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**Me, myself, and my favorite media figure: An objectification perspective on the role of media and peers in early adolescents' self-sexualization**

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### **Abstract**

This study seeks a deeper understanding of the associations between early adolescents' encounter with sexualizing messages, both through media and peers, and self-sexualization (i.e., performing sexualizing appearance behaviors). To address this aim, this three-wave panel study ( $N = 971$ , 49% girls;  $M_{age}=11.14$ ) takes both intra- and interpersonal aspects of sexualization into account. Specifically, sexualizing experiences have been shown to play a role in individuals' adoption of an observer's perspective on both their own physical self (intrapersonal) and on others (interpersonal), which were included as mediating variables. Structural equation modeling revealed that interactions with peers (W1) related to self-objectification (W2) but not the objectification of others (W2). Moreover, self-objectification (W2) but not the objectification of others (W2) was, in turn, associated with self-sexualization. The findings thereby point out that an appearance-focused attitude toward the self was a more important correlate of self-sexualization than an objectified perception of others. Moreover, early adolescents' appearance investment most likely stems from encountering sexualizing messages through interactions and interactions with peers rather than from personal media use.

*Keywords:* Interpersonal, Intrapersonal, Sexualization, Media, Peers

## Introduction

Mainstream television, together with other socialization agents such as peers, play an important role in youth's body-related perceptions and behaviors by conveying an often unrealistic but rewarded appearance ideal (López-Guimerà, Levine, Sánchez-carracedo, & Fauquet, 2010; Trekels & Eggermont, 2017a). Although there has been an increasing variety of idealized messages and images in media, sexiness remains a predominant component of the contemporary appearance ideal (e.g., Murnen, Greenfield, Younger & Boys, 2016) and young girls have been shown to endorse the belief that sexual attractiveness is a defining aspect of the self (McKenney & Bigler, 2016). This suggests that young girls adopt socially-defined body ideals as personal standards of attractiveness (Thompson & Stice, 2001). Research has shown that exposure to sexualizing messages relates to the prioritizing of appearance over other personal characteristics among girls and boys, which is coined self-objectification (Vandenbosch & Eggermont, 2016).

Recently, research attention has been devoted to the behavioral derivative of self-objectification. More specifically, it has been shown that exposure to idealized imagery relates – indirectly through self-objectification – to the engagement in appearance-focused behaviors (e.g., Trekels, Ward, & Eggermont, 2018). The current study takes these recent initiatives further, in three ways: First, it tested this association among the understudied yet developmentally important group of early adolescents; second, the study considered not just exposure to televised media content but also media-focused interactions with peers as stimuli contributing to early adolescents' engagement in appearance-focused behaviors; and third, extending objectification and body image research, the study explored the value of including both self- and other objectification (i.e., inter- and intrapersonal aspects of sexualization) as an underlying mechanism.

**Association Between Sexualizing Messages and (Behavioral) Intrapersonal Sexualization**

The pervasiveness of gender-specific appearance ideals throughout entertainment media, including television content, is well-documented. For instance, a literature review by Vandebosch (2017) indicated that media portrayals frequently emphasize muscularity for boys and thinness for girls, as well as exude a preference for younger characters that are socially, sexually, and professionally successful (Vandebosch, 2017). Moreover, media figures that meet these appearance standards are more likely to experience positive outcomes, including popularity and involvement in romantic relationships (Northup & Liebler, 2010). Such imagery has been found to increase early adolescent boys' and girls' perceived sense of importance of one's physical appearance (Trekels & Eggermont, 2017a).

In addition to a general focus on rewarded appearance ideals, the prevalence of body-ideal messages *in relation to* sexual attractiveness has raised concern (American Psychological Association [APA], 2007; Gunter, 2014; Vandebosch, 2017). More specifically, it has been shown that the heterosexual script found across mainstream media teaches viewers how men and women should behave in romantic and sexual encounters (Seabrook et al., 2016). One aspect of the heterosexual script is the sexual double standard, whereby men are depicted as sex-driven and women are primarily valued for their sexual appeal (Kim et al., 2007). A recent study by Aubrey, Yan, Terán, and Roberts (2019) demonstrated that the heterosexual double standard script occurred just as frequently in tween, teen, and young-adult television shows. Kirsch and Murnen (2015) showed, for instance, that teens are exposed to messages of boys objectifying and valuing girls solely for their appearance 2.5 times per hour.

Probably in response to such gender-specific and idealized messages, we are experiencing an increase in the amount of alternative messages, warning youth for the unrealistic nature of idealized imagery and portraying more diverse body ideals. However, as of yet, researchers are unsure whether such messages may ameliorate body image, with some studies indicating that it might actually remind people of the pervasive ideal, resulting in higher levels of

dissatisfaction and (self-)objectification (e.g., Cohen, Fardouly, Newton-John, & Slater, 2019). In addition, it can be argued that such messages are presented alongside ideal messages that are more implicit, generally accepted, and pervasive (Betz & Ramsey, 2017).

As such, even with an increasing amount of more diverse messages present in mainstream media, a careful conclusion could be that girls and boys are still likely to grow up in a sexualizing culture and learn to consider sexual attractiveness as a main determinant of their self-worth and their social standing among friends and peers (Gunter, 2014). Researchers have warned for the detrimental effects of growing up in a culture that overvalues sexual attractiveness at the expense of an individual's personality and other competences (e.g., APA, 2007; Zurbriggen & Roberts, 2013). According to objectification theory (Fredrickson & Roberts, 1997), society's treatment of individuals as if they are objects to be looked at and evaluated solely in terms of outward looks may trigger objectified body consciousness. In particular, individuals may internalize an observer's perspective on the self, pay constant and exclusive attention to the body's outward appearance (Zurbriggen & Roberts, 2013), and appreciate themselves merely in terms of an object to be valued by others (Ward, 2016). A recent review of the existing literature pointed out that a wealth of empirical studies has tested and confirmed the theoretical premises of objectification theory (Ward, 2016). Moreover, answering Ward's (2016) call for meta-analytical evidence for the link between media use (i.e., mainstream television, video games, social media, and print media) and self-objectification, Karsay, Knoll, and Matthes (2018) concluded a moderate effect of sexualizing media on self-objectification ( $r = .19$ ). Although research among younger audiences is scarce, there are studies indicating that early adolescents, too, learn to adopt an objectified view of the self from being exposed to sexualizing messages through these media (Vandenbosch, Driesmans, Trekels, & Eggermont, 2017; Slater & Tiggemann, 2015). As such, we expect that:

