

# Gender Differences in Pornography Consumption among Young Heterosexual Danish Adults

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**Abstract** The aims of the study were (1) to investigate gender differences in pornography consumption among Danish adults aged 18–30 and (2) to examine gender differences in situational, interpersonal, and behavioral characteristics of pornography consumption. A national survey study was conducted using a representative sample of 688 young heterosexual Danish adult men and women. The study found large gender differences in prevalence rates of pornography consumption and consumption patterns. Compared to women, men were exposed to pornography at a younger age, consumed more pornography as measured by time and frequency, and used pornography more often during sexual activity on their own. Gender differences in the interpersonal context of use were also evident, with women using pornography more often with a regular sexual partner than men. In turn, men were found to use pornography more often on their own or with friends (non-sexual partners) than women. For both men and women, the usual place of use was home and no significant gender difference was found in this regard. Men and women were found to vary in their preferences in pornographic materials, with men both preferring a wider range of hardcore pornography and less softcore pornography than women. Gender differences in sexual behavioral factors were limited to masturbation patterns with men masturbating more than women. Male gender, higher frequency of masturbation, lower age at first exposure, and younger age were found to account for 48.8% of the total variance of pornography consumption. The results were discussed in relation to the sociocultural environment and evolutionary theory. It is argued that gender differences in social accept-

ability, adherence to gender stereotypes, traditions of gender sexuality, gender norms, and mating strategies are key factors in understanding gender differences in pornography consumption.

**Keywords** Pornography · Sexual media · Sexuality · Gender differences · Denmark

## Introduction

Denmark is well-known for its liberal and relaxed attitude toward sex and pornography (Graugaard et al., 2004) and as the first country in the world, Denmark legalized the sale of pornography in 1967 (pornographic texts) and 1969 (pornographic pictures). Nonetheless, in recent years, a rapid growing scientific, public, and political concern regarding the prevalence and effects of pornography consumption has resulted in a demand for research into the area. However, as yet, not a single scientific study exploring these issues has been conducted in Denmark.

A number of studies outside Denmark on the consumption of pornography have revealed large and clearly defined gender differences. Thus, men appear to be more attracted to and consume significantly more pornography than women, be more attracted to hardcore pornography devoid of relationship context and emotional attachments, and generally, although not consistently (see also Fisher & Byrne, 1978), be more psychologically aroused by pornography. In addition, men more than women seem to prefer pornography with many different actors as compared to pornography with the same actors performing different acts (Gardos & Mosher, 1999; Janghorbani, Lam, and The Youth Sexuality Task Force, 2003; Malamuth, 1996; Mosher & MacJan, 1994; Træen, Spitznogle, & Beverfjord, 2004). Few, if any, scientific studies have examined gender

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differences in relation to the situational, interpersonal, and behavioral characteristics of pornographic consumption, e.g. usual place of use, frequency of use during sexual activity, interpersonal context of use, thematic preferences in pornographic materials used in everyday life etc. Furthermore, with the exception of the studies by Hammarén and Johansson (2001), Janghorbani et al. (2003), Rogala and Tydén (2003), and Træen et al. (2004), all studies of gender differences in pornography consumption have relied on non-representative samples making it problematic to generalize the findings of these studies to the general population.

A large number of studies have investigated the effects of pornography on non-criminal adult populations (e.g., Barak, Fisher, Belfry, & Lashambe, 1999; Bogaert, Woodard, & Hafer, 1999; Davis & Bauserman, 1993; Fisher & Grenier, 1994; Malamuth, Addison, & Koss, 2000). However, few or no adverse effects of pornography have consistently been found across studies and individuals. Nevertheless, research increasingly indicates that for a subgroup of users, pornography consumption, in conjunction with other factors otherwise known to be associated with sexual aggression, may increase the likelihood of adverse effects such as sexual aggressive behavior (see also Malamuth, 2003; Malamuth et al., 2000; Malamuth, Linz, Heavey, Barnes, & Acker, 1995). Likewise, a growing number of researchers now argue for a differentiation of effects across individuals based on individual differences such as intelligence, personality, culture or risk factors, otherwise known to increase the likelihood of sexual aggressive behavior (e.g., Bogaert et al., 1999; Malamuth et al., 2000). Thus, adverse effects of pornography may be restricted to a small subgroup of “at risk” users and therefore not apply to the general user per se.

