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Sexy online self-presentation on social network sites and the willingness to engage in sexting: A comparison of gender and age

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ABSTRACT

The present study investigated whether engaging in sexy self-presentations on social network sites (SNSs) or exposure to sexy self-presentations on SNSs predicts the willingness to engage in sexting. A second aim of the present study was to investigate whether adolescent girls demonstrate stronger relationships between (exposure to) sexy online self-presentations on SNSs and willingness to sext than adolescent boys and young adult men and women. A two-wave panel survey among 953 Dutch adolescents (13–17 years old, 50.7% male) and 899 Dutch young adults (18–25 years old, 43.9% male) showed that engaging in sexy self-presentations on SNSs increased the willingness to engage in sexting, but only among adolescent girls. Exposure to sexy self-presentations of others did not predict the willingness to engage in sexting. The findings call for more research on the role of gender and age in the link between sexy self-presentation and sexting.

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1. Introduction

There has been increasing academic and public attention to how young people present themselves in public and private forms of mediated communication, especially the sexual nature of such self-presentations (e.g., [Draper, 2012](#); [MSNBC, 2008](#); [Thiel-Stern, 2009](#)). With regard to public online communication, recent research has found that more than one in ten adolescents engages in sexy self-presentation on social network sites (SNSs) ([Hall, West, & McIntyre, 2012](#)). Based on previous research, sexy self-presentation can be defined as self-presentation on SNSs, such as Facebook, Instagram and Twitter, which is characterized by sexy poses and sexually suggestive – but not explicit – body display (e.g., [Baumgartner, Sumter, Peter, & Valkenburg, 2015](#)). When adolescents engage in body display on SNSs, they especially show their body by wearing revealing clothing (15%), but rarely pose in lingerie, underwear, bra (2.25%), or swimwear (1.31%), and are seldom nude (1.36%) ([Hall et al., 2012](#)). In fact, the community guidelines of social media often dictate that posting sexually explicit and nude content on SNSs is not allowed (e.g., [Facebook, 2016](#); [Instagram, 2016](#)).

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However, some teens also report more sexually explicit forms of sexy self-presentation, namely sending sexually explicit and (partially) nude pictures of themselves in inter-personal conversations via the internet or smartphone, a practice called 'sexting' (e.g., Lenhart, 2009; Mitchell, Finkelhor, Jones, & Wolak, 2012). Although sexy self-presentation on SNSs and sexting are sometimes considered the same type of behavior, they can be seen as two different types of sexual self-expression: Sexting is more sexually explicit and less prevalent, and sexy self-presentation on SNSs is sexually suggestive and more prevalent (e.g., Drouin, Vogel, Surbey, & Stills, 2013). Previous research on these types of sexual self-expression suggests that they are related to each other. For instance, previous research has shown that sexting is associated with overall internet use (Baumgartner, Sumter, Peter, Valkenburg, & Livingstone, 2014) and mediated communication with peers (Campbell & Park, 2013). Sexual self-disclosure on SNSs, in turn, has been related to more offline sexual risk behavior (e.g., casual sex behaviors, Bobkowski, Brown, & Neffa, 2012), and sexual experience (e.g., Doornwaard, Moreno, van den Eijnden, Vanwesenbeeck, & Ter Bogt, 2014). These findings suggest that there may also be an association between sexy self-presentations on SNSs and sexting.

The present study contributes to the literature in two ways. First, it is the first study to longitudinally examine relationships between sexually oriented practices on SNSs and sexting. The study thus extends prior cross-sectional studies on the correlates of sexting behavior (e.g., Dir, Coskunpinar, Steiner, & Cyders, 2013; Drouin et al., 2013) and sexy self-presentations on SNSs (e.g., Doornwaard et al., 2014). Second, the study pays particular attention to the potential moderating role of gender and age in the studied relationships, in line with literature on gender socialization (e.g., Tolman, 2002; Zurbriggen et al., 2010) and adolescent sexual development (e.g., Collins, Welsh, & Furman, 2009; Tolman & McClelland, 2011). Studying the moderating role of gender and age is particularly relevant because motivations for, as well as the meaning of, sexting likely differ between adolescents and young adults (e.g., Lippman & Campbell, 2014), and males and females (e.g., Ringrose, Harvey, Gill, & Livingstone, 2013). However, no study to date has compared adolescent boys and girls and young adult men and women in sexting related attitudes and behaviors.

