#(Me)too much? The role of sexualizing online media in adolescents’ resistance towards the metoo-movement and acceptance of rape myths

Chelly Maes\textsuperscript{a}, Lara Schreurs\textsuperscript{a,b}, Johanna M.F. van Oosten\textsuperscript{c}, Laura Vandenbosch\textsuperscript{a,}\textsuperscript{*}

\textsuperscript{a} School for Mass Communication Research, Faculty of Social Sciences, KU Leuven, Leuven, Belgium
\textsuperscript{b} Research Foundation Flanders (FWO-Vlaanderen), Belgium
\textsuperscript{c} Amsterdam School of Communication Research (ASCoR), University of Amsterdam, Amsterdam, the Netherlands

**ARTICLE INFO**

**Keywords:**
Sexually Explicit Internet Material
Social Media
Objectification
#Metoo
Rape Myth Acceptance
Adolescence

**ABSTRACT**

**Introduction:** The current study addresses how sexualizing online media practices, i.e., exposure to sexually explicit internet material and receiving negative appearance feedback on social media, relate to the acceptance of sexist attitudes among adolescents. Specifically, it extends previous research on the acceptance of rape myths by exploring a construct related to these beliefs, i.e., resistance towards the metoo-movement.

**Methods:** The study is based on a cross-sectional paper-and-pencil survey among 568 Flemish adolescents (15–18 years old, M\textsubscript{age} = 16.4, SD = .98, 58.3% girls) that measured adolescents’ sexualizing online media use, sexist attitudes and objectification processes.

**Results:** The results showed that exposure to sexually explicit internet material, but not receiving negative appearance feedback on social media, was related to more resistance towards the metoo-movement and the acceptance of rape myths through notions of women as sex objects. Self-objectification did not function as a valid mediator in the examined relations. Gender and self-esteem did not moderate the proposed relations.

**Conclusions:** The findings underline the role of media use in how adolescents develop sexist beliefs and, more precisely, beliefs about contemporary actions to combat sexism, i.e., the metoo-movement. The present study showed that sexual objectification fueled by sexually explicit internet material may result in less positive attitudes and, thus, more resistance towards this movement.

1. Introduction

In 2017, the sexual intimidation of women received significant attention through the hashtag #metoo after the announcement of a series of sexual harassment scandals in Hollywood. Not everyone was in favor of this movement, though. Activists using the #metoo were sometimes criticized by politicians, opinion makers and columnists suggesting that victims (often) are partly responsible for sexual harassment (e.g., Ackland, 2018). These remarks seem to relate to the acceptance of rape myths that are defined as “prejudicial, stereotyped, or false beliefs about rape, rape victims, and rapists” (Burt, 1980, p. 217).

One potential contributor to the acceptance of rape myths among adults are the media (e.g., Fox & Potocki, 2016). Previous
literature has already explored the role of the media as a contributor to the acceptance of rape myths and victim blaming attitudes among adults (e.g., Ward, Reed, Trinh, & Foust, 2014). However, little is known about the way media contribute to sexist attitudes among adolescents, such as resistance towards the metoo-movement and the acceptance of rape myths (Driesmans, Vandenbosch, & Eggermont, 2015). Adolescence is considered to be a crucial developmental phase to adopt healthy sexual beliefs (Tolman & McClelland, 2011). Additionally, knowledge is lacking regarding the underlying mechanisms that explain how media contribute to adolescents’ sexual socialization (Peter & Valkenburg, 2016).

Accordingly, the current study examines the acceptance of rape myths and resistance towards the metoo-movement among adolescents and builds on objectification theory (Fredrickson & Roberts, 1997). Specifically, an explanatory model is proposed in which the link between sexualizing online media interactions, i.e., sexually explicit internet material and negative appearance feedback on social media, and the acceptance of rape myths and resistance towards the metoo-movement, is mediated by two objectification processes, i.e., notions of women as sex objects and self-objectification. Moreover, the proposed model takes into account gender and self-esteem as potential important individual differences in the way media users respond to sexualizing media use (Brown & L’Engle, 2009; Van Oosten, Peter, & Valkenburg, 2015).

