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Understanding Sexual Objectification: A Comprehensive Approach toward Media Exposure and Girls' Internalization of Beauty Ideals, Self-Objectification, and Body Surveillance

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Abstract

The relationship between exposure to sexually objectifying music television, primetime television programs, fashion magazines, and social networking sites and the internalization of beauty ideals, self-objectification, and body surveillance was examined among adolescent girls *(N* = 558). A structural equation model showed direct relationships between sexually objectifying media and the internalization of beauty ideals, and indirect relationships between sexually objectifying media and self-objectification, and body surveillance through the internalization of beauty ideals. The direct relationships between sexually objectifying media and the internalization of beauty ideals, self-objectification, and body surveillance differed across the types of sexually objectifying media. The discussion focuses on the implications of these findings to explain self-objectification among girls.

Keywords: adolescence, media, the internalization of beauty ideals, self-objectification, body surveillance

Understanding Sexual Objectification: A Comprehensive Approach toward Media Exposure and Girls' Internalization of Beauty Ideals, Self-Objectification, and Body Surveillance

Popular mass media in Western societies have been criticized for sexually objectifying the female body. Both traditional and new media have been found to regularly focus on women's appearances in a sexualized way while ignoring women's personalities (Parker, 2002; Ward, 1995). Exposure to sexually objectifying media is expected to trigger a chain of psychological events among media users that may lead to various mental and physical health risks (Aubrey, 2006a). Self-objectification has been shown to be one of the most fundamental events in this chain (Fredrickson & Roberts, 1997; Moradi & Huang, 2008). Self-objectification refers to the internalization of an observer's perspective on one's own body (Fredrickson & Roberts, 1997). More specifically, women and girls are expected to learn what the prevailing beauty ideals are from the media, and to internalize these standards. Subsequently, these beauty standards guide the formation of an objectified view of one's own body, resulting in an increased monitoring of one's appearance (Fredrickson & Roberts, 1997; Moradi & Huang, 2008).

The present study investigates how exposure to sexually objectifying music television, primetime television programs, fashion magazines, and social networking sites is related to the internalization of beauty ideals, self-objectification, and body surveillance among adolescent girls. In this study, we sought to build on and extend research on the effects of sexually objectifying media on self-objectification in three ways. A first contribution of the study is that it introduces in research on media effects the recommendation of objectification scholars (Calogero, 2010; Moradi, 2010) to address self-objectification as a multidimensional process. A second contribution refers to the study's examination whether the hypothesized impact of sexually objectifying media on internalization, self-objectification, and body surveillance differs across different types of media content. A third contribution lies in the

study's focus on girls between the ages of 12 and 18, because Tiggemann (2010) and others (e.g., APA, 2007) have warned that this group needs more attention in objectification research. Adolescent girls have been shown to experience various intrapersonal and interpersonal developmental changes, such as the transformation from a girl's body into a grown-up female body. These developments are likely to make a young girl more aware of her body and appearance, which may make her vulnerable to self-objectification (Fredrickson & Roberts, 1997; Lindberg, Grabe, & Hyde, 2007; Tiggemann, 2010).

The Internalization of Beauty Ideals, Self-Objectification, and Body Surveillance

In their influential article on objectification theory, Fredrickson and Roberts (1997) suggested that exposure to sexually objectifying media needs to be understood as a sexual objectification experience that may trigger self-objectification. This suggestion has been supported by studies on the relationship between media use and concepts related to the notion of self-objectification. For instance, watching television (Tiggemann, 2005) and reading magazines (Morry & Statska, 2001) have been associated with the internalization of beauty ideals. Research among female college students has shown that consuming sexually objectifying television (Aubrey, 2006) or magazines (Morry & Statska, 2001) increases self-objectification. Grabe and Hyde's (2009) study—one of the few on early adolescent girls—reported that watching music television significantly predicted body surveillance.

Most studies, and especially the studies examining body surveillance, have thus successfully supported Fredrickson and Roberts' (1997) theoretical assumption on media's harmful impact. However, to understand self-objectification more comprehensively, a review of recent advances in objectification research (Moradi, 2010, p.146) warrants "a conceptual shift." Moradi (2010) concluded that self-objectification should not be seen as a singular process manifested exclusively as self-objectification, body surveillance or internalization but as a multidimensional process that encompasses these three components.

This process commences with "the internalization of beauty ideals," which refers to the extent to which an individual considers the societal norms of size and appearance to be appropriate standards for his or her own size and appearance (Thompson & Stice, 2001). These standards, in turn, determine which observable body attributes, for instance body size, are important for "being beautiful" and how these body attributes need to be evaluated (e.g., the preference for a slender body). The importance attached to body attributes essential for beauty is generally conceptualized as "self-objectification." The concept of self-objectification, as outlined by Noll and Fredrickson (1998), refers to how individuals value their observable appearance-based body attributes, such as sex appeal and measurements, in relationship to their competence-based body attributes, such as health and physical fitness. Higher levels of self-objectification occur when an individual's evaluation of the relative importance of observable appearance-based attributes is higher than his/her evaluation of the relative importance of unobservable competence-based attributes.