In this study, we focused on the willingness to sext because behavioral willingness is considered an appropriate measure of risky (sexual) behavior among youngsters (e.g., Gerrard, Gibbons, Houlihan, Stock, & Pomeroy, 2008; Gibbons, Gerrard, Blanton, & Russell, 1998). Measuring willingness to engage in certain risk behavior is a way to tap into adolescents' decision making when it comes to such behavior (Gerrard et al., 2008). The willingness to engage in a behavior refers to the likelihood with which people think they would engage in a behavior when the situation lends itself for this behavior. The measure has been shown to be a better predictor of risky behavior than people's intentions to engage in that behavior (Gerrard et al., 2008; Gibbons & Gerrard, 1995). Investigating behavioral willingness can be considered particularly relevant in the context of sexting because a situation in which a peer asks for a sexually explicit picture is likely to occur in adolescence: In a study by Temple et al. (2012), 57% of the adolescents reported that they had been asked to send a sext.

1.1. Sexy self-presentations on SNSs and willingness to sext

According to the principles of self-perception theory (Bem, 1972), there is reason to expect that young people's sharing of sexually suggestive pictures of themselves on SNSs and their willingness to engage in sexting are related to each other. Self-perception theory states that when people engage in self-presentation, they infer beliefs about themselves and their behavior by observing themselves from an audience perspective (Bem, 1972). As a consequence, when people present certain characteristics to others, these characteristics become more salient to the self and are more likely to guide future behavior (e.g., Schlenker, Dlugolecki, & Doherty, 1994). Sexy self-presentation on SNSs is often characterized by sexually adventurous and outgoing behavior (e.g., Kapidzic & Herring, 2014; Peluchette & Karl, 2009; Ringrose, 2010, 2011; Tortajada, Araña, & Martínez, 2013). Thus, when individuals present themselves as sexy on SNSs, they may observe themselves as sexually adventurous and outgoing. This observation may trigger the willingness to engage in more sexually adventurous behavior, such as sexting.

The literature on sexting among young adults has suggested that behavior characterized by the salience of being sexually adventurous and outgoing is associated with sexting behavior (e.g., Chalfen, 2009; Drouin et al., 2013). For instance, being flirtatious and wanting to initiate sex are among the most frequently mentioned motivations to engage in sexting by young adults in both committed and casual relationships (Drouin et al., 2013). Such associations may also exist for adolescents and their willingness to engage in sexting, given that actual sexting behavior is not as high in adolescence as it is in adulthood (e.g., Benotsch, Snipes, Martin, & Bull, 2013; Drouin et al., 2013; Gordon-Messer, Bauermeister, Grodzinski, & Zimmerman, 2013; Mitchell et al., 2012). Based on previous literature on actual sexting behavior and the premises of self-perception theory, it can thus be expected that engaging in sexy self-presentations in social media will increase the salience of being sexually adventurous. This may, in turn, predict an inclination to present oneself in increasingly adventurous ways, and thus a greater willingness to engage in sexting. We thus hypothesized: More frequent engagement in sexy self-presentations on SNSs is related to a higher willingness to engage in sexting (H1).

Next to one's own engagement in sexy self-presentation, looking at the sexy self-presentations of others on SNSs may also be related to one's willingness to sext. One of the tenets of social cognitive theory (Bandura, 2001) is that the observation of behavior of models who are similar to the observer (e.g., peers) may stimulate the observer to enact similar behavior and to learn about important attitudes and beliefs about a behavior (Bandura, 2001). Because sexy self-presentation seems to convey the message of sexual availability, individuals who observe sexy self-presentations of peers on SNSs may implicitly learn from their peers to be more sexually active (e.g., Kapidzic & Herring, 2014; Peluchette & Karl, 2009; Ringrose, 2010, 2011; Tortajada

et al., 2013; van Oosten, Peter, & Boot, 2015). The relation between others' sexy self-presentation and sexual activity may also extend to an increased willingness to sext. After all, sexting is considered a type of media production to express one's sexual needs and desires (Hasinoff, 2012). Against this backdrop, we hypothesized that more frequent exposure to sexy self-presentations of others on SNSs would be related a higher willingness to engage in sexting (H2).

