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ORIGINAL PAPER

"Fifty Shades" and Reported Sexual Consent: A Study with Female College Students

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Abstract

Exposure to Fifty Shades has been associated with different sexual outcomes in women. In this study, we were particularly interested in understanding if exposure to Fifty Shades, and women's relationship status, was related to different levels of sexual consent in college women: internal consent (feelings when women consent to sex) and external consent (overt behaviors and verbal communication when they consent to sex). Five hundred and forty female college students, aged between 18 and 25 years, were enrolled in an online survey assessing visual exposure and reading of Fifty Shades, levels of satisfaction with the exposure/reading, and sexual consent. Findings revealed that respondents in the double exposure condition (exposure to the film and books) reported more cues of physical activation and readiness when they consent to sex, as compared with participants in the no exposure condition. Furthermore, respondents enrolled in a relationship reported more safety and comfort, as well as more arousal and readiness than single participants. Findings should be interpreted with caution given their cross-sectional nature.

Keywords Sexual consent · Women · College students · 50 Shades

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Introduction

Sexual violence among college students reached worrying proportions, leading to public campaigns and policies aimed at preventing sexual assault in college campus (Brennan et al. 2019). For example, a study conducted at 9 U.S.A. colleges showed that the prevalence rate of sexual violence experienced by undergraduate female students, during the academic year 2014–2015, was 10.3% (Krebs et al. 2016). Similar findings have been discovered outside the U.S.A. context (e.g., Adinew and Hagos 2017; Carvalho et al. 2013; Carvalho and Sá 2017; Larimer et al. 1999; National Union of Students 2010; Valls et al. 2016), showing that this is a worldwide spread phenomenon. Consequently, contemporary research increased its focus on the dynamics behind sexual violence and victimization, which may extend to the understanding of sexual consent, how this is conveyed, and eventually, whether this may have a role in programs aimed at preventing sexual violence (e.g., Jozkowski et al. 2014).

Sexual consent results from the free communication of a feeling of willingness, and it may assume the form of a verbal or nonverbal action (Hickman and Muehlenhard 1999). Accordingly, sexual consent has been defined as a mental act (i.e., an internal decision about the willingness to engage in sexual activity), or as a physical act (i.e., the verbal or behavioral expression of willingness to engage in sexual activity; Beres 2007; Hickman and Muehlenhard 1999; Muehlenhard 1995–1996; Muehlenhard et al. 2016). The internal consent feelings are what lead the individual to express an outward behavior, from which observers can make inferences (Muehlenhard 1995–1996; Muehlenhard et al. 2016). Consent as an act of agreeing to something refers to giving explicit permission to do something, which can be given verbally, such as "I agree to have sex". Individuals typically rely on indirect cues and signals to obtain some sense of partner's willingness (Hall 1998; Hickman and Muehlenhard 1999; Muehlenhard et al. 2016). Muehlenhard et al. (2016) added a third meaning of consent, as "a behavior that observers use to infer an individual's willingness" (p. 462). In this case, it is necessary that someone else observe and interpret the individual's behavior, cues or signals, as indicative of consent. In any case, it is important to know how individuals communicate consent in real-life situations, as establishing the presence of consent is crucial to consensual sexual intercourse and healthy relationships (Hust et al. 2014).

There is past evidence supporting the idea that college students do not express sexual consent explicitly or verbally (Hall 1998). Jozkowski et al. (2014) found the existence of gender differences on how sexual consent is conveyed by college students. Findings showed that men used their feelings (i.e., internal consent) more frequently than women, while women were more likely to behave passively, or show no overt sign of their consent (i.e., external consent). Men, on the other hand, used more persuasive cues (e.g., "I took my partner somewhere private") that, in a sense, press women into sexual intercourse. In all, while these findings add to the literature on how college men and women consent to sexual activity, we are still missing data on the putative factors shaping sexual consent. Within this regard, one possible vein of research is that of the media influence.

The media are believed to affect individuals' attitudes and behaviors, including our sexual behavior (Brown 2002). Despite little focus on the effects of sexual themes in individuals' behaviors and attitudes (as compared with violent themes), the repetitive exposure to sexual contents in features films, TV, and magazines, were shown to be related to sexual outcomes, such as liberal and stereotypical sexual attitudes, greater levels of sexual experience, or even acceptance of sexual harassment. This has been particularly seen in young women (c.f., Ward 2003). More recently, several studies have addressed the relationship between the exposure to the Fifty Shades and several risk behaviors in women. This recent focus of research has emerged, possibly because of the extraordinary impact of Fifty Shades in the worldwide social media. Furthermore, some of these studies have been conducted under the assumption that Fifty Shades normalizes sexual violence against women (Bonomi et al. 2013, 2014).