Increased self-objectification is expected to trigger related behavioral actions. More specifically, body surveillance has been called the active or behavioral manifestation of self-objectification (Calogero, 2010, p.31) and is described as the extent to which an individual "behaviorally invests in the body as an object." Individuals who show higher levels of body surveillance invest more time in monitoring their appearance to ensure compliance with societal beauty ideals (McKinley & Hyde, 1996). For instance, girls with high body surveillance more often compare their appearance with that of other girls (Lindberg, Hyde, & McKinley, 2006). In sum, the multidimensional process expects that internalization stimulates the evaluation of oneself with an observer's perspective, and that both internalization and self-objectification tend to trigger body surveillance.

The theoretical argumentation for combining internalization, self-objectification, and body surveillance into one model is further supported by various pieces of empirical evidence.

First, self-objectification, as conceptualized by Noll and Fredrickson (1998), refers to a cognitive evaluation of importance attached to the appearance of the body as opposed to the competence of the body. Research has noted, however, that effects on mental health (e.g., eating disorders) arise, for the most part, from the behavioral manifestation of self-objectification, which is body surveillance. Moradi and Huang's (2008) review revealed that self-objectification manifesting as body surveillance relates more consistently to criterion variables than do the more cognitive dimensions of self-objectification. This finding suggests that self-objectification as conceptualized by Noll and Fredrickson (1998) can occur in a passive cognitive way without translating into behavioral actions, such as body surveillance, and without increasing health risks, such as the development of eating disorders. In other words, research aimed at studying the behavioral consequences of self-objectification is advised to include a measure of body surveillance.

However, considering only body surveillance would neglect several issues important for understanding how self-objectification works. Moradi and Huang (2008, p.391) remarked in their review, "Body surveillance does not capture valuation of factors, such as skin tone, hair texture, facial features, and sexual appeal." The Self-Objectification Questionnaire of Noll and Fredrickson (1998) includes several of these features. Moreover, the theoretical concept of self-objectification also refers to a primary view of oneself as an object of appearance, while neglecting other competences of the body (Fredrickson & Roberts, 1997). A combination of both body surveillance and the cognitive component of self-objectification (Noll & Fredrickson,1998) can therefore be expected to address the process of self-objectification more comprehensively.

Adding internalization of beauty ideals is especially important for media scholars, who expect that sexual objectification in media content occurs through the (sexual) emphasis on female beauty ideals (e.g., Aubrey, 2006). The original definitions of self-objectification and

body surveillance do not mention beauty standards. Self-objectification primarily refers to a view of oneself as an object, and body surveillance primarily refers to the monitoring of one's body (McKinley & Hyde, 1996; Noll & Fredrickson, 1998). However, in media research, which takes the sexualized focus on the ideal female body as a starting point (e.g., Aubrey, 2006a), self-objectification is described as the perception of oneself as a body composed of body attributes necessary for attaining the *ideal* body (Noll & Fredrickson, 1998), whereas body surveillance is interpreted as monitoring one's appearance by checking the parts considered important for the *ideal* female body (McKinley & Hyde, 1996). These conceptualizations implicitly or explicitly assume that an internalization of beauty standards has occurred and thus may precede self-objectification and body surveillance (McKinley & Hyde, 1996; Noll & Fredrickson, 1998). In line with this suggestion, Morry and Statska (2001) reported that the relationship between reading beauty magazines and self-objectification was mediated by the internalization of beauty ideals.

Based on this research, a broader perspective on self-objectification may be useful to comprehensively explain sexual objectification experiences induced by media. The first aim of this study is, therefore, to explore the relationship between sexually objectifying media and the multidimensional process of internalization, self-objectification, and body surveillance. Moradi's review of objectification literature (2010) and the empirical evidence described above lead us to expect, first, that exposure to sexually objectifying media is directly related to the internalization of beauty standards, self-objectification, and body surveillance. Second, as media scholars focus on sexual objectification experiences triggered by exposure to beauty ideals in the media (Aubrey, 2006a), the internalization of beauty ideals is expected to partially mediate the relationships between exposure to sexually objectifying media and self-objectification, and between exposure and body surveillance (Calogero, 2010; Moradi, 2010). Third, self-objectification (Noll & Fredrickson, 1998) is expected to mediate the relationship

between exposure to sexually objectifying media and the behavioral dimension of the process, body surveillance (Calogero, 2010; Moradi, 2010). It is likely that girls who frequently monitor their appearance use an observer's perspective when evaluating their appearance and attach greater importance to appearance-based attributes in this evaluation (Fredrickson & Roberts, 1997). Figure 1 presents our hypotheses.

[Figure 1 about here]

The presented model primarily leans on objectification theory, although scholars (e.g., Grabe & Hyde, 2009; Morry & Statska, 2001) have also referred to social cognitive theory (Bandura, 2001) and theoretical mechanisms, such as the internalization of appearance standards (Thompson & Stice, 2001), to explain the relationship between media use and the adoption of an observer's perspective toward one's own body. The premises of social cognitive theory (Bandura, 2001) imply that the rewarding of sexual objectification in media content teaches girls about how they may benefit from applying a sexually objectifying perspective toward their own body. Internalization adds to this that media's narrowly defined beauty ideals socialize girls to perceive appearance and beauty within closely defined evaluation criteria (Thompson & Stice, 2001).