Correlational research on the relationship between circulation of pornography and sex crimes, in general, finds no, or even an inverse, relationship, between circulation of pornography and sex crime rates. For instance, Kutchinsky (1991) found a negative relationship between circulation of pornography and sex crimes for Denmark, Sweden, and West Germany. The same held true for Japan (Diamond & Uchiyama, 1999). In Canada, McKay and Dolf (1985) found no systematic relationship between increased circulation of pornography and sexual criminal behavior. However, for the United States, Kutchinsky (1991) found that with increased availability of pornography some increase in rape rates had occurred. On the basis of a review of correlational research of sexual aggression and pornography, Bauserman (1996) concluded that: “Rape rates are not consistently associated with pornography circulation, and the relationships found are ambiguous” (p. 405).

As to meta-analysis in the area, Allen, d’Alessio, and Brezgel (1995) found a small, yet significant, correlation between exposure to pornography and aggressive behaviour ( $r = .13$ ). Likewise, Allen, Emmers, Gebhardt, and Giery

(1995) found small, yet significant, correlations between non-violent pornography and rape myth acceptance ( $r = .13$ ) and between violent pornography and rape myth acceptance ( $r = .11$ ).

This study had two purposes. First, to investigate gender differences in pornography consumption among young adults in Denmark aged 18–30. Second, to examine gender differences in situational, interpersonal, and behavioral characteristics of pornography consumption.

## Method

### Participants

Participant in the final sample included a total of 688 young heterosexual Danish men ( $n = 316$ ) and women ( $n = 372$ ) aged 18–30. Sociodemographic characteristics (age, primary and secondary education, further education, province of residence, and city size of residence) of the 688 participants were checked against the general population of young adults aged 18–30 living in Denmark using Statistics Denmark. This control database contains detailed information on the Danish society. Except for level of education, participants were found to be representative of young Danish adults living in Denmark. Thus, participants in the current sample were found to be slightly higher educated than the general Danish population of young adults aged 18–30.

Mean age of participants was 24.64 years ( $SD$ , 3.76) for men and 24.39 ( $SD$ , 3.72) for women. Significant gender differences of participants were found on four of the five sociodemographic variables (Table 1). Women were found to have significantly more primary, secondary, and further education than men ( $p < .025$ ) whereas significantly more men than women were found to have served an apprenticeship ( $p < .001$ ). Significantly more men than women came from a large city ( $p < .025$ ). Significantly more men than women reported being in a relationship ( $p < .001$ ). In turn, significantly more women than men reported being in a relationship and living with their partner ( $p < .001$ ).

### Procedure

In October 2003, a stratified sample of 1,002 young adult men ( $n = 501$ ) and women ( $n = 501$ ) was randomly selected among all young Danish adults aged 18–30 living in Denmark using The Central Person Register. The Central Person Register contains personal information and addresses of the Danish population ( $N = 5.4$  million). The sample was stratified on the basis of: gender (equal male/female ratio), age (18–30 years; equal age distribution), place of birth (Denmark), and citizenship (Danish). The reason for limiting the study to this cohort was scientific and political

**Table 1** Sociodemographic characteristics (in %)

Variables	Men	Women	Pearson's $\chi^2$ Test	Effect size (Cohen's <i>d</i> )
Years of primary and secondary education			$\chi^2 = 35.21^*$ , <i>df</i> = 2	.46
<11	30.7 (316)	12.6 (372)		
11	9.2 (316)	15.1 (372)		
12–13	60.1 (316)	72.3 (372)		
Further education			$\chi^2 = 33.00^*$ , <i>df</i> = 4	.45
None	29.7 (313)	30.0 (367)		
Have served an apprenticeship	30.7 (313)	16.3 (367)		
0–2 Years	7.7 (313)	12.3 (367)		
3–4 Years	16.0 (313)	29.2 (367)		
5 Years or more	16.0 (313)	12.3 (367)		
City size of residence			<i>ns</i>	
Rural	13.1 (314)	14.1 (368)		
<10,000	14.6 (314)	19.6 (368)		
11–60,000	26.4 (314)	29.1 (368)		
>60,000	45.9 (314)	37.2 (368)		
Relationship status			$\chi^2 = 21.16^*$ , <i>df</i> = 3	.36
Not in a relationship	37.3 (316)	23.7 (372)		
In relationship but not living with partner	21.2 (316)	20.2 (372)		
In relationship and living with partner	39.2 (316)	55.1 (372)		
Other	2.3 (316)	1.0 (372)		

Note. Missing data excluded. Numbers in parentheses represent n/cell.