1.2. Individual differences: the role of gender and age

Most studies on sexting behavior or sexy self-presentations on SNSs have focused on either age or gender differences (e.g., Baumgartner et al., 2014; Dir et al., 2013; Lenhart, 2009; Lippman & Campbell, 2014). However, none of these studies has systematically compared adolescent boys and girls with young adult men and women. Making such a comparison is essential for three reasons. First, the practice of sexting is more accepted for adults than for adolescents. For young adults, sexting is often seen as an acceptable part of sexuality and relationship development (Drouin et al., 2013; Gordon-Messer et al., 2013), whereas for adolescents it is regarded as risky or even illegal (Chalfen, 2009; Diliberto & Matthey, 2009; Lievens, 2014). Moreover, the motivations for engaging in sexting also seem to differ by age. Among older adolescents sexting often occurs within the context of flirting, romance, or sexual relations, whereas younger adolescents engage in sexting to explore their sexual identities (Campbell & Park, 2013; Lippman & Campbell, 2014). As part of this sexual exploration, adolescents may thus start with sexually suggestive self-presentations in social media and engage in increasingly explicit forms of sexy self-presentation. It can thus be expected that the association between engaging in sexy self-presentations on SNSs and the willingness to engage in sexting is stronger among adolescents than among young adults.

A second reason for comparing adolescents and young adults is that the exposure to sexy self-presentation of others may also be more influential for adolescents' than for young adults' willingness to sext. Adolescents' sexual selves are still developing, which leads adolescents often to look at others as examples of how to behave sexually (e.g., Bleakley, Hennessy, Fishbein, & Jordan, 2009; van de Bongardt, Yu, Deković, & Meeus, 2015). As a result, exposure to sexy self-presentations of others on SNSs may more strongly affect adolescents' willingness to engage in sexual behaviors as compared to young adults.

A third reason for comparing groups based on age and gender is that adolescent girls may be more susceptible to the association between sexy self-presentation in SNSs and the willingness to sext than adolescent boys and young adult men and women. Engaging in sexting and sexy self-presentations on SNSs is the least accepted for girls, while, at the same time, they receive the most pressure to sext or present themselves as sexy on SNSs (Draper, 2012; Gudmundsdottir & Jansz, 2016; Lippman & Campbell, 2014; Ringrose et al., 2013; Temple et al., 2012; Walker, Sancı, & Temple-Smith, 2013). According to the literature on the sexual double standard, women, and adolescent girls in particular, are often reproached for acting too sexually or for acting on their sexual impulses (e.g., Allen et al., 2007; Hasinoff, 2012; Tolman, 2002). At the same time, studies have also reported that adolescent girls sometimes feel pressured by males to sext (e.g., Gudmundsdottir & Jansz, 2016). Similarly, a sexually attractive self-presentation on SNSs is typically considered more important for female than for male social media users (e.g., Albury, 2015; Kapidzic & Herring, 2011; Manago, Graham, Greenfield, & Salimkhan, 2008). Therefore, it is conceivable that girls are particularly susceptible to self-perception or mediated peer influences when it comes to the willingness to sext. Against the backdrop of this literature, we hypothesized that the relationships between exposure to sexy self-presentations of others on SNSs as well as engaging in sexy self-presentations on SNSs and willingness to engage in sexting would be stronger among adolescent girls than for adolescent boys, and young adult men and women (H3).

2. Method

We conducted a two-wave panel survey with a two month time interval, among Dutch adolescents (13–17 years old) and young adults (18–25 years old). Short time-lags have been considered suitable for sexual behaviors, which may change quickly among youth (e.g., Kirby, Laris, & Rolleri, 2007), and have been used successfully in previous research (e.g., Gentile, Walsh, Ellison, Fox, & Cameron, 2004). Respondents were randomly selected by Dutch research agency Veldkamp from their pool of respondents, which was originally sampled randomly among the Dutch population and continuously updated, reducing problems of self-selection biases. Informed consent was asked from the parents of the adolescents before the adolescents were contacted. Both adolescent and young adult participants were given information about the content of the survey beforehand and asked for their consent to participate.

At wave 1, a total of 1236 adolescents (response rate 68%) and a total of 1173 young adults (response rate 47%) who were contacted by Veldkamp participated in the study. At wave 2, 1008 adolescents and 950 young adults who had participated at baseline participated again (response rate adolescents = 81.6%; response rate young adults = 80.9%). Only respondents that had participated in all waves and that used SNSs were included in the analytical sample of the current study, resulting in a final sample of 953 adolescents and 899 young adults (total $N = 1852$).