These theoretical mechanisms thus suggest that sexually objectifying media content informs media users on which appearance related attitudes, perceptions, and behaviors are desirable. However, Aubrey (2006b) has indicated that other theoretical frameworks, such as theory on cognitive dissonance (Festinger, 1957) and the premises of selective exposure (Zillmann & Bryant, 1985), may make that other models are also plausible. Theory on cognitive dissonance argues that individuals are motivated to expose themselves to information in line with their own cognitions and attitudes to avoid the unease of cognitive dissonance (Festinger, 1957). In addition, Zillman and Bryant (1985) have argued that individuals may selectively seek information sources consistent with their own beliefs and

values. Applying the premises of cognitive dissonance theory and selective exposure (Festinger, 1957; Zillman & Bryant, 1985) to the relationship under scrutiny would imply that media exposure is predicted by the components of self-objectification, instead of vice versa, More specifically, girls showing higher levels of endorsement of the multidimensional process of self-objectification are expected to select more frequently sexually objectifying media, thereby avoiding the unease of cognitive dissonance and being consistent with their own beliefs and values. To assure that the model with the most acceptable fit is presented, this alternative model will also be tested.

Sexually Objectifying Media Content

Sexual objectification in media is characterized by a striking emphasis on female appearance. The media's ideal women are styled according to the latest fashion trends, and their bodies have all the right curves (Kim et al., 2007). They are frequently shown in the context of male gazing, denoting an evaluation of their appearance in a sexualized way (Fredrickson & Roberts, 1997). Sexually objectifying media prioritize appearance over personality and consider appearance an instrument that can be used to attain important life goals, such as successful romantic relationships (Fredrickson & Roberts, 1997; Ward, 1995).

However, each medium has been shown to contribute in its own way to the sexual objectification of female bodies. For instance, primetime television has been demonstrated to emphasize appearance and attractiveness in relationship-oriented storylines (Ward, 1995). Primetime television portrays women who use their bodies to attract men. This message is promoted in dialogue as well as in visual scenes showing the body-focused strategies a girl can use to attract a boy (Kim et al., 2007). Music videos have primarily been found to place strong visual emphasis on beauty ideals. They almost exclusively show women who correspond to beauty ideals and who take on sexually suggestive poses, inviting males to gaze at their bodies (Vervloessem, Vandenbosch, & Eggermont, 2011). This visual emphasis

promotes the message that the body is a girl's sole "instrument" to seduce a boy (APA, 2007; Fredrickson & Roberts, 1997).

Fashion magazines objectify females in a different way than television does. Magazines "teach" readers how to modify their appearance according to the current ideals (Sypeck, Gray, & Ahrens, 2004). In addition, they present beauty combined with fashion as one of the most fundamental aspects of a woman's life. For instance, working on one's appearance is proposed as a possible solution to increase family happiness (Parker, 2002).

Another mode of sexual objectification can be found on social networking sites, which have not previously been related to self-objectification. While social networking sites are primarily used to maintain or strengthen social relationships, they are also used to attract potential romantic partners (Tufekci, 2008). The profile photo has a central place in online profiles and puts significant emphasis on one's appearance. Research among college students has found that young women delete or "untag" photos of themselves when these pictures are not in accordance with societal ideals of beauty (Vitak & McLaughlin, 2011). Based on such research, it can be hypothesized that awareness of the exposure of their photos to the gaze of (male) peers may encourage girls to attach greater importance to their appearance and make them more conscious of their looks.

Taken together, these studies indicate that sexual objectification seems to differ in different media. Thus far, studies on effects of sexually objectifying media have, however, mainly addressed exposure to sexually objectifying media by examining the consumption of a single type of content (e.g., Grabe & Hyde, 2009) or the total amount of exposure to sexually objectifying media (e.g., Aubrey, 2006a). Yet, preliminary evidence suggests that different media's relationships with internalization, self-objectification, or body surveillance may vary. For instance, Aubrey (2006a) reported that exposure to sexually objectifying television affected body surveillance, whereas reading sexually objectifying magazines did not. Morry

and Statska (2001) found significant relationships between self-objectification and reading beauty magazines, but not fitness magazines. Therefore, the second objective of this study is to explore and describe whether and how the relationships with sexually objectifying media content differ across different media.

Method

Sample and Participant Selection

Survey data were gathered through a two-step sampling method. First, schools representing different educational levels were selected from different parts of Belgium. Second, the 13 participating schools were visited. All pupils who were present at the time of the researchers' visit were asked to complete a survey using pencil and paper. The participants were assured that the questionnaire would be processed confidentially and anonymously. Of the 1613 targeted participants, 1513 filled in the survey (response rate: 93.8%). Approval for the survey was received from the institutional review board of the host university. As is customary in Belgium, informed consent was obtained from the school head.

This study only examined the data gathered from girls (N = 558). The mean age was 15.6 years (SD = 1.49) and the age distribution was: 13 years (16.7%), 14 years (5.6%), 15 years (16.7%), 16 years (28.3%), 17 years (28.1%), and 18 years (4.6%).

Assessments and Measures

Exposure to sexually objectifying media. Participants rated how often they consumed media considered sexually objectifying (e.g., Aubrey, 2006a). Using a 5-point scale (*(almost) never* (= 1) through *(almost) every week* (= 5)) they indicated how often they watched each of 48 television programs broadcast during the three weeks prior to data collection and how often they read fashion magazines, such as *Elle*. A 7-point scale (*(almost) never* (= 1) through *(almost) every day* (= 7)) was used to ask how often they watched the three music video channels TMF, JIMtv, and MTV. Finally, respondents indicated on an 8-

point scale (*(almost) never* (= 1) through *all day long* (=8)) how often they visited social networking sites, such as Facebook.

