrison & Cantor, 1997; Harrison, 1997; Tiggerman, 2003). The EAT is used primarily to gauge symptoms of AN. The EDI measures the psychological and behavioral traits commonly found in

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<sup>1</sup> "Pressure to be thin" is different from "drive for thinness" in that the former is a feeling whereas the latter is an action. That is, although one can feel pressure to be thin, drive for thinness is acting upon that feeling. I reference only "drive for thinness" because it is the stronger of these two concepts.

<sup>2</sup> Ineffectiveness is defined as disappointment with one's body shape or type; desire to be thin; desire to be flawless; powerlessness, respectively.

both AN and BN. It consists of eight subscales, including drive for thinness, bulimia, body dissatisfaction, ineffectiveness, perfectionism, interpersonal distrust, interoceptive awareness, and maturity fears. Importantly, characteristics such as perfectionism are often found more among anorexics than bulimics, whereas problems in interpersonal relations are more common among bulimics. Further, the categories of “anorexic” and “bulimic” are often fluid, and patients diagnosed with one often meet criteria for the other at some point in their lives. Nevertheless, many of the studies on eating disorders and media often do not differentiate between eating disorder pathology typical of AN as opposed to BN.

### Body Dissatisfaction

Stice, Schupak-Neuberg, Shaw, and Stein (1994) found that amount of media exposure predicted levels of body dissatisfaction, negative feelings about one’s body image, and disordered eating. Other studies using the EDI-BD subscale (Cusumano & Thompson, 1997; Posovac, Posovac, & Posovac, 1998), Visual Analogue Scales (Hargreaves & Tiggerman, 2003), and the Figure Rating Scale (Tiggerman, 2003) have repeatedly found similar results, implicating a strong relationship, albeit not necessarily causal, between media exposure and body dissatisfaction.<sup>3</sup>

### Drive for Thinness

Drive for thinness, the push to achieve a thin body ideal, is extremely common among females with eating disorders. The thinness ideal has been repeatedly transmitted through popular culture, especially through media. Harrison and Cantor (1997) suggest that these representations of “feminine beauty” will “reinforce the desirability of extreme thinness, thereby fueling drive for thinness to a disordered level” (p. 48). This variable was almost always measured using the EDI (Hargreaves & Tiggerman, 2003; Tiggerman & Pickering, 1996).

### *Possible Predictors*

Although I have presented hypotheses why disordered eating, body dissatisfaction, and drive for thinness might stem from media exposure, the question still remains as why certain individuals develop these symptoms while others do not. This question can be addressed by considering what Levine and Harrison (2004) call “susceptibility” to media effects. Characteristics such as race or age can affect how people orient themselves towards the media and believe the media-supported ideals. Further, certain types of people, such as self-monitors or restrained eaters, may also be more or less vulnerable to the effects of social comparison and cultivation.

### Sex

As previously mentioned, females develop eating disorders at a rate nearly ten times greater than males. It would therefore follow that the majority of research on media exposure and body dissatisfaction, eating pathology, and drive for thinness would focus primarily on females. Nonetheless, there is a growing literature studying these relationships that utilize male, as well as female, subjects. Because I excluded studies concerning only males, this section only references articles with both male and female participants. Still, the majority of these studies only use female bodies as stimuli for both males and female participants. Harrison and Cantor (1997) found that

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<sup>3</sup> As aforementioned, the EDI-BD is part of the Eating Disorders Inventory. Visual Analogue Scales are used to measure characteristics across a continuum, and usually consist of a horizontal line on which the participant can mark the extent to which he or she agrees with the question. Finally, the Figure Rating Scale presents nine figures of women, ranging from extremely thin to extremely obese.

only reading fitness magazines, as opposed to news or men's entertainment magazines, was significantly correlated with men's beliefs that women should obtain a slim figure. Additionally, men who watched television shows depicting thin characters were more likely to endorse the thin-ideal for themselves rather than for women. However, appearance-related commercials led to an increase in both drive for thinness and body dissatisfaction among girls. It is important to reiterate that these commercials only depicted women, so it is unclear as to what the males in this study were responding.

