



# Stereotyping Yourself: Are Adolescents' Stereotypes About the Sexual Double Standard Related to Their Own Sexual Behaviors?

Duraa Boahene<sup>1</sup> · Ellen Reitz<sup>1</sup> · Joyce J. Endendijk<sup>1</sup>

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## Abstract

The sexual double standard (SDS), which prescribes that boys should be sexually active and dominant, and girls should be sexually reactive and submissive, is still present in today's society. To gain insight into the role the SDS plays in adolescents' sexual behavior, this study investigated how the SDS-stereotypes of Dutch adolescents (aged 16–20,  $N=566$ , 58% girls) were related to their sexual experience, intention to have sex in the coming year, and sexy online self-presentation. This study also examined whether these associations were different for boys and girls. Data were collected through an online survey that adolescents completed at school. Hierarchical linear regression analyses showed that for both boys and girls, having more SDS-stereotypes was associated with a higher level of sexual experience. In adolescents who did not have sexual intercourse yet, only for boys, more SDS-stereotypes were related to having a higher intention to have sex in the coming year. Furthermore, only for girls, more SDS-stereotypes were related to less sexy online self-presentation. The results indicated that SDS-stereotypes were associated with adolescents' sexual behaviors. As a next step, experimental and longitudinal research is necessary to inform whether and how sex education programs can focus on educating adolescents on the SDS.

**Keywords** Sexual double standard · Stereotypes · Adolescence · Sexual behavior · Gender

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✉ Joyce J. Endendijk  
J.J.Endendijk@uu.nl

<sup>1</sup> Child and Adolescent Studies, Utrecht University, Heidelberglaan 1, P.O. Box 80140, 3508 TC Utrecht, The Netherlands

## Introduction

Gender inequality is still evident in several aspects of our social world. It can, for example, manifest itself in the existence of different standards for behavior for women and men (Paynter & Leaper, 2016; Prentice & Carranza, 2002). Sexual behaviors are far from exempt from these different standards (Bordini & Sperb, 2012; Endendijk et al., 2020). Traditionally, boys are expected to be sexually dominant, active, and take sexual initiative (Sanchez et al., 2012). Girls on the other hand, are expected to be sexually submissive, passive, and reactive. In addition, girls are granted less sexual freedom than boys. These gendered expectations concerning sexual behaviors are referred to as the sexual double standard (SDS; Emmerink et al., 2016; Zaikman & Marks, 2017). The SDS can result in women and men being evaluated differently for engaging in the same sexual behaviors. For example, for boys, having a greater number of sexual partners is positively evaluated by peers, while for girls, it is related to less peer acceptance (Kreager & Staff, 2009).

Although the SDS concerns traditional gender norms, this does not mean that the SDS is something of the past. Recent meta-analytic research has shown that traditional SDS-cognitions are still present today (Endendijk et al., 2020). This continued existence of the SDS is not without consequences. For women, believing in rigid sexual double standards can lead to psychological conflict between the desire to be seen as moral as well as sexually desirable (Rudman et al., 2017). Furthermore, the SDS discourages female sexual agency, which can stand in the way of achieving sexual satisfaction (Sanchez, Phelan, et al., 2012). Young women who endorse the SDS also perceive more barriers to use condoms (Lefkowitz et al., 2014). For men, having expectations that match the SDS is related to having more sexual partners and, for both men and women, the SDS is related to being more accepting towards verbal sexual coercion strategies and having personal experience with verbal sexual coercion, as a victim or perpetrator (Eaton & Matamala, 2014).

Due to these negative consequences, it is critical to further investigate the consequences of the SDS for the sexual behavior of adolescents. Most previous research on the consequences of the SDS is conducted in adults (Endendijk et al., 2020). Since adolescents are at an age at which they are just starting to find their way around sexuality and are going through major sexual developments, they may be especially vulnerable to (the effects of) the SDS (Collins et al., 2009; De Graaf et al., 2017; DeLamater & Friedrich, 2002). Because of this, adolescence seems to be an optimal period for intervention purposes aimed at preventing the negative consequences of the SDS. The current study therefore investigated the consequences of the SDS for the sexual behavior of late adolescents (aged 16–20) in the Netherlands. At this age most Dutch adolescents become sexually active (de Graaf et al., 2017).

## SDS-Stereotypes and Adolescents' Sexual Behavior

In order to gain insight into the role the SDS plays in adolescents' sexual behavior, this study focused on adolescents' SDS-stereotypes. These SDS-stereotypes reflect to what extent adolescents have internalized the societal SDS into their own

expectations about the sexual behavior of men and women. Gender schema theories (GSTs) provide a theoretical framework to understand how SDS-stereotypes might play a role in adolescents' sexual behavior (Bem, 1983; Martin & Halverson, 1981). Gender schemas are cognitive structures containing gender-related information that serve to organize and structure information into categories of male and female. According to GSTs, children learn which attributes their society defines as feminine or masculine and, as a result, they learn which attributes are suitable for themselves, based on their sex. In this way, gender schemas, such as gender stereotypes, function as a prescriptive social standard or guide for behavior. More specifically, gender schemas provide a motivation to act in accordance with gender norms, as a means of defining one's self-concept or in order to avoid cognitive dissonance. Because of the prescriptive nature of gender stereotypes, it seems likely that adolescents with more SDS-stereotypes would tend to behave in ways that are in line with these stereotypes.

### **SDS-Stereotypes and Sexual Experience**

When studying how SDS-stereotypes are related to adolescents' sexual behavior, their level of sexual experience appears as an important starting point. In the current study, sexual experience refers to experience with sexual activities ranging from touching and caressing to sexual intercourse. Behaviors that were studied in previous research concerning the effects of the SDS among late adolescents and adults in the US, include engaging in casual sex, sexual permissiveness, and number of sexual partners (Lefkowitz et al., 2014; Rudman et al., 2017). These behaviors might not be as relevant among Dutch adolescents in particular. Generally, the number of sexual partners among adolescents is relatively low and a substantial number of adolescents is not sexually active yet (Kreager et al., 2016). Specifically in the Netherlands, about 50% of the adolescents have had sexual intercourse at the age of 18 (De Graaf et al., 2017). For other sexual behaviors, such as touching and oral sex, the average age lies between 16 and 18 in the Netherlands. Because adolescents differ in the level of experience with different types of sexual activities, level of sexual experience seems to be particularly relevant to relate to their personal endorsement of SDS-stereotypes.