In order to attribute more weight to the media contents seen as more sexually objectifying, a procedure similar to the one reported by Aubrey (2006a) and Zurbriggen, Ramsey, and Jaworski (2011) was applied. First, college students (9 males and 20 females) were trained to address in different media the level of sexual objectification, described as a visual as well as a thematic focus on appearance and the body in a sexualized way (Aubrey, 2006a; Fredrickson & Roberts, 1997). After the training, they were asked to answer three questions on a 5-point scale about each medium included in the adolescent survey (Zurbriggen et al., 2011). The questions referred to the frequency and intensity of sexual objectification, and the college student's familiarity with the media content (For a further description see Zurbriggen et al., 2011).

Based on the frequency, intensity, and familiarity ratings a four-step-procedure was followed to calculate a sexual objectification score for each media content. First, for each media content the frequency, intensity, and familiarity scores were multiplied. Second, for each media content the total sum of familiarity ratings of all college students was calculated. Third, weighted sexual objectification scores were calculated by dividing the product of frequency * intensity * familiarity (step 1) by the total sum of familiarity ratings of that particular content (step 2). Fourth, the sum of the weighted sexual objectification scores was calculated for each media content. The result of this procedure, i.e., a sexual objectification score per content, was used to weigh the adolescent girls' frequency ratings of their media consumption. Those calculations indicated that several television programs were rarely being viewed or contained no sexually objectifying content. In order to enhance interpretation of the results, we selected the five most sexually objectifying programs as their scores were considerably higher than the scores of the other 43 programs (i.e., "Beauty and The geek",

"Crime Night Las Vegas", "The Big Bang Theory", and the local programs "Wag's" and "Teenage Mothers"). Table 1 presents the means and standard deviations for the consumption of music television, primetime television programs, fashion magazines, and social networking sites with and without weight correction.

[Table 1 about here]

Self-objectification. Self-objectification was measured with an adapted version of Noll and Fredrickson's original Self-Objectification Questionnaire (1998)[1]. Respondents were asked to evaluate the importance of twelve body attributes on a 10-point scale (*not at all important* (= 1) – *very important* (= 10)). To estimate respondents' levels of self-objectification, we calculated their mean scores on appearance-based body attributes (i.e., physical attractiveness, coloring, weight, sex appeal, and measurements) and competence-based body attributes (i.e., physical coordination, stamina, health, physical fitness, physical energy level, muscular strength, and muscle tone). The difference between the mean scores addressed the estimated level of self-objectification (range -9 to 9). The higher the scores on this measure, the higher the level of self-objectification.

Body surveillance. The questionnaire included the body surveillance subscale from the Objectified Body Consciousness Scale for Adolescents (Lindberg et al., 2006), for which prior research has demonstrated its validity and reliability (e.g., Grabe & Hyde, 2009; Lindberg et al., 2006). On a 5-point scale (*(almost) never* (=1) through *(almost) always* (=5)), respondents evaluated four statements ($\alpha = .77$): "I often compare how I look with how other people look", "During the day, I think about how I look many times", "I often worry about whether the clothes I am wearing make me look good", "I often worry about how I look to other people."

The internalization of beauty ideals. In the Internalization subscale of the Sociocultural Attitudes toward Appearance scale (Thompson, Van den Berg, Roehrig,

Guarda, & Heinberg, 2003) respondents used a 5-point scale, ranging from *I totally disagree* (= 1) to *I totally agree* (= 5), to evaluate nine items, such as "I wish I looked like the models in music videos" and "I try to look like the people on TV." The Internalization subscale has a demonstrated validity and test–retest reliability among female college students (Thompson et al., 2003), but research among adolescents has suggested that the scale needs to be adapted to be reliable for younger respondents (Knauss, Paxton, & Alasker, 2008). Reliability tests indicated that two items ("I compare my body to the bodies of TV and movie stars" and "I compare my appearance to the appearance of TV and movie stars") reduced alpha. Subsequently, these items were dropped, resulting in a reliable seven-item scale ($\alpha = .92$).

Analysis

The proposed model was tested with structural equation modeling (AMOS), using the maximum likelihood method. The chi-squared-to-degrees-of-freedom ratio (χ^2/df), the comparative fit index (CFI), the root mean square error of approximation (RMSEA), and AGFI (AGFI) were further used to address the fit of the models (Byrne, 2010). To address whether relationships differed significantly across media contents, three constrained models were tested and their fit indices were compared with the fit of the unconstrained model.

Further analyses focused on the model with the best fit. Following Aish and Jöreskog (1990), insignificant pathways were removed. Fit indices for the model prior to removing insignificant paths (fully saturated model) and for the model after removing insignificant paths (alternative trimmed model) will be reported and compared. We calculated indirect effects by multiplying the indirect standardized path coefficients (Cohen & Cohen, 1983). To test whether the indirect effects were different from zero, Sobel's formula was applied.

Finally, the hypothesized model was compared to one alternative model by using Akaike's Information Criterion (= AIK or AIC). AIK is used to compare alternative linkages between the same concepts denoting superior linkages with a lower value (Byrne, 2010).

