



Predicting Pornography Use Based on Mental Health and Quality of Communication with Parents

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(Received 18 Oct 2023; accepted 10 Jan 2024)

Abstract

Background: Pornography, encompassing explicit images, videos, audio, and written content, has adverse impacts on individuals' well-being. We aimed to explore the relationship between mental health and communication quality with parents and the use of pornography, considering the moderating effect of gender.

Methods: Quantitative data collection and descriptive-correlation analysis were employed. The study included university students in Tehran, Iran during the 2021-2022 academic year. Through purposive sampling, 210 participants completed an online questionnaire on Porsline. The survey assessed pornography use, quality of communication with parents, and general health. SPSS 23 software facilitated correlation and hierarchical regression analysis.

Results: Gender significantly influenced pornography use ($\beta=0.557$). Anxiety symptoms ($\beta=0.45$) and social dysfunction ($\beta=0.351$) had significant positive effects on pornography use. Moreover, quality of relationships with parents, both mother ($\beta=-0.47$) and father ($\beta=-0.27$), exhibited negative associations with pornography use ($P=0.01$).

Conclusion: High quality relationships with parents, lower anxiety and social dysfunction could potentially decrease the likelihood of pornography use on the internet. It is recommended that educational efforts and cultural interventions focus on protecting young adults from the negative effects of pornography use. Such interventions may include psychoeducational training on effective communication skills, mental health literacy, and stress management skills.

Keywords: Mental health; Pornography; Communication; Parents; Anxiety

Introduction

The Internet has become an integral part of modern society, serving as a potent tool for communication and information exchange. Advanced technologies, such as smartphones, have made internet access ubiquitous, connecting millions worldwide. However, this accessibility has led to concerning phenomena like pornography use. Pornography involves the visual depiction of

human sexual intercourse to arouse excitement, stimulation, or satisfaction (1). It encompasses various formats - images, videos, audio, and written content - accessible through electronic and print media, as well as the internet (2). Compared to traditional forms of pornography, the internet offers privacy, anonymity, and cost-effective access, magnifying its reach (3,4). Research shows



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pornography's prevalence among adults and adolescents in developed nations, comparable to modern behaviors like video game usage (4). U.S. surveys indicate that 68.4% of adolescents have been exposed to online pornography (5). Among U.S. adults, 46% of men and 16% of women reported recent online pornography viewing in the past week (6).

Although porn addiction is not recognized as a valid diagnosis in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR) or the International Classification of Diseases (ICD-11) (1,7-9), due to insufficient evidence to include it in the behavioral addiction category (9), problematic internet pornography viewing is generally defined as an excessive, time-consuming behavior that substitutes healthy social interaction and daily essential activities, resulting in consequences such as social isolation, career loss, and mental health difficulties (10)."

Excessive pornography use requires attention due to potential severe dysfunction (11,12). Studies link it to increased stress, anxiety, impaired sexual functioning, and risky behaviors (11,13). Moreover, compulsive users may experience strained relationships, guilt, shame, and isolation (14,15). Excessive pornography use negatively impacts relationship satisfaction, particularly in romantic relationships (16, 17). Moreover, it correlates with low self-esteem, reduced life satisfaction, personal insecurity, and depression (18).

Individuals who compulsively use pornography often experience feelings of shame based on their personal, cultural, and/or religious values (17,19). The sense of shame and loneliness is particularly intensified when pornography becomes their sole or primary sexual outlet, thus exacerbating the detrimental impact of pornography use on individuals' self-worth and life satisfaction (17,19 - 22).

There is evidence suggesting that gender significantly influences the use of pornography. Men are more likely to consume pornographic content than women, and do so more frequently (6, 23-25). While studies have demonstrated no meaningful difference in sexual desire between men and women (26), a substantial portion of this

gender disparity can be attributed to internalized expectations and societal norms regarding "acceptable" sexual desires and behaviors for both genders (27, 28). In other words, Patterns of behavior related to sexual desire are likely to be significantly influenced by the specific social contexts we experience, which are partially characterized by gender distinctions (29). The gender disparity in pornography consumption may also be influenced by the marketing and targeting of pornography towards men (30).

According to research, parent-adolescent communication about sex influences adolescents' decision-making about sexual behaviors (31). This communication includes parents' perceptions of risks and benefits related to sex and communication barriers experienced by parents (32). Such communication shapes beliefs, opinions, and consequently, the sexual decision-making of adolescents (32). Also, increased parental communication is likely to impart knowledge to young adults regarding sexual responsibility and risk-taking, which can, in turn, contribute to their sexual decision-making abilities (33).