Since the SDS deems engaging in (more) sexual behaviors as appropriate for men, but inappropriate for women, it seems likely that boys who endorse SDS-stereotypes might be more sexually experienced, while girls who endorse them might be less experienced (Lefkowitz et al., 2014; Sanchez et al., 2012). Research confirms the idea that women and men who endorse double standards tend to engage in behaviors that are in line with these standards (Kreager et al., 2016). For instance, for late-adolescent men, endorsing SDS-stereotypes was related to being more sexually experienced (Lefkowitz et al., 2014). Also, when the sexual double standard was endorsed more at school, boys were more likely to report being more sexually experienced, while girls were not (Soller & Haynie, 2017). In addition, peers were found to be less accepting of female adolescents being sexually experienced than they were of male adolescents who were sexually experienced (Kreager & Staff,

2009; Kreager et al., 2016). The anticipated punishment from peers might lead girls to refrain from becoming sexually experienced. Together these studies indicate that SDS-stereotypes might steer girls away from being highly sexually experienced and boys toward being highly sexually experienced. The current study extends these studies by examining whether SDS-stereotypes are related to level of experience with different sexual activities that are often engaged in during adolescence.

### **SDS-Stereotypes and Sexual Intention**

Since not all adolescents are sexually active yet, it is also important to investigate possible variation within the group of adolescents without sexual experience (De Graaf et al., 2017). An important aspect of sexuality in this regard is sexual intention, which is defined as the eagerness to have sex in the coming school year (van de Bongardt et al., 2014). Sexual intention is found to be the most important predictor of engaging in sexual behavior (Buhi & Goodson, 2007). Because sexual intention seems to be a clear precursor of becoming sexually experienced, it was expected that the association between SDS-stereotypes and sexual intention would be similar to the association of SDS-stereotypes with sexual experience. Thus, for boys, more SDS-stereotypes would be related to having higher sexual intention, whereas for girls, more SDS-stereotypes would be related to lower sexual intention. A study among Chinese adolescents yields some evidence for this idea, showing that for boys, endorsement of a negative male role, including being aggressive and unemotional, is related to higher sexual intention (Wu et al., 2021).

### **SDS-Stereotypes and Sexy Online Self-presentation**

Adolescents do not only enact sexual behavior offline, but they also show sexual behavior online. For instance, adolescents can present themselves in a sexy or sexual way online. Sexy online self-presentation can be defined as posting pictures of oneself being scarcely dressed, with a tempting or sexy gaze or in a pose that suggests sexual willingness (van Oosten, 2018). Research suggests that approximately 25 percent of young people's profile pages contain sexually suggestive material (Moreno et al., 2009; Peluchette & Karl, 2009). Importantly, sexual online self-presentation can have negative consequences for adolescents, as it has been associated with offline sexual risk behavior (Bobkowski et al., 2012), and for girls with negative reactions from female peers (Baumgartner et al., 2015).

A few studies point at a link between endorsing gender stereotypes and engaging in [sexy online self-presentation](#). Firstly, adolescents' hypergender orientation predicted more frequent sexy self-presentation on social media (van Oosten et al., 2017). For boys, such a hypergender orientation (hypermasculinity) entails the tendency to engage in macho and dominant behavior, while for girls, hyperfemininity entails an exaggerated adherence to a stereotypic feminine gender role. Furthermore, the nature of sexy self-presentations seems to be in line with traditional stereotypes about women and men. For example, women often pose in a submissive way and tend to present themselves as emotional, sexually available, and eager to please men,

while young men appear more assertive and dominant in their sexy self-presentations (Hall et al., 2012; Kapidzic & Herring, 2011). The current study extends this research by focusing specifically on SDS-stereotypes, that might be more closely linked to adolescents sexual self-presentation than general gender stereotypes.

The association between SDS-stereotypes and sexy online self-presentation is likely to be different for boys and girls. Important in this regard is that the SDS poses a double bind for women in particular, in which they are expected to be sexy, but not sexual (Emmerink, 2017). Because of this double bind, girls might post sexy pictures as a means to gain popularity and social acceptance, but they are also likely to be reprimanded when they present themselves as too sexual (Baumgartner et al., 2015; Mascheroni et al., 2015). In addition, when engaging in sexy online self-presentations, being considered attractive is especially important to girls (Kapidzic & Herring, 2011). Girls are also more likely to present themselves in a sexy way on social media than boys (Hall et al., 2012). Even though the majority of adolescent girls have limited online sexual experience, engagement in online and offline sexual behavior appear to be related (Maas et al., 2018). Female adolescents might feel that they need to appear modest regarding offline sexual behavior, but simultaneously feel that they should prove their sexiness online (Maas et al., 2019). These confusing expectations are reinforced by social media where images of sexualized women and girls are called upon and rewarded, but at the same time condemned (Ringrose et al., 2013). Because of the increased pressure for girls to be seen and present themselves as attractive, originating from the SDS, endorsement of SDS-stereotypes might be particularly associated with increased sexy self-presentations in girls and less so for boys.

## Current Study

This study investigated the associations between adolescents' SDS-stereotypes and their level of sexual experience, sexual intention, and sexy online self-presentation. In addition, it was tested whether these associations were different for boys and girls. For boys, having more SDS-stereotypes was expected to be associated with more sexual experience or higher sexual intention (i.e., for boys without sexual experience). For girls, having more SDS-stereotypes was expected to be associated with less sexual experience or lower sexual intention (i.e., for girls without sexual experience). Finally, endorsing SDS-stereotypes was expected to be related to engaging in more sexy online self-presentation, especially for girls and less so for boys. The hypotheses about sexual intention were specifically examined in Dutch adolescents' without experience with sexual intercourse, as sexual intention is only relevant in these adolescents. The hypotheses about level of sexual experience and sexy online self-presentation were examined in the whole sample of adolescents recruited for this study.

The current research extends previous research on the role of the SDS in people's sexual behavior in several ways. First, research on the consequences of the SDS for adolescents, and specifically Dutch adolescents, is limited (Endendijk et al., 2020). This study could provide further knowledge on the role the SDS plays in this

important phase of sexual development. Second, the current study included several online and offline sexual behaviors, which provides insights as to whether the SDS relates differently to each type of sexual behavior, or not. Third, the study broadens our knowledge on the role the SDS plays in the Dutch context that is characterized by relatively high levels of gender equality (United Nations Development Program, 2020; World Economic Forum, 2021) and an open-minded view about sexuality (Emmerink et al., 2016). Sex education is also compulsory in Dutch schools and is generally not focused on teaching abstinence, but on fostering sexual autonomy in adolescents (Ferguson et al., 2008; Krebbekx, 2020). As most previous research is conducted in the US it is important to study whether the SDS also applies differently to male and female adolescents in a more gender-equal and sex-positive cultural context.