Demographic characteristics of our sample were similar to Dutch census data of 2015, although our sample contained a slightly higher percentage of females (51.6% versus 48.9% in the Dutch population overall). Our sample also had a slightly lower percentage of people from the three biggest cities in the Netherlands (8.7% versus 13.3% of the Dutch population), and respondents were from slightly smaller families compared to family sizes in the Dutch population (for instance, 13.8% was from 2 person households, compared to 6.1% in the Dutch population, and 47.3% was from 4 to 5 person households, compared to 65.3% in the Dutch population). The SES of our sample, based on the educational level and income level of the participants' parents, was rather high; the majority (78.8%) of the participants was part of the highest and second highest

level of SES, and 21.2% of our sample was part of the lowest and second lowest SES level. This is similar to educational levels of the Netherlands in general, where 73% of the population has received university- or intermediate or higher vocational education, and 27% have a lower educational level (CBS, 2014).

Using Wilks' Lambda, a MANOVA analysis revealed that there were no significant differences between the sample participating only at baseline and the sample participating at both waves regarding (exposure to) sexy self-presentation on SNSs or willingness to engage in sexting, $F(3, 2272) = 0.196, p = 0.89$. The mean age of the adolescent sample was 14.90 ($SD = 1.43$), and of the young adult sample the mean age was 22.32 ($SD = 2.08$). Of the adolescent sample, 50.7% were boys, and of the young adult sample, 43.9% were men. Of the adolescent sample 93.4% had a heterosexual sexual orientation. For young adults, this proportion was 88.2%. Because our analytical sample only includes SNSs users, these percentages slightly differ from the general population (i.e., 93% of Dutch adults, 91% of adolescent Dutch girls and 94% of adolescent Dutch boys are exclusively heterosexual, Movisie, 2015). Because we only used SNSs users in our analytical sample, we had no missing data for any of our variables.

2.1. Measures

2.1.1. Sexy online self-presentation

We asked participants first whether they used SNSs (e.g., Facebook, Twitter, Instagram). When they were SNS users, they were subsequently asked how often in the past two months they had uploaded pictures on their SNS profile portraying themselves (a) with a sexy gaze, (b) with a sexy appearance, (c) scantily dressed (e.g., bathing suit or underwear), and (d) in a sexy posture, on a 7-point Likert scale (1 = *never* to 7 = *always*). The items were based on previous research on the characteristics of young people's sexy self-presentations (e.g., Crescenzi, Araüna, & Tortajada, 2013; Hall et al., 2012; Moreno, Parks, Zimmerman, Brito, & Christakis, 2009; Peluchette & Karl, 2009), have been used successfully in other research (e.g., Vandenbosch, van Oosten, & Peter, 2015), and showed good internal consistency and reliability (wave 1 eigenvalue = 3.10; explained variance = 70%; Cronbach's $\alpha = 0.90$; wave 2 eigenvalue = 3.26; explained variance = 76%; Cronbach's $\alpha = 0.92$). Means and standard deviations (of the four items averaged) for the four groups separately are shown in Table 1

2.1.2. Sexy online self-presentation of others

Similar to previous research on exposure to sexy self-presentations of others (van Oosten et al., 2015), we also asked participants that used SNSs how often in the past two months they had *deliberately* sought out pictures of others on SNSs portraying them (a) with a sexy gaze, (b) with a sexy appearance, (c) scantily dressed (e.g., bathing suit or underwear), and (d) in a sexy posture, on a 7-point Likert scale (1 = *never* to 7 = *always*) (wave 1 eigenvalue = 3.67; explained variance = 89%; Cronbach's $\alpha = 0.97$; wave 2 eigenvalue = 3.72; explained variance = 91%; Cronbach's $\alpha = 0.98$). Means and standard deviations (of the four items averaged) for the four groups separately are shown in Table 1

2.1.3. Willingness to engage in sexting

Based on previous assessments of behavioral willingness (e.g., Gerrard et al., 2008), willingness to engage in sexting was measured by asking participants if it was likely that they would send a picture via the internet or text message of them being naked or almost naked, if this was asked of them by a) their partner, b) someone they are dating, c) a friend, d) a stranger, or e) their ex-partner, on a 7-point Likert scale (1 = *very unlikely* to 7 = *very likely*) (wave 1 eigenvalue = 3.29; explained variance = 58%; Cronbach's $\alpha = 0.82$; wave 2 eigenvalue = 3.43; explained variance = 61%; Cronbach's $\alpha = 0.84$). Means and standard deviations (of the five items averaged) for the four groups separately are shown in Table 1.

