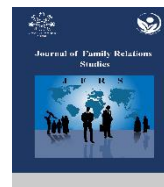




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Research Paper

Structural Equation Modeling of the Role of Pornography Addiction in Predicting Marital Infidelity with the Mediation of Emotional Loneliness and Dysfunctional Sexual Fantasies



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ABSTRACT

Objective: Marital infidelity is one of the major challenges in couples' relationships, and can be influenced by pornography addiction. This study aimed to examine the role of pornography addiction in predicting marital infidelity, with the mediating role of emotional loneliness and dysfunctional sexual fantasies.

Methods: This study employed a descriptive, correlational design. The population comprised men and women with a history of marital infidelity who had sought counseling services at educational centers in Hamadan province. From this population, a sample of 320 individuals was selected via convenience sampling. Data were collected using Grubbs et al.'s (2010) Pornography Addiction Scale, DiTommaso et al.'s (2004) Loneliness Scale, Wilson's (1998) Sexual Fantasy Questionnaire, and Yeniceri and Kokdemir's (2006) Marital Infidelity Questionnaire. To evaluate the fit of the conceptual model, structural equation modeling (SEM) was performed using AMOS 24.

Results: The proposed model demonstrated acceptable fit ($\chi^2/df = 3.57$, GFI = 0.879, CFI = 0.623, RMSEA = 0.089). A significant direct relationship was found between pornography addiction and marital infidelity. Moreover, emotional loneliness and dysfunctional sexual fantasies significantly mediated this relationship.

Conclusion: Pornography addiction can have a severe impact on marital relationships. Addressing its psychological consequences, including emotional loneliness and dysfunctional sexual fantasies, is essential for developing effective prevention strategies and improving relationship quality among couples.

1. Introduction

Marital infidelity is a complex and challenging issue in the realm of interpersonal relationships, with profound and far-reaching consequences for individuals and families (Atapour et al., 2021). This phenomenon not only weakens the emotional and psychological foundations of marriage but also leads to various social and psychological repercussions, including higher divorce rates, decreased mental well-being among

couples, family instability, and a reduced quality of life (Shackelford et al., 2008). Marital infidelity is defined as a violation of emotional or sexual commitments within a marital relationship, which may manifest as emotional infidelity, sexual infidelity, or a combination of both (Gheibi et al., 2025).

Numerous studies have explored the causes and contributing factors of marital infidelity, indicating that

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this phenomenon is influenced by a combination of individual, interpersonal, and social factors (Zhong & Vangelisti, 2025). In this context, technological advancements and increased internet accessibility have created new opportunities for marital infidelity and reshaped some of the key variables affecting this phenomenon (Meydani et al., 2022).

In recent years, pornography addiction has increasingly been recognized as a significant variable in explaining marital infidelity (JCL, 2010). Pornography, defined as visual or written content intended to induce sexual arousal, can influence individuals' attitudes, beliefs, and sexual behaviors (Smaniotto et al., 2022). Frequent and excessive consumption of pornographic content not only shapes one's perception of sexual and marital relationships but can also have detrimental effects on marital satisfaction, commitment to one's spouse, and patterns of interaction between partners (Jha & Banerjee, 2022).

Studies have shown that excessive pornography consumption is associated with an increased likelihood of marital infidelity (Beyramvand et al., 2024), as it can lead to reduced emotional intimacy, diminished attraction to one's spouse in comparison to the viewed content, and a heightened desire to engage in extramarital sexual experiences (Aghamiri et al., 2022). Additionally, pornography addiction may create unrealistic expectations about sexual relationships, leading to lowered marital satisfaction, which in turn increases the likelihood of infidelity (Nikmanesh & Ganjali, 2021).

Many researchers have highlighted the risks of pornography addiction, prompting the rapid integration of internet pornography addiction into academic and research discussions. Research on problematic sexual behaviors and unconventional pornography use is expanding rapidly, becoming the subject of various books and online communities (Rustin et al., 2024). Although various models have been proposed to reduce problematic sexual behaviors and pornography consumption, pornography addiction continues to rise, playing a significant role in marital infidelity (Healy-Cullen et al., 2024).

