



## Why Do You Watch This Rough Stuff? Assessing Predictors of Female Pornography Preferences

Maximilian T. P. von Andrian-Werburg, Sascha Schwarz, Benjamin P. Lange & Frank Schwab

**To cite this article:** Maximilian T. P. von Andrian-Werburg, Sascha Schwarz, Benjamin P. Lange & Frank Schwab (25 Mar 2026): Why Do You Watch This Rough Stuff? Assessing Predictors of Female Pornography Preferences, The Journal of Sex Research, DOI: [10.1080/00224499.2026.2642323](https://doi.org/10.1080/00224499.2026.2642323)

**To link to this article:** <https://doi.org/10.1080/00224499.2026.2642323>



© 2026 The Author(s). Published with license by Taylor & Francis Group, LLC.



[View supplementary material](#)



Published online: 25 Mar 2026.



[Submit your article to this journal](#)



Article views: 865




[View related articles](#)



[View Crossmark data](#)

## Why Do You Watch This Rough Stuff? Assessing Predictors of Female Pornography Preferences

Maximilian T. P. von Andrian-Werburg<sup>1</sup><sup>a</sup>, Sascha Schwarz<sup>2</sup><sup>b</sup>, Benjamin P. Lange<sup>a,c</sup>, and Frank Schwab<sup>a</sup>

<sup>a</sup>Chair of Media Psychology, Institute Human-Computer-Media, Faculty of Human Sciences, University of Wuerzburg; <sup>b</sup>Social and Personality Psychology, School for Human and Social Sciences, University of Wuppertal; <sup>c</sup>Department of Social Sciences, IU International University of Applied Sciences

### ABSTRACT

Different studies show that women are, on average, more interested than men in pornographic themes related to dominance and submission, including rape. Using a biopsychosocial approach, a total of 571 women, representative of age and education level, from Germany, were studied to explore the factors influencing the consumption of such pornography. Participants were experimentally exposed to either a consensual written pornographic stimulus or one dealing with rape, and their subjective (psychological) sexual arousal was assessed. Additionally, we investigated various traits encompassing societal influences (such as acceptance of rape myths and previous use of violent sexual pornography) and biological-evolutionary factors (including sex drive, K-factor, and the onset of menarche). Our research showed that both rape myth acceptance and sex drive significantly impacted reported sexual arousal in response to the different stimuli. Additionally, women who had previously engaged with violent pornography tended to exhibit higher arousal when exposed to a rape stimulus. Aside from sex drive, the other biological-evolutionary factors were not significant predictors. These results prompt a discussion within the context of influences on the consumption of rape pornography, such as socialization. Our interpretation does not support the notion that a minority of women engage in fast life-history strategies, as suggested by prior research.

### Introduction

One of the most robust findings in media research is that women, on average, are much less likely to use pornography than men (Price et al., 2016; von Andrian-Werburg et al., 2023). Multiple approaches have been proposed to explain this difference.

There is a common assumption that women consume less pornography than men because women are objectified in mainstream pornography, and that female viewers avoid pornography due to phenomena linked to widespread patriarchal hostility in the industry (e.g., Cawston, 2019; Sun et al., 2008). However, according to Cawston (2019), this assumption has received little empirical support.


The greater overall attraction of men to pornography can be linked to their, on average, higher demand for sexual variety, their higher responsiveness to visual sexual cues, and their higher sex drive (Baker & Bellis, 1995; Buss, 2016; Clark & Hatfield, 1989; Edlund et al., 2021; Frankenbach et al., 2022; Lippa, 2009; Rupp & Wallen, 2007, 2008). Furthermore, men's stronger preferences for instrumental portrayals of sexuality align with their, on average, greater tendency toward a short-term, quantitative mating strategy, as described by Sexual Strategies Theory (SST; Buss, 1998, 2016; Buss & Schmitt, 1993), suggesting that it increased the fitness of men's genes if they managed to mate with a variety of sexual partners.

In contrast, women tend to adopt a more qualitative, long-term strategy, which is linked to a greater focus on traits in a partner that signal commitment, resource security, and good genes, as women have a much higher parental investment compared to men (Bischof-Köhler, 2022; Buss & Schmitt, 1993). In line with this perspective, women are more likely to engage with written forms of pornography, which typically place greater emphasis on interpersonal context and narrative meaning (Buss, 1998; Buss & Schmitt, 1993; Salmon & Symons, 2003; Solano et al., 2020; Taylor, 2008).

In this article, written pornography refers to any kind of textual material that contains descriptions of sexuality that aim to induce sexual arousal in its audience, consistent with the broader definition of pornography (see: Lehmler, 2018). Examples of written pornography include everything from commercial romance novels with sexually explicit story elements to community-created story blogs and fan fiction that include sexual encounters (e.g., Slash Fiction; Salmon & Symons, 2003).

The female preference for this pornography type is also evident in market trends. Romance novels are among the most successful publishing segments, with a majority female audience (Deane, 2026; Salmon & Symons, 2003). Online platforms also host extensive archives of erotic stories aimed at and created by women (Deane, 2026; Salmon & Symons, 2004). Taken together, these examples suggest that women,

**CONTACT** Maximilian T. P. von Andrian-Werburg  maximilian.andrian@uni-wuerzburg.de  Oswald-Kuelpe-Weg 82, Wuerzburg, Ger-97074

 Supplemental data for this article can be accessed online at <https://doi.org/10.1080/00224499.2026.2642323>.

© 2026 The Author(s). Published with license by Taylor & Francis Group, LLC.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

on average, engage with pornography differently from the video-based mainstream, which is dominated by a male audience. Nonetheless, related phenomena are equally crucial for understanding pornography use patterns.

The content of written pornography challenges SST's proposals, which might predict that women, on average, prioritize traits related to nurturance, commitment, and long-term partner reliability (e.g., agreeableness and conscientiousness). Instead, narratives involving sexual misconduct and assaults against the female main character, including instances of rape, appear frequently in written pornography (Critelli & Bivona, 2008; Deane, 2026). The present study aimed to examine this phenomenon by investigating women's affective sexual arousal in response to written pornographic stimuli depicting either consensual sexual interaction or fictive rape, adopting a biopsychosocial framework. Specifically, the study sought to identify psychological, experiential, and individual difference factors associated with heightened sexual arousal to rape-themed narratives relative to consensual sexual content.

### **Trends in Women's Pornographic Content Preferences**

A well-known example of women's interest in narratives containing sexual misconduct is *Fifty Shades of Grey*, which significantly impacted book sales and movie revenues with a storyline that featured a considerable amount of intimate partner violence against the female main character (e.g., Bonomi et al., 2013). The recent commercial success of dark romance literature is consistent with this trend, as the genre frequently depicts even more explicit and violent content while attracting a large, predominantly female audience (e.g., Deane, 2026). Furthermore, in video-based pornography, women (albeit a minority) who engage with such material (e.g., von Andrian-Werburg et al., 2023) demonstrate a heightened interest in themes of dominance and submission, including rape scenarios, compared to men (Burch & Salmon, 2022; Salmon et al., 2019). Usage statistics from the pornographic content provider Pornhub.com indicate that women were 34% more likely than men to watch hardcore pornography, 30% more likely to view bondage, and 29% more likely to watch gangbang pornography (Pornhub Insights, 2022). A small number of dominant platforms structure the online pornography market, with Pornhub.com being one of the most prominent providers (Morichetta et al., 2021).

The findings of various other studies (e.g., Hald & Štulhofer, 2016; von Andrian-Werburg et al., 2024) suggest that women's interest may exceed that of men when it comes to even more extreme forms of video-based pornography. Regarding the category "Violent sex (simulated rape, aggression, and coercion)," Hald and Štulhofer's (2016, p. 853) female participants reported potentially greater sexual arousal compared to their male counterparts when using such fictive content.

Based on these trends, Salmon et al. (2019) explored factors related to women's interest in gangbang pornography. The term can be used differently, ranging from "one girl servicing many males in succession" to "a violent multi-rape of one female" (Partridge & Beale, 1991, p. 445). Pornographic movies labeled "gangbang" may correspond to both meanings

described above. Salmon et al. (2019) found that intentions of infidelity – which the authors suggest may reflect a faster life-history strategy (LHT; Roff, 1992; Stearns, 1992) – were predictive of interest in the respective type of pornography. According to LHT, a fast-slow continuum varies both between and within humans based on individual life stages (e.g., adolescence, adulthood, senescence), as well as numerous other factors, including one's health, genetics, and the stability of environmental conditions (Ellis et al., 2009; Sýkorová & Flegr, 2021). A faster life-history orientation has been linked to heightened sexual responsiveness and an earlier onset of menarche (Sýkorová & Flegr, 2021). Ultimately, a fast life-history strategy is characterized by higher reproductive output and lower average parental investment, particularly in unstable environments.