*H1: Teen television exposure is positively related to self-objectification.*

Objectification studies have further shown that those who self-objectify are likely to translate this preoccupation with appearance into behavior (i.e., body surveillance; Moradi & Huang, 2008). For instance, among women, self-objectification has been related to appearance management, including restrictive eating (Dakanalis & Riva, 2013) and considering cosmetic surgery (e.g., Calogero, Pina, & Sutton, 2014). Self-objectifying men have reported an increased drive for muscularity (e.g., Grieve & Helmick, 2008) and endorsement of appearance-related reasons for exercise (e.g., Strelan & Hargreaves, 2005). This increased tendency to monitor one's appearance has also been demonstrated among adolescent girls and boys (Vandenbosch & Eggermont, 2012, 2013). One recent research, among adolescents, confirmed that social media use, too, related to self-sexualizing appearance behaviors through an objectified self-view (e.g., Trekels et al., 2018). It can thus be argued that those who view themselves as a sexual object for others' use are inclined to self-sexualize by performing behaviors to appear more sexually appealing (e.g., applying make-up, wearing high heels, exercising to get a good physique, and increasing muscles) because they believe sexual attractiveness is their primary value (Trekels et al., 2018). Following such findings, we expect that:

*H2: Teen television exposure is positively related to engagement in sexualizing appearance behaviors, indirectly through self-objectification.*

### **Peers as a crucial social context**

As an important contribution, the current study not only considers media exposure as a factor contributing to early adolescents' appearance behaviors, but also – and possibly more importantly – their interactions with peers. Because of the social connotation of the portrayed appearance as being valued and therefore aspirational, we can assume that the idea of an ideal appearance is socially constructed (McGladrey, 2014), which augments the importance of the social context wherein the appearance ideal is constructed (Coleman, 2008). Although media

are often argued to be the primary transmitters of these cultural ideals of beauty (Lawler & Nixon, 2011), peers become increasingly important during adolescence as well (Brinthaup & Lipka, 2012; Hartup, 1996). Their focus on appearance-related issues and reinforcement of appearance ideals renders them an important source for adolescent girls and boys to derive socially accepted appearances.

A recurrent conclusion from previous research is that the ideal appearance – as portrayed in mainstream media – is often discussed among friends and peers, which increases the personal relevance of the portrayed ideal appearances (Clark & Tiggemann, 2006; Sands & Wardle, 2003). When peers express their support for the prevalent ideals of beauty (APA, 2007), adolescents learn that fitting the ideal mold might increase their acceptance among peers (Trekels & Eggermont, 2017b). In other words, peer interactions can reinforce the influence of media portrayals.

Such appearance conversations comprise a considerable amount of time in young people's lives (Jones, 2004; Levine, Smolak, Moodey, Shuman, & Hessen, 1994) and have been related to the acceptance of narrowly defined appearance ideals as personal standards (i.e., internalization; Jones, Vigfusdottir, & Lee, 2004; Lawler & Nixon, 2011), increased levels of self-objectification (e.g., Slater & Tiggemann, 2015), and appearance management (e.g., Lee & Johnson, 2009). Moreover, a recent study by Balantekin, Birch, & Savage (2018) showed that, in a combined model, adolescent girls' family functioning operated as a protective factor, whereas friends' dieting and media sensitivity were risk factors to weight-control behaviors. Trekels et al. (2018) recently showed that adolescents who reported to more frequently discuss appearance-related topics with their friends on Facebook reported higher levels of self-objectification which, in turn, related to more frequent engagement in appearance behaviors. Following the above, we expect that:

*H3: Peer interactions about media are positively related to self-objectification.*

*H4: Peer interactions about media are positively related to engagement in sexualizing appearance behaviors, indirectly through self-objectification.*

### **Interpersonal aspects of sexualization**

To increase our understanding of the association between early adolescents' encounter with sexualizing messages and engagement in appearance focused behaviors, the current study takes into account both intra- and interpersonal aspects of sexualization. Specifically, a consistent observation in objectification literature is that individuals who self-objectify are not only highly aware of their own appearance, but also of that of others (Strelan & Hargreaves, 2005). In accordance with this reasoning, Strelan and Hargreaves (2005) showed that higher levels of self-objectification (i.e., intrapersonal sexualization) among women and men increased their inclination to objectify other women and men (i.e., interpersonal sexualization). Other research has added that this process of self- and other objectification also applies to known/familiar others, such as a romantic partner (Zurbriggen, Ramsey, & Jaworski, 2011).

Extending objectification research, the current study looks into adolescents' tendency to objectify their favorite media figure which has been largely underexplored. However, from a developmental perspective, it might be especially relevant to pay attention to media figures (defined as actors, presenters, as well as celebrities; Giles, 2002), who provide a means for adolescents to explore and define their romantic and sexual identities (Erickson, Harrison, & Dal Cin, 2018) and who may serve to inspire self-improvement among youth (Eyal & Te'eni-Harari, 2013). Notably, attachment to and idealization of media figures seem especially relevant for adolescents (e.g., Giles & Maltby, 2004; Te'eni-Harari & Eyal, 2015). Cohen (2003) indicated, for instance, that teens are more upset after a parasocial breakup than adults.

Wishful identification and parasocial interactions have often been put forth as crucial mechanisms in audience responses to media content. In their innate tendency to form connections, adolescents have been found to become highly involved with characters on



television (Hoffner & Buchanan, 2005). Character attributes are believed to factor in the extent to which adolescents form such interpersonal connections with media figures. More specifically, as shown by research from Hoffner and Buchanan (2005), intelligence, success, attractiveness, humor, violence, and admiration by other characters are important in forming impressions of others. Notably, it is argued that adolescents evaluate media characters similarly to the way they evaluate real people in their social environment. However, in light of objectification theory – which states that individuals seem to overvalue appearance-related factors in their evaluation of both themselves as well as others – the current study aims to investigate whether this tendency is extended to their evaluation of media figures. More specifically, we argue that higher levels of self-objectification might increase early adolescents' inclination to objectify their favorite media figure. Following prior objectification literature (Zurbriggen et al., 2011), we expect that self-objectifying adolescents may extrapolate their objectifying gaze towards others and award a disproportionate amount of importance to the physical (and sexualized) appearance of their favorite media figure while disregarding other aspects such as intelligence or success (Fredrickson & Roberts, 1997).