2.1.4. Control variable

Because one's level of sexual experience may predict a person's willingness to engage in sexting (e.g., Gordon-Messer et al., 2013; Rice et al., 2012; Temple et al., 2012), we controlled for participants' sexual experience at wave 1. Sexual experience was measured by asking respondents whether they had experience with the following sexual behaviors: a) touching each other's

Table 1

Means and Standard Deviations of the Variables, for the Full Sample and the Four Groups Based on Gender and Age.

	Full Sample		Boys		Girls		Men		Women	
	M	SD	M	SD	M	SD	M	SD	M	SD
Sexy self-presentation (w1)	1.65	0.92	1.29	0.69	1.34	0.69	1.30	0.70	1.30	0.61
Sexy self-presentation (w2)	1.66	0.94	1.37	0.85	1.34	0.68	1.29	0.70	1.34	0.69
Exposure to sexy self-presentation of others (w1)	1.46	0.92	1.66	1.10	1.27	0.69	1.64	1.04	1.31	0.75
Exposure to sexy self-presentation of others (w2)	1.50	1.02	1.73	1.23	1.30	0.71	1.70	1.18	1.32	0.80
Willingness to sext (w1)	1.31	0.67	1.65	0.95	1.41	0.77	1.86	1.04	1.70	0.88
Willingness to sext (w2)	1.34	0.73	1.79	1.09	1.40	0.73	1.84	1.01	1.65	0.84
Sexual experience (w1)										
Genital touching	52.1%		22.6%		20.6%		81.8%		86.5%	
Giving or receiving oral sex	40.7%		11.8%		10.6%		67.8%		75.0%	
Sexual intercourse	43.7%		10.6%		13.0%		72.4%		81.5%	

genitals, b) giving or receiving oral sex, and c) vaginal intercourse (the latter was changed into ‘having sex’ for gay, lesbian and undecided adolescents). Response categories were “yes” (coded ‘1’) or “no” (coded ‘0’) (wave 1 eigenvalue = 2.65; explained variance = 82%; Guttman’s $\lambda^2 = 0.93$; Guttman’s Lambda 2 was used instead of Cronbach’s alpha given the hierarchical nature of the three items). Frequencies of each type of sexual behavior are shown in Table 1 separately for the four groups. In the model, the average of the three items was used as a manifest variable “sexual experience.”

2.2. Data analysis

Structural equation modelling in AMOS 23 was used to address our research aims, where latent constructs were loaded on the manifest items used to measure each construct. Because ‘willingness to engage in sexting’ was not normally distributed, we based our findings on a non-parametric test (i.e., bootstrapping). We calculated the 95% bootstrap confidence interval of the unstandardized coefficients of the predictors, based on 1000 bootstrap iterations ($N = 1852$). When this confidence interval does not contain zero, the prediction can be considered statistically significant. Although it was not the aim of the study to test reciprocal relationships, we modelled relationships between willingness to sext at wave 1 and sexy self-presentation of self and others at wave 2 as well. As suggested by previous research that has shown a prediction of sexy self-presentations by sexual behaviors and attitudes (e.g., van Oosten et al., 2015), the willingness to engage in sexual behaviors, such as sexting, can theoretically be expected to predict (exposure to) sexy self-presentations. Gender differences in the means of our main variables were analyzed with a MANOVA in SPSS 22. To see whether the hypothesized relationships were significantly different for our different age and gender groups, we conducted multiple group comparisons (Rigdon, Schumacker, & Wothke, 1998) in AMOS 23.

3. Results

3.1. Hypothesized model

To test Hypotheses 1 and 2, that more frequent engagement in sexy self-presentations on SNSs (H1) and more frequent exposure to sexy self-presentations of others on SNSs (H2) would be related to a higher willingness to engage in sexting, we tested a model in which both sexy self-presentation and exposure to sexy self-presentation of others (at wave 1) were entered simultaneously, and were modelled to relate to willingness to sext (at wave 2). Gender, age and sexual experience were entered as manifest control variables. The fit of the model was acceptable, $\chi^2 = (333, N = 1852) = 3143.55, p < 0.001$, CFI = 0.95, RMSEA = 0.068 (90% CI: 0.065/0.070), $\chi^2/df = 9.44$. More frequent engagement in sexy self-presentation on SNSs predicted a higher willingness to sext, but the relationship did not hold with bootstrapping, $\beta = 0.076, B = 0.10, SE = .035, p = 0.004, 95\% \text{ BCI: } -.008/.161$. More frequent exposure to sexy self-presentations of others on SNSs did not predict the willingness to sext, $\beta = 0.047, B = 0.053, SE = .028, p = 0.055, 95\% \text{ BCI: } -.025/.117^1$. Thus, although the findings seemed to indicate a weak association between sexy self-presentations and the willingness to sext, our results failed to fully support Hypotheses 1 and 2.

