

Factors associated with unprotected sex in people who consume sexually explicit media

Fatores associados ao sexo sem uso de preservativos por pessoas consumidoras de mídias sexualmente explícitas

Factores relacionados al sexo sin uso de condones por personas consumidores de medios sexualmente explícitos

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ABSTRACT

Objective: To analyze the factors associated with sex without the use of condoms in consumers of sexually explicit media (SEM). **Methods:** Cross-sectional study, with a sample of 172 participants selected and collected through social media. To assess the predictors of unprotected sexual practices, the Poisson regression model was used. Values were expressed as a robust prevalence ratio (PR) with their respective confidence intervals. **Results:** There was a statistically significant association between, the use of condoms and the type of scenes that the participants prefer ($p = 0.03$), the preference for films with scenes involving unprotected sex or even those that do not care about protection ($p = 0.02$), the type of pornography watched influencing sexual relations ($p = 0.017$), and the number of scenes seen per week ($p = 0.05$). **Conclusions:** The lack of condom use was associated with the access to erotic scenes.

Descriptors: Sex; Condoms; People; Video-Audio Media; Sexual Behavior.

RESUMO

Objetivo: Analisar os fatores associados ao sexo sem uso de preservativos em consumidores de mídias sexualmente explícitas (MSEs). **Métodos:** Estudo transversal, com amostra de 172 participantes selecionados e coletados na ambiência virtual de mídias sociais. Para avaliar os fatores preditores da prática sexual sem uso do preservativo, utilizou-se o modelo de regressão de Poisson. Os valores foram expressos na forma de razão de prevalência (RP) robusta com seus respectivos intervalos de confiança. **Resultados:** Verificou-se associação estatisticamente significativa do uso de preservativos com o tipo de cenas que prefere ($p = 0,03$), preferência por filmes com cenas envolvendo sexo sem proteção ou mesmo aqueles que não se importam quanto a esse cuidado ($p = 0,02$), tipo de pornografia que assiste influenciando nas suas relações sexuais ($p = 0,017$) e número de cenas vistas por semana ($p = 0,05$). **Conclusões:** O não uso do preservativo foi associado ao acesso às cenas eróticas.

Descritores: Sexo; Preservativos; Pessoas; Mídia Audiovisual; Comportamento Sexual.

RESUMEN

Objetivo: Analizar factores relacionados al sexo sin uso de preservativos en consumidores de medios sexualmente explícitos (MSEs). **Métodos:** Estudio transversal, con muestra de 172 participantes seleccionados y recogidos en ambiente virtual de medios sociales. Para evaluar los factores predictores de la práctica sexual sin uso del preservativo, utilizó el modelo de regresión de Poisson. Valores fueron expresos en medida de razón de prevalencia (RP) robusta con sus respectivos intervalos de confianza. **Resultados:** Verificó relación estadísticamente significativa del uso de preservativos con el tipo de escenas que prefiere ($p = 0,03$), preferencia por películas con escenas envolvendo sexo sin protección o mesmo aquellos que no se importan cuanto a ese cuidado ($p = 0,02$), tipo de pornografía que ve influenciando en sus relaciones sexuales ($p = 0,017$) y número de escenas vistas por semana ($p = 0,05$).

Conclusiones: El no uso del preservativo fue relacionado al acceso a las escenas eróticas.

Descriptoros: Sexo; Condones; Personas; Medios Audiovisuales; Conducta Sexual.

INTRODUCTION

A new component has brought concern to research regarding the expansion of sexually transmitted infections (STIs), especially HIV/AIDS (the acquired immunodeficiency syndrome). In this context the sexually explicit media (SEM), that is, any type of material that includes the description of genitals or explicit sexual acts of any nature, are capable of stimulating or modifying the viewer's sexual feelings or thoughts⁽¹⁾.

Currently, the access and dissemination of sexually explicit materials in the virtual media has expanded, especially among men, and it is becoming easier due to the advancement of technology⁽²⁾.

A report from the PornHub website, one of the most visible platforms in the erotic content industry, recorded 81 million visitors per day, with 28.5 million Brazilian visitors in 2017. Brazil was the tenth country that accessed PornHub the most, being considered a nation that has an important rate of consumption of these materials⁽³⁾.