One of the important mechanisms that can explain the relationship between pornography addiction and marital infidelity is emotional loneliness. Research has shown that emotional loneliness can lead individuals to seek the fulfillment of their emotional needs outside of the marital relationship. For instance, Finkel et al. (2014) stated that individuals experiencing greater emotional loneliness are more susceptible to marital infidelity. Additionally, the study by Ghazanfari Shabankare et al. (2021) demonstrated that emotional loneliness and reduced intimacy can contribute to increased pornography consumption and a higher likelihood of infidelity. Emotional loneliness is defined as the experience of a

lack of intimacy and emotional support in a relationship and is considered one of the most significant psychological factors associated with marital dissatisfaction and infidelity (Abbaspour Gelsefidi & Khaleghipour, 2025). Individuals experiencing emotional loneliness unconsciously seek ways to compensate for this emotional void, which may lead them to engage in alternative behaviors such as excessive pornography consumption or extramarital relationships (Ghazanfari Shabankare et al., 2021).

Pornography consumption can serve as a maladaptive coping strategy for addressing loneliness; however, in the long term, it not only fails to alleviate these feelings but may also reduce marital relationship quality and increase emotional distance between spouses. This, in turn, increases the likelihood of marital infidelity (Mohammadi et al., 2022).

In addition to emotional loneliness, another variable that plays a mediating role in this relationship is dysfunctional sexual fantasies (Shadgahraz et al., 2022). Studies have shown that individuals with unrealistic and obsessive sexual fantasies often unconsciously seek to fulfill their sexual needs outside of marriage, which can lead to marital infidelity (Vega, 2024). In particular, continued consumption of pornography increases these types of fantasies and exposes marital relationships to unrealistic expectations, which results in decreased satisfaction and an increased likelihood of infidelity (Busch et al., 2024). Sexual fantasies are common cognitive processes among individuals and can have varying effects on sexual and marital behaviors (Stefanska et al., 2024). While some sexual fantasies may enhance healthy sexual functioning, dysfunctional fantasies - characterized by obsessive and unrealistic thoughts about sexual relationships - can negatively impact marital relationships (Tunçel, 2025). Research has shown that individuals who frequently consume pornography are more likely to engage in maladaptive sexual fantasies, which can reduce marital satisfaction and increase the likelihood of marital infidelity (Busch et al., 2024). In fact, such individuals may develop a greater cognitive inclination toward sexual exploration outside their marital relationship, thereby increasing their risk of infidelity (Vega, 2024).

Despite numerous studies on the effects of pornography addiction on marital relationships, significant research gaps remain in this area. First, most previous studies have investigated the direct impact of pornography addiction on marital infidelity (Webster, 2022), whereas the mediating mechanisms and underlying cognitive and emotional processes have received less attention. Moreover, prior research has primarily focused on individual and demographic variables (Stefanska et al., 2024), whereas the influence of cognitive and emotional

factors, such as emotional loneliness and dysfunctional sexual fantasies, has been underexplored. To address this gap, the present study aims to examine the mediating roles of these two variables in the relationship between pornography addiction and marital infidelity using structural equation modeling.

This study, which examines the psychological effects of pornography addiction on marital infidelity and the mediating roles of emotional loneliness and dysfunctional sexual fantasies, holds significant importance in advancing scientific knowledge in this field. While previous research has primarily focused on investigating the direct relationships between pornography addiction and marital infidelity, this study specifically addresses the identification of psychological and cognitive mechanisms involved in this process. Notably, as emotional loneliness and dysfunctional sexual fantasies may serve as mediators in transmitting the negative effects of pornography to infidelity, examining these factors can yield a deeper understanding of the manifestation of infidelity in marital relationships.