*H5: Self-objectification is positively related to the objectification of one's favorite media figure.*

Moreover, we also suspect that the objectification of one's favorite media figure may stem directly from engagement with both media and peers. Specifically, following Karsay, Matthes, Platzer, and Plinke (2018), it can be argued that the objectifying gaze – which occurs both in interpersonal encounters and in sexually objectifying media content – can be imposed upon individuals. In their experimental study, it was found that exposure to objectifying videos increased viewers' time spent on gazing at sexual body parts of ideal women (Karsay, et al., 2018). In other words, it can be expected that media-focused interactions with peers and

exposure to sexualizing media figures may induce an appearance focus, and thus an objectifying gaze, among early adolescents.

*H6: Teen television exposure and peer interactions about media are directly related to the objectification of one's favorite media figure.*

As a final step in our proposed mechanism, we argue that early adolescents who value the outward appearance of their favorite media figure over other attributes may also be more likely to model after that preference in their own behavior. More specifically, following the tenets of social cognitive theory (Bandura, 2001), individuals learn scripts and normative beliefs from modeled events which can, accordingly, guide and affect subsequent behavior. The theory also argues that preconceptions and value preferences of the observer will determine what is selectively observed from a modeled event (e.g., the characteristics of a media figure) and transformed into behavioral scripts (e.g., appearance is the most important characteristic of a media figure). It follows that individuals who are preoccupied with appearance may be more likely to extract appearance-related information from modeled events which is then translated into an appearance-focused behavioral script and, subsequently, behavior.

*H7: Teen television exposure and peer interactions about media are positively related to engagement in sexualizing appearance behaviors, indirectly through the objectification of one's favorite media figure.*

### **The Current Study**

The current panel study aims to increase scholarly understanding of the association between sexualizing messages – encountered through mainstream television and peers – and early adolescents' appearance investment. Body composition changes make early adolescents more aware of and concerned with their overall physical appearance (Williams & Currie, 2000). In addition, early adolescents' increasing perspective-taking skills foster their concern of what others think of them (Steinberg, 2005). Consequently, early adolescent self-concept is rooted

in their relative standing towards others' expectations and norms (Harter, 2015). In this regard, media can provide important role models from whom early adolescents acquire scripts and normative beliefs that guide their own subsequent behavior (Martino, Collins, Kanouse, Elliott, & Berry, 2005). However, media figures often present themselves through a fairly explicit, appearance-based sexual identity (e.g., Fabrianesi, Jones, & Reid, 2008). Exposure to and engagement with these (re)presentations may thus have important repercussions as early adolescents may be inclined to try to conform with the prevailing standards of sexual attractiveness.

Objectification theory is often used to explain such sexualizing media effects (Fredrickson & Roberts, 1997). The theory posits that individuals gradually adopt an observer's perspective on their physical self (i.e., self-objectification), which is considered the *intrapersonal* effect of sexualization. However, exposure to sexualizing messages may also increase viewers' tendency to objectify others, which has been coined the *interpersonal* aspect of sexualization (Loughnan et al., 2010). By examining both intrapersonal and interpersonal sexualization as a possible outcome of exposure to sexualizing stimuli, the current study aims to add an important nuance to sexualization literature. Moreover, the possible (behavioral) implications for those doing the objectification will be examined. The hypothesized model is depicted in Figure 1.

Based on prior findings (e.g., Jones et al., 2004; Lawler & Nixon, 2011), which indicated that girls may be especially vulnerable to the harmful impact of sexualizing messages, we will test whether gender and age moderate these associations. Research Question 1 therefore explores the moderating role of gender, whereas Research Question 2 examines the moderating role of age.

[FIGURE 1 ABOUT HERE]

## **Methods**

### **Participants and Sample Selection**

To test the proposed hypotheses, a three-wave panel study with a 6-month interval was conducted (Wave 1: September/October 2014, Wave 2: March 2015, Wave 3: September/October 2015). A total of 39 schools from different parts of Belgium agreed to participate in the study. After informing both children and parents about study aims, procedure, and confidentiality, active parental consent was obtained and children were instructed to fill out three surveys; measures were kept in the same order across all surveys. In order to ensure the optimal circumstances, a researcher was present at all times and the questionnaires were filled out in class during class hours. As is customary in Belgium, no incentives were provided. The total sample consisted of 2686 children who filled out the survey in at least one wave. The study was approved by the Social and Societal Ethics Committee of the KU Leuven.

All children were recruited through the school system; The researchers made appointments with the school head and all children that participated in the prior wave were asked to fill out the survey again. However, some children transitioned from elementary school to middle school after the second wave. A procedure was developed to re-contact those children by asking parents for their postal address to which a survey and stamped envelope could be sent. In total, attrition rates were acceptable with 1976 children in wave 1, 1597 children in wave 2 (80% attrition), and a total of 973 children completed the survey in all waves (61% attrition). Because two children did not indicate their gender, they were omitted from the analytical sample. As such, the final analytical sample consisted of 971 9- to 14-year-olds (48.9% girls), with a mean age at baseline of 11.14 ( $SD = .97$ ). Most children were born in Belgium.<sup>1</sup>

For the analyses, we decided to only include those children that participated in all three waves. Therefore, we first explored differences between those who participated in one wave ( $N = 846$ ), two waves ( $N = 867$ ), and those who participated in all waves ( $N = 973$ ) with regard to all relevant variables (at wave 1). A MANCOVA analysis (controlling for age, BMI, and puberty) revealed that early adolescents who participated in only one wave, two waves, or all

waves did not significantly differ on any of the key variables in our study,  $F(8,1526) = 1.06$ ,  $p = .39$ ,  $\eta^2 = .006$ .

## Measures

**Control variables.** Participants indicated their gender (with 1 = *boy* and 2 = *girl*) and age. They also estimated their weight and height ( $M_{BMI} = 17.00$  kg/m<sup>2</sup>,  $SD_{BMI} = 2.73$ ). Participants' pubertal timing was also measured; They indicated their agreement with three items of the Pubertal Development Scale (Petersen, Crockett, Richards, & Boxer, 1988) on the development of their body hair growth, changes in complexion, and development of voice change (boys) or breasts (girls). An average was calculated as an estimate of pubertal timing.

**Teen television exposure.** In line with Trekels and Eggermont (2018), we measured participants' exposure to television shows targeted at a younger (teen) audience, by having them indicate their exposure to eight programs that were daily broadcast during the first wave and were popular among teens (i.e., *Big Time Rush*, *H2O Just Add Water*, *Life With Boys*, *Wingin' It*, *Young Justice*, *Jessie*, *Austin & Ally*, and *Violetta*). Except for two programs (*Young Justice* and *Wingin' It*) all programs were broadcast at the time of all data collections and involved adult actors portraying young and popular characters. One show was added to the list because of its sexualizing but animated nature. A 5-point scale ranging from "Never" (=1) to "Almost every day" (=5) was used. Higher scores indicate more teen television exposure.