3.2. Gender and age differences

Before testing moderation effects, we investigated differences between our age and gender groups (adolescent boys, adolescent girls, young adult men and young adult women) in the mean scores for sexy self-presentation (wave 1), exposure to sexy self-presentations of others (wave 1), and willingness to sext (wave 2) (see Table 1 for the mean scores). A MANOVA showed significant differences, Wilks’ Lambda = 0.920, $F(9, 4492.83) = 17.33, p < 0.001$. The groups differed significantly on willingness to sext (wave 2), $F(3, 1848) = 20.16, p < 0.001$, and exposure to sexy self-presentations of others (wave 1), $F(3, 1848) = 24.78, p < 0.001$, but not on their own engagement in sexy self-presentation (wave 1), $F(3, 1848) = 0.43, p = 0.73$.

Pairwise comparisons showed that girls had significantly lower willingness to sext compared to the other groups (all p 's < 0.001), and women had significantly lower willingness to sext compared to young adult men ($p = 0.011$), but not compared to adolescent boys ($p = 0.103$). Boys and men did not differ in their willingness to sext. Adolescent girls and young adult women had significantly lower levels of exposure to others' sexy self-presentations on SNSs compared to adolescent boys and young adult men (both p 's < 0.001). Adolescent boys did not differ from young adult men and adolescent girls did not differ from young adult women in their exposure to others' sexy self-presentations on SNSs.

3.3. Moderation by gender and age

Hypothesis 3 stated that the relationships between exposure to sexy self-presentations of others on SNSs or engaging in sexy self-presentations on SNSs and willingness to engage in sexting would be stronger among adolescent girls as compared

¹ Additional analyses in which extreme outliers ($N = 15$) in the Mahalanobis distance (>40) and standardized residuals (<-4 and >4) were excluded, showed a significant association between exposure to sexy self-presentations of others on SNSs and the willingness to sext, $\beta = 0.068, B = 0.078, SE = 0.029, p = 0.006, 95\% \text{ BCI: } 0.001/.136$.

Table 2

Prediction of willingness to engage in sexting (wave 2) by sexy self-presentation (wave 1) and exposure to sexy self-presentation of others (wave 1) for the four groups based on gender and age.

	β	<i>B</i>	<i>SE</i>	<i>p</i>	95% BCI
Predictor: Sexy self-presentation (wave 1)					
Boys	0.053	0.087	0.084	0.301	−0.176/0.325
Girls	0.285	0.230	0.050	0.000	0.092/0.424
Men	0.092	0.147	0.082	0.072	−0.097/0.385
Women	0.013	0.013	0.052	0.804	−0.175/0.270
Predictor: Sexy self-presentation of others (wave 1)					
Boys	−0.008	−0.009	0.055	0.870	−0.160/0.129
Girls	−0.084	−0.075	0.052	0.149	−0.210/0.073
Men	0.114	0.142	0.059	0.017	−0.006/0.341
Women	0.107	0.106	0.047	0.025	−0.055/0.270

to adolescent boys, and young adult men and women. To test H3, we conducted a multiple group analysis in which we compared the relationships hypothesized in H1 and H2 between the four groups based on gender and age. The model with the multiple group comparisons showed adequate fit to the data, $\chi^2 = (1172, N = 1852) = 5212.38, p < 0.001, CFI = 0.92, RMSEA = 0.043$ (90% CI: 0.042/0.044), $\chi^2/df = 4.44$. Only in the model for girls did sexy self-presentation on SNSs (at wave 1) result in more willingness to sext (at wave 2; see Table 2). More frequent exposure to sexy self-presentations of others on SNSs predicted a higher willingness to sext among young adult men and women, but these predictions among adults did not hold with bootstrapping² (see Table 2). Hypothesis 3, that the prediction of the willingness to engage in sexting by (exposure to) sexy self-presentations on SNSs and would be stronger among adolescent girls than for the other groups, was thus only supported for the prediction by engaging in sexy self-presentation.