The escalating prevalence of pornography necessitates a thorough comprehension of its ramifications on young adults. This population has been demonstrated to be highly vulnerable to the detrimental effects of pornography (34), underscoring the significance of investigating its impact. By examining the impact of mental health and parental communication, appropriate measures can be taken to empower university students regarding their pornography use.

Therefore, the purpose of this study was to investigate the following research questions:

- (a) Does mental health have a direct negative effect on pornography use?
- (b) Does communication with parents have a direct negative effect on pornography use?
- (c) Does gender moderate (i.e., influence) the relationship between mental health, communication with parents, and pornography use?

We hypothesize that mental health and parental communication predict pornography use, with gender moderating these relationships.

Materials and Methods

Research Design and Sample

This descriptive-correlational study aimed to explore the impact of pornography on university students in Tehran, aged 18-33 years, during 2021-2022, who were reached through social media platforms. Purposive sampling selected 210 participants who completed an anonymous online questionnaire via the Porsline website, distributed through virtual networks and social channels. To ensure participant confidentiality and minimize potential underreporting of pornography use due to shame or social undesirability, all participants completed the questionnaires anonymously. Data analysis employed descriptive statistics, correlation coefficients, and hierarchical regression techniques.

Instruments

The Cyber-Pornography Use Inventory, developed by Grubbs et al., assesses pornography extent through 31 items divided into addictive patterns, social behavior, and guilt subscales (35). The Cronbach's alpha coefficient for this study was 0.78.

The General Health Questionnaire (GHQ-28), a shortened form of Goldberg's questionnaire, measures physical symptoms, general health, anxiety, social dysfunction, and depression (36). A reliability coefficient of 0.90 was obtained for the analysis of results.

The Quality of Communication with Parents Questionnaire, developed by Fine et al., measures individuals' perceptions of their relationship with their parents through 24 items, scored on a 7-point Likert scale. It comprises two forms, one for measuring the child's relationship with the mother and another for measuring the relationship with the father (37). The subscales demonstrate internal consistency with alpha coefficient of 0.94.

Ethical Approval

The project was in accordance to the ethical principles and the national norms and standards for conducting medical research in Iran, Faculty of Psychology and Education, University of Tehran, Tehran, Iran. Ethical Code: IR.UT.PSYEDU.REC.1401.103

Results

The sample consisted of 40.5% male and 59.5% female students. Educationally, 42.9% pursued bachelor's degrees, 50.5% master's degrees, and 6.6% were in doctoral programs. Marital status varied, with 76.7% single, 21.9% married, and 1.4% divorced. Living arrangements included 4.8% alone, 24.8% in student dorms, 3.8% in student homes, and 66.6% with families. Ages ranged from 18-24 (63%), 24-30 (24%), to 30-36 (13%).

Table 1 presents variable means, standard deviations, and correlations. Significant positive associations were found between mental health and pornography use, and a significant negative relationship was observed between parent communication quality and pornography use. The necessary assumptions for regression analysis were met. Therefore, hierarchical regression analysis was conducted to test the first hypothesis, which posited that mental health components (i.e., anxiety, social dysfunction, and depression symptoms) would significantly predict pornography use (Table 2). Anxiety symptoms and social dysfunction significantly predicted pornography use, explaining 63.1% of variance of pornography use. The second hypothesis, predicting pornography use based on parent communication quality, was tested via hierarchical regression (Table 3). Both mother and father relationship quality significantly affected pornography use, explaining 51.6% variance.

Table 1: Mean and standard deviation and correlation between study variables

<i>Variables</i>	<i>Components</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	
Mental health	1 .Physical symptoms	1							
	2 .Anxiety symptoms	0.90**	1						
	3 .Social dysfunction	0.81**	0.87**	1					
	4. Depression Symptoms	0.81**	0.88**	0.80**	1				
	Quality of communication with parents	5. Quality of relationship with mother	-0.76**	-0.68**	-0.68**	-0.65**	1		
		6. Quality of relationship with father	-0.75**	-0.70**	-0.74**	-0.68**	0.79**	1	
	7. Pornography use	0.73**	0.77**	0.76**	0.67**	-0.69**	-0.65**	1	
M		7.76	8.49	6.80	4.57	113.11	96.10	51.90	
SD		3.49	4.48	3.28	3.17	20.88	27.44	12.66	