**Peer interactions about media content.** In line with the procedure described by Trekels and Eggermont (2018) and inspired by Beentjes and Konig's (2013) procedure, twelve statements asked participants about their media-related interactions with peers. Specifically, the original measure by Beentjes and Konig (2013) asked adolescents to report on peer group talk about music exposure. The items were adapted to fit the scope of the current study (i.e., appearance-focused content), while maintaining the same dimensions of peer interactions as the original scale (i.e., co-viewing, discussions, and commenting on content). Example items

are “*I watch television programs with my friends,*” “*When I am with my friends, our conversations often involve famous men and/or women*” and “*My friends and I agree on which famous men and/or women are attractive.*” On a 5-point scale, participants indicated their agreement. The scale showed good internal consistency ( $\alpha = .91$ ). The items were averaged; Higher scores indicate more engagement in peer interactions about media.

**Self-objectification.** Participants’ tendency to self-objectify was measured by using an adapted version of the original self-objectification questionnaire by Noll and Fredrickson (1998). Participants were presented a list of 18 different body attributes and asked to indicate the importance of each attribute on a scale ranging from (1) “Not at all important” to (10) “Very important.” Following Vandebosch and Eggermont (2012), we performed a principal component analysis using direct oblimin separately for boys and girls to assess whether one appearance-based factor (items including weight, physical attractiveness, measurements) and one competence-based factor (items including stamina, health, physical coordination) would be extracted. For girls, a factor with appearance-based body attributes (*eigenvalue* = 5.64, *explained variance* = 33.16%,  $\alpha = .86$ ) and a factor with competence-based attributes (*eigenvalue* = 1.78, *explained variance* = 10.49,  $\alpha = .73$ ) were extracted. For boys, a factor with appearance-based body attributes (*eigenvalue* = 6.06, *explained variance* = 35.63%,  $\alpha = .89$ ) and a factor with competence-based attributes (*eigenvalue* = 1.67, *explained variance* = 9.84,  $\alpha = .62$ ) were extracted. The difference between the mean scores of the appearance-based factor and competence-based factor addressed the estimated level of self-objectification (ranging from -9 to 9). Higher scores on this measure indicate higher levels of self-objectification.

**Objectification of media figures.** We first asked each participant to indicate their favorite media figure. We did not specify the content in which media figures should appear or whether they needed to be same-sex or other-sex to ensure participants’ freedom in choosing their most favored media figure. After noting their choice, participants were asked to indicate whether

they believed their media figure possesses several attributes. These attributes were chosen based on a review of literature on adolescents' engagement with media figures or television characters. Within this literature, Hoffman and Buchanan (2005) differentiated six attributes that would predict adolescents' wishful identification with television characters: success, intelligence, attractiveness, humor, violence, and admiration by other characters. These dimensions formed the basis of our measurement. Specifically, on a 5-point scale ranging from (1) "Totally disagree" to (5) "Totally agree" adolescents were asked to indicate whether they believed that their favorite media figure was smart, healthy, sporty, humoristic, successful, and received compliments from others. For the appearance-based factor, the attribute attractiveness was further refined and included as three items (i.e., looking sexy, dressing sexy, and acted sexy). The attribute 'violence' was omitted from the list of attributes because of the negative valence of the characteristic (as opposed to all other attributes). Finally, healthy and sporty were included in reference to the original self-objectification scale – as a way of expanding the competence/personality factor.

A principal components analysis extracted two factors: one competence-based factor (smart, healthy, sporty, and successful; *eigenvalue* = 1.19; *explained variance* = 21.26%,  $\alpha = .76$ ) and one appearance-based factor (received compliments from men and women, acted sexy, dressed sexy, or had a sexy body; *eigenvalue* = 3.74; *explained variance* = 41.60%,  $\alpha = .85$ ). The attribute humor did not load on any of the two factors and was therefore omitted from any further analyses. The difference between the mean scores on the appearance- and competence-based factors was calculated to get the extent to which participants objectified their favorite media figure (ranging from -4 to 4). Higher scores indicated more objectification of the media figure.

**Self-sexualizing appearance behaviors.** Following the Trekels and Eggermont (2018) study, we assessed teens' engagement in sexualizing appearance behaviors by asking them to

indicate how often they engaged in various appearance-related behaviors, on a 5-point scale with “Never” (=1), “Rarely” (=2), “Sometimes” (=3), “Often” (=4), and “Always” (=5). Prior research (Smolak, Murnen, & Myers, 2014), summary reports on the sexualization of youth (e.g., APA, 2007; Zurbriggen & Roberts, 2013), and the age of our respondents were taken into account in the development of the measure. Boys’ appearance behaviors included wearing tight clothes, wearing low-cut shirts that expose the chest, enjoying walking around in an undressed upper-body, wearing pants so that underwear is visible, exercising to get a good physique, drinking beverages to gain muscle, and styling their hair. A principal component analysis yielded one factor (*eigenvalue*: 2.72; *explained variance*: 38.81%;  $\alpha = .71$ ). For girls, behaviors included styling their hair, dyeing their hair, applying make-up, wearing heels, wearing tight clothes, wearing short skirts/shorts, wearing shirts that accent the breasts, and exercising to get a good physique. A principal component analysis yielded one factor (*eigenvalue*: 2.90; *explained variance*: 36.22 %;  $\alpha = .73$ ). Subsequently, the items for boys and girls were averaged and merged to get one measurement of boys’ and girls’ engagement in self-sexualizing behaviors.

## Results

### Descriptive Statistics and Preliminary Analyses

Descriptive statistics for teen television exposure, peer interactions about media, objectification of media figures, and self-sexualizing appearance behaviors are presented in Table 1. Zero-order correlations were also calculated and showed significant relationships between the key variables (see Table 1). In total, a range of 184 different media figures were chosen as favorites by participants in this study. Of the 184 favorite media figures, most of them (35%) were from teen television shows (e.g., characters from the show *Violetta*), followed by characters from Belgian television shows (29%) and movies (13.8%). It should be noted, however, that many participants neglected to write down or readably write down their media



figure (550 and 563 out of 971 participants in waves 1 and 2, respectively, wrote down their favorite media figure). Therefore, this finding is merely a tentative indication of the popularity of (characters from) teen television shows.