To see whether the prediction of willingness to engage in sexting by sexy self-presentation for girls significantly differed from the prediction for the other groups, we conducted multiple group comparisons. The analyses showed that adolescent girls differed significantly from young adult women (CMIN = 8.765, $p = 0.003$), who showed the weakest relationship between sexy self-presentation on SNSs and willingness to sext. However, girls did not differ significantly in this relationship from boys (CMIN = 2.123, $p = 0.15$), or from men (CMIN = 0.729, $p = 0.39$).

4. Discussion

This study aimed to investigate whether young people's sexually suggestive self-presentations on SNSs predict the willingness to engage in more explicit forms of self-presentation (i.e., sexting), and whether such a prediction differs by gender and age. Sexy self-presentation in social media predicted the willingness to sext, but only among adolescent girls. It is important to note that adolescent girls had significantly lower means for willingness to sext than adolescent boys and young adult men and women. This suggests that, at a very low level, sexy self-presentation in social media may make sexting - behavior that may generally be less accepted among adolescent girls (Hasinoff, 2012) - more acceptable and attractive. There seemed to be no robust relationship between exposure to sexy self-presentations of others on SNSs and the willingness to engage in sexting (although this relationship appeared significant among young adult men in additional analyses in which extreme outliers were removed, see endnote).

The finding that sexy self-presentation in social media predicted the willingness to sext among adolescent girls has implications for how we conceptualize self-presentation in social media in general. First, it suggests that self-perception theory may be extended by taking into account accumulating shifts in behaviors, or at least in behavioral willingness, in addition to the shifts in self-perceptions that were previously investigated (e.g., Walther et al., 2011). Second, our finding suggests that we should focus more on how online self-presentation or online communication may result in the acceptance and attractiveness of more extreme forms of certain behavior online as well as offline, both in the domain of sexuality as well as other domains. For adolescent girls, this seems to apply to their sexual self-presentation, but it may be interesting to investigate if this also applies to other behaviors (e.g., aggression, substance use) for other groups. In addition, research may focus more on how and why adolescent girls in particular may be more susceptible to the influence that self-presentation in social media has on their sexual behavioral willingness.

The lack of robust evidence for an influence for exposure to others' sexy self-presentations on SNSs seems to suggest that the willingness to engage in more extreme forms of sexy self-presentations is predicted by self-perception more so than by the perception of others directly. It may be, however, that exposure to others' sexy self-presentation influences the willingness to engage in sexting indirectly, through changing social norms about sexting. Such an indirect influence would be in line with the prototype-willingness model (Gerrard et al., 2008), which suggests that the impact of media content on

² In the additional analyses without outliers, the association between exposure to sexy self-presentations of others on SNSs and the willingness to sext remained significant with bootstrapping for young adult men ($\beta = 0.135, B = 0.165, SE = 0.060, p = 0.006, 95\% BCI: 0.018/0.340$). Young adult men differed significantly from adolescent boys in this relationship, but not from adolescent girls or young adult women. A more detailed description of these additional analyses and findings can be obtained from the first author upon request.

behavioral willingness occurs through social perceptions such as peer prototypes or norms (see also, Dal Cin et al., 2009). This notion also merges with previous research on the prediction of sexting by social norms (Lippman & Campbell, 2014; Rice et al., 2012; Walrave, Heirman, & Hallam, 2014). Future research may thus test whether such indirect processes occur for the prediction of willingness to engage in sexting by exposure to sexy self-presentations of peers on SNSs.

The sexual double standard surrounding sexting behavior was also supported by our data, such that adolescent boys had a significantly higher willingness to sext than adolescent girls. This suggests that for adolescent boys, engaging in sexting is indeed less stigmatized as it is for adolescent girls. Moreover, the finding that (exposure to) sexy self-presentation does not predict adolescent boys' willingness to sext suggests that different motivations may underlie their sexting behavior and that these different motivations may be related to the societal messages that adolescents receive about appropriate or desired sexual behavior. For adolescent girls, sexting may be motivated by impression management and self-expression, which is in line with societal messages that girls receive about the importance of looking sexy and attractive (e.g., Tolman, 2002; Zurbriggen et al., 2010). For adolescent boys, sexting may be mostly motivated by sexual desire and the societal expectation to act on once sexual impulses (e.g., Walker et al., 2013), and the same likely holds for adolescent men.