### **Why Do (Some) Women Use Rape Pornography?**

Voluntary engagement in rough sexual behaviors has been described as primarily pleasure-oriented rather than driven by aggression (Burch & Salmon, 2019, 2022; Herbenick et al., 2021). Therefore, it can be considered conceptually related to similar motives as pornography use (Burtäverde et al., 2021; Grubbs et al., 2022; von Andrian-Werburg et al., 2023). Consequently, the voluntary use of rape pornography could also be driven by comparable hedonistic motives, particularly to fulfill sexual desires, as satisfying the sex drive is the primary reason for using pornography (Burtäverde et al., 2021). Thus, this study assessed *affective sexual arousal* (Mosher, 2011) as the dependent variable in response to either a consensual pornographic written stimulus or one dealing with a literary depiction of rape. Next, potentially related variables will be discussed from a biopsychosocial perspective:

#### **Female Internalization of Problematic Societal Beliefs**

While strongly biologically driven traits, touched upon in LHT and SST, certainly shape women's use of pornography, social and cultural influences can be just as pivotal in determining sexual attitudes and behaviors (e.g., Wright, 2011). Indeed, women are socialized to behave more sexually piously compared to men, and those who do not conform to these cultural norms often face societal backlash (Baumeister & Twenge, 2002). These social expectations not only affect women but may also create an environment in which male sexual aggression is normalized or excused. These processes are encapsulated in the concept of rape culture – a term of unclear origin that refers to societal beliefs promoting male sexual aggression while insisting on female sexual passivity (Williams, 2015). Often based on the naturalistic fallacy (Moore, 1903) – for example, the unfounded/mistaken idea that the male sex drive is "uncontrollable" – these beliefs represent a flawed rationale that can be used to justify or excuse rape perpetration.

Respective beliefs affect gender stereotypes – that is, assumptions about the thoughts, feelings, abilities, attitudes, and preferences of "typical" women and men (e.g., Mealey, 2000). These stereotypes, in turn, underpin rape myths, which influence individual attitudes and contribute to broader societal problems, including how rape cases are prosecuted (Bohner

et al., 2009; Schwendinger & Schwendinger, 1974). Rape myths include notions that rape is impossible if women truly resist, and that women who dress or act provocatively are essentially “asking to be raped” (Schwendinger & Schwendinger, 1974).

Significantly, these myths affect women and men differently (Bohner et al., 2009, p. 28). For some women, endorsing them serves a self-protective function by creating psychological distance – believing only women “unlike themselves” are at risk, thereby denying their own vulnerability (Bohner et al., 2009). At the same time, these myths legitimize men’s problematic behaviors as “natural” or “unavoidable,” enabling them to rationalize harmful impulses or actions (Bohner et al., 2009, p. 31).

Such perceived distance may be associated with increased sexual arousal in response to rape pornography. Women who strongly accept rape myths could identify less with the (fictional) victim, which may be accompanied by reduced empathy for her suffering (Preston & De Waal, 2002). Moreover, any moral reservations could be alleviated by assuming implied consent – a view that transforms the scenario from witnessing a crime to interpreting it as a rough but consensual encounter, effectively mirroring a rape myth (Schwendinger & Schwendinger, 1974).

**H1:** Higher levels of rape myth acceptance are associated with greater sexual arousal in response to a pornographic rape stimulus compared to a consensual pornographic stimulus.

### **Previous Exposure to Violent Pornography**

Another variable to consider is past exposure to violent pornography. Various theories in the social-cultural realm have explored how media exposure may influence human behavior (e.g., Bandura, 2001; Ferguson et al., 2008; Wright, 2011). For example, Wright’s (2011) *Acquisition, Activation, and Application Model of Sexual Socialization* (<sub>3</sub>AM) has gained considerable attention in the field of pornography research.

Thus, repeated exposure to violent pornography might cause the recipients to socially learn (acquire), make previously acquired scripts more salient (activate), and ultimately cause recipients to even apply violent sexual behavior in real life. Furthermore, once acquired, scripts could heighten the belief that such behaviors are arousing and ultimately pleasurable. In professional pornography (e.g., Kink.com), there is frequently a disclaimer stating that all parties involved consent to and enjoy the scenes presented. Ultimately, one could even believe that all surface web content complies with the legal standards of the hosting countries. Therefore, previous violent pornography use may be associated with sexual arousal following a rape stimulus:

**H2:** Previous exposure to violent pornography is associated with greater sexual arousal following a pornographic rape stimulus compared to a consensual pornographic stimulus.

### **Individual Differences**

The first individual difference variable that comes to mind, given the aim and nature of pornography (Burtäverde et al., 2021; Lehmler, 2018), is sex drive. An elevated sex drive is linked with greater engagement in acquiring sexual

reinforcements and can shift attention toward suitable stimuli and heighten the anticipation of sexual rewards (Pfaus, 2009). Therefore, it is reasonable to expect that a higher sex drive will be associated with more sexual arousal following exposure to pornographic stimuli and could also be linked to a diversification of pornography preferences.

Another crucial individual difference variable, despite being a topic of considerable debate (Frankenhuis & Nettle, 2020), is the tendency to orient more quickly along the (potential) fast-slow continuum (Salmon et al., 2019), as detailed by LHT (Roff, 1992; Stearns, 1992). Various cognitive and behavioral indicators (e.g., feeling closely connected to one’s relatives) provide cues about the “speed” of an individual’s life-history strategy and can be calculated into a single factor (K-factor; Figueredo et al., 2014). Another complementary and easily assessed indicator of this quicker orientation is an earlier onset of menarche. Different environmental contexts (e.g., an absent father) can lead to divergent developmental trajectories, and girls’ sexual development tends to accelerate in unstable environments (e.g., those affected by an absent father; Sýkorová & Flegr, 2021; Webster et al., 2014). Therefore, the earlier a girl has menarche, the more likely it is that she is inclined to pursue a faster life-history strategy. Finally, another crucial individual difference variable is a person’s age. Again, based on LHT, individuals focus on reproduction in earlier (postpubertal) life, shifting increasingly to a stronger emphasis on survival and maintenance in later years, which likely also affects the responsiveness to sexual stimuli and the preference for a diversity in sexual stimuli. Therefore, hypothesis 3 posits:

**H3:** Individual differences are associated with differences in sexual arousal following a pornographic rape stimulus compared to a consensual pornographic stimulus.

**H3<sub>a</sub>:** A greater sex drive is associated with more sexual arousal in response to a pornographic rape stimulus compared to a consensual pornographic stimulus.

**H3<sub>b</sub>:** A faster life-history strategy (K-factor) is associated with more sexual arousal in response to a pornographic rape stimulus compared to a consensual pornographic stimulus.

**H3<sub>c</sub>:** An earlier onset of menarche is associated with more sexual arousal in response to a fictive rape stimulus compared to a consensual pornographic stimulus.

**H3<sub>d</sub>:** The age of a person is positively associated with lower sexual arousal in response to a pornographic rape stimulus compared to a consensual pornographic stimulus.

## **Method**

### **Participants**

A professional online access panel provider was used to recruit a demographically more balanced sample than would have been feasible with a convenience sample. The questionnaire was distributed via the provider’s market research panel, which

operates in accordance with ESOMAR guidelines, employs established fraud-prevention and quality-assurance procedures, and is routinely used for academic research. Participants were informed in advance that the survey contained sexually explicit material and sensitive questions; participation was voluntary and compensated monetarily through the panel provider.

For recruitment demographic quotas were calculated for low (secondary school certificate; Germany: “Hauptschulabschluss,” 9 years of school), middle (high school degree, without being eligible to access college/university; Germany: “Mittlere Reife,” 10 years of school), and highly educated participants (educated above the groups mentioned above/access to or finished university/college; Germany: “Fach-Abitur,” or “Abitur,” 12 or 13 years of school) separated into five age groups (18 to 24, 25 to 34, 34 to 44, 45 to 54, and 55 to 69 years). The quotas aimed to approximate the German demographic composition in terms of age and education, with a slight overweight of younger age groups. This oversampling was chosen to better assess relevant demographic segments regarding pornography use, which is much higher in younger age groups than in older ones, especially for women (Price et al., 2016; von Andrian-Werburg et al., 2023). The quota calculation and control procedures are presented in the online supplementary material.