\* $p < .001$ .

interest. As the cohort has grown up with inexpensive, easy, and anonymous access to pornography via the Internet, cable TV etc., and a cultural environment where sex, sexuality, and pornography have been thematized to a yet unparalleled extent, both the scientific community and the political society in Denmark have expressed an interest in an investigation into the extent of pornography consumption and its effects amongst both adolescents (12–17) and young adults (18–30).

From October 2003 to June 2004, all randomly selected young adults were contacted by mail on three separate occasions and invited to participate in a survey study on sexuality by completing an enclosed questionnaire and returning it in an enclosed pre-addressed, pre-stamped envelope. Following the first wave of letters, 15 potential participants had moved and the letters were returned. These 15 potential participants were thus eliminated from the sample. A total of 716 out of the remaining 987 potential participants returned the questionnaire.

As the current study was part of a larger range of studies focusing on the prevalence and effects of pornography consumption among young heterosexual men and women, participants indicating that they were either homosexual or bisexual ( $n = 23$ ) were excluded from the final sample. In addition, five participants who were under the age of 18 or above the age of 30 were also excluded from the study. Of the remaining 959 eligible participants, a total of 688 had returned the questionnaire. Consequently, the response rate of the final sample was 65.6% for males ( $n = 316$ ) and 78.0% for females ( $n = 372$ ) ( $p < .05$ ).

## Measures

On the basis of other international studies of sexuality and pornography (e.g., Barak et al., 1999; Frable, Johnson, & Kellman, 1997), the Pornography Consumption Questionnaire (PCQ) was developed. The PCQ consisted of 139 items and was divided into four parts.

Part 1 consisted of a short instruction explaining how to complete the questionnaire. In order to standardize the meaning of the term pornography, a definition of pornography was provided. The participants were told to refer to this definition whenever the term was used throughout the questionnaire. Pornography was defined as follows: Any kind of material aiming at creating or enhancing sexual feelings or thoughts in the recipient and, at the same time (1) containing explicit exposure and/or descriptions of the genitals and (2) clear and explicit sexual acts such as vaginal intercourse, anal intercourse, oral sex, masturbation, bondage, sadomasochism (SM), rape, urine sex, animal sex etc. It was emphasized that materials containing men and women posing or acting naked such as seen in Playboy/Playgirl did not contain clear and explicit sexual acts and were to be disregarded as pornography when completing the questionnaire.

Part 2 consisted of 12 items. Ten items included questions on sociodemographic characteristics and two items included questions on the use of contraceptives and menstrual cycle (women only).

Part 3 consisted of 65 items. The items included questions related to the following areas: exposure patterns within the

past 12 months (7 items), age at first exposure (1 item), time and frequency of exposure (14 items), development in consumption patterns (10 items), preferences in pornography (2 items), personal and interpersonal context of exposure (21 items), money spent on pornographic material (6 items), and sexual behavior (4 items).

Part 4 consisted of 64 items and included items related to the participant's individual experience of the positive/negative effects of pornography.

This article contains data from the first three parts of the questionnaire.

## Results

### Sexual behavior

It was found that men masturbated significantly more than women. No significant gender differences were found for number of sexual partners or frequency of sexual intercourse (Table 2).

### Pornography consumption

Significant gender differences were found on almost all variables related to exposure to and use of pornography. Significantly more men than women were found to have ever watched pornography and to have done so within the last six months, one month, one week, and 24 hr of completing the questionnaire ( $p < .001$ ). For both genders, the main place of use was home and no significant gender differences were found in this regard. However, a significantly higher percentage of women than men reported having used pornography in another context than home ( $p < .001$ ).