P<0/01

Table 2: The results of regression coefficients for predicting pornography use based on mental health

	<i>Variable</i>	<i>B</i>	<i>SE</i>	<i>Beta</i>	<i>T</i>	<i>P</i>
1	Physical symptoms	2.65	0.171	0.733	15.53	0.001
2	Physical symptoms	0.648	0.361	0.179	1.79	0.074
	Anxiety symptoms	1.74	0.281	0.616	6.19	0.001
3	Physical symptoms	0.476	0.353	0.131	1.34	0.179
	Anxiety symptoms	1.027	0.331	0.364	3.10	0.002
	Social dysfunction	1.295	0.342	0.366	3.78	0.001
4	Physical symptoms	0.501	0.353	0.138	1.42	0.157
	Anxiety symptoms	1.273	0.380	0.450	3.35	0.001
	Social dysfunction	1.352	0.344	0.351	3.92	0.001
	Depression Symptoms	0.364	0.277	0.120	1.31	0.191

Table 3: The results of regression coefficients for predicting the pornography use based on the quality of communication with parents

	<i>Variable</i>	<i>B</i>	<i>SE</i>	<i>Beta</i>	<i>t</i>	<i>P</i>
1	Quality of relationship with mother	-0.423	0.030	-0.698	-14.04	0.001
2	Quality of relationship with mother	-0.289	0.048	-0.476	-6.02	0.001
	Quality of relationship with father	-0.129	0.036	-0.279	-3.53	0.001

The third hypothesis, gender moderation, was analyzed. Table 4 indicates a positive correlation between mental health components and pornography tendencies among both genders. Also, a negative correlation was observed between parent communication quality and pornography use.

Linear regression was used to investigate the study hypothesis, and the moderating role of gender between mental health components and communication quality with parents and pornography tendencies are presented in Table 5.

Table 4: Average and standard deviation and correlation between study variables by gender

<i>Variables</i>		<i>Components</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
Group of women	Mental health	1. Physical symptoms	1						
		2. Anxiety symptoms	0.99**	1					
		3. Social dysfunction	0.98**	0.98**	1				
		4. Depression Symptoms	0.95**	0.94**	0.91**	1			
	Quality of communication with parents	5. Quality of relationship with mother	-0.99**	-0.99**	-0.97**	-0.97**	1		
		6. Quality of relationship with father	-0.99**	-0.99**	-0.98**	-0.95**	0.99**	1	
		7. Pornography use	0.97**	0.98**	0.98**	0.89**	-0.97**	-0.98**	1
		M	7.28	8.04	6.33	4.00	116.97	105.28	50.97
		SD	3.03	3.97	3.74	3.40	17.66	20.05	11.81
	Group of men	Mental health	1. Physical symptoms	1					
2. Anxiety symptoms			0.90**	1					
3. Social dysfunction			0.91**	0.89**	1				
4. Depression Symptoms			0.89**	0.88**	0.80**	1			
Quality of communication with parents		5. Quality of relationship with mother	-0.90**	-0.88**	-0.89**	-0.87**	1		
		6. Quality of relationship with father	-0.80**	-0.89**	-0.92**	-0.89**	0.92**	1	
		7. Pornography use	0.95**	0.87**	0.90**	0.91**	-0.89**	-0.95**	1
		M	7.06	8.19	6.22	4.19	113.13	96.20	51.60
		SD	3.49	4.48	3.28	3.17	20.88	27.44	12.66

P<0/01

Table 5: Examining the moderating role of gender between mental health and components of the quality of communication with parents and pornography use

	<i>Variable</i>	<i>R</i>	<i>R</i> ²	<i>B</i>	<i>SE</i>	<i>Beta</i>	<i>T</i>	<i>P</i>
1	Mental health	0.78	0.60	0.67	0.03	0.78	17.96	0.0001
2	Mental health	0.80	0.65	0.39	0.06	0.45	6.03	0.0001
	Mental health × gender			0.19	0.03	0.39	5.20	0.0001
1	Quality of communication with mother	0.67	0.69	-0.42	0.03	-0.69	-14.04	0.0001
2	Quality of communication with mother	0.47	0.48	-0.44	0.05	-0.73	-8.54	0.0001
	Quality of communication with mother × gender			0.008	0.01	0.04	0.46	N.S
1	Quality of communication with father	0.65	0.43	-0.30	0.02	-0.65	-12.54	0.0001
2	Quality of communication with father	0.74	0.55	-1.00	0.09	-2.17	-10.50	0.0001
	Quality of communication with father ×gender			0.28	0.03	1.56	7.52	0.0001

Discussion

The first hypothesis findings underscore the significant role of mental health in predicting pornography use. Results reveal a notable link between mental health dimensions (anxiety symptoms and social dysfunction) and pornography use. Specifically, significant regression coefficients emerged for anxiety symptoms ($\beta = 0.45$) and social dysfunction ($\beta = 0.351$) in relation to pornography use, explaining 63.8% of its variance. These results are consistent with the findings of Laemmle-Ruff et al. (38) and Mestre-Bach (39).