Initially, 615 participants completed at least some sections of the questionnaire. Of these, 15 participants were excluded because they completed the questionnaire in an unrealistically fast time (equal to or faster than 340 seconds), which corresponded to the fastest 2.5% of the sample, with the sample mean being 1242 seconds for questionnaire completion. Furthermore, 21 participants were excluded for reporting being exclusively gay, as the study was designed for participants with at least a slight preference for opposite-sex sexual encounters, since the pornographic stimuli portrayed heterosexual intercourse. This yielded a final sample size of  $N = 579$  female participants. These participants, on average, were 43.25 years old ( $SD = 13.85$  years) and ranged in age from 18 to 69 years. Of these, 145 held a secondary school certificate, 213 had a high school diploma that did not allow for university entry, and 221 held a high school diploma qualifying for direct university/college entry (123 participants, “(Fach-)Abitur,” 12 or 13 years of school) or a university/college degree (98 participants).

### Procedure

The ethics committee of the Institute Human-Computer-Media approved the study. Professional translators translated scales from English to German if necessary. Written stimuli were selected because they provide a high degree of control over the situations to be presented and pose no legal or practical issues compared to video-based stimuli. After participants consented to the study’s procedures, they were randomly assigned to one of two story vignettes and, after stimulus exposure, asked to respond to various scales and scale anchors, as described below.

### Stimuli

Participants were exposed to either a written stimulus about a consensual encounter or one about an instance of rape. The consensual stimulus was 1416 words, and the rape stimulus was 1412 words in length. The consensual story condition was

introduced to establish a baseline for comparing the rape stimulus. The stimuli were initially developed and pretested in an unpublished study ( $N = 215$ ). In that study, both stimuli elicited *affective sexual arousal* (Mosher, 2011) with no significant differences between the stimuli,  $t(213) = 1.89$ ,  $p = .059$ . However, the rape condition was significantly more strongly perceived as rape compared to the consensual condition. This was assessed through an item presented after the stimulus with the wording, “In your opinion, was it rape?” The item was scored on a five-point scale ranging from 1 = *yes*, 2 = *probably yes*, 3 = *undecided*, 4 = *probably no*, to 5 = *no*. A Mann-Whitney  $U$  test revealed a highly significant difference between the stimuli ( $W = 11145$ ,  $p < .001$ ), resulting in a substantial negative rank biserial correlation coefficient of  $-.93$ .

The consensual story condition presents a one-night stand. It is narrated from the viewpoint of an unnamed female protagonist who is picked up in a bar by Alexander, a pediatrician who enjoys climbing in addition to his professional work, and is depicted as having a muscular, impressive physique. The couple leaves the bar for Alexander’s apartment, where they engage in a consensual one-night stand. Alcohol plays a role in the encounter but only serves to ease social interactions and enhance pleasure. The sexual encounter is described in great detail and brings orgasmic pleasure to both parties involved.

In the rape scenario, the female protagonist feels uneasy about leaving the bar with Alexander, who is described as just as attractive as in the first scenario. The use of alcohol significantly reduces her initial skepticism toward Alexander. Despite her discomfort, she accompanies him to his apartment, intending to leave after having one more drink. However, Alexander starts to restrain her physically and forcibly removes her clothing. Initially, she resists and clearly states that she does not want to have sex with him. Nevertheless, he dismisses her refusal and coerces her into sexual acts. His disregard for her verbal rejection aligns with Germany’s legal definition of rape.

To keep the stories similarly arousing apart from the described behavior and to be in line with the situations displayed in pornography and (some of) the actual occurrences of rape (e.g., Levin & Van Berlo, 2004), the female protagonist climaxes during the intercourse that follows. However, it is repeatedly mentioned that she does not want the sexual encounter and suffers from it. The encounter ends with Alexander saying, “See, I know what women want.” In the end, the protagonist leaves the flat, troubled, into the night. Both stimuli are available in the online supplementary files in the original German version and its English translation.

### Measures

#### Affective Sexual Arousal

Sexual arousal was evaluated using the *Ratings of Affective Sexual Arousal* (Mosher, 2011, p. 86). Prior research indicates that women’s physiological sexual arousal responses – typically measured by vaginal lubrication – can be triggered by various sexual stimuli, including depictions of sexual violence (e.g., rape scenarios; Suschinsky & Lalumière, 2011). However, automatic lubrication is better understood as a protective reflex, evolved to minimize genital injury during rape. In

contrast, women generally report feeling sexually aroused (affectively) only in response to sexual scenarios they perceive as pleasurable.

The respective measure includes five items (sexually aroused, sensuous, turned-on, sexually hot, sexually excited) that assess participants' feelings after exposure to a stimulus. Respondents rate the items on a five-point intensity scale ranging from 1 = *Very slightly*, 2 = *Slightly*, 3 = *Moderately*, 4 = *Considerably*, to 5 = *Very strongly*. The scale's internal consistency was high, with Cronbach's alpha ( $\alpha$ ) = 0.94 and McDonald's omega ( $\omega$ ) = 0.95.

### Rape Myth Acceptance

The Modern Myths about Sexual Aggression Scale (Gerger et al., 2007), in its 9-item short form (Süssenbach & Bohner, 2011), measured participants' adherence to respective myths. Items included statements like "Many women strongly complain about sexual infringements for no real reason, just to appear emancipated," and participants reported their conformity to these statements on a four-point intensity scale with labeled extremes only, beginning with 1 = *Do not agree* and ending with 4 = *Do strongly agree*. The scale demonstrated good internal consistency, with  $\alpha$ , and  $\omega$  estimated at 0.86.

### Previous Violent Pornography Use

Participants' previous violent pornography use was assessed with a single item of Hald and Štulhofer's (2016) types of pornography, surveying the average usage time per week in minutes for "Violent sex (simulated rape, aggression, and coercion)," regardless of whether participants used it in written or video-based form. The item also provided a checkbox with the option to indicate that participants "*never*" used the respective type of pornography. Because assessing minutes per week of usage time appears to be highly biased (Morichetta et al., 2021), either due to social desirability or recall bias in the analysis, the item was converted into a dichotomous variable separating users from non-users of such pornography.

### Sex Drive

Participants' sex drive was evaluated using the Sex Drive Questionnaire (Ostovich & Sabini, 2004). This scale consists of four items (e.g., "How often do you experience sexual desire?"). The items assess a respondent's sex drive without the need for a sexual partner. Each item followed a specific response format, utilizing 6- and 7-point intensity scales, with higher values indicating a greater sex drive. Therefore,

following Ostovich and Sabini (2004), the items were z-standardized before being averaged. The scale demonstrated good internal consistency, with  $\alpha$  = .86 and  $\omega$  = .87.

### Mini-K

The K-factor was assessed with a short form of the *Arizona Life History Battery* (Mini-K; Figueredo et al., 2014). The Mini-K includes 20 items (e.g., "I often get emotional support and practical help from my blood relatives."), which are measured on a 7-point intensity scale ranging from 1 = *Disagree Strongly* to the labeled midpoint 4 = *Don't Know/Not Applicable* up to 7 = *Agree Strongly*. This scale showed good internal consistency, with  $\alpha$  = .82 and  $\omega$  = .83.

### Onset of Menarche

Menarche was assessed with two items asking for age in years (first item) and months (second item) as it took place. The months were divided by 12 and summarized with the reported years to obtain the age of menarche in years. Because the value yielded some outliers, the onset of menarche was 95%-winsorized.

### Age

Age was assessed with a single item asking for participants' current age in years.

### Data Analysis

The analyses presented below were conducted in R 4.5.1 with the data and all code available in the online supplementary files. To obtain a complete dataset, nonparametric random forest imputation was employed following a non-significant Little's MCAR Test ( $p$  = .53). As manipulation checks, we first conducted exploratory  $t$ -tests between the predictor variables where applicable (see Table 1). To test our hypotheses, a two-step regression analysis was conducted, first using mean-centered numeric variables (step 1) and then including all variables and their interactions (step 2). Guided by common recommendations regarding the assumptions of linear models and multiple regression (e.g., Field, 2017), we found no relevant violations of our analysis assumptions.

However, influence diagnostics showed that a limited number of cases (three for each analysis) significantly impacted Mini-K's role as a predictor. Without considering influential cases, the effect was significant when only main effects are considered; however, it became non-significant when

**Table 1.** Descriptive statistics including a comparison of means between the two groups.

Variables	Consensual Stimulus ( $n$ = 289)		Non-Consensual Stimulus ( $n$ = 290)		$t$ (577)	$p$	Cohen's $d$
	$M$ ( $SD$ )	Min./Max.	$M$ ( $SD$ )	Min./Max.			
Sexual Arousal	2.83 (1.13)	1.00/5.00	2.60 (1.10)	1.00/5.00	2.53	.01	0.21
Rape Myth Acceptance	2.04 (0.66)	1.00/4.00	2.04 (0.72)	1.00/4.00	0.04	.96	<0.01
Use of Violent Sex Porn. <sup>1</sup>							
Sex Drive <sup>2</sup>	0.03 (0.81)	-1.66/2.15	-0.03 (0.87)	-1.66/2.79	0.83	.43	0.07
Mini-K	4.78 (0.79)	2.80/7.00	4.80 (0.88)	1.10/7.00	-0.24	.79	-0.02
Menarche Onset (years) <sup>3</sup>	12.88 (1.63)	10.00/17.00	12.92 (1.60)	10.00/17.00	-0.26	.77	-0.02
Age	42.57 (14.44)	18.00/69.00	43.93 (13.24)	18.00/69.00	-1.18	.24	0.10

Note. <sup>1</sup>16 participants who reported using violent sex pornography were exposed to the consensual stimuli and 19 were exposed to the non-consensual stimuli, <sup>2</sup>z-standardized, <sup>3</sup>95%-winsorized.