Large significant gender differences in the personal and interpersonal context of use were found with men reporting watching pornography significantly more often on their own or with friends (excluding sexual partners) than women. In turn, women reported watching pornography significantly more often than men with a regular sexual partner (all  $ps < .001$ ).

Compared to women, it was found that men used pornography significantly more often during sexual activity on their own (e.g. masturbation), were exposed to pornography at a significantly younger age, and spent significantly more time per week watching pornography (all  $p < .001$ ) (Table 3).

Large gender differences in preferences in pornographic themes were found. Men were found to prefer to watch anal intercourse, oral sex, group sex (one man—more women), lesbian sex, and amateurs sex significantly more than women. In turn, women were found to prefer watching softcore pornography and group sex (one woman—more men) significantly more than men (all  $p < .001$ ). No gender differences in preference for vaginal intercourse were found (Table 4).

In order to examine which variables best predicted pornography consumption, multiple regression analysis was employed. Four variables (average time of use per week, frequency of use, pornography consumption when having sexual activity on one's own, and exposure patterns of pornography within the last 12 months) were found to be highly correlated. Based on this, it was decided to investigate whether these four variables could be combined into a single "Pornography Consumption" measure, yielding a better overall estimate of pornography consumption. A principal axis factor analysis was conducted with the four variables. Both the screeplot and the Kaiser-Guttman rule suggested that only one common factor should be extracted. The factor scores for the first unrotated principal factor was calculated and used as an estimate for a "Pornography Consumption" factor. Besides yielding a better estimate for the exposure to and use of pornography, the factor analysis had two further advantages. First, by collapsing these highly correlated variables, possible multicollinearity among the independent variables was avoided in the subsequent regression analysis. Second, an inclusion of highly correlated and highly similar variables as independent variables could have inflated the total explained variance of the final model(s).

Many authors recommend stepwise entry in multiple regression analysis to be avoided unless the study is of an exploratory nature and/or no theoretical or empirical knowledge is available to guide the analysis (Field, 2003). As the current study was largely exploratory and only gender has consistently been shown to be a significant predictor of pornography consumption (Frable et al., 1997; Janghorbani et al., 2003), a combination of forced entry and stepwise entry was used in the multiple regression analyses.

First, gender was entered into the analysis by forced entry. Subsequently, sociodemographic data (age, primary and secondary education, further education, province, city size, and relationship status), age at first exposure to pornography, and sexual behavior (number of sexual partners, frequency of masturbation, and frequency of sexual intercourse) were entered into the analysis by means of stepwise entry. The final model showed that male gender, higher frequency of masturbation, lower age at first exposure, and younger age accounted for 48.8% of the total variance of pornography consumption ( $R = .709$ ; adjusted  $R^2 = .488$ ;  $p < .001$ ).

When conducting separate multiple regression analyses for each gender an overlap between variables entering as predictors of pornography consumption was found. For women, higher frequency of masturbation, younger age, and smaller city size of residence entered as predictors and accounted for 17.6% of the total variance of pornography consumption ( $R = .432$ ; adjusted  $R^2 = .176$ ;  $p < .001$ ). For men, higher frequency of masturbation, younger age, and lower age at first exposure entered as predictors and accounted for 28.9%

**Table 2** Sexual behavior (in %)

Variables	Men	Women	Mann Whitney <i>U</i> -Test	Effect size (Cohen's <i>d</i> )
Number of sexual partners			<i>ns</i>	
None	6.7 (315)	4.9 (369)		
1–2	23.5 (315)	23.8 (369)		
3–6	27.3 (315)	30.4 (369)		
7–10	14.0 (315)	14.9 (369)		
11–20	15.2 (315)	19.0 (369)		
21 or more	13.3 (315)	7.0 (369)		
Frequency of masturbation			$U = 23,469^*$ , $df = 3$	1.08
Do not masturbate	3.5 (314)	22.3 (368)		
2 times per month or less	15.0 (314)	45.9 (368)		
1–3 times per week	46.8 (314)	28.0 (368)		
4 times or more per week	34.7 (314)	3.8 (368)		
Frequency of sexual intercourse <sup>a</sup>			<i>ns</i>	
Have never had sexual Intercourse	7.0 (313)	4.9 (368)		
2 times per month or less	36.1 (313)	29.6 (368)		
1–3 times per week	41.9 (313)	54.1 (368)		
4 times or more per week	15.0 (313)	11.4 (368)		

Note. Missing data excluded. Numbers in parentheses represent n/cell.