1.1. Sexualizing online media and objectification processes

Sexualizing practices occur when individuals are regarded as sexual objects and are evaluated in terms of their physical appearance and sexiness (Zubrighgen et al., 2007). Previous literature postulates that interactions with sexualizing (online) media may heighten two types of objectification processes: (a) notions of women as sex objects and (b) self-objectification (Ward, Erickson, Lippman, & Giaccardi, 2016). Objectification theory explains that repeated exposure to sexualization can lead to the internalization of an observer’s perspective to one’s own body (Fredrickson & Roberts, 1997). The gaze that is applied to the subject that is being sexualized in the media is adopted to the self. This process has been conceptualized as ‘self-objectification’ (SO) (Fredrickson & Roberts, 1997) and has been described as valuing one’s appearance above other body competences (Vandenbosch & Eggermont, 2012).

Moreover, the literature has reasoned that the objectified gaze is not only turned towards the self, but also towards others (Fredrickson & Roberts, 1997). Specifically, Strelan and Hargreaves (2005) have concluded that SO is related to objectifying others, i.e., men and women, among both men and women. Further, research has supported that exposure to sexualization is related to the objectification of others (Ward et al., 2014). Given that women are frequently sexualized in media and everyday life interactions (Fredrickson & Roberts, 1997), this study focuses on the objectification of women and expects that notions of women as sex objects increase after using sexualizing media. The theoretically proposed links between sexualizing media use, SO and notions of women as sex objects have been confirmed in empirical research. Two recently introduced reviews (Karsay, Knoll, & Matthes, 2018; Ward et al., 2016) summarized the field and concluded that both correlational and experimental research have consistently found positive associations between sexualizing media exposure and individuals’ levels of self-objectification and acceptance of notions of women as sex objects.

1.2. Sexualizing online media use during adolescence

One type of sexualizing media content that is particularly likely to influence objectification processes is sexually explicit internet material (SEIM). Adolescents’ developmental task of establishing a sexual identity (Hurrelmann & Quenzel, 2019) is partly reflected in their interest in SEIM. This increased interest in sexuality and sexual curiosity coincides with the high levels of SEIM use that have been reported among (particularly male) adolescents (Peter & Valkenburg, 2006; 2011). In SEIM, sexualization is prevalent. Content analyses have shown that SEIM often portray women as sex objects (e.g., Klaassen & Peter, 2015). Drawing on objectification theory (Fredrickson & Roberts, 1997), Peter and Valkenburg (2016) indicated that the notions of women as sex objects and SO are among the rare outcomes that are consistently linked with SEIM among adolescents. Therefore, we hypothesize that:

H1. Exposure to SEIM is positively linked to (H1a) the adoption of notions of women as sex objects and (H1b) SO.

Next to SEIM, social media may also contribute to adolescents’ SO and sexual objectification of women. Adolescents’ social media use fulfills the need to gain approval from peers (Lenhart, Smith, Anderson, Duggan, & Perrin, 2015) which can be received via peer feedback (Uhls, Ellison, & Subrahmanymam, 2017). Although these platforms are designed to stimulate positive feedback from peers (Valkenburg, Peter, & Schouten, 2006), negative feedback, which often targets users’ appearance (CSM, 2015), also occurs. Appearance feedback may increase one’s belief that he or she is exclusively valued because of his or her sexual attractiveness, which can induce objectification processes (Treksel, Ward, & Eggermont, 2018).

Applied to negative appearance feedback on social media (NAFSM), the user that is receiving the feedback is the subject of sexualization. Slater and Tiggemann (2015) explain that the (negative) focus on the user’s appearance suggests that the individual’s value comes from his/her appearance. Accordingly, an experience of sexual objectification will occur (Ringrose, 2010; Slater & Tiggemann, 2015). In line with objectification theory, a systematic review of Holland and Tiggemann (2016) concluded that social media use is consistently linked to SO, though studies focusing on NAFSM are missing. Considering that sexualizing practices also evoke the sexual objectification of others (Strelan & Hargreaves, 2005), we suggest that:
H2. Exposure to NAFSM is positively linked to (H2a) the adoption of notions of women as sex objects and (H2b) SO.

1.3. Acceptance of rape myths and resistance towards the metoo-movement

Objectification theory and the literature on this framework explain that both objectification processes, i.e. SO and notions of women as sex objects, imply dehumanizing practices (Fredrickson & Roberts, 1997; Vaes, Paladino, & Puvia, 2011). These practices may activate cognitions which justify sexual violence and even lead to a victim blaming discourse in which objectified victims are considered being more responsible for sexual assault and perceived to suffer less from the crime in comparison to non-objectified victims (Loughnan, Pina, Vasquez, & Puvia, 2013). These cognitions are captured by the concept of rape myths which encompass “prejudicial, stereotyped, or false beliefs about rape, rape victims, and rapists” (Burt, 1980, p. 217).