**Table 2.** Robust regression analysis summary (Step 1: Main effects only, Step 2: Including interactions) for sexual arousal as a function of pornographic stimulus condition (0 = Consensual, 1 = Non-consensual) with rape myth acceptance<sup>1</sup>, previous violent sex pornography use, sex drive<sup>2</sup>, Mini-K<sup>1</sup>, the onset of menarche<sup>1</sup>, age<sup>1</sup>, and all interactions as predictors.

Analysis Step	Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>z</i>	<i>p</i>
1	Pornographic Stimulus	-0.21	0.09	-0.19	-2.34	.02
	Rape Myth Acceptance	0.26	0.07	0.16	3.88	<.001
	Violent Sex Porn Use	0.18	0.20	0.04	0.82	.414
	Sex Drive	0.47	0.06	0.35	8.53	<.001
	Mini-K	0.10	0.06	0.12	1.83	.067
	Menarche Onset	0.04	0.03	0.07	1.54	.124
	Age	<0.01	<0.01	0.02	0.41	.680
2	Pornographic Stimulus	-0.27	0.09	-0.19	-2.91	.004
	Rape Myth Acceptance	0.29	0.10	0.18	3.21	.001
	Violent Sex Porn Use	-0.31	0.29	-0.07	-1.13	.260
	Sex Drive	0.54	0.09	0.40	6.48	<.001
	Mini-K	0.14	0.08	0.10	1.57	.115
	Menarche Onset	0.01	0.04	0.02	0.30	.763
	Age	<0.01	<0.01	0.04	0.70	.483
	Stimulus × Rape Myth Acceptance	-0.08	0.14	-0.05	-0.59	.554
	Stimulus × Violent Sex Porn Use	0.92	0.40	0.20	2.19	.028
	Stimulus × Sex Drive	-0.12	0.12	-0.09	-1.10	.269
	Stimulus × Mini-K	-0.07	0.11	-0.05	-0.60	.550
	Stimulus × Menarche Onset	0.07	0.06	0.10	1.16	.244
	Stimulus × Age	<-0.01	0.01	-0.04	-0.52	.603

Note. <sup>1</sup>mean-centered, <sup>2</sup>z-standardized, Model fit: step 1: RMSE = 1.02, MAE = 0.84; step 2: RMSE = 1.02, MAE = 0.83.

interactions with the condition were taken into account. The exclusion of the top three influential cases rendered the main effects nonsignificant; however, it became significant when the interactions were considered.

To obtain a reliable, stable analysis, we re-estimated the models using robust regression (*M*-estimation, implemented via *rlm* in the MASS package; Ripley et al., 2025), with robust standard errors and *p*-values (Zeileis, 2004), which are presented in Table 2. Because  $R^2$  is biased in the presence of outliers and cannot be reliably computed with the chosen approach, we instead report error-based fit indices – the mean absolute error (MAE) and the root mean square error (RMSE) (Chai & Draxler, 2014; Rosenbusch et al., 2021). These indices are expressed in the units of the dependent variable and therefore require domain-specific interpretation. Values around 1 indicate that model predictions deviate on average by about one response category, which we would consider reasonable, as the regression still captures the direction and general magnitude of the effects.

Using G\*Power (Faul et al., 2007), a sensitivity analysis for the full regression model in Step 2—including all main effects and stimulus interaction terms (13 predictors,  $N = 579$ ,  $\alpha = .05$ ) – indicated that power approached the conventional .80 (Cohen, 1988) threshold for small model-level effects around  $f^2 = .031$ , while power was lower for smaller effects. Accordingly, nonsignificant findings, particularly for interaction effects, should be interpreted cautiously with respect to very small effect sizes.

## Results

The attached Table A1 displays the correlation matrix of the independent variables. Table 1 contains the descriptive statistics of all variables relevant to the analysis. The complete analysis, including step 1 (main effects only) and step 2 (interactions), is displayed in Table 2. Regarding Table 2, model fit was acceptable, with prediction errors of about one response category on the 1–5

sexual arousal scale (step 1: RMSE = 1.02, MAE = 0.84; step 2: RMSE = 1.02, MAE = 0.83). Both Tables 1 and 2 highlight a significant difference between the stimuli: The consensual stimulus significantly led to more sexual arousal than the rape stimulus, which will be outlined in more detail below.

**Hypothesis 1:** Higher levels of rape myth acceptance are associated with greater sexual arousal in response to a pornographic rape stimulus

As seen in Table 2, participants with stronger beliefs in rape myths reported higher levels of sexual arousal, both in step 1 and step 2 of the analysis. No significant interaction emerged between the stimulus conditions, indicating that the association between rape myth beliefs and sexual arousal was present across both stimuli. Figure 1 graphically illustrates this relationship.

**Hypothesis 2:** Previous exposure to violent pornography was associated with greater sexual arousal following a pornographic rape stimulus

Table 2 shows no significant association between prior use of violent pornography and sexual arousal in both steps of the analysis. However, the interaction between previous use of violent pornography and the experimental condition (consensual vs. rape) reached significance in step 2. Figure 2 graphically illustrates this disordinal interaction.

A simple effects analysis, as displayed in Figure 3, further clarifies the nature of the interaction.

In the consensual condition, participants with prior violent pornography use descriptively reported lower sexual arousal ( $M = 2.52$ ,  $SE = 0.29$ ) than those without such use ( $M = 2.83$ ,  $SE = 0.07$ ). However, this difference did not reach statistical significance,  $z = 1.06$ ,  $p = .29$ . In the rape condition, prior violent pornography use was associated with significantly higher sexual arousal ( $M = 3.18$ ,  $SE = 0.26$ ) compared to those without prior use ( $M = 2.56$ ,  $SE = 0.07$ ),  $z = -2.29$ ,  $p = .022$ . Therefore, previous use of

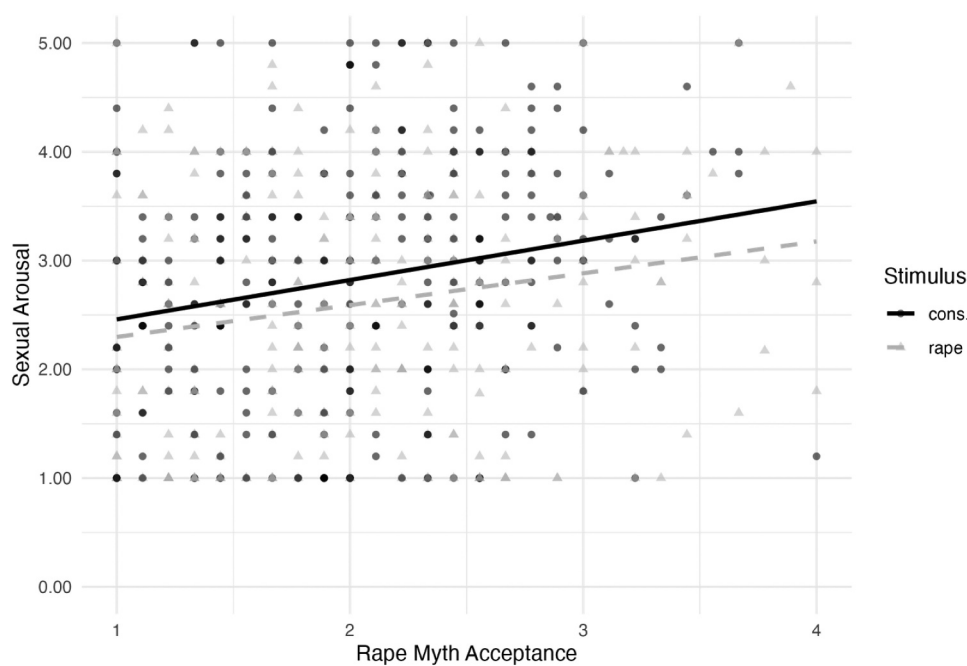


Figure 1. Association between rape myth acceptance and pornographic stimulus type (consensual vs. rape) on affective sexual arousal.