Results

Descriptive Statistics and Preliminary Analyses

Adolescent girls reported visiting social networking sites several times a week (*M* = 5.38, *SD* = 1.81) and indicated watching music television (*M* = 4.43, *SD* = 1.82) several times a month. They also reported sometimes watching sexually objectifying television shows (*M* = 2.26, *SD* =.90) and occasionally reading fashion magazines (*M* = 2.45, *SD* = 1.22). The mean level of self-objectification (*M* = .11, *SD* = 1.48) indicated that the girls valued appearance-based attributes higher than competence-based attributes. In addition, the mean levels of internalization (*M* = 2.74, *SD* = .87) and body surveillance (*M* = 3.45, *SD* = .78) were comparable to the findings in other research among adolescent girls (Grabe & Hyde, 2009; Knauss et al., 2008). Zero-order correlations further showed significant relationships between consuming sexually objectifying media (except for television), internalization, self-objectification, and body surveillance (See Table 2).

[Table 2 about here]

Testing Hypothesized Model

The model visualized in Figure 1 was used to test the hypothesized relationships. The final model is presented in Figure 2. For clarity, the measurement part is not shown. The model showed an adequate fit of the data and yielded a chi-square value of 425.99 with 191 degrees of freedom, $p < .001$, CFI = .95, RMSEA = .05, AGFI = .92, $\chi^2/df = 2.23$.

Model comparison tests showed that different types of media content are similarly related to the internalization of beauty ideals but differently to self-objectification and body surveillance. More specifically, results showed that the unconstrained, hypothesized model had a more acceptable fit than the models constraining relationships of media consumption with self-objectification, $\chi^2(194) = 438.99$, $p < .001$, CFI = .95, RMSEA = .05, AGFI = .92, $\chi^2/df = 2.26$, and body surveillance, $\chi^2(194) = 441.75$, $p < .001$, CFI = .95, RMSEA = .05,

AGFI = .92, χ^2/df = 2.28, to be equal across media contents, $p < .01$. For the internalization of beauty ideals, $\chi^2(194) = 428.19$, $p < .001$, CFI = .95, RMSEA = .05, AGFI = .92, $\chi^2/df = 2.01$, the analysis indicated that relationships were similar, $p = .53$.

Next, the unconstrained, hypothesized model was analyzed. Following Aish and Jöreskog (1990), insignificant arrows were removed from the unconstrained model, χ^2 (197) = 436.20, $p < .001$, CFI = .95, RMSEA = .05, AGFI = .92, $\chi^2/df = 2.14$. The final model provided a reasonable fit, but it did not fit significantly better than the original model (p = .12). Moreover, a first remarkable finding of the model was that viewing sexually objectifying primetime television was not related to internalization, nor to self-objectification or body surveillance. However, watching music television, reading fashion magazines or visiting social networking sites, were directly and indirectly associated with the multidimensional process of self-objectification. More specifically, in accordance with the hypothesized relationships, the model showed that consuming sexually objectifying music television , β = .11, $B = .11$, $SE = .05$, $p < .05$, and fashion magazines, $\beta = .17$, $B = .22$, $SE = .06$, $p < .001$, were significantly related to the internalization of beauty ideals. Using sexually objectifying social networking sites , $\beta = .09$, $B = .15$, $SE = .08$, $p = .05$, was marginally significantly related to the internalization of beauty ideals. The hypothesized relationships with self-objectification were further found to be significant with consuming sexually objectifying fashion magazines, $\beta = .17$, $B = .35$, $SE = .08$, $p < .001$, and social networking sites, $\beta = .10$, $B = .26$, $SE = .10$, $p < .05$. The expected associations between sexually objectifying media consumption and body surveillance were, however, only supported when examining social networking sites, $\beta = .12$, $B = .18$, $SE = .06$, $p < .005$. Using social networking sites was thus the only medium that significantly predicted body surveillance.

Furthermore, mediation tests examining possible indirect mechanisms revealed that when girls consumed sexually objectifying music television, fashion magazines or social

networking sites more often, their internalization of beauty ideals increased, which was, in turn, related to higher levels of self-objectification (music television .04 = .11 * .37, z = 2.25, p < .05, fashion magazines .07 =.17 * .37, z = 3.61, p < .001, social networking sites .03 = .09 *.37, z = 1.89, p = .06) and body surveillance (music television .06 = .11 * .50, z = 2.26, p < .05, fashion magazines .09 = .17 * .50, z = 3.68, p < .001, social networking sites .05 = .09 * .50, z = 1.90, p = .06). The indirect relationships with social networking sites did not reach the .05 level of statistical significance. Indirect relationships with body surveillance were further found when examining self-objectification as a mediator: Higher consumption of fashion magazines and social networking sites was related to an increase in self-objectification, and this increase was associated with higher levels of body surveillance (fashion magazines .04 = .17 *.22, z = 3.32, p < .001, social networking sites .02 = .10 *.22, z = 2.25, p < .05).

[Figure 2 about here]

Alternative model. The AIK of the presented model in Figure 2 was 549.99. The alternative model assuming that the multidimensional process of self-objectification predicts the consumption of sexually objectifying media showed a less acceptable fit than the fit of the presented model (AIK value = 715.69).