<sup>a</sup>A sexual partner was defined as “a person with whom the participant had had sexual intercourse.”

\* $p < .001$ .

of the total variance of pornography consumption ( $R = .545$ ; adjusted  $R^2 = .289$ ;  $p < .001$ ).

## Discussion

Although some variation in the reported prevalence rates of pornography consumption is evident across studies, comparable international studies have, with few exceptions (e.g., Pan, 1993), reported consumption rates in the range of 86–98% amongst men and 54–85% amongst women (Demaré, Lips, & Briere, 1993; Gunther, 1995; Hammarén & Johansson, 2001; Janghorbani et al., 2003; Li & Michael, 1996; Perse, 1994; Rogala & Tydén, 2003; Tyden, Olsson, & Haggstrom-Nordin, 2001).

When comparing prevalence rates it is however important to bear in mind that important factors such as the definition of sexual media/pornography, subject sample, and methodology often differ from study to study. Evidently, these differing factors have an effect on both the overall prevalence rates and how well these reflect the general population.

In the current study, for example, a rather “strict” definition of pornography was employed. Sexual materials containing only nudity, such as those seen in Playboy or Penthouse, were not considered pornography. Applying this definition would most likely reduce gender differences because it eliminates an important form of sexual material to which men expose themselves more than women. That is, unless the ceiling effect takes effect, i.e. that the overall prevalence rate of pornographic consumption amongst men before

including sexual material containing only nudity as a source of pornography is already so high that the possibility of a further increase in consumption rates is limited. In this case, including nudity as a source of pornography might even decrease gender differences as women traditionally have more “room” for an increase in pornography consumption rates than men.

Considering that a rather strict definition of pornography was used in the current study, we were surprised by the high prevalence of pornography consumption, frequency of use, and reported use of pornography during sexual activity on their own among both men and women. The easy and anonymous availability of pornography on the Internet may account for these findings, however, a still more liberal, relaxed, and accepting attitude towards sex, sexuality, and pornography in Denmark in general may contribute equally. Indeed, Malamuth et al. (2000), among others, pointed to the importance of considering the cultural environment in understanding “the prevailing public attitudes toward pornography” (p. 56). Also, in a study of the Norwegian population, Træen et al. (2004) found that participants who expressed positive attitudes towards pornography also were more likely to use pornography. Furthermore, in the same study, it was found that the social climate had a direct effect upon the frequency of film watching. Consequently, a prevailing relaxed and accepting public attitude towards sex and pornography, such as seen in Denmark (Graugaard et al., 2004), is likely to influence individuals and affect consumption rates i.e. increase consumption rates of pornography consumption.