The acceptance of rape myths (RMA) may be related to resistance towards the metoo-movement. The movement allowed victims of sexual assault to share and reclaim their stories via #metoo on social media. Consequently, the prevalence of sexual assault was emphasized and discussions regarding the intersection between sex and power were fueled online but also offline (Jackson, 2018; Keller, Mendes, & Ringrose, 2018). Such online and offline activism was praised and supported by many, but also often subject to severe criticism (e.g., Ikizer, Ramirez-Esparza, & Boyd 2018). Considering the responses to the metoo-movement, for example, women who shared their experiences with sexual assault were accused of waiting too long, overreacting or lying (e.g., Weiss, 2018). As such, resistance towards the #metoo movement seems positively related to RMA.

Research has confirmed the proposition of objectification theory that objectification practices are related to rape myth beliefs and resistance towards feminist actions (such as the metoo-movement) (Burt, 1980; Ward et al., 2016). Other scholars described the objectification of women and SO as antifeminist practices (e.g., Berger, 1972; de Beauvoir, 1949). Accordingly, we hypothesize that:

H3. Notions of women as sex objects are positively linked to (H3a) RMA and (H3b) SO.

H4. SO is positively linked to (H4a) RMA and (H4b) SO.

1.4. Direct influence of sexualizing online media use

The literature has also warned that SEIM use may also directly induce RMA (e.g., Hald, Malamuth, & Yuen, 2010). This relation can be explained by social learning theory (Bandura, 1973). Sexually explicit media often portray women as being forced into sexual interactions by their male partners. This behavior, which is frequently rewarded, may prime and induce sexually aggressive schemata including RMA, e.g. women enjoy being raped (Ward et al., 2014). In this view, Driesmans et al. (2015) found that interactions with sexualized characters in videogames increased rape myth acceptance among adolescents. More recently, mainstream pornography was demonstrated to positively correlate with Norwegian adult's perceived harm of the metoo-movement, which captures the idea that people were wrongfully accused of sexual assault (Kunst et al., 2018). This study thus suggests that pornography use may lower one's acceptance for the movement. As for NAFSM, previous research has not yet explored its relation to RMA and resistance towards the metoo-movement, yet we cannot exclude that other explanatory mechanisms than those considered in the current study may drive a relation between NAFSM and the examined sexist outcomes. Accordingly, we hypothesize that:

H5. Exposure to SEIM is positively linked to (H5a) RMA and (H5b) SO.

H6. Exposure to NAFSM is positively linked to (H6a) RMA and (H6b) SO.

1.5. Moderators: gender and self-esteem

Some users are expected to respond differently to sexualizing online media in comparison to other users (Valkenburg & Peter, 2013). Previous literature stresses gender and self-esteem as important moderating variables when focusing on sexualizing online media (Brown & L’Engle, 2009; Van Oosten et al., 2015).

The literature suggests that being a girl could work as a buffer in the suggested relations between SEIM use and RMA. Boys are more frequent users of SEIM (Peter & Valkenburg, 2016), but also score significantly higher on RMA and notions of women as sex objects than girls (Berndt, 1979; Peter & Valkenburg, 2007). Girls identify more strongly with the victims of sexual assault than boys (Ikizer et al., 2018; Osman, 2014) and, thus, seem less likely to resist the #metoo movement. As such, being a girl may work as a buffer in the current examined sexual media effects. Following these presumptions, the current study suggests that:

H7. The link between SEIM and RMA and resistance towards the metoo-movement, through notions of women as sex objects and SO, is weaker among girls in comparison to boys.

H8. The link between NAFSM and RMA and resistance towards the metoo-movement, through notions of women as sex objects and SO, is weaker among girls in comparison to boys.

Furthermore, high self-esteem is suggested as a buffer in the hypothesized relations (Aubrey, 2006; Vandenbosch & Eggermont, 2012). Previous research has suggested that increased self-esteem decreased individuals’ tendency to adopt SO after receiving weight-related criticism from romantic partners (Befort, Hull-Blanks, Huser, & Sollenberger, 2001). Research regarding self-esteem as a possible moderator in the relations between media exposure and both objectification processes, i.e. notions of women as sex objects...
and SO, is lacking. Accordingly, the current study will explore the potential moderating role of self-esteem in both objectification practices. Specifically, the current study explores whether the link between sexualizing online media, i.e. SEIM and NAFSM, and sexist outcomes, i.e. the acceptance of rape myths and resistance towards the metoo-movement, through notions of women as sex objects and SO, is moderated by self-esteem. We suggest that:

**H9.** The link between SEIM and RMA and resistance towards the metoo-movement, through notions of women as sex objects and self-objectification, is weaker among adolescents with a high self-esteem as compared to adolescents with a low self-esteem.