The Fifty Shades trilogy comprises three books and three movies named "Fifty Shades of Grey" (James 2011), "Fifty Shades Darker" (James 2012a) and "Fifty Shades Freed" (James 2012b), although the author E. L. James has produced one more book later, narrated by the male character ("Grey: Fifty Shades of Grey as told by Christian"; James 2015). At the time of this study, all the books had been released, but only one of the films. This work (James 2011, 2012a, b) is an erotic novel that has been heralded as a way of sexual liberating, erotic, and perverted expression (Bonomi et al. 2013) and describes a relationship of BDSM (Bondage/Discipline, Dominance/Submission, and Sadism/Masochism), involving a mega-millionaire, Christian Grey, and a female college student, Anastasia Steele (Bonomi et al. 2013). This series (James 2011, 2012a, b) has brought BDSM into the center of debate, in ways that no other media product has done before (Deller et al. 2013). By doing so, Fifty Shades portrays a heteronormative concept of sexual consent, where the male character initiates the sexual roleplay, and the female character decides whether such activity will take place (Barker 2013). After Bonomi et al. (2013) had performed a content analysis of this novel, the authors verified the presence of emotional abuse in almost all interactions of the couple, including harassment, intimidation, isolation and even sexual violence. Accordingly, they believe that this novel portrays problematic violence against women, masked within a romantic and erotic relationship of BDSM (Bondage/Discipline, Dominance/Submission, and Sadism/Masochism). Furthermore, in a study aimed at examining the sexual health messages contained in the Fifty Shades series, the authors identify the topic of consent, including at least one scene of non-consensual sexual intercourse (Leistner and Mark 2016). In this way, some studies have tried to understand the influence of the reading of this type of work in attitudinal and behavioral aspects. The study conducted by Kocur (2016) showed that a positive appreciation of the reading of the first book *Fifty Shades of Grey* was negatively associated with reported emotional satisfaction, stemming from sexual relationships, and with femininity (i.e., the more the respondents appreciate the book, the more they identified themselves with stereotypical feminine features, as tenderness, thoughtfulness, gentleness and submission). Another study conducted by Altenburger et al. (2017), showed that female college students who read at least one complete book of Fifty Shades reported more attitudes of sexism; also, rating the book as romantic and hot was further related to the endorsement of sexist

attitudes. In addition, the study accomplished by Bonomi et al. (2014) found that women who read at least the first volume compared to non-readers were more likely to have had, during their lifetime, a partner who spoked loud to them, screamed or cursed, and sent unwanted calls/text messages; they were also more likely to report episodes of fasting, use of diet aids at some point during their lifetime, excessive alcohol consumption in the last month, and sexual intercourse with five or more partners during their lifetime. In a different vein, Reese-Weber and McBride (2015) found that women who read Fifty Shades reported higher scores of sexual desire than those who haven't read. However, when the authors performed within comparisons between non-readers at time 1, and readers at time 2 (i.e., after asking non-readers to read the books), findings revealed that women who read, and had a low character identification (i.e., low identification with Anastasia), reported decreased sexual behaviors (e.g., decreased vaginal sexual intercourse, masturbation). On the other hand, those with a high identification reported increased sexual desire (Reese-Weber and McBride 2015).

Alternatively, some authors suggest that an open discussion about pornographic materials allows women to explore their sexual selves, learn new sexual practices and reduce shame around sexual desire (Parry and Light 2014). It could also assist women enhancing sexual fantasies and arousal (McKeown et al. 2017), and being more active sexual agents within their heterosexual relationships (Tripodi 2017). After all, there is no consensus in the literature as to whether the effects of the consumption of sexually explicit materials (quite present in popular culture), such as Fifty Shades, are liberating or harmful to women's sexuality. Indeed, it may be that such consumption interacts with dispositional features (e.g., personality traits) or social aspects (e.g., social background, school education), resulting in differentiating effects among women.

In general, Fifty Shades had such a strong media impact on western societies that gave scholars a privileged platform to study psychological and social phenomena relating to sexuality or gender (Deller et al. 2013). Accordingly, and given that Fifty Shades portrays the concept of sexual consent, in this study, we use Fifty Shades as a cultural frame that may help to understand how young women convey sexual consent. On this point, this study was aimed at evaluating differences in women's sexual consent, depending on their type of exposure to Fifty Shades and relationship status. Similarly to previous research (Jozkowski et al. 2014), relationship status was included as this was related to individuals perceptions of sexual consent (Humphreys 2007). This study further considered the relationship between the level of satisfaction with the exposure to the Fifty Shades, and women's sexual consent. By doing this, we aimed to distinguish between exposure and appraisal associations (being the later, a subjective approach toward Fifty Shades). In line with previous research on the exposure to Fifty Shades, sexist attitudes, and risk behaviors in women, we pose that women's sexual consent would differ between exposure modalities, with women who have read and/or watch Fifty Shades reporting less internal (e.g., feelings of safety, readiness) and external consent (e.g., less communication, more passive behavior). We further considered that increased levels of satisfaction with Fifty Shades would be associated with less internal and external sexual consent. Findings are expected to add to the debate

on the role of media in women's sexual consent and strategies aimed at preventing women's sexual victimization and exploitation.

Method

Participants

This is a cross-sectional study targeting female Portuguese students from different public and private Portuguese universities. The study included online advertisements via institutional Facebook pages and email. A total of 540 participants were collected, with 536 eligible respondents (i.e., consenting and completing the online survey) that were distributed in the following way: those who did not read any part of the Fifty Shades series ($n = 317$; 59.1%), those who reported an incomplete reading of one of the books from Fifty Shades series ($n = 45$; 8.4%), those who reported a complete reading of any book from Fifty Shades series ($n = 36$; 6.7%) and those that have read two or more books from Fifty Shades series ($n = 138$; 25.7%). Regarding the movie, 380 respondents (70.9%) mentioned that had watched the first movie from Fifty Shades series and 156 respondents (29.1%) stated they did not watch the movie. Inclusion criteria included age ≥ 18 to ≤ 25 and having already had vaginal sexual intercourse. Participants were directed to the link containing sociodemographic questions, two questions concerning Fifty Shades visual and reading exposure, and the two scales measuring internal and external sexual consent. Demographic data (see Table 1) indicated that the average age of the participants was 21.16 years old (SD = 2.10) and that most of them were attending a bachelor's degree ($n = 334$; 62.3%), were heterosexual ($n = 492$; 91.8%), in a relationship or married ($n = 336$; 62.7%), and were involved in an exclusive/monogamous relationship ($n = 370$; 69.0%). The study received ethical approval from the local ethics committee (at Porto University). The self-report questionnaires were placed online from October to November 2016. Participants gave informed consent, did not receive any kind of compensation, and were warned about the intimate nature of the study. Data were collected and stored in a secure server, and no identifying information was collected. Stored data was only handled by the authors of this study.