With the pandemic caused by COVID-19, the use of sites with explicit sexual content has increased 600%, compared to the same period last year. This survey showed that 64% of professionals started to work remotely; and, with that, a change in the user's behavior occurred⁽⁴⁾.

A research carried out in Europe pointed out negative effects perceived regarding the use of pornography, since it can be associated with aggressive sexual behavior⁽⁵⁾. In addition, another study, carried out among men who are the sexual partners of other men revealed a positive behavior association between the excessive use of pornography and violence against an intimate partner⁽⁶⁾.

Still, a North American study concluded that the consumption of MSEs can present positive aspects, such as understanding desires, learning about sexual identity, stimulating safe sex for the young population, but also negative aspects, such as the naturalization of vaginal and anal sex without condoms, and consequent lead to an increase risk of STIs. This difference can be associated with recent changes in MSEs related to the non-use of condoms in the scenes, especially among men who have sex with men, thus reinforcing the negative influence of these media⁽⁷⁾.

Safe sexual practice should be encouraged, including with fixed partners, for the preservation of sexual health⁽⁸⁾. Therefore, nursing professionals must provide, as a part of their responsibilities, health education practices, that emphasize the reduction of the population's vulnerability to STIs, addressing the access to sexual media.

Although literature that deals with sexual practices and exposure to HIV/AIDS and other STIs is abundant, studies that address digital media and sexuality are still scarce in Brazil, despite the fact that the consumption of SEMs is expressive in the country.

OBJECTIVE

To analyze the influence of SEM consumption on condom use.

METHODS

Ethical aspects

The research followed the recommendations contained in Resolution 466/12 of the National Health Council, being approved by the Research Ethics Committee of the Federal University of Piauí.

Design, place of study and period

Cross-sectional study, part of in a bigger project entitled "Influence of the consumption of explicit sexual media on HIV/AIDS risk practices: online survey in the national territory". For greater compliance and transparency of this health research, the EQUATOR instrument, Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) for cross-sectional studies, was used. Data was collected online, from March to September 2020⁽⁹⁾.

Population and sample: inclusion and exclusion criteria

The sample consisted of 172 online questionnaires considering participants of both sexes, selected on digital social media. The inclusion criteria were being 18 years or older, living in the state of Piauí and making use of at least one of the digital social networks Facebook®, Instagram® or WhatsApp®.

Study protocol

Data collection took place through the social networks Facebook®, Instagram® and WhatsApp®, where the aspects of the research were detailed and an invitation to participate in the study was posted. The participant had access to a link that directed him to the study questionnaire on Google Forms. Those who met the inclusion criteria were included, signed the Free and Informed Consent Form online, and filled out all the items in the questionnaire.

The research instrument was adapted from the study made by Queiroz et al.⁽¹⁰⁾ and, at the end of the questionnaire, there were informative links on the research theme. Sociodemographic variables, vaccination status for hepatitis B, HIV serological status, diagnosis of STIs, use of condoms during sexual intercourse, sexual orientation, and SEM consumption were studied. The outcome variable was "condom use: yes / no". Regarding the consumption of SEM, the participants were asked: if they prefer films involving scenes with the use of condoms or not; whether they agree with the sharing of scenes that present risky behaviors (sex without condoms); how many scenes they usually watch each week (considering that a scene contains, on average, 20 minutes); the main form of access to pornography; whether, in their perception, the consumption of pornography alters the sexual practices; if there is a change in their concept of sex after access to sexual media; and whether sexual media encourages sex without condoms.

Analysis of results and statistics

Univariate analyses were performed using descriptive statistics with the distribution of frequencies and summary measures. To assess the predictive factors of sexual practice without using condoms, the Poisson regression model was used, with a robust estimator for the covariance matrix. The models were adjusted for each independent variable, and those with a *p*-value less than 0.20 or that are classically associated with the outcome event were included in the multivariate model. A statistically significant difference was considered when the *p* value was less than 0.05. Values were expressed in the form of robust prevalence ratio (PR), confidence intervals (95% CI) and significance of the Wald test (*p* value).