Discussion

The present study builds on the solid basis of knowledge provided by previous studies on the effects of sexually objectifying media (e.g., Aubrey, 2006a; Morry & Statska, 2001) and aimed to integrate the proposed approach of body image scholars to understand self-objectification as a multidimensional process (e.g., Moradi, 2010) into the field of media studies. More specifically, this study sought to combine body image and media effects research through an examination of the processes of internalization, self-objectification and body surveillance, which may be associated with the use of sexually objectifying media. The study further explored differences in the relationships with different media content and

responded to a call (Tiggemann, 2010) for more research on self-objectification among adolescent girls. Taken together, the results of this study provide new insight into the relationships between media use and adolescents' body image and, more specifically, offer three contributions that can be used to guide future research.

Sexually objectifying media and the multifaceted process of self-objectification. While media scholars have called for more research on the impact of sexually objectifying media (e.g., Aubrey, 2006a), body image scholars have introduced the idea of self-objectification as a multifaceted process and emphasized the possible value of empirical research exploring this idea (Moradi & Huang, 2008). This study responded to these requests and found that the cognitive processes of internalization and self-objectification as well as the behavioral process of body surveillance are related to exposure to sexually objectifying music television, fashion magazines, and social networking sites.

Notably, this study explored the possible distinction between direct and indirect relationships with media use and showed that the concepts in this process are not independent of each other, nor are they related disjointedly with media exposure. The concepts are connected through a set of direct and indirect relationships, and it is only by considering the combination of relationships that the impact of media exposure can be clearly understood. This finding seems to add new insight to previous research. For instance, Aubrey's (2006a) insignificant relationships between body surveillance and the consumption of sexually objectifying magazines and television can be explained by the results from this study: Our findings suggested that the impact of media on body surveillance may work indirectly, not directly, through internalization and self-objectification.

If we look at the set of relationships across media contents, we notice first that internalization plays a central role. It is directly related with almost all types of media exposure, which is in line with the reported prevalence of beauty ideals in music videos and

magazine advertisements (Stankiewicz & Rosselli, 2008; Vervloessem et al., 2011). This finding is also in line with a study on social networking sites reporting that users tend to post pictures that comply with current beauty standards (Siibak, 2010). Moreover, and most importantly, internalization has been shown to be directly related with both self-objectification and body surveillance and seems to act as the pivot between media exposure on the one hand and self-objectification and body surveillance on the other hand. Consistent with the multifaceted objectification framework, an increase in the internalization of beauty ideals related to exposure to sexually objectifying media seemed to surface in self-objectification and body surveillance. These indirect relationships may reveal how media tend to convey beauty ideals and how the internalization of these messages may guide the perception of one's body, leading to a more objectified view and more frequent monitoring of appearance. This pattern of findings underscores the importance of considering media as a source of beauty ideals. While traditional studies on self-objectification generally have not followed this approach, this study's findings suggest that this approach may be an important explanatory mechanism for media research on self-objectification.

Second, we notice that body surveillance is seldom directly related to media exposure; Rather, it is indirectly related. Among all but one medium, the cognitive dimensions within the process of self-objectification—internalization and self-objectification—seem to precede its behavioral dimension (i.e., body surveillance). This result confirms the multifaceted objectification framework and is in line with theoretical models, such as the theory of planned behavior, which suggests that cognitive processes precede behavioral intentions (Ajzen, 1991).

Third, we see that important differences exist between different media, especially with regard to the direct relationships between media exposure and both self-objectification and

body surveillance. Exploring and describing these differences was the second objective of the study and led to its second contribution to the literature.

Acknowledging differences between different media content. This study identified a new complexity: Different sexual objectification experiences may be related to different self-objectification processes. Differences in direct and indirect relationships were found for the internalization of beauty ideals, self-objectification, and body surveillance. More specifically, all sexually objectifying media contents, except for primetime television, were found to be directly related to the internalization of beauty ideals. A tentative explanation for the insignificant relationship with primetime television may be that the variance in the self-objectification components explained by primetime television have already been captured by other media variables. Body ideals are also extensively, and perhaps even more notably, promoted in other sexually oriented media contents (e.g., Vervloessem et al., 2011). This overlap may explain why primetime television has no additional impact on the internalization of beauty ideals. This explanation is supported by the lack of significant differences in paths between media consumption and the internalization of beauty ideals across media content. Also, additional tests of separate models, without the other media, did show a significant relationship between sexually objectifying television consumption and internalization.

Another explanation may be found in the narrative context of sexual objectification on primetime television which is often not present in, for instance, music videos, with their visual focus on women as sexual beings (Vervloessem et al., 2011), or advertisements, with their portrayals of women as decorative objects (Stankiewicz & Rosselli, 2008). Although all media emphasize beauty ideals, primetime television may be the only medium that provides a genuine narrative context. Thus, this study seems to suggest that a perspective of narratives and storylines may offer some protection against the direct effects of media. Future research may need to explore the importance of a narrative context in research on self-objectification.

Our findings further showed that none of the traditional sexually objectifying media were directly related to body surveillance. The only medium directly related to body surveillance was social networking sites. This finding suggests that behavioral actions, such as body monitoring, may not be triggered by exposure to body ideals but may be triggered only when the visual attention is directed toward one's own body, such as in a mirror or pictures of oneself. This direct visual focus on one's own appearance is manifestly present on social networking sites, where users frequently post pictures of themselves or are tagged in friends' photo albums (Siibak, 2010; Vitak & McLaughlin, 2011).