Measures

Exposure and Satisfaction to Fifty Shades

In order to gather information on the exposure to the Fifty Shades, as well as on the levels of satisfaction with this work, a small questionnaire was created (following Jozkowski et al. 2014, procedures). This questionnaire contained two questions assessing whether or not respondents had seen the film Fifty Shades, in which a "yes" or "no" response scale was used, and, then, the participants had to select the option that suited them best with regard to the reading of the book(s) Fifty Shades, namely "I never read any of the books", "I started to read one of the

Table 1 Sociodemographic characteristics

	Female university students ($N=536$)
Age [Mean (SD)]	21.16 (2.10)
Academic degree	
Bachelor's degree	62.3% (n = 334)
Master's degree	33.4% (n = 179)
Doctoral degree	1.7% (n = 9)
Other (e.g., postgraduate studies)	2.6% (n = 14)
Sexual orientation	
Heterosexual	91.8% (n = 492)
Homosexual	1.1% (n = 6)
Bisexual	6.3% (n = 34)
Other (e.g., Demisexual)	.7% (n = 4)
Relationship status	
Single and not dating	19.2% (n = 103)
Single but dating/hanging out with someone	14.6% (n = 78)
In a relationship/married	62.7% (n = 336)
Another relationship status	3.5% (n = 19)
Sexual relationship status	
Exclusive/monogamous	69.0% (n = 370)
Non-exclusive/non-monogamous	2.8% (n = 15)
Casual sexual encounters	7.8% (n = 42)
Not currently engaged in sexual activity	20.3% (n = 109)

books, but I did not finish it", "I did a complete reading of one of the books" and "I have read through two or more books". Finally, the participants had to identify their level of satisfaction relating to the viewing of the first film Fifty Shades ("Fifty Shades of Grey") and the reading of the book(s) on a one-item scale of 1–5 ("1-Not at all satisfied", "5-Very satisfied").

Internal Sexual Consent Scale (Jozkowski et al. 2014)

The internal consent scale (ICS) is a 25-item scale aimed at evaluating individuals' feelings when they consent to sex. Participants respond using a four-point Likert scale (1–4); respondents are asked to indicate the extent to which they agree to experience specific feelings during their last vaginal sexual intercourse. The original version of the ICS presents good psychometric properties (c.f., Jozkowski et al. 2014). In the current study, the Cronbach's alpha was .96 for the Global Scale, .78 for the Physical Response subscale (e.g., "I felt rapid heart beat"), .93 for the Safety/Comfort subscale (e.g., "I felt secure"), .89 for the Arousal subscale (e.g., "I felt aroused"), .96 for the Consent/Want subscale (e.g., "The sex felt consensual"), and .92 for the Readiness subscale (e.g., "I felt ready").

External Sexual Consent Scale (Jozkowski et al. 2014)

The external consent scale (ECS) includes 18 dichotomy response items (response choice as either "Yes" or "No") and is aimed at assessing participants' behavior and verbal indicators transmitting consent to sex. The original version of the ECS present good psychometric properties (c.f., Jozkowski et al. 2014). In the present study, the KR-20 was .65 for the Global Scale, .60 for the Direct Nonverbal Behaviors subscale (e.g., "I increased physical contact between myself and my partner"), .57 for the Passive Behaviors subscale (e.g., "I did not say no or push my partner away"), .57 for the Communication/Initiator Behavior subscale (e.g., "I initiated sexual behavior and checked to see if it was reciprocated"), .62 for the Borderline Pressure subscale (e.g., "I took my partner somewhere private") and .62 for the No Response Signals subscale (e.g., "It just happened").[1] The modest KR-20 values found for all the subscales can be justified by the little range of variability (0 or 1) and the low number of items for each subscale. In this case, the average inter-item correlation can be a more useful measure of internal consistency than KR-20 per se (Clark and Watson 1995; Cortina 1993). Accordingly, all ECS subscales presented adequate internal consistency, falling within the recommended bounds [.15 to .50] (Clark and Watson 1995). Both ICS and ECS subscales' scores were computed by averaging the scores on the respective subscales.

Data Preparation and Statistical Analysis

No missing values were found in the present sample as all questions were required to be responded. Regarding data preparation we proceeded in the following manner: firstly, all the 45 cases that have responded "I started to read one of the books, but I did not finish it" (8.4%) were removed from database as their response includes a wide spectrum of exposure anywhere from reading a few pages to nearly completing the first book. Secondly, as the category "I did a complete reading of one of the books" had few cases ($n = 36$; 6.7%), we merged it with the category "I have read through two or more books" into a new main category "I did a complete reading at least one of the books" comprising 174 cases (25.7%). Thirdly, a similar removal procedure was performed to the category 'another relationship status' ($n = 18$; 3,5%), as it was considered a residual category. After, we computed a new variable named "Exposure" based on combination of the two remaining reading categories (no vs. read at least one of the books) and on the two possible responses for the movie (no vs. yes). The categories of the new variable were coded as follows: no exposure; visual exposure, but no reading exposure; no visual exposure, but reading exposure and double exposure (see Table 2).