Researchers have found that men and women are affected differently by cultivation theory. McCreary and Sadava (1999) found that although men in their study were significantly more overweight than the women, women were more likely to think that they were overweight. In accordance with this result, no relationship between television viewing and self-perceived health was observed among men, but a negative correlation between these two items was observed among women. These findings support the cultivation hypothesis for women, as they appear to be more likely to see the "media" world as reflective of the "real" world. Harrison (2003) also observed this when she studied women's and men's perceptions of the ideal female body. The ideal female body size preferred by women was thinner than that preferred by men. Moreover, exposure to thin-ideal media was correlated with women's, but not men's, desires for a smaller waist and a larger bust. This finding also supports cultivation theory, as women seem to respond more strongly to the presentation of an ideal body shape than do men.

It appears as though women may be more susceptible to images of the female body in media than are men. As mentioned previously, women seem to desire a smaller body for themselves than men desire for women. Another possibility is that the ideal proposed by the media for the female body is more slender and toned than is the ideal male body proposed by the media. These factors can help explain the larger prevalence rates of eating disorders among women, as well as their greater likelihood to be affected by the media currently broadcast or published, as suggested by the cultivation theory.

## Race

The current research on media exposure and drive for thinness, body dissatisfaction, and disordered eating predominately uses White or mostly White samples. In turn, some researchers have argued that there is a dearth in television shows depicting African Americans and other minorities, and the vast majority of thin-ideal images are of Whites (e.g., Botta, 2000). Hence, when examined in light of the similarity component of social comparison theory, one might predict that White women are more likely to upwardly compare themselves to televised images than do minority women. Bissell and Zhou (2004) support this assertion, reporting that despite having a limited number of minority girls in their study, White women were significantly more likely to have higher levels of disordered eating than minority women. White women also had higher drives for thinness and body dissatisfaction. Botta (2000) argues that, even though Black girls watched larger amounts of television, self-reported viewing predicted increased bulimic symptomatology only in White girls.<sup>4</sup> Additionally, White girls reported more dissatisfaction with their bodies in general. In contrast, a study of racially diverse 9<sup>th</sup> grade girls by Borzekowski, Robinson, and Killen (2000) found minimal relationships between exposure to music videos, television, videotapes, and computer games and concerns with weight and appearance. In fact, these researchers found a weak positive correlation between viewing music videos and weight

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<sup>4</sup> Bulimic symptomatology was defined as stuffing oneself with food, going on eating binges where one could not stop, and thoughts of trying to vomit to lose weight.

concerns in Black girls, but not in White girls. Jane, Hunter, and Lozzi (1999) looked at Cuban American females and found no significant relationship between eating disorder symptoms and exposure to media. However, this might be explained by cultural differences, as body ideals for females vary according to cultural standards. Hence, the overall findings on media exposure and the subsequent effects on drive for thinness, body dissatisfaction, and eating disorder symptomatology appear to support social comparison theory, especially for White girls, as thin White women are depicted more frequently in the media than are thin Black women.

### Age

The majority of studies conducted on media exposure and body dissatisfaction, drive for thinness, and disordered eating utilize either high school or college student samples, including 21 of the 27 studies included in the present review. This is explained by the onset of eating disorders during these ages. However, some researchers have ventured outside the conventional age range usually associated with the onset of eating disorders. In these cases, the authors still expected to see a link between media exposure and eating disorder symptomatology.