The conclusion that body surveillance was related only indirectly, in most cases, to media use (through the cognitive components of the process) may have interesting implications. Previous research has shown that the harmful effects of self-objectification, such as the development of eating disorders, are less a direct result of self-objectification than of the related concept of body surveillance. This study adds to this conclusion the finding that the cognitive dimensions of the process of self-objectification (i.e., internalization and self-objectification) seem to precede its behavioral dimension (i.e., body surveillance), although it should be acknowledged that the study was unable to make conclusion about the causal order. Nevertheless, this finding may provide the possibility for early prevention. Future research should seek to identify factors that could prevent increased internalization and self-objectification from leading to body surveillance (and thus to further adverse outcomes). Studies should explore whether factors, such as high self-esteem or body acceptance, may protect adolescent girls from body surveillance and further health risks (Aubrey, 2006a; Moradi, 2010).

Attention to sexual objectification among adolescent girls. While most research has been conducted with samples of young adults, a third contribution of this study is its insight into how adolescent girls react to sexually objectifying media content. Our results suggested

that exposure to sexually objectifying media is related to the internalization of beauty ideals, self-objectification, and body surveillance for a younger sample as well. This finding may have profound consequences. Fredrickson and Roberts (1997) have noted that even "small" increases in self-objectification can cause fundamental changes in an individual's self-image. The relatively small increases found in this study may play an important role in the identity development of adolescent girls. Girls with higher levels of internalization, self-objectification, and body surveillance may construct a more objectified self-image (APA, 2007; Fredrickson & Roberts, 1997). Over the years, such mild forms of self-objectification, may gain importance and become problematic from a long-term perspective. Longitudinal research is needed to explore whether girls reporting self-objectification at an early age are significantly more vulnerable to mental health risks later in life.

The findings of this study are limited in some respects. On the whole, this study was restricted by its cross-sectional design and does not provide evidence of causality. Future experiments or longitudinal studies should explore the proposed temporal or causal order of the proposed relationships. In addition, more research is needed to explore the external validity of the notions of self-objectification and how the operationalization of self-objectification can be improved. Also, measures of using fashion magazines and social networking site were each based on one item. Future research may include several types of fashion magazines and may extend the measure of social networking site by, for instance, including questions on perceptions of how often participants evaluate the photos on the sites in terms of appearance. Furthermore, all measures reflect reports of behaviors and this limits our conclusions. Additionally, future studies are necessary to test whether the proposed relationships hold when controlling for other relevant variables, such as BMI (Moradi & Huang, 2008), or are moderated by developmental factors, such as pubertal timing (Lindberg et al., 2007). Finally, this study was conducted in the context of a Western European country,

Belgium. Although the results were consistent with Australian, British and American research (Moradi & Huang, 2008), we cannot preclude this context from affecting our findings, for instance, as a consequence of another sexual culture or a sample composed mainly of white girls. However, the study's findings may have considerable relevance for research conducted in other Western and Northern European countries, and in the US, especially because scholars have stressed similarities in exposure to media content (e.g.,Vervloessem et al., 2011) and sexual objectification processes (Fredrickson & Roberts, 1997) among Western (Caucasian) females.

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Footnotes

[1] In the original scale respondents rank order appearance-based and competence-based body attributes according to importance, leading to a score that reflects the relative importance attached to appearance-based traits compared to competence-based traits. However, as respondents often misinterpret the task (Calogero, 2010) and ranking precludes the calculation of reliability scores, we asked to evaluate the importance of each attribute on a 10-point scale. This allows to test the theoretically proposed categorization of physical attractiveness, coloring, weight, sex appeal, measurements and muscle tone as appearance-based attributes and muscular strength, physical coordination, stamina, health, physical fitness and physical energy as competence-based attributes. A principal component analysis extracted one competence-based (eigenvalue = 4.31; explained variance = 35.93%; α = .80) and one appearance-based factor (eigenvalue = 1.82; explained variance = 15.16%, α = .78). In contrast to the original categorization, however, muscle tone appeared to be competence-based instead of appearance-based. A confirmatory factor analysis was run to further validate this but showed that the model did not fit the data well. Allowing for correlations between the error terms of muscle tone and muscular strength considerably improved the fit, $\chi^2(51) = 237.40$, $p < .001$, CFI = .93, RMSEA = .08, AGFI = .90, $\chi^2/df = 4.66$.

Table 1

Means and Standard Deviations of Media Consumption and Sexually Objectifying Media Consumption

	Media consumption				S-ob media consumption				S-ob weight
	Min	Max	*M*	*SD*	Min	Max	*M*	*SD*	
Primetime TV									
Beauty and the Geek	1	5	1.86	1.32	.79	3.97	1.48	1.05	.79
Wags	1	5	2.26	1.65	.56	2.80	1.27	.92	.56
The Big Bang Theory	1	5	2.23	1.60	.50	2.50	1.11	.80	.50
Crime Night Las Vegas	1	5	2.34	1.69	.50	2.51	1.18	.85	.50
Teenage Mothers	1	5	2.69	1.69	.45	2.26	1.22	.76	.45
Total primetime TV	1	5	2.26	.90	.56	2.81	1.24	.50	.56
Music TV									
TMF	1	7	4.67	2.06	.57	4.53	2.65	1.17	.57
JIMtv	1	7	4.42	2.10	.53	4.25	2.35	1.12	.53
MTV	1	7	4.19	2.07	.57	4.53	2.37	1.17	.57
Total music TV	1	7	4.43	1.82	.55	4.44	2.45	1.01	.55
Magazines									
Fashion magazines	1	5	2.45	1.22	.60	2.98	1.46	.73	.60
Internet									
Social networking sites	1	8	5.38	1.81	.30	2.43	1.64	.55	.30