**H10.** The link between NAFSM and RMA and resistance towards the metoo-movement, through notions of women as sex objects and self-objectification, is weaker among adolescents with a high self-esteem as compared to adolescents with a low self-esteem (see Fig. 1).

![Hypothesized model](http://example.com/model.png)

Fig. 1. Hypothesized model. Control variables are gender, age, sexual orientation, self-esteem, and general social media use. Control variables and errors are not shown for clarity.

### 2. Methods

#### 2.1. Respondents and selection procedure

A representative sample of adolescents (15–18 years old) was recruited from ten different schools in Flanders through a convenience sample. A total of 704 respondents filled in a paper-and-pencil survey in the presence of a team of researchers at school. The survey was part of larger study, i.e. the New Media Study (for more information regarding this study, please contact the last author). The participants generally completed the survey within 50 min. The respondents were assured that the questionnaire would be processed confidentially and anonymously. Participants were deleted if they did not finish the entire survey or had missing data on (one of our) main variables. Also, six respondents were deleted because they indicated at the end of the survey that they did not fill in the survey correctly. After cleaning the data, the analytical sample consisted of 586 respondents, $M_{\text{age}} = 16.4$, $SD_{\text{age}} = 1.21$, and 58.3% girls. Approval for the survey was received from the principals of the high schools. Active parental consent was obtained from the adolescents’ parents. A total of 10 reward cards worth 20 euros were divided by a lottery. The study was approved by the ethical commission of the KU Leuven, Belgium.
2.2. Measures

Socio-demographic variables. Age, gender (1 = boy, 2 = girl) and sexual orientation (heterosexual, homosexual, bisexual, I describe my sexuality differently and I don’t know) were questioned. Sexual orientation was recoded into a dummy variable with the codes 1 (= heterosexual) (N = 541) and 2 (= others) (N = 45).

Self-esteem. The One-Item Self-Esteem Scale of Robins, Hendin, and Trzesniewski (2001) was used: “I have a lot of self-confidence”. A five-point scale ranging from not at all resembling me (= 1) to totally resembling me (= 5) was used (M = 3.11, SD = .99).

General social media use. Respondents indicated how much time they spend on Facebook, Instagram, Snapchat, WhatsApp, and websites with video clips such as YouTube. These items were questioned for an average weekday and an average weekend day. A 10-point scale ranging from 0 h (= 1) to the whole day (= 10) was used. All items were summed to create the variable general social media use, α = .85. Higher scores reflected higher social media use (M = 3.30, SD = 1.40).

SEIM use. To measure exposure to sexually explicit content, the 4-item scale of Peter and Valkenburg (2008) was used. The respondents were asked how many times, in the past six months, they watched, e.g. images in which genitals are clearly shown. A seven-point Likert scale ranging from never (= 1) to several times a day (= 7), indicated the frequency of SEIM use, α = .91. Mean scores were used, with higher scores representing a higher frequency of SEIM use (M = 2.02, SD = 1.28).

NAFSM. The negative appearance feedback items from the Feltman and Szymanski (2018) scale were used. Adolescent respondents rated five items, e.g. I receive negative comments about my physical features in my shared pictures (e.g. “Bad hair day”), “You have a big nose”, “You have bad skin”), using a 5-point scale (1 = (almost) never, 5 = (almost) always). Mean scores were used, with higher scores representing a higher frequency of NAFSM use (M = 1.26, SD = .55).

Notions of women as sex objects. Using a five-point Likert scale (1 = totally disagree, 5 = totally agree) the respondents rated five statements, e.g. subconsciously, girls always want to be persuaded into having sex and there is nothing wrong with boys being only interested in a girl’s body, α = .71 (cf. Peter & Valkenburg, 2007). Mean scores were used, with higher scores representing higher notions of women as sex objects (M = 2.64, SD = .71).