Cusunamo and Thompson (1997) presented participants (average age = 24 years) with images of varying body shapes selected from magazines targeted to a female audience. The authors found no relation between exposure to body size ideals and measures of body satisfaction, eating disturbance, self-esteem, and actual degree of obesity. However, when using participants with an average age of 23 years, Cattarin, Thompson, Thomas, and Williams (2002) found that participants exposed to a 12 minute videotape of commercials with thin and attractive females showed a greater degree of social comparison, and felt more appearance dissatisfaction and anger than did participants in a control group. Posovac, Posovac, and Posovac (1998) found that exposure to media images led to an increase in weight concern among women aged 18 to 35 years, but that body satisfaction served to moderate this relationship. McCreary and Sadava (1999) tested the cultivation hypothesis with women (average age = 26) and found that women who watched more television perceived themselves to be less healthy and more overweight than women who watched less television. It appears that the link between symptomatology and fashion magazine reading may be less pronounced than the link between symptomatology and television viewing among individuals older than age cohorts usually studied. Hence, it seems possible that older age is a moderator of the relationship between eating disorder symptoms and media exposure.

Fewer studies have examined the relationship between younger children's media consumption and the subsequent effects on their body images, eating patterns, and thin-idealization. When surveying children in 6<sup>th</sup>, 9<sup>th</sup>, and 12<sup>th</sup> grades, Harrison (2000a) found that the negative effects of thin-ideal media may become enhanced as females transition to high school. In another study, Harrison (2000b) looked at 303 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> grade children and found that television viewing was positively correlated to eating disorder symptomatology, regardless of the child's sex. However, television viewing was not a significant correlate of idealization of a thin body image. Boys who watched large amounts of television were more likely to negatively stereotype a fat girl as "lazy" or "greedy," thereby encouraging body image stereotypes. These findings work in conjunction with one another, as young children not only appear to learn both their early diet and exercise behaviors from television, but also to classify fat as "bad" before they learn to classify thin as "good." One cannot state that boys' negative assessments of fat women caused these women to develop eating disorders, but the correlation shows how pronounced the thin ideal is in society.

## Culture

Sex, race, and age are widely studied as important factors related to the relationship between media and eating disorder symptomatology. However, some researchers have looked for predictors among more specific variables. Although Jane, Hunter, and Lozzi (1999) found no relationship between media exposure and eating pathology, they did find that culture served as a protective variable for Cuban American females. Use of Spanish in the household and consumption of Cuban meals was related to lower scores on the EAT.

### *Personal Moderators*

#### Self-Schemas

A schema refers to an individual's automatic mental ways of processing and organizing information. Harrison (2001) examines individual self-schemas as a possible mediator of media exposure and body dissatisfaction. When girls' ideal bodies were highly discrepant from their perceived actual bodies, they felt especially dissatisfied with their own figures after watching a video of a thin girl being complemented. Conversely, girls whose perceived actual bodies were highly discrepant from the body size their parents thought they should maintain were more likely to feel upset after watching a fat character being socially embarrassed. Hence, thin-rewarded portrayal activates "ideal" discrepancies between an individual's own figure and their ideal; fat-punished portrayal leads to "ought" discrepancies between an individual and their desired figure (what they feel they should look like). In both cases, the greater difference between the individual's schema and their ideal, the greater their body dissatisfaction.

#### Initial Body Dissatisfaction

Posovac, Posovac, and Posovac (1998) exposed female undergraduates to slides of either fashion models or control images and found that only some women were susceptible to this experimental manipulation. Women who entered the study with initially low body dissatisfaction did not report weight concerns after viewing the slides of fashion models, while women who entered the study with high body dissatisfaction did. It would appear, then, that women who are unsatisfied with their bodies are more likely to compare themselves to thin-ideal models.

#### Restrained Eating

Joshi, Herman, and Polivy (2004) classified female participants into restrained and unrestrained eaters by asking them specific questions about their eating behaviors and attitudes. These researchers then presented the participants with "thin-body" or control advertisements. Compared to the unrestrained eaters, women who practiced restrictive eating patterns reported having a more favorable self-image but lower appearance self-esteem. Thus, restraint status might serve as a predictor of the effect of media on women's own perceptions of their bodies. The authors propose that restrained eaters are engaged in self-enhancing behaviors in order to deny the threat of upward social comparison.

### *Type of Media*

Many studies have found that exposure to certain stimuli through the media can lead to body dissatisfaction, disordered eating, and thin-idealization in certain individuals. However, the type of media is often an important factor as well. In the following sections, the effects of commercials, advertisements, slides, television, and magazines are discussed, as well as the overarching categories of thin-depicting and sports media.