## Method

### Participants

Participants were recruited from 24 high schools and lower vocational schools in the Netherlands, by means of convenience sampling. The schools were approached via the personal networks of student assistants (BA and MA students in Clinical, Child, Family and Education Studies), using information letters that were provided via e-mail or in-person. Between November 2017 and June 2019, one or two classes from each school participated in the study.

The initial sample consisted of 620 adolescents, aged between 16 and 20. Fifty-four participants were excluded, as they did not complete any of the questions about their sexual behavior. This resulted in a final sample composed of 566 adolescents ( $M_{age} = 17.17$ ,  $SD = 1.00$ , 58% girls). There were no differences between completers and non-completers on any of the background variables ( $p$ 's > 0.054). Of the participants, 37% reported having experience with sexual intercourse. Table 1 presents sample characteristics for the whole sample and separately for adolescents with and without experience with sexual intercourse. This was done because the hypotheses for sexual intention were examined in adolescents who have not had sexual intercourse, whereas the other hypotheses were tested in the whole sample. Ethnicity of the participants was diverse and similar to the ethnic diversity in the Dutch population. In terms of educational levels, 38% of the participating adolescents were enrolled in lower secondary education, compared to 50% of adolescents in the Dutch population. Furthermore, most adolescents had a heterosexual orientation (75%), defined as no romantic or sexual interest in the same gender and at least some interest in the other gender (see covariates).

### Procedure

Participants completed an online survey via Limesurvey in class, under supervision of the student assistant who recruited the school (duration: approximately 45 min).

**Table 1** Sample characteristics

|  | Total sample | Experience with sexual intercourse |                     |
|--|--------------|------------------------------------|---------------------|
|  |              | No                                 | Yes                 |
| <i>n</i> (%)                                       | 566 (100)    | 357 (63)                           | 209 (37)            |
| Age, <i>M</i> ( <i>SD</i> )                        | 17.17 (1.00) | <b>17.02 (0.95)</b>                | <b>17.42 (1.04)</b> |
| Female gender, <i>n</i> (%)                        | 331 (58)     | 211 (59)                           | 120 (57)            |
| Educational level, <i>n</i> (%) <sup>a</sup>       |              |                                    |                     |
| Lower secondary or vocational education            | 215 (38)     | <b>113 (32)</b>                    | <b>102 (49)</b>     |
| Higher secondary education                         | 217 (38)     | 149 (41.5)                         | 68 (33)             |
| Pre-university education                           | 110 (20)     | 74 (20.5)                          | 36 (17)             |
| Gymnasium/Grammar school                           | 24 (4)       | 21 (6)                             | 3 (1)               |
| Ethnicity, <i>n</i> (%)                            |              |                                    |                     |
| Dutch  | 415 (73)     | 252 (71)                           | 163 (78)            |
| Moroccan   | 15 (3)       | <b>15 (4)</b>                      | <b>0 (0)</b>        |
| Turkish  | 24 (4)       | <b>22 (6)</b>                      | <b>2 (1)</b>        |
| Surinam  | 30 (5)       | 18 (5)                             | 12 (5.5)            |
| Asian  | 11 (2)       | 10 (3)                             | 1 (0.5)             |
| Indonesian   | 18 (3)       | 8 (2)                              | 10 (5)              |
| Other  | 53 (10)      | 32 (9)                             | 21 (10)             |
| Gender identity typicality, <i>M</i> ( <i>SD</i> ) | 2.49 (0.51)  | 2.50 (0.51)                        | 2.48 (0.51)         |
| Heterosexual orientation, <i>n</i> (%)             | 425 (75)     | 268 (75)                           | 157 (75)            |

In bold significant differences ( $p < .001$ ) between adolescents with and without sexual experience

<sup>a</sup>Educational levels are sorted from lowest to highest level

Participants received no compensation for their participation. The order of the questionnaires within the survey was the same for each participant (background characteristics, SDS-stereotypes, sexual experience, sexual intention, sexy online self-presentation). Since the data collection was part of a larger research project, other questionnaires that were not used in this study were also included in the survey (e.g., about SDS-attitudes of peers and exposure to sexualized music videos). The order of topics was chosen to ensure that more sensitive topics, such as sexual experience, were presented at the end of the survey. However, the items within the SDS-stereotypes questionnaire were presented in a random order. This was done to reduce response sets on similarly worded questions. The research was approved by the Ethics Review Board of the Faculty of Social & Behavioural Sciences of Utrecht University.

## Measures

### SDS-Stereotypes

To measure adolescents' SDS-stereotypes, an adaptation of the Scale for the Assessment of Sexual Standards among Youth (SASSY) was used (Emmerink et al., 2017).

The SASSY exhibits good test–retest reliability, construct validity and convergent validity. However, in the original questionnaire, participants were asked to indicate to what extent they agreed with statements that are in line with traditional SDS-stereotypes (e.g., “I think it is normal for a boy to take the dominant role in sex”). Because of this design choice, no distinction could be made between people with reversed and egalitarian sexual standards, because both would report to disagree with the items. Therefore, in the current study, the format of the items was changed to asking the participants which gender they expected to show a certain sexual behavior more often, using a 3-point scale (0 = *both genders equally often, or neither gender*, 1 = *boys/men*, 2 = *girls/women*). For example, they were asked which gender they expected to “refuse sex” (female-role item) and “initiate sex” (male-role item) more often.

The items were recoded in such a way that positive scores (+1) represented traditional gendered expectations about sexual behavior (e.g., expecting refusing sex more from women and initiating sex from men) and negative scores (−1) represented reversed expectations (e.g., expecting refusing sex more from men and initiating sex from women). Neutral scores (0) represented egalitarian expectations about the sexual behavior of women and men (e.g., expecting refusing sex from men and women equally). The recoded scores were averaged to a mean, which functioned as an SDS-stereotypes variable (Cronbach’s  $\alpha = 0.78$ ). A mean score around 0 indicated egalitarian expectations, a positive score indicated traditional SDS-stereotypes and a negative score indicated reversed SDS-stereotypes. In a previous study that used this questionnaire, meaningful associations were found between adolescents’ SDS-stereotypes and traditional SDS-norms conveyed by the media and peers, sexual activity of female peers, and exposure to sexy females in the media (Endendijk et al., 2021).