Self-objectification. Noll and Frederickson’s (1998) adapted scale (Vandenbosch & Eggermont, 2012, 2014) was used to measure the extent to which respondents valued their bodies in terms of appearance (objectified) rather than competence. Respondents had to indicate on a scale from 1 (least important) to 10 (most important) how important they considered 6 appearance-related traits and 6 competence-related traits. PCs were conducted for boys and girls separately following a procedure outlined by prior literature (Vandenbosch & Eggermont, 2014, 2015). The literature has highlighted that different body ideals exist for both genders (Calogero & Thompson, 2010) and thus that girls may consider different body attributes as competence traits than boys do. For adolescent boys, the appearance-based body attributes were attractiveness of one’s body (factor loading = .86), strength (=.71), muscle tone (= .80), physical attractiveness (= .86), sex appeal (= .71), skin color (= .65), weight (= .42) and measurements of the chest, legs and abdomen (= .77), α = .84. The competence-based body attributes were health (= .45), stamina (= .85), coordination (= .55), physical fitness (= .83) and energy level (= .82), α = .74.

For girls, the appearance-based body attributes were physical attractiveness (= .9), sex appeal (= .87) and measurements of the chest, legs and abdomen (= .40), α = .69. The competence-based body attributes were stamina (= .81), coordination (= .80), physical fitness (= .76), strength (=.72), energy level (=.67), muscle tone (= .52) and weight (= .47), α = .82. Two items, i.e. skin color and health, had a factor loading lower than .4 and were deleted.

Respondents’ valuing of appearance over competence was calculated as the difference between the mean score for the appearance-related attributes and the mean score for the competence-related attributes (ranging from −9 to 9). Higher scores on this measure indicated increased valuing of appearance over competence, i.e. SO (Mboys = −1.24, SDboys = 1.42, Mgirls = .07, Sdgirls = 1.52).

The acceptance of rape myths. Six items from Burt’s (1980) Rape Myths Acceptance Scale were selected, e.g. the majority of sexual assault victims has a bad reputation. These statements were rated using a seven-point Likert scale (1 = totally disagree, 7 = strongly agree). After conducting a PCA, item two, i.e., girls lie about being sexually assaulted because they want attention, was deleted because of a factor loading lower than .40 (= .35). The final scale was reliable, α = .73. Mean scores were used, with higher scores representing a higher acceptance of rape myths (M = 2.84, SD = .94).

Resistance towards the metoo-movement. The attitude towards the metoo-debate was measured using a newly developed scale that was inspired by the Ambivalent Sexism Scale by Glick and Fiske (1996). The leading author of the current paper developed the first set of items after an explorative, inductive analysis of comments posted on the metoo movement and the input of the scale of Glick and Fiske (1996). Next, feedback was given by the other authors and one external expert in sexual objectification. Four items were eventually developed based on their feedback: “I think women, who share their story about sexual assault, are brave” (mirrored), “Most women who complain about sexual assault via #metoo, are overreacting”, “Women who share their stories about sexually transgressive behavior through #metoo, only want attention” and “It is suspicious that women only came forward with stories about sexual assault after the metoo-movement”. The respondents could indicate to what extent they agreed with the statements using a seven-point Likert scale (1 = totally disagree, 7 = totally agree).

After conducting an exploratory factor analysis on the four items, one factor was extracted and the scale was found to be reliable, α = .79. A confirmatory factor analysis indicated that the scale had an excellent model fit, χ² = .19, p = .91, RMSEA = .00, CFI = 1, TLI = 1.01. Mean scores were used, with higher scores representing more resistance towards the metoo-movement (M = 3.34, SD = 1.01).
2.3. Analytical strategy

The proposed model was tested with structural equation modeling using Mplus Version 8.3 with maximum likelihood estimation (Muthén & Muthén, 1998). The chi-squared-to-degrees-of-freedom ratio ($\chi^2/df$), the comparative fit index (CFI) and the root mean square error of approximation (RMSEA) were used as fit measures. Values around ≥ .95 for CFI and < .06 for RMSEA indicate a good fit of the model to the data (Hu & Bentler, 1999). For the $\chi^2/df$, a p-value higher than .05 is necessary (Muthén & Muthén, 1998). Mediation analyses were conducted to examine the hypothesized indirect relations. Statistical significance was based on two-tailed $p < .05$ and bootstrapped confidence intervals from 1000 resamples. To test whether our hypothesized relations were significantly different across gender, multiple group comparisons were conducted in Mplus (Rigdon, Schumacker, & Wothke, 1998). To perform an omnibus test, the data was grouped according to the two genders and we compared an unconstrained model with a model where all hypothesized relations were constrained to be equal for boys and girls. If the Wald test of parameter constraints was significant ($p < .05$), we could conclude a significant difference in the relations occurred between boys and girls. If this was the case, a path-by-path analysis would be conducted. The moderating role of self-esteem was examined using mediated moderation analyses given that self-esteem was operationalized as a continuous variable.