RESULTS

172 participants were evaluated, and over half (51.2%) consumed SEM. There was a predominance of females (54.1%), with an average age of 25.7 years, average income equivalent to R\$ 2,394.4, with higher education (48.3%) and who declared to be heterosexual (37.2%). As for the clinical aspects, the majority reported not having a sexually transmitted infection (STI) (90.7%). In addition, 0.6% said they were HIV positive, and 39.5% were unaware of their HIV status. Regarding vaccination for hepatitis B, 18.6% answered that they do not know or are not vaccinated (Table 1).

Table 1 - Sociodemographic and clinical characteristics of the participants, Teresina, Piauí, Brazil, 2020 (N = 172)

Variables	n	%	\bar{x}	SD
Gender				
Female	93	54.1		
Male	79	45.9		
Age group (years)			25.7	6.3
18 to 30	147	85.5		
31 to 42	22	12.8		
43 to 59	03	1.7		
Income (Brazilian real)			2,394.4	4,285.0
Practices a religion				
Yes	115	66.9		
No	57	33.1		
Educational level				
Post-graduation	42	24.4		
High school	47	27.3		
College	83	48.3		
Sexual orientation				
Bisexual	19	11.0		
Heterosexual	64	37.2		
Homosexual	43	25.0		
Pansexual	02	1.2		
Had an STI diagnosis				
Yes	16	9.3		
No	62	90.7		
Serological status				
HIV positive	1	0.6		
HIV negative	103	59.9		
Do not know	68	39.5		
Vaccinated for hepatitis B	140	81.4		
No/Do not know	32	18.6		
Habit of viewing pornography				
Yes	88	51.2		
No	84	48.8		

Note: STI - sexually transmitted infection.

In Table 2, it can be observed that the use of condoms was statistically associated with the age group ($p = 0.02$), preferred pornographic scenes ($p = 0.03$), influence of the types of pornography they watch during sexual practices ($p = 0.01$), being in accordance to the sharing of scenes that involve risky behaviors ($p = 0.05$), and number of scenes they watch weekly ($p = 0.05$).

Six variables met the requirements of the multivariate model and three were associated with unprotected sex. The agreement with sexual scenes involving risky behaviors increases sexual activity without using condoms by 1.49 times. Individuals who prefer scenes involving unprotected sex or even those who do not care about this are 4.24 times more likely to have sexual practices

without condoms. The perception of the influence of the type of pornography consumed on sexual relations was associated with a 58.5% greater chance of unprotected sexual practices (Table 3).

Table 2 - Analysis of condom use in sexual practices of consumers of sexually explicit media according to variables of interest, Teresina, Piauí, Brazil, 2020 (n = 88)

Variables	Condom use				P
	Yes		No		
	n	%	n	%	
Gender					0.91
Female	12	32.4	16	31.4	
Male	25	67.6	35	68.2	
Age group (years)					0.02
18 to 29	35	94.6	40	78.4	
30 to 40	2	5.4	11	21.6	
Educational level					0.48
Post-graduation	6	16.2	12	23.5	
College	21	56.8	30	58.8	
High school	10	27.0	09	17.7	
Sexual orientation					0.72
Heterosexual	16	43.2	24	47.1	
Homo, bi and pansexual	21	56.8	27	52.9	
Serological status					0.06
HIV positive	0	0.0	1	2.0	
HIV negative	16	43.2	33	64.7	
Do not know	21	56.8	17	33.3	
Type of scenes you prefer					0.03
Anything, what matters is the performance	21	56.8	36	70.6	
When actors do not use condoms	05	13.5	13	25.5	
When actors use condoms	11	29.7	02	3.9	
Access to pornography					0.89
Free porn sites	30	81.1	39	76.5	
Paid porn sites and social media	05	13.5	10	19.6	
Free and paid porn sites	01	2.7	01	2.0	
Social media	01	2.7	01	2.0	
Change in your understanding of sex after your access to sexual media					0.36
Yes	28	75.7	34	66.7	
No	09	24.3	17	33.3	
The type of pornography you watch influences your sexual relationships					0.02
Yes	17	45.9	36	70.6	
No	20	54.1	15	29.4	
Sexual media encourage sex without condoms					0.97
Yes	26	70.3	36	70.6	
No	11	29.7	15	29.4	
Agrees to scenes that involve risky behavior					0.05
Yes	03	8.1	12	23.5	
No	34	91.9	39	76.5	
Number of porn scenes you usually watch per week					0.05
Up to two scenes	20	54.1	17	33.3	
More than two	17	45.9	34	66.7	