## Sexual Experience

Participants were asked whether they had ever had sex with another person, using a 2-point scale (0 = *no*, 1 = *yes*; van de Bongardt et al., 2014). It was explained that by “sex” everything ranging from touching and caressing to intercourse was meant. In addition, adolescents who had answered yes were asked with which sexual behaviors they had experience (1 = *naked touching or caressing*, 2 = *performing manual sex, defined as fingering or a hand job*, 3 = *receiving manual sex*, 4 = *performing oral sex, defined as cunnilingus or a blow job*, 5 = *receiving oral sex*, 6 = *sexual intercourse, defined as vaginal (penis in vagina) or anal (penis in anus)*). For each sexual behavior, adolescents reported their experience on a 2-point scale (0 = *no experience with the behavior*, 1 = *experience with the behavior*). The scores on the different types of sexual behaviors were summed to reflect the level of experience with different sexual activities (range: 0–6). In doing so, we followed procedures employed in previous research (e.g. Doornwaard et al., 2015; Overbeek et al., 2018; Van de Bongardt et al., 2014). Correlations between the different sexual behaviors were very high ( $> 0.73$ ), which warranted creating a summed composite variable of the separate sexual activities.



## Sexual Intention

Sexual intention was measured by asking participants who did not have experience with sexual intercourse the following question: "Would you like to have sex next school year?". Again, it was explained that by "sex" everything ranging from touching and caressing to intercourse was meant. Answers were presented on a 5-point scale (1 = *yes, definitely*, 2 = *yes, I think so*, 3 = *I don't know*, 4 = *no, I don't think so*, 5 = *no, definitely not*; van de Bongardt et al., 2014). Scores were reversely recoded so that a high score represented high sexual intention and a low score represented low sexual intention.

## Sexy Online Self-presentation

For each of the following types of pictures, participants were asked how often they had posted such a picture on social media (such as Facebook, Snapchat or Instagram) in the past six months: a picture of yourself with a sexy gaze, a picture in which you are scarcely dressed (for example in swimsuit or underwear), a picture of yourself with a sexy appearance, a picture of yourself in a sexy pose (van Oosten et al., 2015). A 7-point scale was used (1 = *never*, 2 = *less than once a month*, 3 = *1–3 times a month*, 4 = *once a week*, 5 = *multiple times a week*, 6 = *every day*, 7 = *multiple times a day*). The separate scores were averaged to a mean, which represented the level of engagement in sexy online self-presentation (Cronbach's  $\alpha=0.87$ ). A higher mean score indicated higher engagement in sexy online self-presentation.

## Covariates

The participants were asked to report a number of background characteristics that in previous studies on adolescent sexual behaviors or the SDS have been found to be important covariates (Emmerink et al., 2016; Endendijk et al., 2021; van de Bongardt et al., 2014; van Oosten & VandenBosch, 2017). Adolescents reported their sex (0 = *female*, 1 = *male*), age in years, educational level (1 = *lower secondary or vocational education*, 2 = *higher secondary education*, 3 = *pre-university education*, 4 = *gymnasium/grammar school*), and ethnicity (1 = *Dutch*, 0 = *non-Dutch*). In addition, adolescents were asked how important religion was to them (1 = *very unimportant*, 2 = *a little important*, 3 = *important*, 4 = *very important*; Byers et al., 2016).

Adolescents also reported on their gender identity. Therefore, girls indicated how much they identified with the following labels: (1) Girly-girl, (2) Tomboy (i.e., boyish girl), (3) Androgynous (i.e., similarly boyish and girlish, or not boyish and not girlish). Boys indicated how much they identified with the following labels: (1) Boyish boy, (2) Girlish boy, (3) Metrosexual (i.e., a boy who is preoccupied with his looks), (4) Androgynous (i.e., similarly boyish and girlish, or not boyish and not girlish). Items were answered on a 3-point scale (1 = *no*, 2 = *sometimes*, 3 = *yes*). The gender identity labels were based on previous research (Ahlqvist et al., 2013; White et al., 2018). After recoding the gender-atypical items (girls: item 2 and 3, boys: item 2–4), scores were averaged into a composite variable with higher scores reflecting more typical gender identity.

Finally, participants were asked about their sexual orientation (1 = *heterosexual orientation*, i.e., no romantic/sexual interest in the same-gender and at least some romantic/sexual interest in the other-gender, 0 = *non-heterosexual orientation*, all other combinations of romantic/sexual interest in the same- and other-gender; van Beusekom et al., 2016). Adolescents with different types of non-heterosexual orientations were grouped together. The percentages of adolescents reporting no romantic/sexual interest in either gender (7%, asexual), some romantic/sexual interest in the same-gender only (1%, homosexual), or some romantic/sexual interest in both the same- and the other-gender (17%, bisexual) were too low to include them as separate groups in the analyses.

## Analyses

To test whether adolescents' sexual behavior could be predicted by their SDS-stereotypes, and whether these associations were different for boys and girls, three hierarchical linear multiple regression analyses were conducted, one for each type of sexual behavior (i.e., sexual experience, sexual intention, sexy online self-presentation). In all 3 analyses, in Block 1, relevant covariates were added. In Block 2, the SDS-stereotypes variable was added and in Block 3, the interaction between gender and SDS-stereotypes was added. Inclusion of covariates was determined separately for each analysis based on the change-in-estimate method, > 5% criterion (Rothman et al., 2008).

## Results

### Assumptions, Correlations Between the Study Variables and Gender Differences

The SDS-stereotypes and sexual intention variables approached a normal distribution. Sexy online self-presentation and sexual experience were not normally distributed. However, the sample size was large enough (e.g., the number of observations per variable is > 10) for violations of this normality assumption to not have a noticeable impact on the results of linear regression analyses (Schmidt & Finan, 2018). One outlier was identified on SDS-stereotypes and nine were identified on sexy self-presentation. These outliers were winsorized (highest non-outlying number + difference between highest non-outlying number and before highest non-outlying number; Tabachnick & Fidell, 2012).

Table 2 shows the correlations between the study variables for boys and girls. For boys, more SDS-stereotypes were associated with a higher sexual intention. For girls, more SDS-stereotypes were related to less sexy online self-presentation. In addition, for girls, higher sexual intention was associated with more sexy online self-presentation. Finally, for both boys and girls, there were positive associations between sexual experience and sexy online self-presentation, as well as positive associations between sexual experience and sexual intention.