[TABLE 1 ABOUT HERE]

### **Testing the Hypothesized Model**

To test the structural associations between the dependent, independent, and mediating variables, we employed structural equation modeling (AMOS) using the maximum likelihood method. The chi-square-to-degrees-of-freedom ratio ( $\chi^2/df$ ), the root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), and the comparative fit index (CFI) were used to address the fit of the model. The model controlled for age, BMI, gender, and puberty (all at baseline) by employing these variables as predictors for all of the hypothesized endogenous variables. First, multiple imputation was performed as the bootstrapping method does not allow the sample to include missing data. Four hundred and seventy-four (48.8%) respondents had missing data. Two hundred and ninety of those respondents had less than three values that needed to be imputed. All variables had less than 10% missing data.

The hypothesized model showed an acceptable fit of the data (Figure 2). The model yielded a chi-square value of 1352.85 with 231 degrees of freedom,  $p < .001$ , RMSEA = .07, SRMR = .07, CFI = .90;  $\chi^2/df = 5.86$ . The results indicated that 35.5% of the variance in self-objectification could be explained by teen television exposure (wave 1) and peer interactions about media content (wave 1), 9.1% of the variance of objectification of media figures (wave 2) could be explained by teen television exposure (wave 1), peer interactions about media content (wave 1), and self-objectification (wave 2); 38.4% of the variance of sexualizing appearance behaviors could be explained by teen television exposure (wave 1), peer interactions about

media content (wave 1), self-objectification (wave 2), and objectification of media figures (wave 2).

[FIGURE 2 ABOUT HERE]

Teen television exposure (wave 1) was not significantly related to self-objectification ( $\beta = .022$ ,  $B = .058$ ,  $SE = .052$ ,  $CI\ 95\%[-.034, .085]$ ,  $p = .464$ ), which does not support hypothesis 1. Peer interactions about media content (wave 1) was, however, significantly related to self-objectification ( $\beta = .098$ ,  $B = .109$ ,  $SE = .056$ ,  $CI\ 95\%[.034, .149]$ ,  $p = .004$ ), thereby confirming hypothesis 3. Teen television exposure (wave 1) was not significantly related to the objectification of media figures ( $\beta = -.013$ ,  $B = -.020$ ,  $SE = .052$ ,  $CI\ 95\%[-.079, .055]$ ,  $p = .743$ ), whereas peer interactions about media were marginally significant to the objectification of media figures ( $\beta = .067$ ,  $B = -.008$ ,  $SE = .052$ ,  $CI\ 95\%[-.001, .137]$ ,  $p = .054$ ). These results thereby only partly confirm hypothesis 6.

Hypothesis 5 assumed that self-objectification (wave 2) would be positively related to the objectification of one's favorite media figure (wave 2), and was confirmed by the data,  $\beta = .139$ ,  $B = .082$ ,  $SE = .052$ ,  $CI\ 95\%[.073, .203]$ ,  $p = .002$ . Self-objectification (wave 2) was significantly related to sexualizing appearance behaviors (wave 3),  $\beta = .066$ ,  $B = .023$ ,  $SE = .052$ ,  $CI\ 95\%[.009, .124]$ ,  $p = .026$ . The objectification of media figures (wave 2) was, however, only marginally significantly related to sexualizing appearance behaviors (wave 2),  $\beta = .047$ ,  $B = .028$ ,  $SE = .015$ ,  $CI\ 95\%[-.003, .096]$ ,  $p = .070$ .

To examine the indirect effects, user-defined estimands were created. These results showed that the association between teen television exposure (wave 1) and sexualizing appearance behaviors (wave 3) through self-objectification ( $\beta = .001$ ,  $SE = .002$ ,  $CI\ 95\%[-.002, .007]$ ,  $p = .366$ ) and the objectification of media figures ( $\beta = -.000$ ,  $SE = .002$ ,  $CI\ 95\%[-.006, .002]$ ,  $p = .542$ ) were not significant. As such, hypothesis 2 was not supported by the data. Hypothesis 4, assuming that peer interactions about media content would be indirectly related to sexualizing

appearance behaviors through self-objectification, was confirmed ( $\beta = .006$ ,  $SE = .004$ ,  $CI\ 95\% [.001, .015]$ ,  $p = .017$ ). However, the association between peer interactions about media content (wave 1) and sexualizing appearance behaviors (wave 3) through the objectification of media figures (wave 2) was only marginally significant ( $\beta = .003$ ,  $SE = .003$ ,  $CI\ 95\% [.000, .011]$ ,  $p = .058$ ). The indirect relation between peer interactions about media content and sexualizing appearance behaviors through both self-objectification and the objectification of media figures was also significant ( $\beta = .001$ ,  $SE = .000$ ,  $CI\ 95\% [.000, .002]$ ,  $p = .034$ ). As such, hypothesis 2 was not supported.

In the overall model, teen television exposure related marginally significantly to sexualizing appearance behaviors,  $\beta = .055$ ,  $B = .051$ ,  $SE = .026$ ,  $CI\ 95\% [-.001, .110]$ ,  $p = .054$ . Peer interactions about media content did not relate to sexualizing appearance behaviors one year later,  $\beta = .024$ ,  $B = .023$ ,  $SE = .027$ ,  $CI\ 95\% [-.036, .076]$ ,  $p = .492$ .

**Gender differences.** We examined whether the hypothesized model was moderated by gender through a multi-group analysis. We first confirmed that there was measurement invariance;  $\Delta CFI$  value was less than the recommended .01 cutoff point (CFI for unconstrained model = .918; CFI for constrained model = .916). The groups could therefore be compared. Subsequently, results showed that the difference between the unconstrained model (i.e., model where the parameters vary between the groups) and the constrained model (i.e., model where the parameters are constrained to be equal) was marginally significant,  $\Delta\chi^2 = 24.394$ ,  $\Delta df = 15$ ,  $p = .059$ . Considering that the chi-square difference test is an omnibus-test, each structural path was tested separately. This analysis revealed that there was one significant difference between boys and girls. Specifically, teen television exposure was positively associated with self-sexualization, but only among girls ( $\beta = .116$ ,  $B = .084$ ,  $SE = .028$ ,  $CI\ 95\% [.040, .182]$ ,  $p = .006$ ). The association was insignificant among boys ( $\beta = -.010$ ,  $B = -.010$ ,  $SE = .038$ ,  $CI\ 95\% [-.089, .068]$ ,  $p = .802$ ).