3. Results

3.1. Descriptive statistics and preliminary analyses

Table 1 shows means and standard deviations of the used variables, grouped by gender. As shown in Table 2, zero-order correlations showed significant relations between SEIM and NAFSM, notions of women as sex objects, SO, rape myth acceptance and resistance towards the metoo-movement.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Sexual orientation</th>
<th>Self-esteem</th>
<th>Social media use</th>
<th>SEIM</th>
<th>NAFSM</th>
<th>Notions of women as sex objects</th>
<th>Self-objectification</th>
<th>RMA</th>
<th>Resistance towards the metoo-movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (female)</td>
<td>1</td>
<td>.08</td>
<td>.09*</td>
<td>-.34**</td>
<td>.15**</td>
<td>-.67**</td>
<td>.02</td>
<td>-.45**</td>
<td>.40**</td>
<td>-.30</td>
</tr>
<tr>
<td>Age</td>
<td>1</td>
<td>.04</td>
<td>.02</td>
<td>-.16**</td>
<td>.14**</td>
<td>-.13**</td>
<td>-.11*</td>
<td>.06</td>
<td>-.21**</td>
<td>-.06</td>
</tr>
<tr>
<td>Sexual orientation</td>
<td>1</td>
<td>-.14**</td>
<td>-.02</td>
<td>-.01</td>
<td>.05</td>
<td>-.13**</td>
<td>-.04</td>
<td>-.15**</td>
<td>-.06</td>
<td></td>
</tr>
<tr>
<td>Self-objectification</td>
<td>1</td>
<td>-.03</td>
<td>-.23**</td>
<td>-.15**</td>
<td>.17**</td>
<td>-.17**</td>
<td>.15**</td>
<td>.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social media use</td>
<td>1</td>
<td>-.04</td>
<td>.10</td>
<td>.07</td>
<td>.13**</td>
<td>.11*</td>
<td>-.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEIM</td>
<td>1</td>
<td>-.03</td>
<td>.36**</td>
<td>-.16**</td>
<td>.17**</td>
<td>.25**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAFSM</td>
<td>1</td>
<td>.09</td>
<td>.01</td>
<td>.06</td>
<td>.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notions of women as sex objects</td>
<td>1</td>
<td>-.11**</td>
<td>.45**</td>
<td>.37**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-objectification</td>
<td>1</td>
<td>-.14**</td>
<td>-.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMA</td>
<td>1</td>
<td>.43**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resistance towards the metoo-movement</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Zero-order correlations.

*p < .05, **p < .01, ***p < .001.
3.2. Testing the hypothesized model

The final model is displayed in Fig. 2. The model controlled for gender, age, sexual orientation, general social media use and self-esteem. The control variables and errors are not shown, for clarity. The model showed an adequate and significant fit of the data, $\chi^2 = 817.9$, df = 348, $p > .05$, CFI = .93, RMSEA = .05 (LO 90 = .044; HI 90 = .053), $\chi^2$/df = 2.3, $R^2$ notions of women as sex objects = .1, SE = .03, $p = .00$, $R^2$ SO = .07, SE = .05, $p = .00$, $R^2$ RMA = .25, SE = .04, $p = .00$, $R^2$ resistance towards the metoo-movement = .16, SE = .03, $p = .00$.

The model showed that the use of SEIM was a significant predictor of notions of women as sex objects, $\beta = .13$, $B = .07$, SE = .03, $p = .01$, and SO, $\beta = .16$, $B = .2$, SE = .07, $p = .00$, supporting H1a and H1b. NAFSM was no significant predictor for (H2a) notions of women as sex objects, $\beta = .9$, $B = .011$, SE = .06, $p = .09$ and (H2b) SO, $\beta = .01$, $B = .03$, SE = .16, $p = .84$.