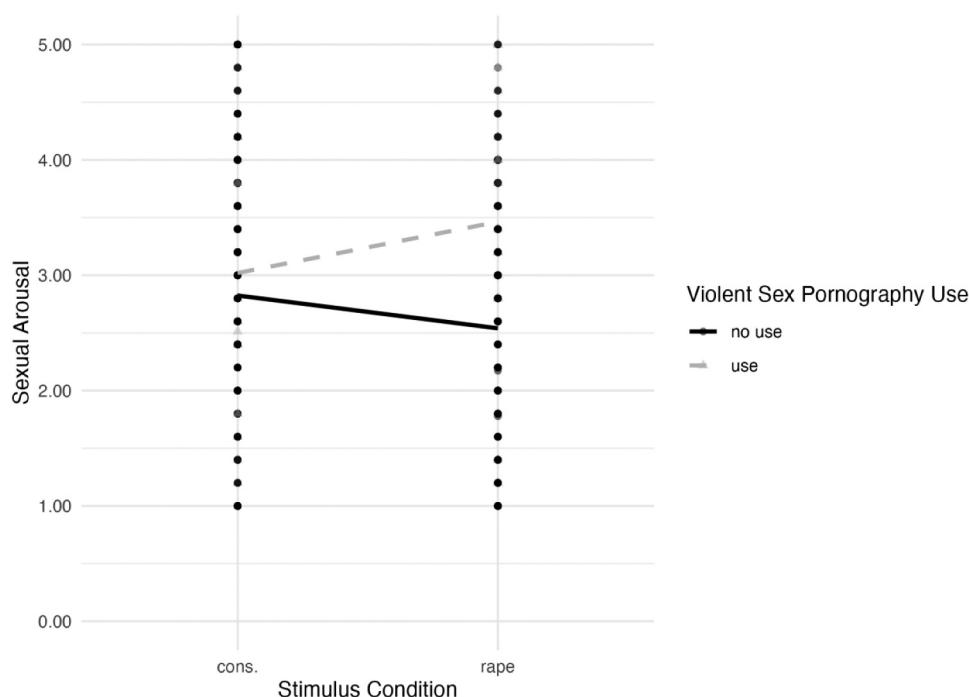


Figure 2. Sexual arousal by pornographic stimulus type (x-axis) and prior violent pornography use (lines).

violent pornography was linked to elevated sexual arousal in response to the rape stimulus, whereas no significant association emerged in the consensual condition.

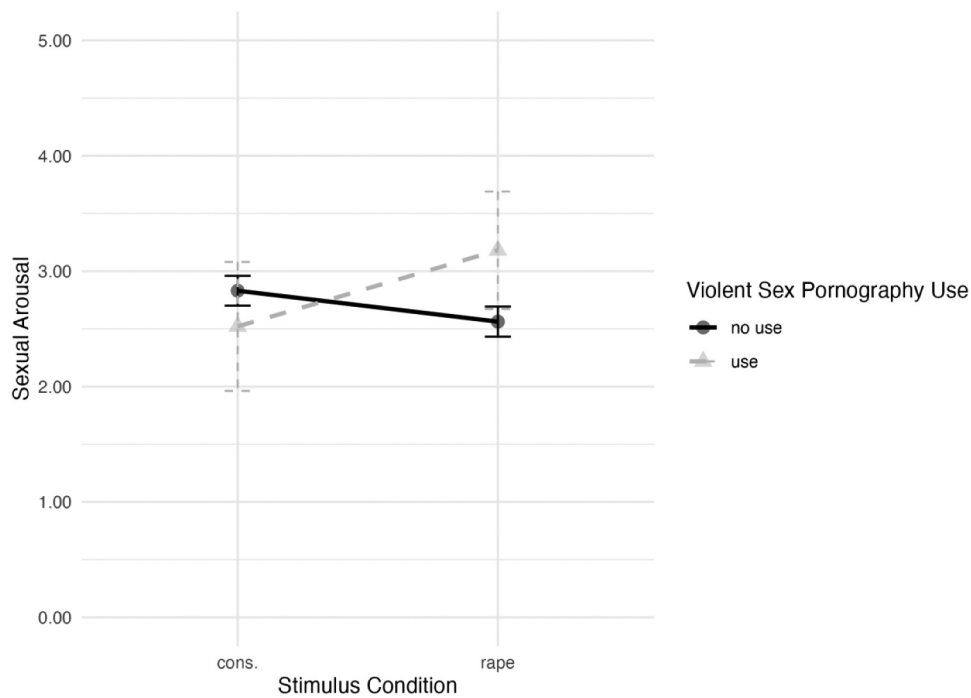
**Hypothesis 3:** Individual differences affect sexual arousal following a rape pornography stimulus.

Table 2 indicates that sex drive ( $H3_a$ ) was significantly associated with sexual arousal across stimulus types, while no interactions with stimulus type were observed. In contrast, the

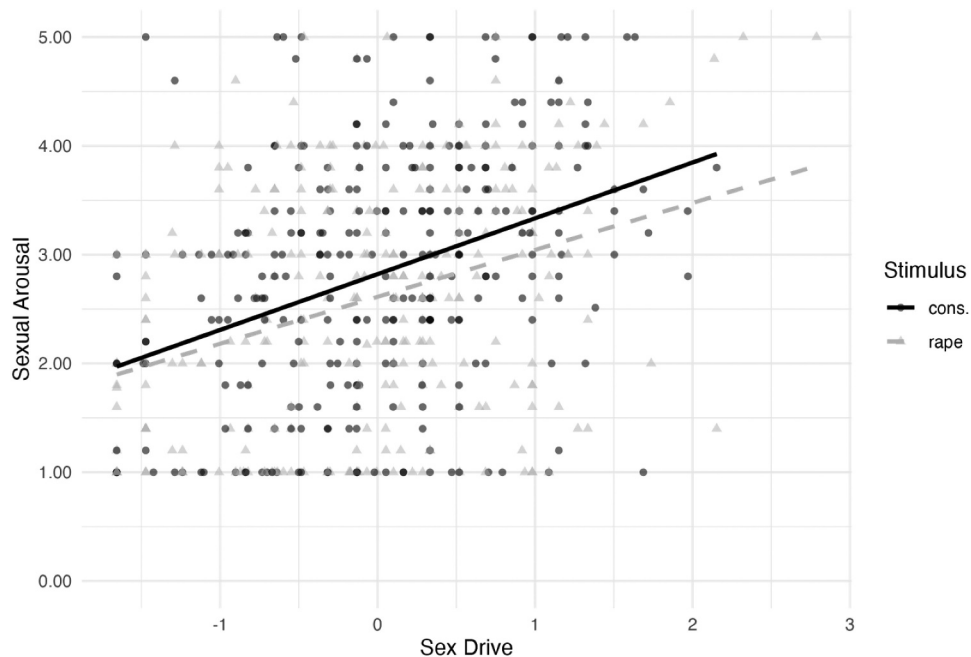
K-factor ( $H3_b$ ), onset of menarche ( $H3_c$ ), and age ( $H3_d$ ) showed no significant associations with sexual arousal. Figure 4 illustrates the effect of sex drive. Thus, only  $H3_a$  received partial support, as sex drive was associated with sexual arousal across both stimuli rather than differentially by stimulus condition.

## Discussion

It is noteworthy that a substantial minority of women report engaging in the consumption of violent pornography (Burch



**Figure 3.** Simple effects of prior violent pornography use across pornographic stimulus types (consensual vs. rape) on affective sexual arousal.



**Figure 4.** Association between sex drive and affective sexual arousal by pornographic stimulus type (consensual vs. rape).

& Salmon, 2022; Salmon et al., 2019; von Andrian-Werburg et al., 2024), The present study aimed to acquire a more comprehensive understanding of the factors that motivate interest in a specific subtype of it, rape pornography. The results show that the consensual stimulus generally elicited stronger sexual arousal than the rape stimulus. Higher rape myth acceptance and stronger sex drive were associated with greater arousal regardless of stimulus type. Prior use of violent pornography significantly interacted with stimulus type, such that women with prior exposure reported stronger

arousal to the rape stimulus. Life history-related variables (K-factor, age, and menarche) were not associated with sexual arousal.

Regarding Hypothesis 1, rape myth acceptance was positively associated with greater sexual arousal across both stimulus conditions. This finding supports H1, although no significant interaction with stimulus type was observed. The effect may be linked to the specific content of the consensual scenario (a one-night stand), in which rape myth acceptance could reflect not only sexual openness but also a sense of

security or confidence (Bohner et al., 2009). The use of alcohol, as described in the stimuli, could also influence this, as drunk women might be perceived as stereotypical targets for sexual assault (Bonneville & Trottier, 2022). Thus, rape myth acceptance appears to be positively associated with general responsiveness to pornographic material, regardless of whether the scenario is consensual or rape.