**Table 3** Pornography consumption (in %)

Variables	Men	Women	Tests	Effect size (Cohen's <i>d</i> )
1. Ever watched pornography				
Yes	97.8 (316)	79.5 (372)	$\chi^2 = 54.46^*$ , $df = 1$	.59
No	2.2 (316)	20.5 (372)		
2. If Yes: Have watched pornography within the last 6 months			$U = 17,087^*$ , $df = 3$	1.11
Month	92.2 (309)	60.0 (295)		
Week	82.5 (309)	33.6 (295)		
24 hours	63.4 (309)	13.6 (295)		
3. Frequency of use <sup>a</sup>			$U = 16,934^*$ , $df = 3$	1.12
Less than once a month	26.2 (309)	3.1 (295)		
1–2 times per month	15.3 (281)	51.4 (275)		
1–2 times per week	17.1 (281)	30.3 (275)		
3 times per week or more	28.8 (281)	11.4 (275)		
4. Main place of use <sup>a</sup>			$\chi^2 = 13.78^*$ , $df = 1$	.32
Home	95.7 (303)	87.1 (272)		
Other	4.3 (303)	12.9 (272)		
5. Interpersonal context of use <sup>a,b</sup>				
Alone	79.6 (309)	29.5 (295)	$\chi^2 = 153.26^*$ , $df = 1$	1.17
Regular sexual partner	17.8 (309)	34.2 (295)	$\chi^2 = 21.29^*$ , $df = 1$	.38
Friend(s) (not sexual partner)	9.7 (309)	1.4 (295)	$\chi^2 = 19.82^*$ , $df = 1$	.37
Other	3.6 (309)	2.0 (295)	<i>ns</i>	
6. Percentage of time where pornography has been used when having sexual activity <sup>a</sup>				
Alone (e.g. masturbation)				
<i>M</i>	48.2	8.7	$t = 14.74^*$ , $df = 542$	1.27
<i>SD</i>	38.0	26.2		
<i>N</i>	305	284		
With others (e.g. partner)				
<i>M</i>	2.5	5.2	$t = -2.30^{**}$ , $df = 587$	.19
<i>SD</i>	12.9	16.1		
<i>N</i>	304	285		
7. Age at first exposure (years) <sup>a</sup>				
<i>M</i>	13.2	14.9	$t = -7.48^*$ , $df = 506$	.67
<i>SD</i>	2.3	3.3		
<i>N</i>	302	289		
8. Average time of use per week (minutes) <sup>a</sup>				
<i>M</i>	80.8	21.9	$t = 9.08^*$ , $df = 412$	.89
<i>SD</i>	98.1	46.3		
<i>N</i>	285	260		

Note. Missing values excluded. Numbers in parentheses represent n/cell. Results are based on consumption patterns and behaviors during the last 6 months.

<sup>a</sup>Only participants who indicated to having ever watched pornography were included in the analyses.

<sup>b</sup>For interpersonal context of use, participants were allowed to select more than one option.

\*\* $p < .025$ .

\* $p < .001$ .

For most countries, Denmark included, it has traditionally been more socially acceptable for men than women to use pornography. However, a general increase in the social acceptability of sexuality, including pornography consumption, especially for and among women, seems to have emerged in Denmark during the past decades although no scientific data is available to support this claim. It seems plausible that the impact of such an increase is

also likely to increase consumption rates of pornography consumption.

The likely social and cultural key factors in understanding and explaining the high prevalence rates of pornography consumption found in the present study are: a permissive cultural environment, a relaxed and accepting public attitude towards pornography, and an increase in social acceptability of pornography consumption.



**Table 4** Preferences in pornographic themes (in %)<sup>a</sup>

Variables	Men	Women	Pearson's $\chi^2$ Test	Effect size (Cohen's <i>d</i> )
Vaginal intercourse	74.6 (284)	79.0 (195)	<i>ns</i>	
Anal intercourse	32.7 (284)	17.4 (195)	$\chi^2 = 13.91^{**}$ , <i>df</i> = 1	.35
Oral Sex	28.5 (284)	16.4 (195)	$\chi^2 = 9.41^*$ , <i>df</i> = 1	.28
Group sex (one man, more women)	22.2 (284)	12.8 (195)	$\chi^2 = 6.76^*$ , <i>df</i> = 1	.24
Lesbian	22.3 (283)	10.3 (195)	$\chi^2 = 11.60^{**}$ , <i>df</i> = 1	.32
Amateur	19.4 (284)	9.7 (195)	$\chi^2 = 8.20^*$ , <i>df</i> = 1	.26
Softcore Pornography	18.7 (284)	35.6 (194)	$\chi^2 = 17.34^{**}$ , <i>df</i> = 1	.39
Group sex (one women, more men)	12.7 (284)	30.3 (195)	$\chi^2 = 22.47^{**}$ , <i>df</i> = 1	.44

*Note.* Missing values excluded. Numbers in parentheses represent n/cell. Only participants who indicated having ever watched pornography were included in the analysis.

<sup>a</sup>Among 31 different pornographic themes, participants were asked to select the three themes they watched the most. Only themes that at least 15% of male or female participants selected are listed. A total of 6.6% of male and 32.3% of female participants indicated not to have watched any of the themes. These participants were excluded from analysis.

\**p* < .01.

\*\**p* < .001.