Interestingly, we found the largest differences in the relationship between sexy self-presentation on SNSs and the willingness to sext between adolescent girls and young adult women. This suggests that age differences in motivations for engaging in sexting may particularly hold for females. This finding can be explained by the differential connotations that sexting has for adolescent girls and young adult women. As adolescent girls are often taught that sexting is inappropriate, dangerous, and illegal (Chalfen, 2009, 2010), they may have negative expectancies of sexting and are thus unwilling to engage in sexting (Dir et al., 2013). Engaging in sexually suggestive self-presentations on SNSs may alleviate such negative expectancies, by increasing the salience of being sexually adventurous and by the increased popularity among one's peers that accompanies most of the sexy self-presentation on SNSs (e.g., Bailey, Steeves, Burkell, & Regan, 2013; Siibak, 2009). Although young adult women have also been shown to have negative expectancies towards sexting - at least compared to men - (Dir et al., 2013), sexting is more accepted for young adult women than for adolescent girls (Drouin et al., 2013; Ferguson, 2011; Gordon-Messer et al., 2013; Hasinoff, 2012). Engaging in sexy self-presentation on SNSs in order to alleviate negative expectancies of sexting may thus not be needed as much by young adult women. Also, young women experience more sexual self-confidence and efficacy (Hensel, Fortenberry, O'Sullivan, & Orr, 2011), and these sexual self-concepts may increase their willingness to engage in sexting more so than self-perception influences on SNSs.

Against the backdrop of our findings, more research is needed on what the relationship between sexy self-presentation and the willingness to sext can mean for adolescent girls with regard to positive and negative consequences for their sexuality. Adolescent girls who engage in sexy self-presentation in social media may become increasingly confident about their sexual selves through sexy self-presentation and may subsequently be more willing to engage in sexting behavior. This may entail a positive development as sexting has been considered a safe alternative to real life sexual activity (Diliberto & Matthey, 2009; Lenhart, 2009) and may simply reflect a new medium for sexual exploration that is common in adolescence (Chalfen, 2009, 2010). However, these potentially positive views on sexting need to be seen in the light of legal perspectives, where sexting among adolescents is considered illegal and a form of child pornography (Chalfen, 2009; Diliberto & Matthey, 2009; Lievens, 2014).

Also, whereas sexting is often intended by adolescents as a private sexual activity, the possibility of their sexually explicit pictures being forwarded to an unintended, large audience may make such sexual behaviors problematic (e.g., Diliberto & Matthey, 2009). Especially among adolescent girls and young adult women, sexting has been associated with sexual harassment (e.g., Henry & Powell, 2014; Lindsay & Krysik, 2012; Powell, 2010; Reynolds, Burek, Henson, & Fisher, 2013) as well as a variety of (sexual) risk behaviors, such as having sex with multiple partners and using drugs or alcohol before sex (e.g., Benotsch et al., 2013; Rice et al., 2012; Temple et al., 2012; Van Ouytsel, Walrave, Ponnet, & Heirman, 2015). At the same time, adolescents seem to engage in sexting despite their knowledge of such negative consequences (Lippman & Campbell, 2014; Strassberg, McKinnon, Sustaíta, & Rullo, 2013; Walker et al., 2013). While engaging in sexy self-presentations on SNSs may be one predisposing factor for adolescent girls to be more willing to sext despite the potentially negative consequences, other, perhaps more dangerous, motivations should also be taken into account, such as adolescent girls feeling pressured to engage in sexting by boys (Walker et al., 2013).

As a final note, our findings only generalize to adolescents and young adults who use social media, as we only used data from SNS users in our analyses. We chose to use this smaller sample to avoid missing data in our (exposure to) sexy self-presentation measures. Moreover, it seemed most meaningful to investigate self-perception and peer influences in social media in a sample of social media users. Future research may investigate how other types of sexy self-presentation in other (perhaps offline) contexts relate to adolescent girls' willingness to sext. To conclude, as adolescent girls' sexy self-presentation on SNSs seems to make them more willing to engage in sexting, SNSs could thus be used to target adolescent girls who may be putting themselves at risk by engaging in increasingly explicit forms of self-presentation. Future research thus needs to reveal whether sexy self-presentation and the subsequent willingness to engage in sexting among adolescent girls is part of healthy sexual development and exploration of sexuality, or a symptom of the development of sexual risk behavior.

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