However, only 13 cases were found in the category "Reading exposure, but no visual exposure", indicating a lack of representativeness of this category in the female Portuguese university students and, therefore, was removed, resulting in

[1] Item 5 (Direct Nonverbal Behaviors) and item 15 (Borderline Pressure) were excluded from the subscale score calculation as they correlated with the total subscale score below 0.30 (using corrected item-total correlations) or caused a substantial increment (10% or more) in the KR-20 value when removed.

Table 2 Frequency distribution and percentage of visual exposure of FS to the reading of FS ($N=473$)

Reading	Visual exposure ($n=333$)		No visual exposure ($n=140$)	
	n	%	n	%
No ($n=309$)	182	54.7	127	90.7
Read at least one ($n=164$)	151	45.3	13	9.3

a 460 valid cases [no exposure ($n=127$; 27.6%); visual, but no reading exposure ($n=182$; 39.6%); double exposure (n = 151; 32.8%)]. Prior to Multivariate Analysis of Variance (MANOVA), univariate and multivariate distributions were assessed and outliers were identified and excluded as recommended by Tabachnick and Fidell (2012). Two two-way the Multivariate Analysis of Variance (MANOVAs) were performed to determine the effect of exposure and relationship status on ICS and ECS. As the experience of sexual consent at last intercourse can diverge from married people as compared to single or people currently "just" dating, the relationship status of the participant was included in the statistical model as confounding factor. The multivariate test Pillai's Trace was interpreted as it is robust with respect to heteroskedasticity (Field 2009) and unequal sample sizes (Tabachnick and Fidell 2012). To protect against inflation of Type I error rate, a Bonferroni correction was applied. The effect size was reported using partial eta-squared (η_p^2) and Cohen's d for pairwise mean comparisons. A Pearson's product-moment correlation was ran to assess the relationship between satisfaction with the movie/reading and students' sexual consent. For this analysis were considered 333 participants who had watched the movie and 151 participants who had mentioned they have read completely at least one of the books. Both the partial eta-squared, Cohen's d and correlation coefficients were interpreted using Cohen's (1988) conventions. All statistical procedures were performed with IBM SPSS v.23 (SPSS Inc., Chicago, IL, USA) with a level of significance of 5% ($p<.05$).

Results

Effects of Visual Exposure and Reading on Students' Sexual Consent

A 3×3 MANOVA was performed using the between-subjects factor exposure (no exposure vs. visual, but no reading vs. double) and relationship status (single not dating vs. single but dating/hanging vs. in a relationship/married). The five dependent variables were the ICS subscales. Univariate skewness and Kurtosis values of each ICS subscale were within the recommended range |skewness| < 3 and |Kurtosis| < 10, satisfying univariate normality assumption (Hair et al. 2010). Regarding multivariate normality, Mahalanobis distance values evidenced 16 outliers [larger than the critical value χ^2 (5) = 20.51; α = .001)], which were removed, resulting in 444 cases.

Table 3 MANOVA on the Internal sexual consent variables ($N = 444$)

Factors	ICS composite			
	Pillai trace	*df* (error)	F	η_p^2
Exposure	.05	10 (864)	2.27**	.03
Relationship status	.10	10 (864)	4.63***	.05
Exposure × relationship status	.03	20 (1736)	.72	.01

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

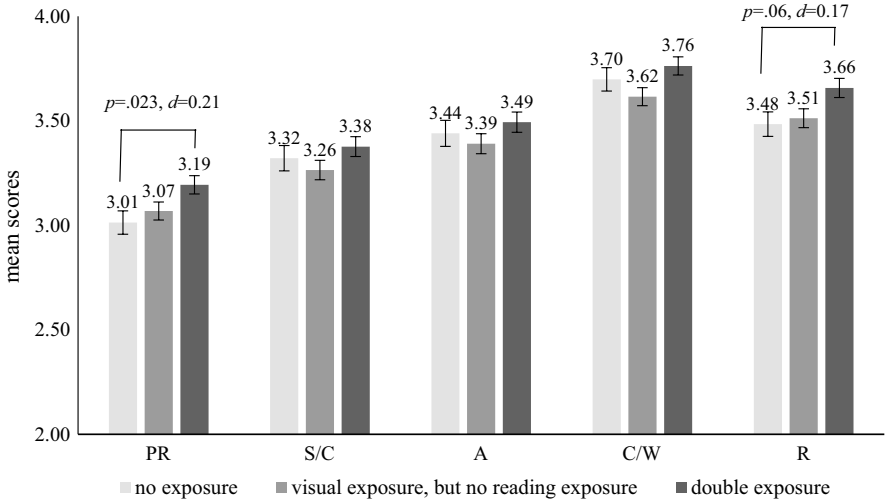

Fig. 1 ICS subscales mean scores as function of exposure of the 50 Shades of Grey. The error bars represent the standard error of the mean. Note: *PR* physical response, *S/C* safety/comfort, *A* arousal, *C/W* consent/want, *R* readiness

As shown in Table 3, results revealed a significant main effect of the exposure Pillai's Trace = .05, F (10, 864) = 2.27, $p = .013$, $\eta_p^2 = .03$ and of the relationship status Pillai's Trace = .10, F (10, 864) = 4.63, $p < .001$, $\eta_p^2 = .05$ on ICS composite variable. No interaction effect was found ($p > .05$). Univariate analysis revealed a significant main effect of the exposure on Physical response F (2, 435) = 3.78, $p = .024$, $\eta_p^2 = .02$ and Readiness F (2, 435) = 3.67, $p = .026$, $\eta_p^2 = .02$, showing that participants that had double exposure to Fifty Shades reported significantly higher mean scores in Physical Response that participants that had no exposure to Fifty Shades. For Readiness subscale the difference in the mean scores was only marginally significant as shown in Fig. 1.