We found large gender differences in the interpersonal context of use with men mainly using pornography when on their own; and women mainly using pornography either when on their own or with a regular sexual partner. In addition, we found that pornography was involved 53.8% of the time when men were having sexual activity on their own, but only 16.8% of the time when women were having sexual activity on their own.

The reason for these findings may be that in spite of a permissive cultural environment, accepting public attitudes towards pornography, and increased social acceptability of pornography consumption, a substantial proportion of women may still find it more acceptable to use pornography as part of the sexual act with a regular sexual partner than on their own (Træen et al., 2004). However, the differences may also be due to an adherence to either gender stereotypes and/or socialization of gender sexuality which does not, by default, often include pornography as a potential source of sexual stimuli for women to be used during masturbation, whereas the opposite seems to hold true for men.

Although there can be little doubt that the sociocultural environment is of major importance when discussing gender differences in pornography consumption, evolutionary explanations must also be considered. Most pornographic material is characterized by women, who are willing to engage in casual non-committal sexual acts and who display a wealth of cues associated with fertility, reproduction, and physical attractiveness, such as young age, full lips, clear skin, clear eyes, lustrous hair, good muscle tone, absence of lesions, and facial symmetry (Buss, 2003; Rossano, 2003). From a short-term human mating perspective, this is exactly what males are looking for: sexual accessibility to many different fertile females who demand little or no post-mating commitment or parental investment (Buss & Schmitt, 1993).

In contrast, women's short term mating strategies differ substantially from males and show a much greater concordance with their long term mating strategies. That is, to find a high status, able-to-protect, high-on-resources male who is willing to invest all or a substantial part of his time and resources in the female and offspring post-mating. Even though a large proportion of pornographic material portrays physically strong, high status, high-on-resources males, it is a rarity that these males are portrayed as willing to invest in and/or protect the female beyond climax. Thus, from an evolutionary perspective, men more than women would be attracted to pornographic materials because such materials almost consistently show greater concordance with males' (short term) mating strategies as compared to females' mating strategies.

Multivariate stepwise regression analysis showed that male gender, higher frequency of masturbation, lower age at first exposure, and younger age were the strongest predictors of pornography consumption. That gender was a significant and strong predictor for pornography consumption rates is consistent with prior research (Frable et al., 1997; Janghorbani et al., 2003; Johnson, 1996; Li & Michael, 1996).

It is, however, interesting that two associated sexual factors, namely higher frequency of masturbation and lower age at first exposure, were significant and strong predictors of pornography consumption. Janghorbani et al. (2003) argued that it is obvious that higher frequency of masturbation is associated with use of sexual media "considering the psychosexual stimulus nature of sexual media. As users are sexually aroused by exposure to sexually explicit materials, they are more likely to be more involved in sexual behavior or, at least, in thinking about sexual behavior than non-users" (p. 551). The relationship is just as likely to be reciprocal.

Consequently, people with a higher frequency of masturbation might actively seek out sexual media more often and/or be more inclined to respond to such material with an act of masturbation as compared to people with a lower frequency of masturbation. Nonetheless, third factors such as a high sex drive and/or a high interest in sex must also be considered in this regard. Certainly, a high sex drive and/or a high interest in sex would not only account for the strong association between masturbation and pornography consumption found in the current study but also explain why lower age at first exposure to pornography was a significant predictor for pornography consumption. Thus, people with a high sex drive and/or a high interest in sex may well seek out pornography more often and at an earlier age, masturbate more, and engage in sex with a higher number of sexual partners as compared to people with a low sex drive and/or a low interest in sex.

The current study reveals large gender differences in the prevalence of pornography consumption as well as the situational, interpersonal, and behavioral characteristics of pornography consumption. As such, the study adds to the growing scientific literature on pornography consumption in different cultures. In addition, the study provides an insight into some of the situational, interpersonal, and behavioral characteristics of pornography consumption such as the where, when, what, and with whom of consumption. Knowledge of these factors seems important in order to gain a broader and more in depth understanding of similarities and differences of pornography consumption in different cultures. Therefore, it is recommended that future research increasingly investigates and focuses on these situational, interpersonal, and behavioral characteristics of pornography consumption in addition to actual prevalence rates of consumption.

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