The evaluation of Hypothesis 2 yielded, in our view, the most noteworthy finding of the study. Prior use of violent pornography was not directly associated with sexual arousal across stimulus types but significantly interacted with stimulus type. Specifically, women with prior exposure to violent pornography reported significantly higher arousal in response to the rape compared to the consensual stimulus. In contrast, no significant difference emerged in the consensual condition compared to women without such exposure. This pattern suggests that prior use of violent pornography is associated with stronger arousal responses in rape contexts. One possible explanation is that such material is consumed for pleasure-seeking motives, with repeated exposure shaping expectations that these stimuli will elicit pleasurable outcomes (Bandura, 2001; Wright, 2011).

Hypothesis 3 encompasses various biological-evolutionary individual difference variables, including sex drive, the K-factor, age, and the onset of menarche. Results showed that sex drive was significantly linked to sexual arousal across both stimuli, consistent with the idea that higher sex drive reflects a higher general sexual responsiveness (Pfaus, 2009). No interaction with stimulus type was observed.

By contrast, the life history-related variables (K-factor, age, menarche) were non-significant. This aligns with prior work questioning the applicability of the fast – slow continuum to human sexual behavior (Richardson et al., 2017; Sear, 2020). While the K-factor initially appeared to predict arousal, closer inspection revealed that the effect was driven by a few influential cases, suggesting no genuine relationship in the sample.

Regarding menarche, its proposed influence stems largely from clinical contexts. Yet evidence from sexual behavior research indicates that practices such as rough sex are often initiated by women for recreational rather than pathological reasons (Burch & Salmon, 2019, 2022). Considering the close relationship between real-life sexual behavior and pornography use, this pattern may extend to pornography consumption (von Andrian-Werburg, Klopp, et al., 2024). Finally, age did not emerge as an independent predictor, likely because its potential effects (e.g., on sex drive) were already captured by other variables in the model.

Regarding the underlying research question of this study – what causes women to use rape pornography – we infer, based on our evidence and prior studies (Burch & Salmon, 2022; Salmon et al., 2019), that there is a multifaceted etiology behind this media usage. Following the argument that the more (psychological) sexual arousal a pornographic stimulus induces, the more likely an individual is to (re-)use it, we observe that women with heightened sex drives and increased security and confidence (suggested to also stem from a strengthened belief in rape myths; Bohner et al., 2009) may be more inclined to use pornography in general, but could also gravitate toward rape pornography. In the long term, this

could lead to a greater interest in this type of pornography, as evidenced by the interaction with prior violent pornography use. Media psychology offers several theories (e.g., excitation transfer; Zillmann, 1971) to explain why arousal from negative stimuli can be reattributed or misattributed, leading to the production of positive feelings. Consequently, even the physical arousal caused by a rape stimulus might be misattributed as psychological sexual arousal, enhancing the overall pleasurable experience.

Regarding the non-significance of LHT variables, we further see no evidence for a specific reproductive strategy in (a minority of) women that would be somehow reflected in their pornography use. Indeed, the processes described by SST undeniably affect the human mating domain. However, biopsychological (proximate) factors (e.g., excitation transfer) and socially or culturally conditioned influences may also play a key role in explaining the paradox of certain women's pornography preferences.

### Limitations

This study was limited by several factors that need to be addressed. First, despite being comparably large and being recruited with quotas, the sample composition still did not represent the German population. Therefore, any generalization of results should be done with a reasonable amount of caution.

As a sensitive topic, questionnaire-based research on pornography will always face criticism regarding social desirability bias. However, von Andrian-Werburg et al. (2023) replicated several questionnaire-based findings in Germany using objective web-tracking data at least in countries where the population is relatively open to sexuality-related topics; bias due to social desirability and also to self-selection may not be as severe as one might suspect, given the nature of the subject.

Nonetheless, another limitation of this study was the one-night stand setting of the stimuli. They were created to have a plausible setting for different outcomes of a sexual encounter. However, they cannot represent any sexual encounter (e.g., rape in a marriage) one might find in the broad field which is rape pornography.

Despite the relatively large sample size, previous users of violent pornography were comparably scarce. Thirty-five previous violent sex users accounted for about 6.1% of the sample, yielding a highly zero-inflated variable. However, despite the zero-inflated variable, we encountered no issues when checking the regression assumptions, as shown when running the provided code (see the online file). However, the effect was based on a comparatively small proportion of observations and should be treated accordingly.

Another limitation was that our questionnaire-based approach did not allow for a reliable distinction between violent and nonviolent pornography use. Therefore, nonviolent pornography use was not a predictor in the analysis. Violent pornography use as well as nonviolent pornography use represent subtypes of general pornography consumption. Given the strong recall bias in estimating pornography usage (e.g., minutes per week; Morichetta et al., 2021), asking participants to report separate usage for violent and nonviolent

content is unreliable. Due to the conceptual overlap between these types, it is difficult to disentangle their individual effects. Future research could address this limitation using more objective measures, such as web-tracking data.

Finally, the exclusive focus on sexual arousal following a stimulus was another limitation. As discussed, there are more reasons to watch pornography, and there are more reasons to expose oneself to violent stimuli not specific to pornography.

## Conclusion

While the darker aspects of sexuality are sensitive topics, they merit careful scientific exploration. Our findings caution strongly against drawing sweeping societal conclusions. For example, there is no evidence suggesting that women secretly desire sexual assault, nor should these results be used to reinforce harmful rape myths or justify abusive and/or harmful behaviors. In contrast, the data indicate that most women report greater arousal following the stimulus depicting a masculine, emotionally attentive partner.

Importantly, our results provide no evidence that life history variables meaningfully predict women's pornography use. Instead, cultural narratives – such as popular literature where “cads” are transformed into more reliable and caring partners – suggest that such themes may also reflect socio-cultural expectations and psychological dynamics rather than “mere” evolutionary strategies (Taylor, 2008).

The findings of the present study also point to several directions for future research and practice. First, further work is needed to better understand the reasons behind female pornography use across both literature- and video-based formats. Usage may extend beyond sexual arousal, as humans (and other animals) engage with recreational stimuli not only for enjoyment but also for potential adaptive benefits.

Psychological processes related to morbid curiosity (e.g., Scrivner, 2021) suggest that women may consume content such as true crime to mentally prepare for avoiding potential threats. Additional hypotheses could be derived from more extensively studied phenomena, such as rape fantasies (e.g., Critelli & Bivona, 2008). Future studies might also focus on more specific populations, such as individuals with prior exposure to violent sex or BDSM pornography, to replicate and compare the dynamics of violent pornography use across groups.

Recent trends in written erotic media further underscore the importance of narrative context. Dark romance literature frequently depicts coercive or non-consensual sexual dynamics (Deane, 2026; Taylor, 2008). Such narratives provide a fictional and psychologically distanced context in which aversive or threatening elements can elicit physiological arousal that may be reinterpreted as sexual arousal, consistent with excitation transfer theory (Zillmann, 1971). From this perspective, future research could systematically examine whether engagement with dark romance literature is associated with variables such as rape myth acceptance, sensation seeking, or prior exposure to violent pornography, thereby extending the investigation of narrative-based sexual content.

Relatedly, recent advances in generative artificial intelligence enable the creation of highly customized written sexual

narratives that vary in perspective, emotional tone, and power dynamics. These technologies offer novel opportunities to interactively manipulate story characteristics (e.g., personalization or perceived control). From an outlook perspective, AI-generated written pornography could serve both as a research object and as a methodological tool to investigate how personalization, perceived control, and narrative embedding shape affective responses to sexual content, thereby extending pornography research beyond standardized stimuli.

Finally, in practice, acknowledging the complexity of women's pornography use has important implications for sexual education, clinical interventions, and broader societal debates. Rather than pathologizing specific preferences, efforts should focus on understanding the psychological and cultural mechanisms that shape them, while maintaining sensitivity to the risks of reinforcing harmful stereotypes.

## Acknowledgments

We thank Ms. Leonie Schneider for initially developing the stimuli used in this research project during her Bachelors thesis. Furthermore, the first author deeply thanks his wife Caroline von Andrian-Werburg for taking most of the childcare (of a sick child) while writing this manuscript.

## Author Contributions

The first author conducted the study and predominantly wrote the manuscript. He also performed the analysis. However, the study was conceptualized by all authors, and the senior and the coauthors provided advice and edited the manuscript.


## Disclosure Statement

No potential conflict of interest was reported by the author(s).

## Funding

The study was supported by the Human Dynamics Centre at the University of Würzburg, which provided funding for the recruitment of the panel sample. The Open Access Publication Fund of the University of Würzburg supported the open access publication of this article.