**Age differences.** To examine whether age moderated the hypothesized model, 3 (approximately equal) groups were created. The first group comprised children between 9 and 10 years old ( $N = 376$ ), the second group comprised 11-year-old children ( $N = 268$ ), and 12 to 14 year-olds ( $N = 327$ ) comprised the last age group. A multiple group analysis was then performed. We first confirmed that there was measurement invariance;  $\Delta CFI$  value was less than the recommended .01 cutoff point (CFI for unconstrained model = .895; CFI for constrained model = .895). The groups could therefore be compared. Subsequently, results showed that the unconstrained model (i.e., model where the parameters vary between the groups) did not significantly differ from the constrained model (i.e., model where the parameters are constrained to be equal), indicating that the processes did not significantly differ across the age groups,  $\Delta\chi^2 = 25.464$ ,  $\Delta df = 28$ ,  $p = .602$ .

**Alternative model.** An alternative model in which engagement in self-sexualizing appearance behaviors (wave 1) related to self-objectification (wave 2) and the objectification of media figures (wave 2) which, in turn, related to teen television exposure (wave 3) and peer interactions about media (wave 3) was also tested. This model displayed following fit measures:  $\chi^2 = 7072.816$ ,  $df = 1260$ ,  $p < .001$ , RMSEA = .07, SRMR = .08, CFI = .83;  $\chi^2/df = 5.613$ . The association between self-sexualization (wave 1) and self-objectification (wave 2) was significant,  $\beta = .120$ ,  $B = .340$ ,  $SE = .034$ ,  $CI\ 95\% [.202, .320]$ ,  $p = .001$ . We also reversed the association between the objectification of media figures and self-objectification, which was significant,  $\beta = .132$ ,  $B = .225$ ,  $SE = .025$ ,  $CI\ 95\% [.080, .182]$ ,  $p = .002$ . Self-objectification (wave 2) and the objectification of media figures (wave 2) were, in turn, significantly related to peer interactions about media (wave 3),  $\beta = .101$ ,  $B = .032$ ,  $SE = .032$ ,  $CI\ 95\% [.040, .165]$ ,  $p = .003$  and  $\beta = -.080$ ,  $B = -.043$ ,  $SE = .032$ ,  $CI\ 95\% [-.151, -.019]$ ,  $p = .012$ , respectively.

## Discussion

Despite an increasing amount of alternative and counter-idealized messages, sexualization

is still highly present in mainstream media (e.g., McDade-Montez, Wallander, & Cameron, 2017) and has been shown to affect youth's body image and appearance investment (APA, 2007). However, research on the extent to which early adolescents become behaviorally invested in their appearance is scant. To fill this gap in the literature, the current study examined the role of sociocultural factors (i.e., mainstream television exposure and peer interactions) in adolescents' appearance investment by applying an objectification perspective. The findings lead to several important conclusions.

First, the findings highlight that adolescents' appearance investment – both cognitively (i.e., self-objectification) and behaviorally (i.e., engagement in sexualizing appearance behaviors) – most likely stems from encountering sexualizing messages through interactions and interactions with peers rather than from personal media use. It was found that media-focused interactions with friends, but not teen television exposure, related to higher levels of self-objectification which was in turn associated with more frequent engagement in sexualizing appearance behaviors. This finding corroborates prior research emphasizing the crucial role that peers play in how media messages are received and processed (e.g., Bevelander et al., 2018; Trekels & Eggermont, 2018; Veldhuis, Konijn, & Seidell, 2014).

Additionally, the study's findings demonstrate the importance of social processes in the meaning-making process, which has long been theorized by scholars such as Mead (1934) and Cooley (1922). Symbolic interactionism as a theoretical perspective departs from the premise that meanings determine how people act to things surrounding them and that those meanings arise from interactions with others (Hall, 2016). The current findings are in line with these premises by showing that interpersonal communication can determine the impact of media messages; Mainstream television may affect early adolescents' appearance investment, once they learn how peers appraise such messages and, thus, the importance of appearance. Prior studies already indicated that conversations with friends about appearance-topics seem to

reinforce the importance of conforming to an appearance ideal (e.g., Jones, 2004). However, the current study is innovative in that it included conversations with friends about *mediated* appearance topics (e.g., the looks of media figures); It appears that adolescents give meaning to those appearance topics in interaction with others and through an interpretive process with their peers. Following the findings from an experimental study by Veldhuis et al. (2014), which showed that peer comments exacerbate the negative influence of thin-ideal images, we conclude that appearance-focused media messages can be reinforced through peers' validation.

The pivotal role of peers in the diffusion, reception, and processing of (sexualizing) media messages holds an important implication for intervention initiatives. In particular, health practitioners are urged to take into account the social context in which media messages are received. Such initiatives could, for instance, include "social influence agents" (Bevelander et al., 2018, p. 2) who can support and/or undermine the targeted behavior (e.g., appearance behaviors) and, as such, influence the group norm. Considering how much belonging to a peer group is valued during this developmental phase (Brinthaupt & Lipka, 2012; Harter, 2015) changing the group norm might cause long-term behavior change.

A second set of conclusions can be drawn from the current study's objectification perspective on the role of media and peers in early adolescents' self-sexualization. Although the literature indicates that media figures and celebrities often function as important role models for adolescents when it comes to appearance information (Eyal & Te'eni-Harari, 2013), this study was the first to incorporate the importance of media figures in objectification research. Only few studies (Giles & Maltby, 2004; Harrison, 2000) have looked at interactions with media figures in adolescents' appearance investment. From these studies, we know that different types of engagement with media figures, such as worship (Maltby, Giles, Barber, & McCutcheon, 2005), interpersonal attraction (Harrison, 2000), and social comparison (Eyal & Te'eni-Harari, 2013), relate to negative body image investment. However, the current study

was the first to show that early adolescents' tendency to self-objectify increased their inclination to value a sexually attractive appearance in their media figure rather than other characteristics such as intelligence or a healthy lifestyle. As such, the current study nuances research initiatives (Zurbriggen et al., 2011) expanding objectification theory to both self-objectification and the objectification of others. More specifically, the current findings indicate, in line with other studies (Davidson, Gervais, & Sherd, 2015; Strelan & Hargreaves, 2005), that the objectification of – distant – others, such as media figures, occurs through self-objectification rather than as a direct consequence of objectifying experiences (e.g., exposure to sexualizing messages).