**Table 2** Descriptive statistics for SDS-stereotypes, sexual intention and sexy self-presentation for the sample as a whole and for boys and girls separately

|                               | 1     | 2     | 3      | 4      | Boys <i>M (SD)</i> | Girls <i>M (SD)</i> | Total <i>M (SD)</i> | Range |
|-------------------------------|-------|-------|--------|--------|--------------------|---------------------|---------------------|-------|
| SDS-stereotypes               |       | .05   | -.06   | -.19** | 0.44 (0.22)        | 0.46 (0.24)         | 0.45 (0.23)         | -1-1  |
| Sexual experience             | .05   |       | .40*** | .31*** | 2.01 (2.56)        | 2.21 (2.70)         | 2.13 (2.64)         | 0-6   |
| Sexual intention <sup>1</sup> | .24** | .27** |        | .24*** | 3.28 (1.16)        | 2.55 (1.18)         | 2.85 (1.23)         | 1-5   |
| Sexy self-presentation        | .07   | .16*  | .13    |        | 1.49 (0.82)        | 1.49 (0.89)         | 1.49 (0.86)         | 1-7   |

Correlation coefficients for boys are presented below the diagonal. Correlation coefficients for girls are presented above the diagonal. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

<sup>1</sup>Descriptive statistics for sexual intention are calculated on a subsample ( $n=357$ ; 146 boys, 211 girls) of the total sample. Only adolescents who did not have experience with sexual intercourse reported on sexual intention

Independent t-tests were used to test for gender differences in the study variables. Boys scored significantly higher on sexual intention than girls ( $t(355) = -5.83$ ,  $p < 0.001$ ,  $d = 0.63$ ). No significant gender differences were found in SDS-stereotypes ( $p = 0.34$ ), sexual experience ( $p = 0.36$ ), and sexy online self-presentation ( $p = 0.94$ ).

### Predictors of Adolescent's Sexual Experience

The results of the hierarchical linear regression in which sexual experience was predicted from the covariates, adolescents' SDS-stereotypes and gender are presented in Table 3. There was no indication of problematic multicollinearity between the predictors (tolerance  $> 0.56$ , VIF  $< 1.80$ ).

### Covariates

Including the covariates in Step 1, lead to a significant model ( $F(5, 560) = 13.38$ ,  $p < 0.001$ ). This model explained a significant 10% of the variance in adolescent's level of sexual experience. An older age and finding religion less important were related to higher levels of sexual experience. Sexual orientation, gender, and ethnicity did not significantly contribute to the prediction of sexual experience.

### SDS-Stereotypes and Gender

In Block 2, the SDS-stereotypes variable was added to the regression. This led to a significant model ( $F(6, 559) = 11.86$ ,  $p < 0.001$ ), which accounted for an additional and significant 1% of the variance in adolescents' sexual experience. SDS-stereotypes were a significant predictor of sexual experience. Stronger SDS-stereotypes (i.e., more traditional) were related to a higher level of sexual experience.

**Table 3** Hierarchical multiple regression analysis predicting adolescents' level of sexual experience from individual characteristics, SDS-stereotypes, and moderation by adolescent gender

|                                 | <i>B</i> | <i>SE</i> | $\beta$ | $\Delta R^2$ |
|---------------------------------|----------|-----------|---------|--------------|
| Step 1                          |          |           |         | .10***       |
| Age                             | 0.57     | .11       | .22***  |              |
| Importance of religion          | -0.56    | .12       | -.22*** |              |
| Ethnic background               | 0.38     | .27       | .06     |              |
| Sexual orientation              | -0.11    | .25       | -.02    |              |
| Gender                          | -0.34    | .23       | -.06    |              |
| Step 2                          |          |           |         | .01*         |
| SDS-stereotypes                 | 0.94     | .47       | .08*    |              |
| Step 3                          |          |           |         | .00          |
| Gender $\times$ SDS-stereotypes | 0.39     | .94       | .02     |              |
| Total $R^2$ after step 3        |          |           |         | .11***       |

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

### Interaction Between SDS-stereotypes and Gender

Adding the interaction between SDS-stereotypes and gender in Block 3 lead to a significant model ( $F(7, 558) = 10.18, p < 0.001$ ), but no significant increase in the explained variance of sexual experience. The interaction between SDS-stereotypes and gender was not significantly associated with the level of sexual experience, indicating that the association between SDS-stereotypes and level of sexual experience was not different for boys and girls.

### Predictors of Adolescent's Sexual Intention

The results for the hierarchical multiple regression concerning adolescent's sexual intention are displayed in Table 4. There was no indication of problematic multicollinearity between the predictors (tolerance  $> 0.56$ , VIF  $< 1.78$ ).

### Covariates

Step 1, containing the relevant covariates, lead to a significant model ( $F(5, 351) = 27.50, p < 0.001$ ). This model explained a significant 28.1% of the variance in adolescent's sexual intention. An older age, finding religion less important and being male were significantly related to having higher sexual intention. Ethnic background and sexual orientation were not related to sexual intention.

**Table 4** Hierarchical multiple regression analysis predicting adolescents' sexual intention from individual characteristics, SDS-stereotypes, and moderation by adolescent gender

|                          | <i>B</i> | <i>SE</i> | $\beta$ | $\Delta R^2$ |
|--------------------------|----------|-----------|---------|--------------|
| Step 1                   |          |           |         | .28***       |
| Age                      | 0.17     | .06       | .13**   |              |
| Importance of religion   | -0.42    | .06       | -.38*** |              |
| Ethnic background        | 0.24     | .14       | .09     |              |
| Sexual orientation       | 0.22     | .13       | .08     |              |
| Gender                   | 0.45     | .12       | .18***  |              |
| Step 2                   |          |           |         | .00          |
| SDS-stereotypes          | 0.19     | .25       | .04     |              |
| Step 3                   |          |           |         | .03***       |
| Gender x SDS-stereotypes | 2.03     | .50       | .23***  |              |
| Total $R^2$ after step 3 |          |           |         | .32***       |

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

### SDS-Stereotypes and Gender

Adding SDS-stereotypes to the regression in Step 2 lead to a significant model ( $F(6, 350) = 22.98, p < 0.001$ ), but no significant increase in the explained variance of sexual intention. SDS-stereotypes were not related to sexual intention.