## ORCID

Maximilian T. P. von Andrian-Werburg  <http://orcid.org/0000-0001-8713-8237>

## Compliance with Ethical Standards

This study was conducted according to the principles of the Declaration of Helsinki and approved by the Ethics Committee of the first author's host institute.

## Data Deposition

Supplemental data for this article can be accessed online at <https://doi.org/10.1080/00224499.2026.2642323>.

## Data Transparency and Code Availability

Supplemental data for this article can be accessed online at <https://doi.org/10.1080/00224499.2026.2642323>.

## Use of AI Tools

Grammarly was used to spell-check and fine tune the manuscript

Chat GPT o3-mini-high was used to include and restructure parts of the r code used in the analysis.

## References

- Baker, R. R., & Bellis, M. A. (1995). *Human sperm competition: Copulation, masturbation, and infertility*. Chapman and Hall.
- Bandura, A. (2001). Social cognitive theory of mass communication. *Media Psychology*, 3(3), 265–299. [https://doi.org/10.1207/S1532785XMEP0303\\_03](https://doi.org/10.1207/S1532785XMEP0303_03)
- Baumeister, R. F., & Twenge, J. M. (2002). Cultural suppression of female sexuality. *Review of General Psychology*, 6(2), 166–203. <https://doi.org/10.1037/1089-2680.6.2.166>
- Bischof-Köhler, D. (2022). *Von Natur aus Anders: Die Psychologie der Geschlechtsunterschiede [Different by Nature]* (5th ed.). Kohlhammer.
- Bohner, G., Eyssel, F., Pina, A., Siebler, F., & Viki, G. T. (2009). Rape myth acceptance: Cognitive, affective, and behavioural effects of beliefs that blame the victim and exonerate the perpetrator. In M. A. H. Horvath & J. M. Brown (Eds.), *Rape: Challenging contemporary thinking* (pp. 17–45). Willan.
- Bonneville, V., & Trottier, D. (2022). Gender differences in sexual coercion perpetration: Investigating the role of alcohol-use and cognitive risk factors. *Journal of Interpersonal Violence*, 37(15–16), NP13791–NP13812. <https://doi.org/10.1177/08862605211006360>
- 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>
- Burch, R. L., & Salmon, C. (2019). The rough stuff: Understanding aggressive consensual sex. *Evolutionary Psychological Science*, 5(4), 383–393. <https://doi.org/10.1007/s40806-019-00196-y>
- Burch, R. L., & Salmon, C. (2022). Rough sex and pornography preferences: Novelty seeking, not aggression. *EvoS Journal*, 12(1), 1–9.
- Burtáverde, V., Jonason, P. K., Giosan, C., & Ene, C. (2021). Why do people watch porn? An evolutionary perspective on the reasons for pornography consumption. *Evolutionary Psychology*, 19(2), 147470492110287. <https://doi.org/10.1177/14747049211028798>
- Buss, D. M. (1998). Sexual strategies theory: Historical origins and current status. *The Journal of Sex Research*, 35(1), 19–31. <https://doi.org/10.1080/00224499809551914>
- Buss, D. M. (2016). *The evolution of desire: Strategies of human mating*. Hachette UK.
- Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review*, 100(2), 204–232. <https://doi.org/10.1037/0033-295X.100.2.204>
- Cawston, A. (2019). The feminist case against pornography: A review and re-evaluation. *Inquiry*, 62(6), 624–658. <https://doi.org/10.1080/0020174X.2018.1487882>
- Chai, T., & Draxler, R. R. (2014). Root mean square error (RMSE) or mean absolute error (MAE)? - arguments against avoiding RMSE in the literature. *Geoscientific Model Development*, 7(3), 1247–1250. <https://doi.org/10.5194/gmd-7-1247-2014>
- Clark, R., & Hatfield, E. (1989). Gender differences in receptivity to sexual offers. *Journal of Psychology & Human Sexuality*, 2(1), 39–55. [https://doi.org/10.1300/J056v02n01\\_04](https://doi.org/10.1300/J056v02n01_04)
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Erlbaum.
- Critelli, J. W., & Bivona, J. M. (2008). Women’s erotic rape fantasies: An evaluation of theory and research. *The Journal of Sex Research*, 45(1), 57–70. <https://doi.org/10.1080/00224490701808191>
- Deane, K. (2026). Dark romance: An introduction. *Porn Studies*, 1–22. <https://doi.org/10.1080/23268743.2025.2586593>
- Edlund, J. E., Clark, D. Q., Kalmus, A. M., & Sausville, A. (2021). Receptivity to casual sexual requests. *Journal of Social Psychology*, 161(6), 779–784. <https://doi.org/10.1080/00224545.2021.1881030>
- Ellis, B. J., Figueredo, A. J., Brumbach, B. H., & Schlomer, G. L. (2009). Fundamental dimensions of environmental risk: The impact of harsh versus unpredictable environments on the evolution and development of life history strategies. *Human Nature*, 20(2), 204–268. <https://doi.org/10.1007/s12110-009-9063-7>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G\*Power, 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Ferguson, C. J., Rueda, S. M., Cruz, A. M., Ferguson, D. E., Fritz, S., & Smith, S. M. (2008). Violent video games and aggression: Causal relationship or byproduct of family violence and intrinsic violence motivation? *Criminal Justice & Behavior*, 35(3), 311–332. <https://doi.org/10.1177/0093854807311719>
- Field, A. (2017). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage Publications.
- Figueredo, A. J., Wolf, P. S. A., Olderbak, S. G., Gladden, P. R., Fernandes, H. B. F., Wenner, C., Hill, D., Andrzejczak, D. J., Sisco, M. M., Jacobs, W. J., Hohman, Z. J., Sefcek, J. A., Kruger, D., Howrigan, D. P., MacDonald, K., & Rushton, J. P. (2014). The psychometric assessment of human life history strategy: A meta-analytic construct validation. *Evolutionary Behavioral Sciences*, 8(3), 148–185. <https://doi.org/10.1037/h0099837>
- Frankenbach, J., Weber, M., Loschelder, D. D., Kilger, H., & Friese, M. (2022). Sex drive: Theoretical conceptualization and meta-analytic review of gender differences. *Psychological Bulletin*, 148(9–10), 621–661. <https://doi.org/10.1037/bul0000366>
- Frankenhuis, W. E., & Nettle, D. (2020). Current debates in human life history research. *Evolution and Human Behavior*, 41(6), 469–473. <https://doi.org/10.1016/j.evolhumbehav.2020.09.005>
- Gerger, H., Kley, H., Bohner, G., & Siebler, F. (2007). The acceptance of modern myths about sexual aggression scale: Development and validation in German and English. *Aggressive Behavior*, 33(5), 422–440. <https://doi.org/10.1002/ab.20195>
- Grubbs, J. B., Perry, S. L., Grant Weinandy, J. T., & Kraus, S. W. (2022). Pornemic? A longitudinal study of pornography use before and during the COVID-19 pandemic in a nationally representative sample of Americans. *Archives of Sexual Behavior*, 51(1), 123–137. <https://doi.org/10.1007/s10508-021-02077-7>
- Hald, G. M., & Štulhofer, A. (2016). What types of pornography do people use and do they cluster? Assessing types and categories of pornography consumption in a large-scale online sample. *The Journal of Sex Research*, 53(7), 849–859. <https://doi.org/10.1080/00224499.2015.1065953>
- Herbenick, D., Fu, T., Valdivia, D. S., Patterson, C., Gonzalez, Y. R., Guerra-Reyes, L., Eastman-Mueller, H., Beckmeyer, J., & Rosenberg, M. (2021). What is rough sex, who does it, and who likes it? Findings from a probability sample of U.S. undergraduate students. *Archives of Sexual Behavior*, 50(3), 1183–1195. <https://doi.org/10.1007/s10508-021-01917-w>
- Lehmiller, J. J. (2018). *The psychology of human sexuality* (2nd ed.). Wiley.
- Levin, R. J., & Van Berlo, W. (2004). Sexual arousal and orgasm in subjects who experience forced or non-consensual sexual stimulation - a review. *Journal of Clinical Forensic Medicine*, 11(2), 82–88. <https://doi.org/10.1016/j.jcfm.2003.10.008>
- Lippa, R. A. (2009). Sex differences in sex drive, sociosexuality, and height across 53 nations: Testing evolutionary and social structural theories. *Archives of Sexual Behavior*, 38(5), 631–651. <https://doi.org/10.1007/s10508-007-9242-8>
- Mealey, L. (2000). *Sex differences: Development and evolutionary strategies*. Academic Press.
- Moore, G. E. (1903). *Principia ethica*. Cambridge University Press.
- Morichetta, A., Trevisan, M., Vassio, L., & Krickl, J. (2021). Understanding web pornography usage from traffic analysis. *Computer Networks*, 189, 107909. <https://doi.org/10.1016/j.comnet.2021.107909>
- Mosher, D. L. (2011). Multiple indicators of subjective sexual arousal. In T. D. Fisher, C. M. Davis, & W. L. Yarber (Eds.), *Handbook of sexuality-related measures* (pp. 59–61). Routledge.