Univariate analysis also showed a significant main effect of the relationship status on Safety Control F (2, 435) = 13.98, $p < .001$, $\eta_p^2 = .06$, Arousal F (2, 435) = 4.47, $p = .012$, $\eta_p^2 = .02$, and Readiness F (2, 435) = 8.27, $p < .001$, $\eta_p^2 = .04$. Concerning Safety control, results indicated that participants in a relationship/married had

Fig. 2 ICS subscales mean scores as function of relationship status of the 50 Shades of Grey. The error bars represent the standard error of the mean. Note: *PR* physical response, *S/C* safety/comfort, *A* arousal, *C/W* consent/want, *R* readiness

Table 4 MANOVA on the external sexual consent variables ($N = 450$)

Factors	ECS composite			
	Pillai trace	*df* (error)	F	η_p^2
Exposure	.04	10 (876)	1.78	.02
Relationship status	.03	10 (876)	1.22	.01
Exposure × relationship status	.07	20 (1760)	1.60*	.02

*$p < .05$

higher mean scores in comparison to single participants, regardless dating/hanging. Similar results were found for Arousal and Readiness subscales, revealing significant higher mean scores in participants in a relationship/married compared to single participants that were not dating. No other significant differences were found (see Fig. 2).

Next, a similar 3 × 3 MANOVA was ran for the five ECS subscales. Results showed an interaction effect on ECS composite variable. Similarly, the assumption of univariate normality was guaranteed as Skewness and Kurtosis values of each ECS subscale were within the acceptable range (Hair et al. 2010). However, Mahalanobis distance values exposed 10 outliers [larger than the critical value $\chi^2(5) = 20.51$; $\alpha = .001$)], which were removed, resulting in 450 cases. As shown in Table 4, results revealed a significant interaction effect of the exposure and relationship status on ECS composite variable Pillai's Trace = .07, F (20, 1760) = 1.60, $p = .045$, $\eta_p^2 = .02$. No main effects were found ($p > .05$). Univariate analysis revealed a significant interaction effect only on No Response Signals F (4, 441) = 3.67, $p = .006$, $\eta_p^2 = .03$. The decomposition of the interaction effect through simple effects

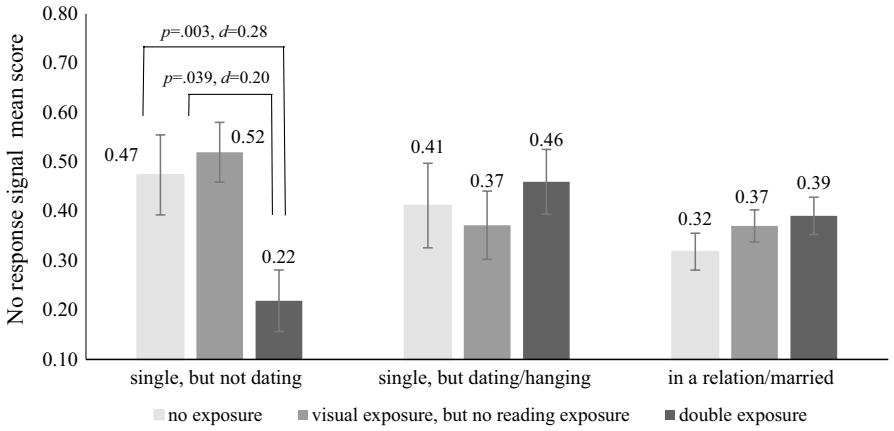

Fig. 3 No response signal subscale mean scores as function of exposure and relationship status. The error bars represent the standard error of the mean

analysis showed a significant lower mean score on No Response Signals subscale for double exposure compared to the other types of exposure, but only in female that were single and were not dating. No other significant differences were found on No Response Signals as function of exposure for other relationship status (see Fig. 3).

Relationship Between the Satisfaction with the Movie/Reading and Students' Sexual Consent

Table 5 shows the Pearson correlations between the satisfaction with the movie/reading and students' sexual consent. No significant association between satisfaction level with the movie and ICS or ECS subscales was found. Similar results were found between reading satisfaction level and ICS or ECS subscales.

Discussion

Understanding the concept of sexual consent, as well as the dimensions shaping how sexual consent is conveyed, may shed some light into the dynamics behind interpersonal relationships and non-consensual sexual intercourse. Accordingly, the aim of this study was to test whether the exposure to Fifty Shades, relationship status, as well as the satisfaction associated with Fifty Shades, related to how female college students convey sexual consent. The exposure to Fifty Shades was selected as a scientific frame due to the amount of recent literature suggesting a relationship between such exposure and different (mal)adaptive health and sexual outcomes in women (see "Introduction" section).