Additionally, this cognitive adoption of an objectified perspective on the self also seemed to play a crucial role in early adolescents' inclination to engage in sexualizing appearance behaviors. Specifically, it is an objectified self-view, rather than objectifying one's favorite media figure, that increases early adolescents' self-sexualization. Although media figures are important socializing agents for early adolescents as they transition through many developmental changes (Giles & Maltby, 2004), the current findings show that objectifying one's favorite media figure does not push early adolescents towards engaging in appearance-focused behaviors themselves. It is only when they endorse a self-view that is saturated with an appearance-focus that they are more likely to self-sexualize, 6 months later. As such, this study highlights the pivotal role of early adolescents' personal attitudes and values towards appearance in affecting self-sexualization; It is this internal influence that affects behaviors, rather than the objectification of their favorite media figure.

One possible explanation for this finding is that sexualizing appearance behaviors are inherently personal and thus one's self-view might play a much more important role than objectifying a – distant – media figure, even when he/she is one's favorite media figure, in explaining such behavior.

We did not find strong empirical support for the moderating role of age and gender in the examined associations between sociocultural factors, self- and other objectification, and self-sexualizing appearance behaviors. However, only among the girls, we found a direct association between teen television exposure and self-sexualization. This finding seems in line with indications in the literature that sexualizing messages might affect girls more strongly, as girls have reported higher levels of self-objectification (e.g., Vandebosch & Eggermont, 2015) and appearance investment (e.g., Neumark-Sztainer & Hannan, 2000). However, although girls have been shown to discuss appearance-related topics with their friends more often when compared to boys (e.g., Jones et al., 2004), there was no support for the moderating role of gender with regard to peer interactions, leading us to conclude that the examined processes seemed apply to both boys and girls.

In addition, considering that adolescence is characterized as a time of increasing self-consciousness and awareness of bodily appearance (Williams & Currie, 2000), it could be expected that older children are more vulnerable to the effects of media exposure on their body image. However, there were no significant age differences in the examined processes. This finding may be partly due to the relative small age range of early adolescents (i.e., 9- to 14 years old) in our sample, rendering the comparisons between the three age groups less informative. Taken together, the study findings indicate that self-objectification mediates the longitudinal association between early adolescents' encounter with sexualizing messages among friends and engagement in sexualizing appearance behaviors, regardless of age.

An important criticism that has been voiced to this line of research in general and the report on the sexualization of girls (2007) of the APA task force in particular, is that youth's agency is somewhat ignored (Lamb & Koven, 2019). However, we know from a more qualitative line of research that girls can be critical towards sexualizing media content (e.g., Jackson & Vares, 2016) and negotiate about or even resist the mainstream conceptions of idealized appearances



(e.g., Lamb et al., 2014). In a recent study, Trekels and Eggermont (2019) argued that researchers should conceptualize media exposure more broadly as comprising both idealized and counter-idealized messages and that youth interacts with these different types of messages simultaneously. They further outline that adolescents' predispositions can guide their interpretations of that diverse content and, consequently, differently affect body image. As of yet, research on the complex reality of adolescents' exposure to alternative messages and how it is related to body image development is scant and requires more fine-tuning in the future.

### **Limitations**

Several limitations warrant attention. First, although the current study was strengthened by its longitudinal design, providing conclusions that go beyond those generated by cross-sectional data, causal inferences still cannot be made. Moreover, future studies should consider the time-aspect of the examined processes. More specifically, a recent study by Karsay et al. (2018) showed that watching sexualizing videos primed the objectifying gaze among women and men, whereas the current panel study showed that sexualizing experiences (i.e., peer interactions) related to the objectification of others through self-objectification, 6 months later. Future studies should therefore consider whether the examined processes are temporarily (e.g., priming) or longer-lasting (e.g., objectification mechanism). Second, the current study's reliance on self-report measures could have hampered our conclusions. Observational studies recording adolescents' engagement in appearance behaviors in their daily surroundings could provide a more reliable data collection. In addition, researchers should also think about using other, more objective, assessments of media exposure. As proposed by Bevelander et al. (2018), smartphones may represent one fruitful avenue for future research to conduct large-scale research and to collect more accurate real-time data, including data about media consumption. Lastly, we asked participants to indicate their favorite media figure. To give early adolescents the freedom to choose any media figure they liked, we did not specify what type

of media figure (i.e., actor, presenter, or celebrity). As a consequence, we were not able to test for possible differences in the objectification of media figures across different fields (e.g., television, music, cinema, or sports). The findings did, however, point out that teen television shows and the media figures that star in such shows remain the most popular among early adolescents; two of the top three favorite media figures listed were from teen television shows (i.e., *Ariana Grande* and *Violetta*). Still, future studies could try to differentiate between media figures chosen from teen-targeted content, more adult media figures, or celebrities who are famous in other fields such as music or sports.

### **Conclusion**

We believe the present study contributes to a more nuanced understanding of early adolescents' self-sexualization. Sociocultural factors, in particular media-focused interactions with friends, were predictive of engagement in self-sexualizing appearance behaviors, but only if early adolescents endorsed an objectifying self-view. By revealing that vulnerable youth are likely to award greater importance to their outward looks, the current study contributes to the identification of potential risk groups of sexualizing messages. Intervention initiatives should therefore focus on such risk groups and take into account the social context in which mediated messages are received and processed. Moreover, the findings add to objectification literature by showing that self-objectification increases early adolescents' tendency to prefer their favorite media figure to be sexy rather than to possess other (non-appearance related) characteristics.

### **Footnotes**

<sup>1</sup> This article uses data that are part of a larger panel survey study that examines links between media usage and well-being among adolescents. More information about the study project can be obtained by sending an email to the first author.

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### **Declaration of interest**

The authors have no conflict of interest to declare.