### Interaction Between Gender and SDS-stereotypes

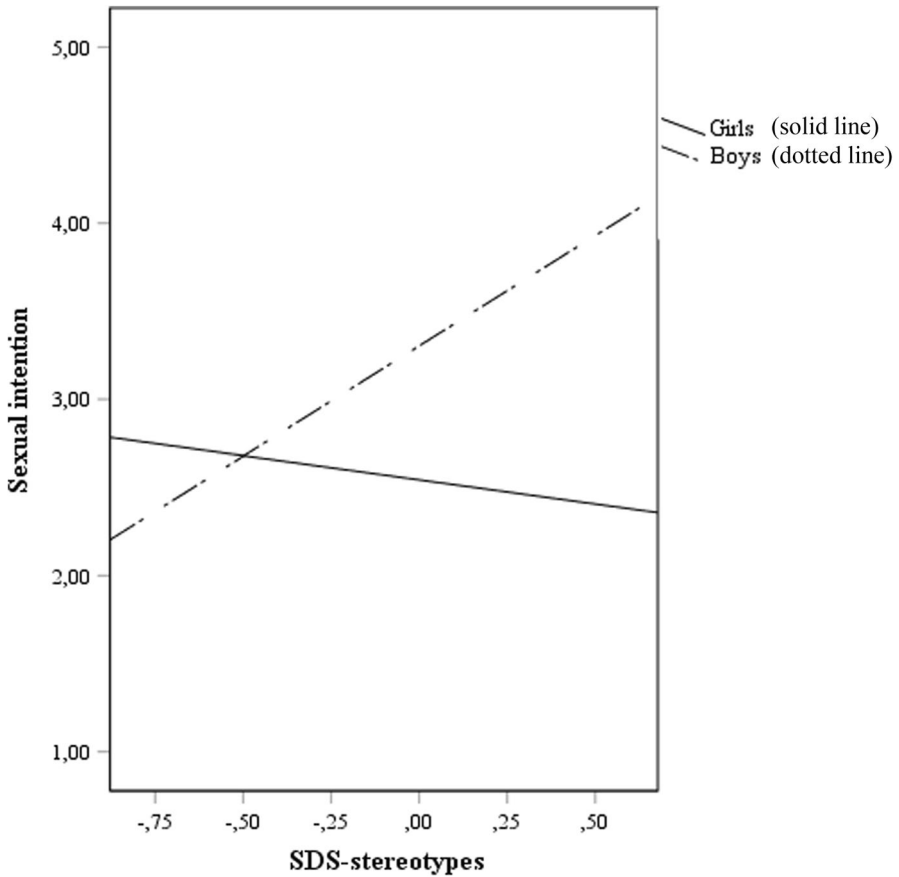
In Step 3, the interaction between gender and SDS-stereotypes was added, which lead to a significant model ( $F(7, 349) = 22.97, p < 0.001$ ). The interaction term was significantly related to sexual intention. By adding the interaction term, the explained variance of adolescent's sexual intention significantly increased by 3.3%, leading to a final model explaining 31.5% of the variance in sexual intention. The interaction effect is shown in Fig. 1. Simple slope analysis showed that, for boys, more traditional SDS-stereotypes were significantly related to higher sexual intention ( $r = 0.24, p < 0.01$ ). For girls, this association was not significant ( $r = -0.06, p = 0.42$ ).

### Predictors of Adolescent's Sexy Online Self-presentation

The results of the hierarchical regression concerning sexy online self-presentation are presented in Table 5. There was no indication of problematic multicollinearity between the predictors (tolerance  $> 0.57$ , VIF  $< 1.74$ ).

### Covariates

Including the relevant covariates in Step 1 did not lead to a significant model ( $F(4, 561) = 1.08, p = 0.37$ ). Age, sexual orientation, education level and gender were not significantly related to sexy online self-presentation.



**Fig. 1** Association between SDS-stereotypes and sexual intention separately for boys (dotted line) and girls (solid line)

**Table 5** Hierarchical multiple regression analysis predicting adolescents' sexy online self-presentation from individual characteristics, SDS-stereotypes, and moderation by adolescent gender

|                          | <i>B</i> | <i>SE</i> | $\beta$ | $\Delta R^2$ |
|--------------------------|----------|-----------|---------|--------------|
| Step 1                   |          |           |         | .01          |
| Age                      | 0.03     | .04       | .04     |              |
| Educational level        | -0.03    | .04       | -.03    |              |
| Sexual orientation       | -0.14    | .08       | -.06    |              |
| Gender                   | 0.03     | .08       | .02     |              |
| Step 2                   |          |           |         | .01          |
| SDS-stereotypes          | -0.28    | .16       | -.08    |              |
| Step 3                   |          |           |         | .01**        |
| Gender x SDS-stereotypes | 0.89     | .32       | .15**   |              |
| Total $R^2$ after step 3 |          |           |         | .03*         |

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

## SDS-Stereotypes and Gender

In Step 2, the SDS-stereotypes variable was added to the regression. This did not lead to a significant model ( $F(5, 560) = 1.47, p = 0.20$ ). SDS-stereotypes were not significantly related to sexy online self-presentation.

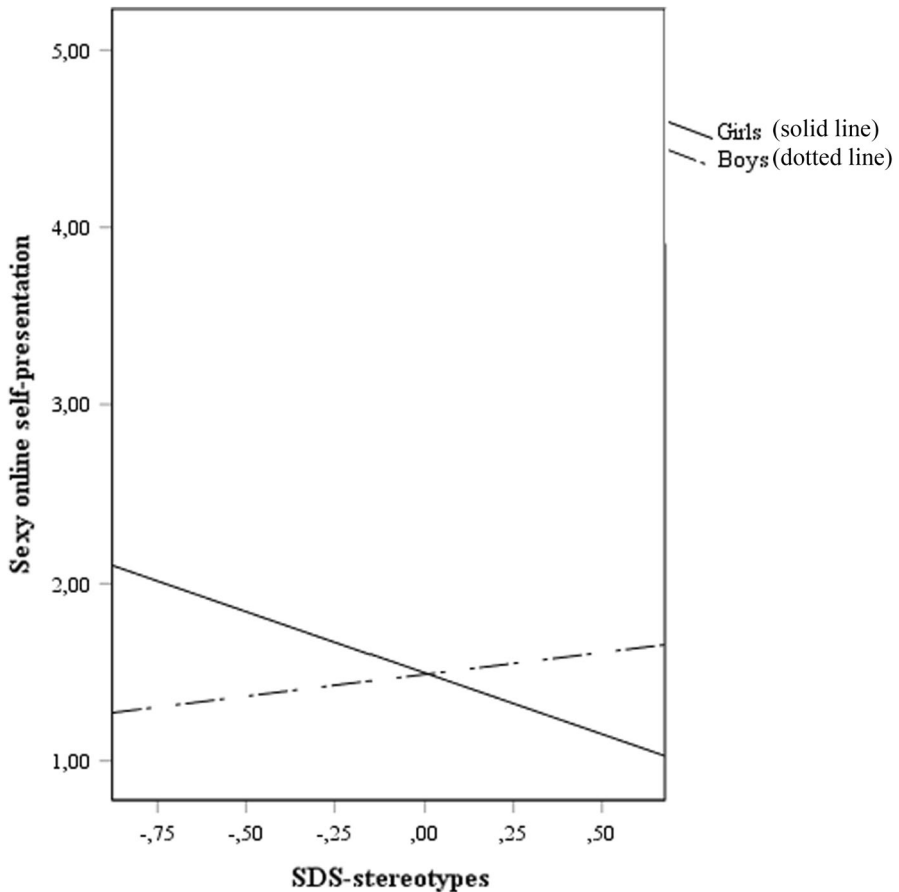
## Interaction Between SDS-stereotypes and Gender