Table 3 - Multivariate model of predictors of sexual practice without using condoms, Teresina, Piauí, Brazil, 2020 (n = 88)

Variables	Robust PR	CI 95%	p
Agreement with scenes with risky behaviors			0.01
Yes	1.49	1.07-2.08	
No	1		
Preference for scene			0.02
In which actors do not use condoms/anything	4.24	1.17-15.35	
Where actors use condoms	1		

To be continued

Table 3 (concluded)

Variables	Robust PR	CI 95%	p
Number of porn scenes per week			0.06
More than two	1.45	0.97-2.164	
Up to two	1		
Influence of the type of pornography in sexual relations			0.03
Yes	1.58	1.03-2.42	
No	1		

Note: p - significance of the Wald test.

DISCUSSION

The sociodemographic characteristics of the sample in this study are consistent with those found in another research on this topic. It was found that, similarly to other studies, young people seem to consume a greater number of sexually explicit media, which can be explained by the greater affinity of people in this age group with technologies, notably with the use of social networks⁽¹¹⁾. In addition, young people receive little information about sex education, due to the traditional way and the taboo with which sexuality is viewed, which leads them to resort to the consumption of sexual media as a source of information⁽¹²⁾.

As for the access to digital technologies, a study pointed its inequalities⁽¹³⁾. Therefore, it is possible to verify that the expansion of the internet and of the use of cellphones and computers may have contributed to the consumption of sexual media, further reinforced by the purchasing power observed in the sample of this study, in which the average income of the participants was higher than Brazilian minimum wage.

The advance of digital technologies allows not only the dissemination of information, but also facilitates communication regarding sexual practices. Thus, the images shared by the digital media are consumed in search of pleasure and as sexual stimuli⁽¹⁴⁾. In general, digital media can be a form of socialization, with the potential to involve the individual in a situation of vulnerability to unprotected sex or drug use, but some research still does not bring this relationship⁽¹⁵⁾.

The findings differed from the literature in regard to sex, since there were more females than males; and, regarding sexual orientation, most were heterosexual. Regarding this variable, a study reports that men are more likely to seek SEM than women⁽¹⁶⁾, and some researchers report that sexually compulsive behaviors, including the excessive use of pornography, are considered an alternative for the male audience to deal with negative situations of affection⁽¹⁷⁾.

In this research, it was identified that consumption characteristics of sexually explicit media are associated with sexual practice without using a condom. Among them, preferring sex scenes without condoms increased the chance of unprotected sex more than four times. This finding can be explained by the social characteristics of the sample, such as the young age group, which is usually associated with unprotected sex. Another aspect that can contribute to this result is related to the possible fragility regarding the knowledge about sexually transmitted infections⁽⁸⁾. In addition, the higher concentration in the sample of non-heterosexual population may have been a relevant factor to explain this finding.

Concerning male homosexual relations, a study confirmed the hypothesis that the use of pornography among men is associated with viewing pornography during sex with the partner, causing the partner to reproduce scenes and practices from the pornographic film during sex, as way of obtaining sexual pleasure⁽¹⁸⁾. In this group, the preference for SEM without condoms is classic and similar to what has already been described by other authors, corroborating the existence of a direct link between the preference for "bareback" scenes and the intention of having sex without condoms⁽¹⁹⁻²⁰⁾.

In the study, it was found that not using condom was statistically associated with being in accordance with sexual scenes that involve risky behaviors, with a preference for films with scenes that involve unprotected sex or those who do not care about this, and the perception of the influence of the type of pornography they consume on their sexual relations. A survey conducted in four cities in the United States found that almost half of the men who have sex with men (MSM) said that watching SEM contributed to their involvement in "riskier sex", with 29% believing that it contributed to their involvement in the last three months⁽²¹⁾. Such findings are consistent with the results of this study.

These attitudes and practices can have several implications. As pornography becomes more widespread and accessible, more people, in relation to previous generations, may be exposed to violent and misogynistic pornographic content⁽²²⁾. Such accessibility and normalization can have implications on the romantic relationships of pornography consumers, in addition to the broader cultural perception of violence towards women.

In addition, a study carried out in 2017 reported that some men filmed sex with their partners without their consent, and some of them used the recording later as a means of gaining control within the post-separation relationship⁽²³⁾.