The components of anxiety and social dysfunction emerge as key predictors of pornography use. Prior research establishes a correlation between anxiety and impulse control (40), and the latter has been found to be associated with pornography use (41). Anxiety sufferers may resort to pornography to cope, seeking relief from stressors and negative emotions. This diversionary tactic may enhance emotional regulation during anxiety episodes (42). With frequent pairing of pornography use and masturbation (43), it

might also aid attention and sleep issues associated with anxiety.

Social dysfunction emerges as another predictor. Weak social skills can hinder meaningful connections, fostering social isolation. Those struggling with loneliness might turn to pornography for connection, intimacy, and sexual gratification, circumventing real-life complexities (30). Individuals facing relationship challenges, like divorce, may also resort to pornography as a transient emotional coping mechanism.

Although depression-pornography correlations exist (44,45), depression's predictive role wasn't supported. This suggests that individuals who use pornography might also suffer from depression due to another factor, or the use of pornography might lead to depression, which is the opposite of the initial hypothesis.

The second hypothesis is validated, confirming high-quality parent communication as a significant predictor of reduced pornography tendencies, in line with earlier findings (46,47). Communication quality signifies relationship health, fostering security and open dialogue. This allows parents to offer guidance on issues including

pornography and its underlying causes. Furthermore, the findings indicate that supportive parental monitoring yields better outcomes than controlling parenting, which increases the likelihood of pornography use by reducing transparency (48).

The results indicate that gender played a moderating role in the relationship between pornography use and its predictors, meaning that gender influenced the effects of mental health and communication with parents on pornography use. Specifically, anxiety and social dysfunction's potential impact on pornography use is more pronounced in men. This mirrors prior research showing men favoring pornography as a coping mechanism more than women (49,50,51). Moreover, gender moderates the effect of the relationship quality between participants and their fathers on pornography use. This underscores the significance of father-son relationships in fostering healthy coping strategies and minimizing unhealthy alternatives like pornography use (52,53).

An integration of attachment theory (54,55) and Sexual Strategies Theory (SST) (56) provides a comprehensive theoretical framework to elucidate the findings of this study. Parent-child communication quality may mirror attachment style formation, stemming from early caregiver interactions (57). These attachment styles may contribute to adult mental health (58,59,60), shaping emotional and behavioral dynamics in intimate relationships (61,62). For example, individuals with insecure attachment styles may face relationship challenges, potentially leading to an inclination to avoid emotional intimacy (61,62). Pornography use might then serve as a substitute for real-life intimacy experiences, meeting the sexual facets of intimacy needs (63). Gender's role in pornography use is elucidated through the lens of Sexual Strategies Theory, highlighting strategies and adaptations shaping men's and women's sexual preferences and behaviors during the mating process (64,65). SST suggests that men may be more inclined towards seeking multiple sexual partners, which may result in a higher interest in pornography as a means of sexual novelty. Conversely, women may prioritize quali-

ty over quantity and commitment in sexual encounters (64, 65), potentially leading to different patterns of engagement with pornography.

The results of this paper offer insights into gender differences in the effects of predictive variables on pornography use, highlighting the need for further gender-oriented research on the topic. However, the cross-sectional method of analysis, reliance on self-reported data, and the fact that the sample consisted solely of university students from Tehran limit the generalizability of the findings.

Conclusion

The findings of this study highlight the predictive role of mental health, notably anxiety and social dysfunction, in pornography use. Additionally, high-quality communication emerges as key in reducing young adults' pornography use tendencies. Moreover, the predictive effect of mental health and communication with parents is greater in male participants. This highlights the need for exploring additional predictors within each gender. Finally, offering young adults psychoeducational training in communication, mental health awareness, and stress management could potentially assist them in developing healthier coping strategies.

Journalism Ethics considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

Acknowledgements

This research received no specific grant from public funding agencies or commercial or not-for-profit sectors. The authors would like to appreciate all the research team who helped in this study.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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