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Table 1

*Descriptive statistics and zero-order correlations*

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Teen television exposure		.16***	.16***	.15***	-.03	.00	.12***	.08*	.13***	-.02	.04	.05	.23***
2. Peer interactions about media			.28***	.27***	.25***	.16***	.23***	.23***	.22***	.17***	.02	.22***	.05
3. Self-objectification W1				.58***	.20***	.14***	.26***	.21***	.24***	.21***	.11**	.20***	.19***
4. Self-objectification W2					.21***	.21***	.23***	.30***	.28***	.21***	.08**	.24***	.25***
5. Objectification of media figures W1						.28***	.14***	.13***	.15***	.13***	.05	.08*	-.07*
6. Objectification of media figures W2							.08*	.18***	.17***	.15***	.03	.07*	-.06
7. Self-sexualizing appearance behaviors W1								.58***	.54***	.08**	.02	.15***	-.26***
8. Self-sexualizing appearance behaviors W2									.60***	.17***	.06	.17***	-.21***
9. Self-sexualizing appearance behaviors W3										.21***	.07*	.22***	-.16***
10. Age											.23***	.29***	-.07*
11. BMI												.21***	-.06
12. Puberty													.11***
13. Gender													
Range	1/5	1/5	-9/9	-9/9	-4/3.2	-4/3.2	1/5	1/5	1/5	9-14	-	-	-
Actual Range	1/5	1/5	-	-	-4/3	-4/3	1/5	1/5	1/5	9-14	-	-	-
M (SD)	2.27 (1.04)	2.31 (.89)	-2.20 (1.66)	-2.16 (1.77)	-1.15 (1.06)	1.11 (1.05)	2.04 (.64)	2.05 (.63)	2.04 (.64)	11 (.97)	-	-	-

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

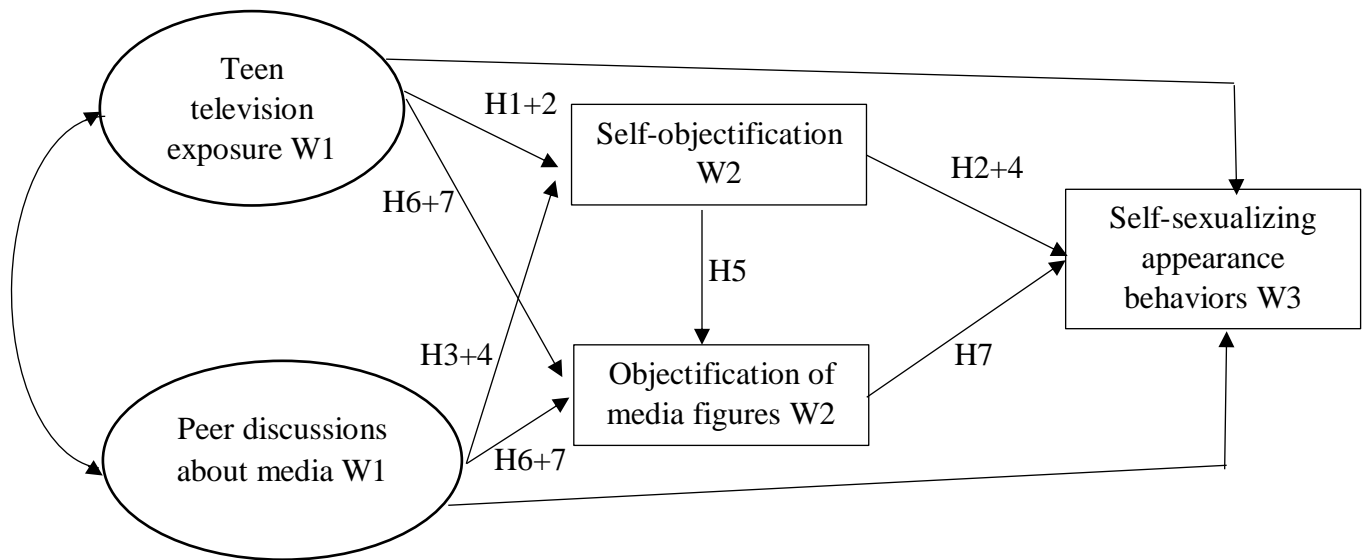


Figure 1. Hypothesized model for the relationships between sociocultural factors, self- and other-objectification, and self-sexualizing appearance behaviors.

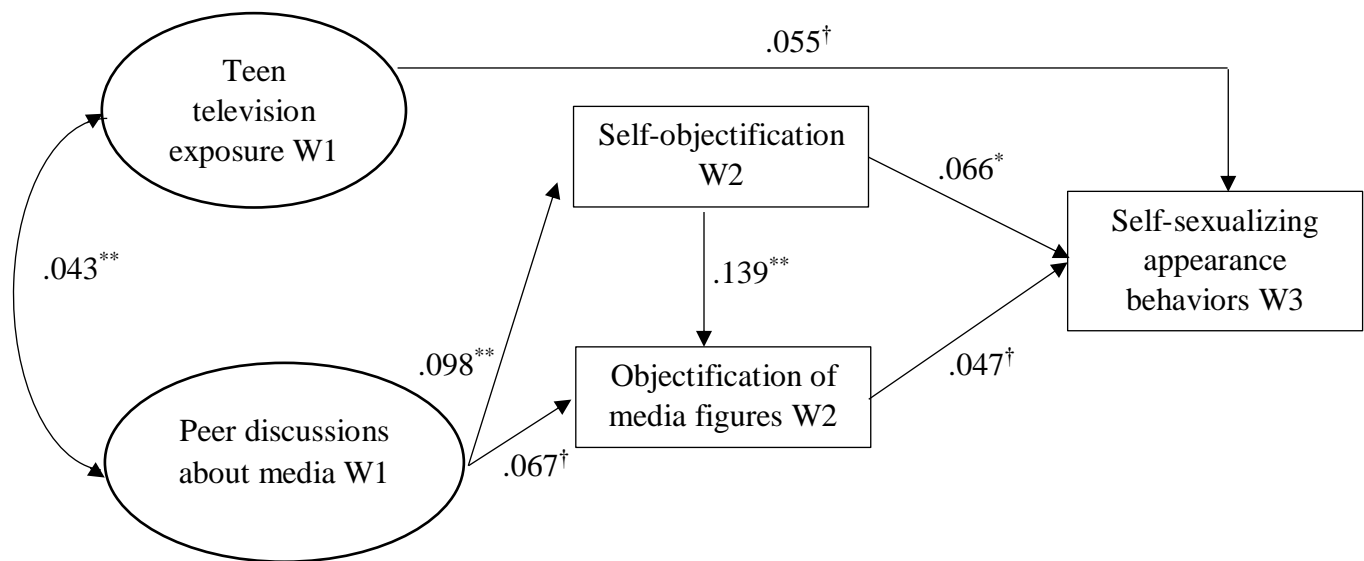


Figure 2. Structural equation model for the relationships between teen television exposure, peer interactions about media, self-objectification, objectification of media figures, and engagement in self-sexualizing appearance behaviors (N = 971).

*Note.* Values reflect standardized coefficients (beta). Only significant paths are shown ( $*p < .05$ ,  $**p < .01$ ,  $***p < .001$ ,  $^\dagger p < .10$ ).