From another point of view, a research carried out in Paraíba with university students of both genders showed that consumers of sexual media disagree with the idea that pornography brings harmful effects such as addiction, trivialization of sex and, damage to relationships and sexual formation, the opposite perspective of non-consumers, who perceive this consumption as harmful. It was found that the research sample minimized the influence of SEM on their own sexual behaviors⁽²⁴⁾.

Contrary to these results, a meta-analysis showed an association between the use of pornography and physical and sexual violence⁽²⁵⁾. Such violence, in turn, triggers psychological and physical problems, including the appearance of injuries and the consequent manifestation of STIs. Thus, prevention and intervention actions against these situations are necessary.

In addition, other research has pointed out that accessing SEM in general is associated with a greater likelihood of engaging in anal sex without condoms⁽²⁶⁻²⁷⁾. However, given the lack of studies that have investigated the role of SEM in heterosexual relationships, additional research with a representative sample of SEM consumers is necessary.

It is already proven that the human being has an enormous capacity to imitate behaviors, whether conscious or unconscious. This reproduction of actions is influenced by social, emotional and cognitive factors that translate their preferences, whether directly or indirectly, even if such attitudes or practices constitute some health risk⁽²⁸⁾.

On the other hand, a research has suggested that sex without condom becomes just a fetish for consumers of these media. This is because individuals do not perform this practice in reality despite wanting to do so⁽²⁹⁾.

Most of the sample in this study accesses SEM through websites, and surveys report prevalence rates of viewing ranging from 40% to 47%. Such data can be explained by technological advances, which enabled expansion and facilitated access to SEM⁽³⁰⁾.

As for the number of pornographic scenes accessed, most watched up to two a week. Byers et al.⁽³¹⁾ reported in their study a significant positive association for hours of internet use per week and use of SEM online, that is, the longer the users stay on the internet, the more they will access SEM. Data shows that 87% of men reported using pornography at least once a month, with up to 58% viewing pornography weekly⁽³²⁾.

Some countries are already in alert for the expansion of pornography, the state of Utah in the USA, which received a bill that declares sexually explicit media a "public health crisis". Such decisions can positively impact individuals who consume the media and engage in sex without protection, since the creation of strategies to promote the use of condoms in explicit media can be carried out⁽³³⁾.

Based on these findings, it is of utmost importance to disseminate through the media (a space that concentrates a large part of SEM consumers) educational materials that report STI prevention measures, with a focus on combined HIV prevention, especially vaccination against immunopreventable STIs.

Therefore, knowing the profile of these people is important to understand the dynamic behaviors that involve risk for STIs/HIV/AIDS, as well as to encourage the publication of new studies on the subject.

Study limitations

This study has some limitations. Since it is a survey conducted online, it can lead to the misunderstanding of some questions, culminating in participants' mistakes in answers. However, this is mitigated by the fact that literature is full of studies with self-reported data. The small sample size is also a limitation, since the inferential analysis covers a small portion of the population.

It should be noted that, when replicating this study, researchers should consider the cultural differences of the population addressed, both in Brazil and in other countries.

Contributions to the field of Nursing and Public Health

The increase in the consumption of sexually explicit media can stimulate sex without condoms and lead to an exponential increase in cases of HIV/AIDS, in addition to other sexually transmitted infections. There are still few studies that analyze SEM and the sexual behavior of its users; therefore, this research aims to identify individual vulnerabilities and thus guide health services to investigate the most varied dynamics of HIV infection and other STIs.

For the practice of nursing professionals, this study will contribute with relevant information on the consumption of sexual media and condom use that may assist in strategies and approaches involving the theme of HIV/AIDS and STI prevention during their nursing actions, with more effective services in nursing consultations and health education.

CONCLUSIONS

The predictors of sexual practice without the use of condoms were: age group corresponding to young adults; condom use or not does not interfere in the preference for the scenes; recognition of the influence of the type of pornography on sexual relations; agreeing with scenes with risky behavior; and watching more than two sexually explicit media scenes a week.

The recognition of vulnerabilities resulting from the consumption of sexual media, especially their influence in reducing the use of condoms, may contribute to the practice of health professionals, with emphasis on the nursing team, which acts directly in the prevention and promotion of health.

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