Further, H3 was confirmed as notions of women as sex objects positively predicted (H3a) RMA, $\beta = .33$, $B = .45$, SE = .06, $p = .00$, and (H3b) resistance towards the metoo-movement, $\beta = .28$, $B = .41$, SE = .07, $p = .00$. H4 was not confirmed as SO was not a significant predictor for (H4a) RMA, $\beta = -.02$, $B = -.04$, SE = .03, $p = .41$, nor for (H4b) resistance towards the metoo-movement, $\beta = .02$, $B = .03$, SE = .03, $p = .54$.

Additionally, H5 was not confirmed as exposure to SEIM was not directly related to RMA (H5a), $\beta = -.04$, $B = -.05$, SE = .04, $p = .3$, nor to resistance towards the metoo-movement (H5b), $\beta = .08$, $B = .09$, SE = .04, $p = .8$. The last hypothesis (H6) was not confirmed either as NAFSM was not a significant predictor of both RMA (H6a), $\beta = .02$, $B = .01$, SE = .06, $p = .78$, and resistance towards the metoo-movement (H6b), $\beta = .05$, $B = .03$, SE = .07, $p = .4$.

3.2.1. Mediation

Mediation analyses examined the possible indirect mechanisms and revealed a significant indirect relation between SEIM and RMA via notions of women as sex objects, $\beta = .04$, $B = .03$, SE = .014, $p = .02$, [CI = .00 - .07]. Further, a significant indirect relation was found between SEIM and resistance towards the metoo-movement via notions of women as sex objects, $\beta = .03$, $B = .04$, SE = .013, $p = .03$, CI = [.002 - .067].

3.2.2. Multigroup comparison and moderation

Multiple group comparison tests examined the differences between boys and girls regarding the suggested model. The Wald test of parameter constraints, comparing the unconstrained multigroup model with the constrained multigroup model, was insignificant, indicating no significant variance in the relations had occurred between adolescent boys and girls, Wald = 10.97, $p = .2$. Thus, path-by-path analyses were not conducted.

When analyzing self-esteem as a moderating variable (H9&H10), moderated mediation tests showed a significant interaction between NAFSM and self-esteem in the relation between NAFSM and resistance towards the metoo-movement via self-objectification, $\beta = .25$, $B = .14$, SE = .11, $p = .02$. The conditional indirect effect of NAFSM on resistance towards the metoo-movement via self-objectification differed depending on the level of self-esteem of the adolescent. However, when examining the conditional effects for adolescents with a low (mean −1 SD), medium (mean) and high (mean + 1 SD) self-esteem, no significant effects were found. The same interaction effect was found with the outcome RMA, $\beta = .25$, $B = .14$, SE = .11, $p = .02$. But again, no conditional effects were found for self-esteem.
4. Discussion

This study extends our understanding of the development of sexual attitudes among adolescents within the current context of the metoo-movement. By emphasizing the active role of online sexualizing media use, i.e. SEIM and NAFSM, the current study examined how resistance towards a feminist social movement and RMA are related. Building on the presumptions of objectification theory, an explanatory model was proposed which takes into account notions of women as sex objects and SO as underlying mechanisms. Several conclusions can be drawn.

First, this study provides an important insight on how sexualizing media use can operate as a source of resistance towards the metoo-movement. The overall attitudes towards the metoo-movement were neutral and exposure to SEIM was found to relate to increased levels of RMA and resistance towards the metoo-movement via notions of women as sex objects. These findings confirm the role of adolescents' media use as a significant sexual socialization agent (L'Engle, Brown, & Kenneavy, 2006). Exposure to SEIM seems to operate as an educator in the adoption of sexist beliefs and resistance towards a movement which condemns sexual assault. Moreover, our findings highlight the presumption of objectification theory (Fredrickson & Roberts, 1997) that postulates that objectifying beliefs, i.e. notions of women as sex objects, activate dehumanizing ideas. Such a conclusion aligns with prior research among adolescents that documented associations between sexualizing media use, notions of women as sex objects and general acceptance of rape myths (e.g., Doornwaard et al., 2017). These results may have negative implications for adolescents' future sexuality given that the acceptance of rape myths is related to sexual aggression and rape proclivity (e.g., Berndt, 1979).

Second, NAFSM was not a predictor of SO, which runs counter the assumption of objectification theory (Fredrickson & Roberts, 1997) and prior empirical research on social media (e.g., Karsay et al., 2018). One possible explanation for this inconsistent finding is that receiving more negative comments on one's self-presentation could be a byproduct of a higher engagement in an appearance-focused self-presentation, which is possibly a result of higher pre-existing levels of SO. A ceiling effect may thus occur, where receiving NAFSM does not increase SO. Future research may find a fruitful task in disentangling the relations between SO,
appearance-focused self-presentation, and NAFSM. Moreover, NAFSM did not predict notions of women as sex objects, which adds to previous research regarding appearance feedback and objectifying cognitions (e.g., Slater & Tiggemann, 2015).