### Thin-Depicting

Thinness-depicting and promoting media (TDP) refers specifically to media that showcases and promotes slender people. It encompasses many mediums, including entertainment television, fashion magazines, and advertisements. In studying the effects of media exposure on disordered eating, body dissatisfaction, and drive for thinness, most researchers were careful to distinguish between TDP media and media in general.

### Commercials, Advertisements, and Slides

Researchers often use experimental manipulations involving commercials, advertisements, and slides to demonstrate differences between TDP and media in general. Hargreaves and Tiggerman (2003) exposed adolescent girls to appearance (thin-ideal) related television commercials and non-appearance related television commercials and found that girls who viewed the appearance ads were more likely to show body dissatisfaction and drive for thinness. Irving (1990) found that participants exposed to slides of female fashion models reported lower levels of self-esteem and weight satisfaction than did participants in a control condition. Posovac, Posovac, and Posovac (1998) also found that exposure to slides depicting fashion models, rather than control slides, led to an increase in weight concern among female subjects. Of note, one possible explanation for the similar findings among these three studies is that in each, the participants were explicitly told to focus on the images at hand. As a result, there was little likelihood of them “tuning out” the images—something that happens frequently when many of us view television commercials and ads. Thus, being primed with specific images is not reflective of how people interact with the media on an everyday basis. Nevertheless, these three studies highlight that it is not just media in general that leads to eating disorder pathology, but rather, media that specifically promotes a thin ideal, and suggests that the correlation between the two belies a causal link.

### Television vs. Magazines

Television viewing and magazine reading are variables more conducive towards the survey method, rather than the experimental method. As a result, researchers studying these variables often just looked at “thin-depicting” programming and magazines. Yet, Tiggerman (2003) notes important differences between television and magazines. Indeed, the author found that reading fashion magazines was correlated with internalization of the thin-ideal, but that this correlation did not extend to watching television. In fact, women who watched television were actually less aware of sociocultural body ideals. This discrepancy comes is consistent with cultivation theory, as those who view large amounts of television are more apt to be aware of media ideals rather than real world ideals. Harrison and Cantor (1997) found thin-ideal television viewing led to body dissatisfaction, but that fitness magazine consumption led to eating disorder symptomatology and drive for thinness. A study by Vaughan and Fouts (2003) examined girls between 9 and 14 years old across a 16-month period. The researchers found that girls who significantly increased their fashion magazine reading had an increase in eating disorder symptoms and vice versa. However, this relationship was the opposite for television, as girls who decreased their television viewing showed an increase in symptoms of eating disorders, perhaps due to spending more time with same-sex peers. Bissell and Zhou (2004) found a positive correlation between thin-ideal magazine reading and drive for thinness, while the correlation between thin-ideal television viewing and drive for thinness only approached significance. Evidently, exposure to fashion magazines seems to lead to greater eating disorder symptomatology than does exposure to thin-depicting television.

Not all researchers studying the effects television and magazines examine only thin-depicting material. For example, Harrison (1997) looked at interpersonal attraction (IPA), defined as the perceived similarity, affect, and desire to be like a character. People with IPA to thin models and television characters had higher levels of disordered eating, drive for thinness, levels of perfection, and feelings of ineffectiveness than did people with IPA to middle and overweight models and television characters. Harrison (2000) again looked at overall television viewing and found that although this factor positively predicted diagnoses of BN, exposure to thin-depicting programming positively predicted diagnoses of AN, drive for thinness, and body dissatisfaction. This finding makes sense when one considers that anorexics tend to strive for thinner body ideals than do bulimics.

Several researchers offer possible explanations for the varying effects of magazines and television. People might be more emotionally invested in the content of their magazines (Vaughan, 2003). Furthermore, women might turn to these two mediums for different reasons. For example, one might read a magazine specifically for diet and fitness advice, but watch a television show as a means of distraction and entertainment (Tiggerman, 2003). Hence, when reading magazines, women are more likely to socially compare themselves to the models than they would be while watching television.