Adding the interaction between gender and SDS-stereotypes in Step 3 lead to a significant model ( $F(6, 559) = 2.54, p = 0.02$ ) and a significant increase in the explained variance in sexy online self-presentation. A significant association between the interaction term and sexy online self-presentation was found. This final model explained 2.7% of the variance in adolescent's sexy online self-presentation. The interaction effect is shown in Fig. 2. Simple slope analysis showed that, for girls, more traditional SDS-stereotypes were related to less sexy online self-presentation ( $r = -0.19, p < 0.01$ ). For boys, SDS-stereotypes were not significantly related to sexy online self-presentation ( $r = 0.07, p = 0.30$ ).

## Discussion

In the present study, the associations between Dutch adolescents' SDS-stereotypes and their level of sexual experience, sexual intention, and sexy online self-presentation were examined. In addition, it was tested whether these associations were different for boys and girls. The results showed that, for both boys and girls, having more SDS-stereotypes was associated with a higher level of sexual experience. Furthermore, for adolescents who did not have sexual intercourse yet, only for boys more SDS-stereotypes were related to higher sexual intention. Finally, only for girls more SDS-stereotypes were related to engaging in less sexy online self-presentation.

These findings indicate that SDS-stereotypes are related to several aspects of adolescents' sexuality and that certain adolescents are motivated to act in accordance with sexual double standards. A possible explanation for these associations can be found in gender schema theories (GSTs). GSTs hypothesize that (traditional) gender schemas provide individuals with motivations to regulate their behavior so that it conforms with gender norms (Bem, 1983; Martin & Halverson, 1981). In order to define their self-concept and to avoid cognitive dissonance, adolescents may be motivated to act in accordance with their SDS-stereotypes. These findings might be specific for the Dutch cultural context in which people generally value gender equality and hold open-minded views about sexuality (Emmerink et al., 2016). The relatively gender-equal and sex-positive context might explain why the SDS applies similarly to boys and girls for some sexual behaviors (i.e., level of sexual experience), but not for all sexual behaviors



**Fig. 2** Association between SDS-stereotypes and sexy online self-presentation, separately for boys (dotted line) and girls (solid line)

examined (i.e., sexy online presentation, sexual intention). These findings might reflect that the SDS still exist to some extent in the Dutch context and is applied to some but not all sexual behaviors.

### SDS-Stereotypes and Sexual Experience

For boys, the finding that having more SDS-stereotypes was associated with a higher level of sexual experience, was in line with our expectations. The SDS grants boys more sexual freedom than girls and prescribes that boys should be highly sexually active (Sanchez, Fetterolf, et al., 2012). In order to fulfil these norms, boys might be motivated to become experienced with different sexual activities. It seems that in this study, as in previous research, boys who endorse the SDS tend to behave in ways that are in line with it, for instance by having a higher number of sexual



partners to become highly sexually experienced (Lefkowitz et al., 2014; Soller & Haynie, 2017). Our finding extends these studies by showing that SDS-stereotypes are also related to another aspect of adolescents' level of sexual experience, namely the level of experience with different sexual activities.

The finding that SDS-stereotypes also related to a higher level of sexual experience in girls was somewhat unexpected. While previous research indicated that the SDS might motivate boys to be more sexually experienced, this was not the case for girls (Soller & Haynie, 2017). In addition, as the SDS prescribes girls to be sexually passive and because girls might anticipate negative judgement after becoming sexually experienced (Crawford & Popp, 2003; Kreager et al., 2016; Sanchez et al., 2012), it was expected that more SDS-stereotypes in girls were associated with a lower level of sexual experience. Our finding for girls could be explained by the fact that girls who endorse the SDS might expect that boys have more freedom than girls to pursue their sexual desires and that they might place greater importance on the desires of their male partner than on their own (Kettrey, 2016). In addition, the SDS prescribes girls to be submissive to their sexual partner (Sanchez et al., 2012). Although this aspect of the SDS was not included in our measure of SDS-stereotypes, it could very well be possible that the girls with high SDS-stereotypes also endorsed the submissive aspect of the SDS. Endorsement of male sexual freedom and agency and female sexual submissiveness could make these girls prone to engaging in (unwanted) sexual activity to please their partner (Kennett et al., 2013), which could explain why for girls more SDS-stereotypes were associated with a higher level of sexual experience.

Another explanation could be that we examined this association in late adolescents for which engaging in sexual activities is relatively normative for both boys and girls, especially when the sexual behavior occurs in the context of a romantic relationship (Sprecher et al., 1987). Older adolescents are also more likely to be engaged in more serious romantic relationships than younger adolescents (Connolly et al., 2014). Therefore, SDS-stereotype endorsement might be specifically associated with a lower level of sexual experience in younger adolescent girls who do not have romantic relationships, as for them engaging in sexual behavior could be considered less normative. Future research could test this proposition, as the current study did not assess adolescents' relationship status.

### **SDS-Stereotypes and Sexual Intention**

To gain insight into the role of the SDS among adolescents who did not have their first sexual intercourse, the association between SDS-stereotypes and the intention to have sexual intercourse in the next year was examined. As expected, for boys, having more SDS-stereotypes was related to having a higher sexual intention. Since boys who endorsed the SDS in the current study expect that boys take sexual initiative and are highly sexually active, it is understandable that sexually inexperienced boys feel more need or desire to become sexually active in the coming school year (Sanchez et al., 2012).