In the current study, the exposure categories were organized post hoc, based on the participants response patterns. Participants located themselves in the following

Table 5 Pearson linear correlation matrix between the viewing and reading satisfaction level and ICS and ECS subscales

		Internal consent								
	VS level (n = 351)	RS level (n = 151)	PR	S/C	A	C/W	R	NB	PB	C/IB	BP
Internal consent											
PR	.04	−.07	–	–	–	–	–	–	–	–	–
S/C	.01	−.12	.58***	–	–	–	–	–	–	–	–
A	.04	−.04	.67***	.83***	–	–	–	–	–	–	–
C/W	.02	.05	.57***	.68***	.70***	–	–	–	–	–	–
R	.07	.03	.46***	.78***	.75***	.84***	–	–	–	–	–
External consent											
NB	−.04	−.08	.31***	.32***	.35***	.36***	.36***	–	–	–	–
PB	.06	.07	.18***	.22***	.22***	.25***	.24***	.37***	–		–
C/IB	−.01	−.14	.14***	.18***	.19***	.11*	.15***	.32***	.18***	–	–
BP	−.03	−.13	.05	.13**	.11*	.06	−.03	.23***	.07	.33***	–
NRS	.08	.13	.04	−.08	.00	−.05	−.03	−.03	.11*	−.20***	−.04

VS viewing satisfaction, *RS* reading satisfaction, *PR* physical response, *S/C* safety/comfort, *A* arousal, *C/W* consent/want, *R* readiness, *NB* nonverbal behaviors, *PB* passive behavior, *C/IB* communication/initiator behavior, *BP* borderline pressure, *NRS* no response signals

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

categories: no exposure, visual exposure to the first film (but not reading), reading at least one of the books and being exposed to the first film. In the current sample, the category reading without watching the film was residual, suggesting that this pattern of behavior is not representative of the Portuguese female college students. Hence, the remaining categories represent distinct levels of exposure, with double exposure being the highest level of exposure. In line with this, findings revealed significant differences across the exposure groups, regarding the dimensions from the Internal Consent Scale. Accordingly, participants from the double exposure group reported more physical responses and more readiness than participants from the no exposure group. More precisely, respondents who reported increased levels of exposure, also reported to feel more psychophysiological activation, including more sexual arousal, in the last vaginal sexual intercourse. Furthermore, these respondents reported more feelings of readiness (e.g., ready, sure, willing), although this difference was only marginal. Additionally, findings showed that married participants, or participants in a relationship, reported more safety and comfort (e.g., secure, protected) as compared with single respondents (regardless of being dating or not), as well as more arousal (turned on, interested) and readiness than single respondents (not dating). Similarly, findings regarding the dimensions from the External Consent Scale, showed that single respondents (not dating) from the double exposure category, presented significantly lower scores on the no response signals dimension (e.g., it just happened, I did not say anything) as compared with the others exposure categories. Also, no significant associations were found between satisfaction with Fifty Shades and sexual consent dimensions.

In all, and contrary to our predictions, the exposure to Fifty Shades, and particularly, the highest levels of exposure, were not related with a maladaptive style of internal consent, such as feeling less secure, respected, interested or ready for sex. Instead, participants in the double exposure group felt more ready for sex, and reported more physical sensations relating to sexual arousal. These findings are aligned with those from Reese-Weber and McBride (2015) showing that the reading exposure to Fifty Shades was associated with increased sexual desire in women. In this specific scenario, we cannot establish causality among the findings. Associations between media exposure and individuals' attitudes and behaviors are bi-directional, as subjects too have an active role selecting the contents they are exposed to (Ward 2003). In view of that, it may have happened that the repetitive exposure to Fifty Shades has had some influence over women's feelings of internal sexual consent. The (sexual)liberating messages contained in the books and film, and also the messages relating to the benefits of a well-established sense of consent, may help participants feel more aroused (or be aware of it), but also more ready and sure about sex. On the other hand, it may have happened that respondents presenting these features are those with a greater interest on this kind of media contents, which may also explain this relationship. Furthermore, it has been recognized that narrative contents are more explicit and direct than visual ones, exposing individuals to more extensive and detailed models of sexual behavior (Ward 2003). So, the current findings on the relationship between exposure to Fifty Shades and internal sexual consent, may also be explained by the exposure modality, that combined the visual and the reading modalities, magnifying its potential effects. Furthermore, findings on internal

sexual consent showed that married participants reported more feelings of safety and comfort, arousal, and readiness. Indeed, people appraise different degrees of sexual consent depending on the level of intimacy of the couples. More intimacy has been related with the perception of higher levels of consent (Humphreys 2007). Such evidence may help to explain the current findings. Respondents in a relationship may perceive more indicators of consent in a sexual situation, and respond accordingly.

In addition, findings on external sexual consent stressed the potential role of the double exposure to Fifty Shades, as compared with the no exposure and visual exposure condition, but only regarding single participants (not dating). Again, the deepest exposure to Fifty Shades, including the reading modality (which conveys more narrative details), seemed to have had adaptive effects, as single participants reported a more pro-active external sexual consent style (i.e., scoring less in items such as "It just happened", "I did not say anything"), that single respondents in the other exposure conditions. However, this was found only for one of the external consent dimensions, which does not provide consistency to the findings. Also, it is not clear why this effect was observed only for single/not dating participants. But again, it has been recognized that relationship status may shape individuals' perceptions of consent in a sexual scenario (Humphreys 2007).