### Sports Media

Sports media is defined as television or magazines that show athletic events or promote a sports-oriented lifestyle. Some studies have examined whether or not exposure to sports media impacts women's eating disorder symptomatology differently than does exposure to other media. Tiggerman and Pickering (1996) found that women's body dissatisfaction was negatively correlated with watching sports. The results of Harrison (2000) contradict this, finding that sports magazine exposure led to an increase in body dissatisfaction for 12<sup>th</sup> grade females. Nonetheless, a later study (Harrison, 2001) found that sports exposure negatively predicted ChEAT scores, as well as body dissatisfaction. Harrison and Fredrickson (2003) found that reading sports magazines increased body satisfaction for girls in grades 10 through 12. However, the authors justified this finding, noting that without a clear content analysis of the magazines the girls are reading, there is no way of knowing whether the participants are being exposed to men's sports, lean female sports, or non-lean female sports. Finally, Bissell and Zhou (2004) found that exposure to sports media might lead to a more positive body image, but that this relationship may be diminished by the type of sport to which women are exposed. Sports magazines are negatively related to drive for thinness, bulimia, and body dissatisfaction (although these relationships only approached significance), but that exposure to thin-ideal sports media, such as televised gymnastics, ice skating, or dance, was positively correlated to anorexia, bulimia, and drive for thinness, as quantified by the EAT. At first, the findings on sports media exposure and behavioral and attitudinal symptoms of eating disorders appear to be mixed. However, when interpreted within the context of television and magazine differences, they become clear. Perhaps magazine articles about sports include facts such as the athlete's height, weight, and diet, while sports shown on television focus more on the athlete's performance (Harrison, 2000). Reading about sports figures would therefore activate social comparisons, while viewing sports might not. Perhaps like with other types of entertainment media, there is more active engagement with magazines than with television. Finally, it is important to keep in mind that only Harrison and Fredrickson (2003) asked their participants to self-report their own participation in athletics and Bissell and Zhou (2004) suggest that women who play sports are more likely to engage in comparing behavior when consuming sports media than are women who do not.

### **Limitations**

Although the studies conducted on media's relationship to body image, eating pathology, and drive for thinness are telling, correlation is not sufficient to infer causation. It is still unknown, therefore, whether media exposure causes eating disorder symptomology or if individuals with such problems seek out ideal-body media (Levine & Harrison, 2004). Furthermore, the studies that utilize experimental manipulation techniques deal primarily with commercials or advertisements. Also, short-term studies cannot ensure that the observed effects will be present over a long period of time. Television exposure was often assessed by simply handing the participant a programming guide and asking her to circle the shows she had watched that week (McCreary & Sadava, 1999) or by asking participants to report on how often they viewed pre-selected shows (Bissell & Zhou, 2004). One week of viewing is not necessarily predictive of a lifetime of media effect that is needed to show the effects of the cultivation theory. Moreover, reliance upon self-report increases the probability of participant memory errors, false report, or reporting errors. Notably, individuals with diagnosable eating disorders who want to hide pathological behaviors are specifically likely to misreport their own level of engagement with thin-depicting media. Another limitation with the media research is that older and younger participants, as well as males and minorities, are vastly underrepresented. Male-only studies were excluded from the present study since only a small number of all-male studies have been published, thereby limiting the analyses and generalizability for the few published studies. Finally, future research should standardize a procedure for assessing media exposure and the subsequent effects on body dissatisfaction, disordered eating, and drive for thinness. As Levine and Harrison (2004) point out in their literature review, there is a wide variety in the scales and methods utilized by different studies to measure the effects of customary media exposure. The lack of set standards for media measures makes it difficult to contextualize and interpret the results of the various studies.

### **Implications for Future Work**

Based on the research, it would seem imperative that a long-term study following children from grade through at least high school be conducted. Harrison (2000) found no differences in symptomatology between boys and girls who watched comparable amounts of television. However, these similarities seem to disappear as children age and correlations between media exposure and body image dissatisfaction and eating pathology become stronger for females. Hence, it would be wise to study the sociocultural factors that influence girls' vulnerability to media images as they age, especially under the theoretical guide of social comparison.