Third, SO did not significantly predict RMA or resistance towards the metoo-movement. Objectification literature postulates that the adoption of an objectifying gaze towards one's own body is linked to sexist beliefs (Fredrickson & Roberts, 1997). Such relations may not develop directly but may develop indirectly, especially among girls. For instance, the literature within objectification research has reasoned that individuals who self-objectify also objectify others (Strelan & Hargreaves, 2005; Vangeel, Trekels, Eggermont, & Vandenbosch, 2017). Accordingly, SO may first relate to the objectification of women and, subsequently, affect sexist beliefs, such as RMA and resistance towards the metoo-movement.

Fourth, no significant differences were found between adolescent girls and boys. This non-difference was also found in previous studies regarding sexualizing media use and objectifying outcomes (e.g., Peter & Valkenburg, 2009). Our outcomes underscore that adolescent boys and girls respond similarly to the use of sexualizing media, i.e. SEIM and NAFSM. Potentially, future research may consider addressing a hyper gender identity as a moderator as it may be the level of adoptions of stereotypical gender roles that can change the relationships under scrutiny. Specifically, it is possible that adolescents with a higher hyper gender orientation are more susceptible for sexualizing media effects than adolescents with a low hyper gender orientation. For example, one study suggested that when boys with a hyper masculine orientation are exposed to SEIM which depict men in a hyper masculine way, they are more motivated to develop and express attitudes which align with these depictions, e.g. sexual aggression (Parrott & Zeichner, 2008).

Fifth, self-esteem did not moderate the suggested model. This runs counter previous research which concluded that self-esteem decreases individuals' tendency to adopt SO practices (Befort et al., 2001). So, adolescents with higher levels of self-esteem do not seem to be protected against the influence of sexualizing media. This is surprising and future research is advised to explore more specific self-esteem conceptualizations, e.g. body esteem or sexual esteem.

4.1. Limitations and future directions

Our study was limited by its cross-sectional design and thus no causal or temporal statements on the examined relations could be made. Longitudinal or experimental studies are required to further examine the reported pathways. Accordingly, the possible reciprocal or bidirectional nature of the media effects can be explored (Malamuth, Hald, & Kross, 2012). Thus, further investigations into the possible causal nature of the relation between sexualizing media and sexist outcomes may be important to obtain a comprehensive understanding of these relations.

Further, our study was conducted in Flanders, Belgium, which limits the generalizability of the findings to other cultural contexts. In 2015, before the metoo-movement gained popularity in the United States and Flanders, a similar hashtag #wijoverdrijvenniet (“#we are not overreacting”) was used to address sexual assault (Maerevoet, 2015). Then, in 2017, #metoo became a widely used hashtag in Flanders and Wallonia and had a significant impact on governmental instruments regarding the reporting of sexual assault. Moreover, many well-known Belgian politicians, actors, musicians and directors were accused of sexual assault and judicial lawsuits are currently being held to follow-up with these accusations (e.g., Heremans & Droeven, 2017; Tiens, 2018). Thus, it can be assumed that Belgium is a country that is sensitive to online sexual protest movements and, accordingly, our findings may be less applicable to more traditional sexual cultures.

Lastly, this study used a self-developed scale to measure the resistance towards the metoo-movement. Although both exploratory and confirmatory factor analyses demonstrated that this scale is reliable and had an excellent model fit, the scale needs to be further tested in research to ensure its validity.

5. Conclusion

Together, the current study showed that the use of SEIM positively predicted RMA and resistance towards the metoo-movement through notions of women as sex objects. Interestingly, NAFSM did not predict SO, nor the sexist outcome variables. Moreover, no significant differences were found between adolescent boys and girls meaning that their responses to sexualizing media, i.e. SEIM, seem to be equal. Further, self-esteem did not moderate the tested model.

This research contributes to the literature on sexualizing media effects among adolescents and highlights the role of notions of women as sex objects as an underlying mechanism to explain harmful sexual attitudes. Study findings also underscore the potential significant role of sexualizing media in adolescents’ resistance towards feminist movements.

Declaration of competing interest

None.

References