This study presents some limitations that must be highlighted. It is important to recognize the bidirectional nature of the Fifty Shades exposure/sexual consent relationship. As mentioned before, we cannot disentangle whether media exposure impacts sexual outcomes, or if certain sexual attitudes and behaviors actually influence the type of sexual contents women decide to watch. The current data do not clarify the nature of this relationship. Similarly, the current design does not capture all the processes that may be behind the putative relationship between Fifty Shades exposure and women's sexual consent. It is extremely unlikely that the mere exposure to Fifty Shades reading or visual work can shape women's sexual consent definitively. Women are exposed to so many contents (daily TV advertisements, magazines, social media, etc.) that we cannot isolate the role of Fifty Shades. Indeed, Fifty Shades possibly works as an iconic representation of the many contemporary cultural products portraying a sexualized male–female relationship, rooted on stereotyped gender roles. Findings should thus be interpreted with caution as they preclude definitive assumptions. In addition, and given that so many women have knowledge on the Fifty Shades written and film work (even those who haven´t read the books or watch the film), it is likely that findings are prone to great social desirability or be linked to preconceived ideas about Fifty Shades. It is also plausible that dispositional factors (e.g., personality dimensions, attitudes toward sex or interpersonal relationships) intervene on the Fifty Shades/sexual consent relationship. The role of Fifty Shades on women's sexual consent may be better explained by these moderate factors that were not accounted in the present study. Finally, participants reported on their last vaginal sexual intercourse (which may involve a recall bias), but not when it occurred. Future studies should acknowledge such variability, as well as consider other types of sexual intercourse or even non-heterosexual relationships.

The current findings on the relationship between the exposure to Fifty Shades and women's sexual consent add to the discussion on the role of pop culture, and

its portrayed icons, on young people's relationships, namely on how young and educated women convey sexual consent. Despite its preliminary nature, findings suggested that the exposure to Fifty Shades was actually related to a more adaptive style of internal sexual consent, overlapping feelings of sexual activation with feelings of safety and comfort. Even though previous studies have argued in favor of the idea that Fifty Shades portray harassment and sexual violence contents, normalized (or even glamorized) as an erotic relationship (Bonomi et al. 2013), other contents may pop out as well (namely, sexual desire, intimacy, emotional connection; Leistner and Mark 2016), and eventually favor adaptive internal feelings when women consent to sex. However, is worth noting the absent effects regarding overt behaviors and verbal communication of consent. So, even though Fifty Shades book series include about 72.7% of explicit and verbal modes of consent (Leistner and Mark 2016), the current findings do not support the assumption that such theme translated into women's behavior.

In all, while the current findings preclude any kind of causal assumptions between Fifty Shades and (mal)adaptive styles of conveying sexual consent, they do contribute to the discussion of the role of "sexualized" popular media in women's sexual outcomes, and particularly those that may be of interest to the understanding of sexual victimization within intimate relationships.

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Compliance with Ethical Standards

Conflict of interest All authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards defined by the local Ethics Committee (at Faculdade de Psicologia e de Ciências da Educação, Universidade do Porto, Portugal).

References

Adinew, Y. M., & Hagos, M. A. (2017). Sexual violence against female university students in Ethiopia. *BMC International Health and Human Rights, 17*(19), 1–7. https://doi.org/10.1186/s12914-017-0127-1.

Altenburger, L. E., Carotta, C. L., Bonomi, A. E., & Snyder, A. (2017). Sexist attitudes among emerging adult women readers of Fifty Shades fiction. *Archives of Sexual Behavior, 46*(2), 455–464. https://doi.org/10.1007/s10508-016-0724-4.

Barker, M. (2013). Consent is a grey area? A comparison of understandings of consent in Fifty Shades of Grey and on the BDSM blogosphere. *Sexualities, 16*(8), 896–914. https://doi.org/10.1177/1363460713508881.

Beres, M. A. (2007). "Spontaneous" sexual consent: An analysis of sexual consent literature. *Feminism and Psychology, 17*(1), 93–108. https://doi.org/10.1177/0959353507072914.

Bonomi, A. E., Altenburger, L. E., & Walton, N. L. (2013). 'Double crap!' abuse and harmed identity in fifty shades of grey. *Journal of Women's Health, 22*(9), 733–744. https://doi.org/10.1089/jwh.2013.4344.

Bonomi, A. E., Nemeth, J. M., Altenburger, L. E., Anderson, M. L., Snyder, A., & Dotto, I. (2014). Fiction or not? Fifty shades is associated with health risks in adolescent and young adult females. *Journal of Women's Health, 23*(9), 720–728. https://doi.org/10.1089/jwh.2014.4782.

Brennan, C. L., Swartout, K. M., Goodnight, B. L., Cook, S. L., Parrott, D. J., Thompson, M. P., et al. (2019). Evidence for multiple classes of sexually violent college men. *Psychology of Violence, 9*(1), 48–55. https://doi.org/10.1037/vio0000179.

Brown, J. D. (2002). Mass media influences on sexuality. *Journal of Sex Research, 39*(1), 42–45.

Carvalho, J., Quinta-Gomes, A., & Nobre, P. J. (2013). The sexual functioning profile of a nonforensic sample of individuals reporting sexual aggression against women. *Journal of Sexual Medicine, 10*(7), 1744–1754. https://doi.org/10.1111/jsm.12188.

Carvalho, J., & Sá, A. (2017). Male college students using sexually aggressive strategies: Findings on the interpersonal relationship profile. *Journal of Interpersonal Violence*. https://doi.org/10.1177/0886260516689779.

Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment, 7,* 309–319. https://doi.org/10.1037/1040-3590.7.3.309.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology, 78*(1), 98–104. https://doi.org/10.1037/0021-9010.78.1.98.