Furthermore, only four of the studies I found utilized a substantial percentage of minority women and only one dealt directly with differences between Black and White women. In the future, researchers should examine racial and cultural factors that may moderate or intensify the effects of the media.

There is also a substantial gender gap in the literature on media's effects on eating disorder symptomatology. The studies utilizing both male and female participants reviewed here suggest that the cultivation hypothesis works in different ways according to sex. The exact reasons for this difference need to be further explored.

The research on non-thin depicting sports media shows that exposure to this could serve to minimize the relationship between media exposure and body image dissatisfaction, disordered eating, and thin-idealization. Further studies should examine this more conclusively, and include populations of girls who are regular participants in non-thin depicting sports such as basketball or

soccer to see if athletic participation moderates the link between exposure to thin depicting sports media and eating disorder symptomatology.

Further studies should also attempt to explain the cognitive processes of women who do not experience weight concerns after viewing thin-depicting media. Perhaps a psychoeducational approach to media literacy may reduce the negative response of females to media images. An educational program could include learning how to differentiate between real world expectations and media representations, as well as teaching women to view their own bodies as sources of strength and power as opposed to decorative objects. This would perhaps increase initial body satisfaction, thereby decreasing social comparison to media figures.

Researchers should examine socioeconomic status, culture, and family structure as possible moderating variables to the influence of media upon eating pathology behaviors and attitudes. Only a few studies examined socioeconomic status and culture. Family structure was never considered a variable in these studies. All three of these would make for interesting and insightful research topics.

Finally, we must remember that, at present, there is no way to definitively state that exposure to certain types of media is a cause of eating disorder symptomatology for specific individuals. Although many of the studies reviewed show correlations between these two variables, in order to prove cause and effect, the data would need to be collected prospectively. That is, individuals need to be randomly assigned to media exposure and no media exposure conditions and then followed for a certain period. Methodologically, of course, this would be exceedingly difficult given the high level of media saturation in the United States as well as the near impossibility of enticing parents and their children to comply with such stringent media restriction regulations. Thus, although research suggests moderate correlations between exposure to certain types of media and disordered eating, body dissatisfaction, and drive for thinness, causation is difficult to prove.

## **Conclusion**

The present literature review presents a number of important findings. Overall, media exposure does seem to have an impact on body dissatisfaction, disordered eating, and drive for thinness, increasing all three variables. This effect becomes more pronounced when we look at thin-ideal depicting media. The relationship also appears to be stronger for magazines than for television, yet weakest for both sports magazines and television, unless they are thin-depicting. Certain personal characteristics can either strengthen or diminish the relationship between media exposure and body dissatisfaction, disordered eating, and drive for thinness. For example, those with high levels of initial body dissatisfaction or restrained eating tend to experience more pronounced effects of media exposure.

Social comparison theory can explain in part that certain types of media have a negative effect on body dissatisfaction, disordered eating, and drive for thinness. As stated previously, reading magazines is more engaging than is watching television. Therefore, girls are more likely to compare themselves with the women they see in print media. This also shows why only thin-depicting sports media has a negative impact on eating disorder symptomatology, as sports such as basketball and golf tend to stress the physical prowess of the athlete, whereas sports such as gymnastics and ice-skating focus on small bodies and elaborate costumes. Cultivation theory affects males and females differently and in studies that compared the two genders females are more susceptible to these media effects than are males. These differences become more potent as subjects enter adolescence and young adulthood. White girls are more vulnerable to the media's body image standards than are Black girls, although this gap appears to be closing (see Botta,

2000). However, one must remember that popular media is predominately White, therefore limiting the effects of social comparison for Black girls and other minorities. Still, using cultivation and social comparison theories as possible lenses through which to study media's impact on disordered eating, drive for thinness, and body dissatisfaction can add to our understanding of why women are so susceptible to media influences in the first place.

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