- Ostovich, J. M., & Sabini, J. (2004). How are sociosexuality, sex drive, and lifetime number of sexual partners related? *Personality & Social Psychology Bulletin*, 30(10), 1255–1266. <https://doi.org/10.1177/0146167204264754>
- Partridge, E., & Beale, P. (1991). *A dictionary of slang and unconventional English* (8th ed.). Routledge.
- Pfaus, J. G. (2009). Pathways of sexual desire. *The Journal of Sexual Medicine*, 6(6), 1506–1533. <https://doi.org/10.1111/j.1743-6109.2009.01309.x>
- Pornhub Insights. (2022, December 8). *The 2022 year in review*. Pornhub insights. <https://www.pornhub.com/insights/2022-year-in-review#categories>
- Preston, S. D., & De Waal, F. B. M. (2002). Empathy: Its ultimate and proximate bases. *Behavioral and Brain Sciences*, 25(1), 1–20. <https://doi.org/10.1017/S0140525X02000018>
- Price, J., Patterson, R., Regnerus, M., & Walley, J. (2016). How much more XXX is generation X consuming? Evidence of changing attitudes and behaviors related to pornography since 1973. *The Journal of Sex Research*, 53(1), 12–20. <https://doi.org/10.1080/00224499.2014.1003773>
- Richardson, G. B., Sanning, B. K., Lai, M. H. C., Copping, L. T., Hardesty, P. H., & Kruger, D. J. (2017). On the psychometric study of human life history strategies: State of the science and evidence of two independent dimensions. *Evolutionary Psychology*, 15(1), 1474704916666840. <https://doi.org/10.1177/1474704916666840>
- Ripley, B. D., Venables, W. N., Bates, D. M., Hornik, K., Gebhardt, A., & Firth, D. (2025). MASS (Version 7.3-65) [Computer software]. Comprehensive R Archive Network (CRAN). <https://cran.r-project.org/web/packages/MASS/>
- Roff, D. A. (1992). *The evolution of life histories: Theory and analysis*. Chapman & Hall.
- Rosenbusch, H., Soldner, F., Evans, A. M., & Zeelenberg, M. (2021). Supervised machine learning methods in psychology: A practical introduction with annotated R code. *Social and Personality Psychology Compass*, 15(2), e12579. <https://doi.org/10.1111/spc3.12579>
- Rupp, H. A., & Wallen, K. (2007). Sex differences in viewing sexual stimuli: An eye-tracking study in men and women. *Hormones and Behavior*, 51(4), 524–533. <https://doi.org/10.1016/j.yhbeh.2007.01.008>
- Rupp, H. A., & Wallen, K. (2008). Sex differences in response to visual sexual stimuli: A review. *Archives of Sexual Behavior*, 37(2), 206–218. <https://doi.org/10.1007/s10508-007-9217-9>
- Salmon, C., Fisher, M. L., & Burch, R. L. (2019). Evolutionary approaches: Integrating pornography preferences, short-term mating, and infidelity. *Personality & Individual Differences*, 148, 45–49. <https://doi.org/10.1016/j.paid.2019.05.030>
- Salmon, C., & Symons, D. (2003). *Warrior lovers. Erotic fiction, evolution, and female sexuality*. Yale University Press.
- Salmon, C., & Symons, D. (2004). Slash fiction and human mating psychology. *The Journal of Sex Research*, 41(1), 94–100. <https://doi.org/10.1080/00224490409552217>
- Schwendinger, J. R., & Schwendinger, H. (1974). Rape myths: In legal, theoretical, and everyday practice. *Crime and Social Justice*, 1(2), 18–26.
- Scrivner, C. (2021). The psychology of morbid curiosity: Development and initial validation of the morbid curiosity scale. *Personality & Individual Differences*, 183, 111139. <https://doi.org/10.1016/j.paid.2021.111139>
- Sear, R. (2020). Do human ‘life history strategies’ exist? *Evolution and Human Behavior*, 41(6), 513–526. <https://doi.org/10.1016/j.evolhumbehav.2020.09.004>
- Solano, I., Eaton, N. R., & O’Leary, K. D. (2020). Pornography consumption, modality and function in a large internet sample. *The Journal of Sex Research*, 57(1), 92–103. <https://doi.org/10.1080/00224499.2018.1532488>
- Stearns, S. C. (1992). *The evolution of life histories*. Oxford University Press.
- Sun, C., Bridges, A., Wosnitzer, R., Scharrer, E., & Liberman, R. (2008). A comparison of male and female directors in popular pornography: What happens when women are at the helm? *Psychology of Women Quarterly*, 32(3), 312–325. <https://doi.org/10.1111/j.1471-6402.2008.00439.x>
- Suschinsky, K. D., & Lalumière, M. L. (2011). Prepared for anything? An investigation of female genital arousal in response to rape cues. *Psychological Science*, 22(2), 159–165. <https://doi.org/10.1177/0956797610394660>
- Süssenbach, P., & Bohner, G. (2011). Acceptance of sexual aggression myths in a representative sample of German residents. *Aggressive Behavior*, 37(4), 374–385. <https://doi.org/10.1002/ab.20390>
- Sýkorová, K., & Flegr, J. (2021). Faster life history strategy manifests itself by lower age at menarche, higher sexual desire, and earlier reproduction in people with worse health. *Scientific Reports*, 11(1), 11254. <https://doi.org/10.1038/s41598-021-90579-8>
- Taylor, L. D. (2008). Cads, dads, and magazines: Women’s sexual preferences and articles about sex and relationships. *Communication Monographs*, 75(3), 270–289. <https://doi.org/10.1080/03637750802282710>
- von Andrian-Werburg, M. T. P., Klopp, E., & Schwab, F. (2024). Fantasy made flesh—a network analysis of the reciprocal relationship between sexual fantasies, pornography usage, and sexual behavior. *The Journal of Sex Research*, 61(1), 65–79. <https://doi.org/10.1080/00224499.2023.2170964>
- von Andrian-Werburg, M. T. P., Siegers, P., & Breuer, J. (2023). A reevaluation of online pornography use in Germany using a combination of web tracking and survey data. *Archives of Sexual Behavior*, 52(8), 3491–3503. <https://doi.org/10.1007/s10508-023-02666-8>
- Webster, G. D., Graber, J. A., Gesselman, A. N., Crosier, B. S., & Schember, T. O. (2014). A life history theory of father absence and menarche: A meta-analysis. *Evolutionary Psychology*, 12(2), 273–294. <https://doi.org/10.1177/147470491401200202>
- Williams, J. E. (2015). Rape culture. In G. Ritzer (Ed.), *The Blackwell encyclopedia of sociology* (1st ed.). Wiley. <https://doi.org/10.1002/9781405165518.wbeosr019.pub2>
- Wright, P. J. (2011). Mass media effects on youth sexual behavior assessing the claim for causality. *Annals of the International Communication Association*, 35(1), 343–385. <https://doi.org/10.1080/23808985.2011.11679121>
- Zeileis, A. (2004). Econometric computing with HC and HAC covariance matrix estimators. *Journal of Statistical Software*, 11(10), 1–17. <https://doi.org/10.18637/jss.v011.i10>
- Zillmann, D. (1971). Excitation transfer in communication-mediated aggressive behavior. *Journal of Experimental Social Psychology*, 7(4), 419–434. [https://doi.org/10.1016/0022-1031\(71\)90075-8](https://doi.org/10.1016/0022-1031(71)90075-8)

## Appendix

**Table A1.** Correlation matrix of study predictors ( $N = 579$ ).

	Rape myth acceptance	Violent Sex Porn Use	Sex Drive	Mini-K	Menarche Onset	Age
Rape myth acceptance	–	0.14***	0.11*	0.07	0.08	0.04
Violent Sex Porn Use	0.14*	–	0.21***	0.00	–0.11	–0.14*
Sex Drive	0.11*	0.21***	–	0.20***	–0.13*	–0.19***
Mini-K	0.07	0.00	0.20***	–	–0.10	–0.06
Menarche (Onset)	0.08	–0.11*	–0.13***	–0.10	–	0.09***
Age	0.04	–0.14***	–0.19***	–0.06	0.09*	–

Note. Correlations are Pearson's  $r$ . Adjusted  $p$ -values: \* $p < .05$ , \*\*\* $p < .001$ .