Deller, R. A., Harman, S., & Jones, B. (2013). Introduction to the special issue: Reading the Fifty Shades 'phenomenon'. *Sexualities, 16*(8), 859–863. https://doi.org/10.1177/1363460713508899.

Field, A. P. (2009). *Discovering statistics using SPSS: And sex and drugs and rock 'n' roll* (3rd ed.). London: Sage Publications.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). New York: Pearson.

Hall, D. S. (1998). Consent for sexual behavior in a college student population. *Electronic Journal of Human Sexuality, 1,* 1–16.

Hickman, S. E., & Muehlenhard, C. L. (1999). "By the semi-mystical appearance of a condom": How young women and men communicate sexual consent in heterosexual situations. *Journal of Sex Research, 36*(3), 258–272. https://doi.org/10.1080/00224499909551996.

Humphreys, T. (2007). Perceptions of sexual consent: The impact of relationship history and gender. *Journal of Sex Research, 44*(4), 307–315. https://doi.org/10.1080/00224490701586706.

Hust, S. J. T., Marett, E. G., Ren, C., Adams, P. M., Willoughby, J. F., Lei, M., et al. (2014). Establishing and adhering to sexual consent: The association between reading magazines and college students' sexual consent negotiation. *Journal of Sex Research, 51*(3), 280–290. https://doi.org/10.1080/00224499.2012.727914.

James, E. L. (2011). *Fifty shades of grey*. New York: Vintage Books.

James, E. L. (2012a). *Fifty shades darker*. New York: Vintage Books.

James, E. L. (2012b). *Fifty shades freed*. New York: Vintage Books.

James, E. L. (2015). *Grey: Fifty Shades of Grey as told by Christian*. New York: Vintage Books.

Jozkowski, K. N., Sanders, S., Peterson, Z. D., Dennis, B., & Reece, M. (2014). Consenting to sexual activity: The development and psychometric assessment of dual measures of consent. *Archives of Sexual Behavior, 43*(3), 437–450. https://doi.org/10.1007/s10508-013-0225-7.

Kocur, D. J. (2016). The phenomenon of fifty shades of grey: The role of sexual satisfaction and motivation. *The New Educational Review, 43*(1), 274–284. https://doi.org/10.15804/tner.2016.43.1.23.

Krebs, C., Lindquist, C., Berzofsky, M., Shook-Sa, B., Peterson, K., Planty, M., Langton, L., & Stroop, J. (2016). Campus climate survey validation study: Final technical report. Washington, DC: Bureau of Justice Statistics. Retrieved November 15, 2017 from https://www.bjs.gov/content/pub/pdf/ccsvsftr.pdf.

Larimer, M. E., Lydum, A. R., Anderson, B. K., & Turner, A. P. (1999). Male and female recipients of unwanted sexual contact in a college student sample: Prevalence rates, alcohol use, and depression symptoms. *Sex Roles, 40*(3–4), 295–308. https://doi.org/10.1023/A:1018807223378.

Leistner, C. E., & Mark, K. P. (2016). Fifty Shades of sexual health and BDSM identity messaging: A thematic analysis of the Fifty Shades series. *Sexuality & Culture: An Interdisciplinary Quarterly, 20*(3), 464–485. https://doi.org/10.1007/s12119-016-9337-2.

McKeown, J. K., Parry, D. C., & Light, T. P. (2017). "My iPhone changed my life": How digital technologies can enable women's consumption of online sexually explicit materials. *Sexuality and Culture, 22*(2), 340–354. https://doi.org/10.1007/s12119-017-9476-0.

Muehlenhard, C. L. (1995–1996). The complexities of sexual consent. *SIECUS Report, 24*(2), 4–7. Retrieved September 5, 2018 from https://siecus.org/wp-content/uploads/2015/07/24-2.pdf.

Muehlenhard, C. L., Humphreys, T. P., Jozkowski, K. N., & Peterson, Z. D. (2016). The complexities of sexual consent among college students: A conceptual and empirical review. *Journal of Sex Research, 53*(4–5), 457–487. https://doi.org/10.1080/00224499.2016.1146651.

National Union of Students. (2010). *Hidden marks: A study of women students' experiences of harassment, stalking, violence and sexual assault*. London: England.

Parry, D. C., & Light, T. P. (2014). Fifty shades of complexity: Exploring technologically mediated leisure and women's sexuality. *Journal of Leisure Research, 46*(1), 38–57.

Reese-Weber, M., & McBride, D. M. (2015). The effects of sexually-explicit literature on sexual behaviors and desires of women. *Psychology of Popular Media Culture, 4*(3), 251–257. https://doi.org/10.1037/ppm0000044.

Tabachnick, B. G., & Fidell, L. S. (2012). *Using multivariate statistics* (6a ed.). Boston: Allyn and Bacon.

Tripodi, F. (2017). Fifty shades of consent? *Feminist Media Studies, 17*(1), 93–107. https://doi.org/10.1080/14680777.2017.1261846.

Valls, R., Puigvert, L., Melgar, P., & Garcia-Yeste, C. (2016). Breaking the silence at Spanish Universities. *Violence Against Women, 22*(13), 1519–1539. https://doi.org/10.1177/1077801215627511.

Ward, L. M. (2003). Understanding the role of entertainment media in the sexual socialization of American youth: A review of empirical research. *Developmental Review, 23*(3), 347–388. https://doi.org/10.1016/S0273-2297(03)00013-3.