However, for girls, we did not find evidence that more SDS-stereotypes were related to *less* sexual intention. A possible explanation for the lack of association among girls, compared to the positive association in boys, might be that girls experience less pressure to adhere to strict gender norms than boys, and that boys are more negatively evaluated when they act in gender non-conforming ways (Lee & Troop-Gordon, 2011; McAninch et al., 1996). Interestingly, for girls, having more SDS-stereotypes was related to a higher level of sexual experience, but, in the sample of girls who did not have sexual intercourse, it was not related to having higher sexual intention. Since sexual intention is a distinct precursor of becoming sexually active, therefore, this difference in associations is noteworthy and calls for further research (Buhi & Goodson, 2007). Longitudinal research spanning the entire adolescent period could examine how girls' SDS-stereotypes are related to sexual intention and later to becoming sexually active. Such research could yield insights into how these associations change over time, and whether there is a discrepancy between girls' sexual intention and initiation of sexual activity. Importantly, such studies should take into account the relationship status of adolescents, as being in a romantic relationship might be a more important predictor of sexual intention than the SDS (Taris & Semin, 1999). Also, the SDS appears to be more pronounced in casual relationships than in romantic relationships (Sprecher et al., 1987).

### **SDS-Stereotypes and Sexy Online Self-presentation**

Not in line with the expectations, for girls, having more SDS-stereotypes was related to *less*, instead of more, sexy online self-presentation. The SDS poses a double bind for girls, in which they are expected to be sexy, but not too sexual (Emmerink, 2017). It was expected that the norm to look sexy and attractive to men, proposed by the SDS, would be associated with more engagement in sexy self-presentation, especially in girls who strongly endorse SDS-stereotypes. However, while girls post sexy pictures in order to gain social acceptance, girls who do this often are also likely to be reprimanded, especially when presenting themselves as too sexual (Baumgartner et al., 2015; Mascheroni et al., 2015). Thus, the fear of being deemed too sexual might explain the lower sexy online self-presentation among girls with strong SDS-stereotypes. In light of our finding, it seems that the limited sexual freedom the SDS grants girls may also apply to sexy self-presentation (Sanchez, Fetterolf, et al., 2012). It is important to conduct longitudinal research to investigate whether the association between SDS-stereotypes and sexy online self-presentation for girls changes over time. Possibly, girls with more SDS-stereotypes do post more sexy pictures at first to fulfil the SDS norm of being attractive, but over time they might decrease sexy online self-presentation, due to continued derogation of others for their sexy presentation. It is also possible that girls with more SDS-stereotypes are less likely to report sexy online self-presentation. These girls might be less truthful about posting sexy pictures, because of the fear of being deemed too sexual and the social reprimands it could lead to.

For boys, SDS-stereotypes were not related to sexy self-presentation, while a positive association was expected based on previous research (van Oosten &

VandenBosch, 2017). This lack of association could be explained by the fact that while the SDS urges boys to sexually objectify girls and to primarily value girls for their physical attractiveness, it does not necessarily urge boys to look sexy themselves (Emmerink, 2017; Kim et al., 2007). In addition, presenting oneself as sexually attractive on social media is typically considered more important for women than for men (Kapidzic & Herring, 2011; Manago et al., 2008). Also, in general, appearing sexy or attractive is less important for men's sexual roles and scripts than for those of women (Smolak et al., 2014; Wiederman, 2005).

## Limitations and Future Directions

This study provided valuable contributions to the knowledge on consequences of the SDS for adolescents sexual development. Not in the least due to the large and diverse sample, including adolescents who had their first sexual intercourse and adolescents who did not have sexual intercourse yet. However, it is important to acknowledge a number of limitations. First, this study had a correlational design, which means nothing can be said about the direction of the associations and no causal conclusions can be drawn. For instance, it is possible that engaging in sexual behaviors predicts more SDS-stereotypes in adolescents, instead of the other way around. Sexually active adolescents may have directly experienced consequences and rewards associated with certain sexual behaviors (i.e., different experiences for boys and girls; Zaikman & Marks, 2017) and they have more experience with interacting with the other gender, which might have highlighted the different sexual scripts for boys and girls (Greene & Faulkner, 2005). To investigate whether SDS-stereotypes precede and influence certain sexual behaviors, it is important to conduct longitudinal research or experimental research.

Second, all included measures were self-report measures, which could lead to social desirability, especially regarding sensitive topics such as sexuality. Furthermore, this study does not yield in depth insights into the ways adolescents experience consequences of the SDS and how this relates to their decision to engage in certain sexual behaviors or not. Future qualitative research conducting interviews or focus groups with adolescents about the SDS could be a valuable addition in this regard. In addition, the current study provides little insight into the SDS-related sexual experiences of nonbinary or nonheterosexual individuals. There are indications that nonheterosexual individuals might experience more negative evaluations when engaging in sexual behaviors that violate the SDS (Zaikman et al., 2016). Future SDS research should move beyond the gender binary as well as focus more on individuals with nonheterosexual orientations, to increase knowledge on the role of the SDS in the sexual experiences of LGBTIQ+ and nonbinary individuals.

Finally, there are some points for improvement for the measures used in this study. The measure for sexy online self-presentation might not have been sensitive enough to detect differences within the group of adolescents who seldom engage in sexy self-presentation. To remedy this issue, further research could supplement adolescent self-report of sexy presentation with content analyses of online profiles of adolescents. In addition, only one item of our SDS measure contained the female

stereotype of sexy presentation (i.e., “looking attractive”). In future research, it is important to include multiple elements of the sexy female role in the SDS and take a longitudinal approach to further unravel the double bind of being sexy but not too sexual, and how this double bind relates to women’s and girls’ sexual behavior and presentation over time.

## Conclusion

In sum, this study showed that SDS-stereotypes are not simply expectations that adolescents have about the sexual behaviors of other men and women, but that they are associated with several aspects of their own sexual behavior. This means that SDS-stereotypes could play a role in adolescents’ choice to engage or not engage in certain sexual behaviors. Next, it is critical to conduct experimental and longitudinal research on the prescriptive effects of the SDS on adolescents sexual behavior and on how to reduce SDS-stereotypes. Such research could subsequently inform whether sex education programs or interventions need to focus on educating adolescents on the SDS in the hopes of limiting some of the negative consequences of the SDS on the sexual behavior of boys, girls, men and women.

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**Availability of data** Data is available upon request from the corresponding author.

## Declarations

**Conflict of interest** The authors declare that they have no conflict of interest.

**Consent** All participants provided online informed consent for their participation at the beginning of the questionnaire.

**Ethical Approval** The Ethics Committee of the Faculty of Social Sciences at Utrecht University approved the study (number FETC17-100).

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