Table 2

Zero-Order Correlations

	Internalization	Self-objectification	Body surveillance	S-ob primetime TV	S-ob music TV	S-ob fashion magazines	S-ob social networking sites
Internalization	1	.39***	.52***	.12**	.15***	.18***	.13**
Self-objectification		1	.41***	.07	.15***	.26***	.18***
Body surveillance			1	.11*	.08*	.18***	.21***
S-ob primetime TV				1	.36***	.28***	.09*
S-ob music TV					1	.16***	.32***
S-ob fashion magazines						1	.17***
S-ob social networking sites							1

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

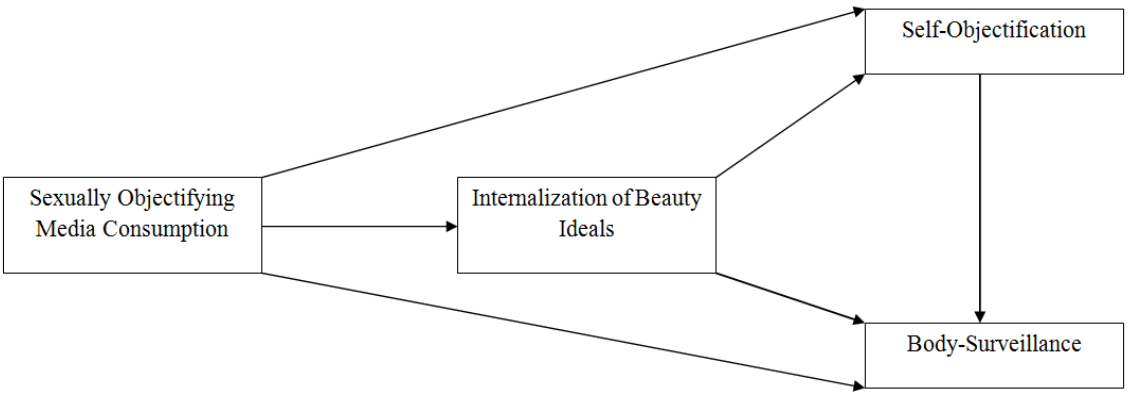

Figure 1. Hypothesized relationships between sexually objectifying media consumption and internalization of beauty ideals, self-objectification, and body surveillance.

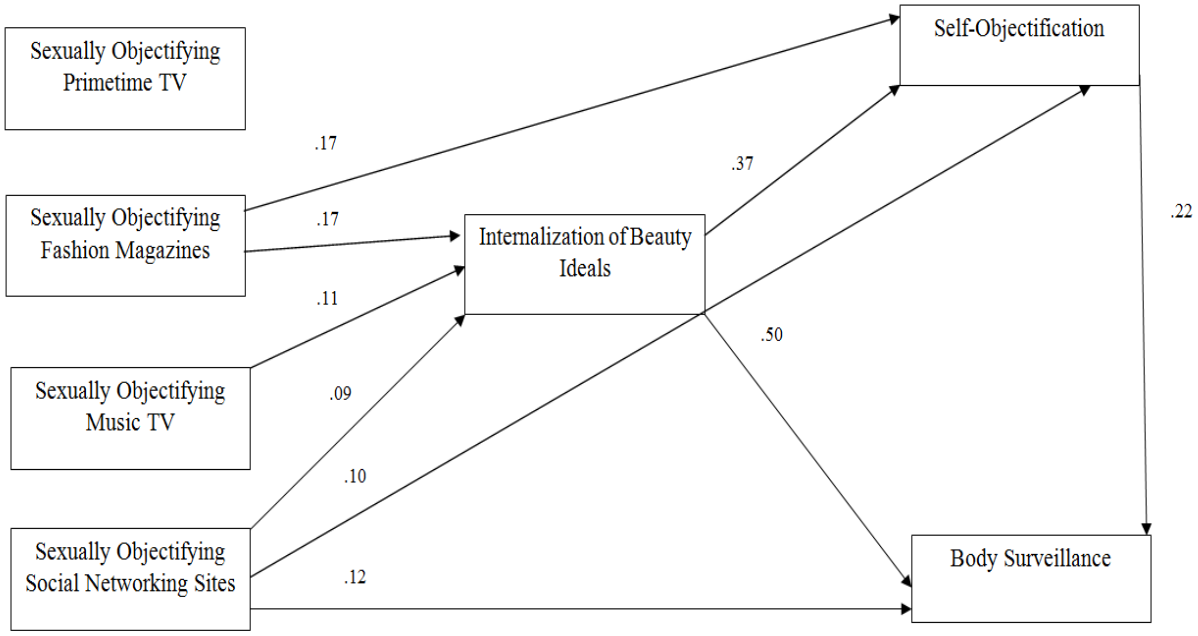

Figure 2. Trimmed model on sexually objectifying media use for examining links among variables of interest. Note: Values reflect standardized coefficients and all paths are significant at $p < .01$. For clarity, error terms and observed variables are not shown.