The theoretical significance of this research, from a theoretical perspective, is particularly notable in addressing the gaps in the literature on regarding the psychology of marital relationships and the impact of pornography addiction on them. Despite numerous studies, many psychological mechanisms involved in this relationship remain overlooked. This research, utilizing structural equation modeling, allows for the exploration of complex and multifaceted relationships among the variables involved, providing a more comprehensive analysis of the cognitive, emotional, and behavioral processes that contribute to marital infidelity. From a practical perspective, the findings of this study can be used to design effective preventive and therapeutic interventions in the fields of family psychology and marital counseling. Given the increasing accessibility to pornography and its growing negative effects on marital relationships, this research can serve as a solid foundation for developing practical strategies to reduce the harms of pornography consumption and enhance marital quality of life. Additionally, the results of this study could inform social and educational policies, particularly in the area of improving the mental and emotional well-being of couples. Ultimately, the aim of this research is to analyze and model the role of pornography addiction in predicting marital infidelity, with emotional loneliness and dysfunctional sexual fantasies serving as mediators.

2. Materials and Methods

This descriptive, correlational study utilized structural equation modeling. The population comprised married men and women who had experienced marital infidelity

(emotional, sexual, or both) and sought counseling services at educational system centers in Hamadan province between January 16 and November 30, 2024. From this population, 320 individuals were selected via convenience sampling. The sample size was determined according to recommendations in structural equation modeling suggesting a minimum of 5 to 20 cases per observed variable (Kline, 2021). Given 16 observed variables in this study, a sample of 320 was considered appropriate. Inclusion criteria were: being a client at family counseling centers for marital services, having experienced marital infidelity and acknowledged it (whether emotional, sexual, or both), having at least a middle school education, and expressing a willingness to participate. Exclusion criteria were unwillingness to cooperate and incomplete questionnaire responses.

Following sample selection, the questionnaires were distributed among men and women with a history of marital infidelity in accordance with ethical research principles. These included obtaining informed consent, explaining the questionnaire process and the importance of honest participation, ensuring respectful treatment and data confidentiality, allowing withdrawal at any time, and preventing data distortion or fabrication. Participants were included only after being informed about the study's objectives, assured of the confidentiality of their personal information, and having provided their consent. To test the conceptual model, structural equation modeling (SEM) was performed using AMOS 24.

Instrument:

Pornography Addiction Scale (PAST): The PAST by Grubbs et al. (2010) consists of 25 items measured using a 5-point Likert scale (ranging from 0 to 4). The minimum score on this questionnaire is 0, and the maximum score is 100; higher scores indicate greater addiction to pornography. The developers reported the construct validity of the tool with an exploratory factor analysis yielding a value of 12.48. Additionally, Mardhatillah et al. (2017) demonstrated the convergent validity of this questionnaire by comparing it to the 12-item questionnaire by Corral & Calvete (2014), with a correlation coefficient of 0.67, and reported a reliability coefficient of 0.79 using Cronbach's alpha. Zivari Rahman et al. (2021) conducted the standardization of this tool and identified three components: 1) lack of control over pornography behavior (items 1 to 8), 2) regret after engaging in pornography (items 9 to 16), and 3) pornography for sexual arousal (items 17 to 25). These three factors together explained 61.16% of the total variance in pornography addiction. Results from confirmatory factor analysis indicated that the questionnaire items had appropriate factor loadings, all exceeding 0.40 for each factor. Zivari Rahman et al. (2021)

reported the overall reliability coefficient of the Pornography Addiction Screening Tool as 0.88, and the reliability coefficients for the first, second, and third factors as 0.94, 0.93, and 0.88, respectively. In the present study, the reliability of this questionnaire, based on Cronbach's alpha, was found to be 0.854.

Social and Emotional Loneliness Scale for Adults (SELSAS): This scale was designed and developed by DiTommaso et al. (2004) based on the classification by Weiss. It consists of 15 items and three subscales: romantic loneliness (5 items), family loneliness (5 items), and social loneliness (5 items). The scale uses a 5-point Likert scale (Strongly Disagree 1 to Strongly Agree 5). The minimum score on this questionnaire is 15, and the maximum score is 75, with higher scores indicating greater feelings of loneliness. DiTommaso et al. (2004) reported Cronbach's alpha coefficients ranging from 0.87 to 0.90, indicating good internal consistency of the scale. They also reported a significant correlation between the subscales of the SELSASS with the total score of the UCLA Loneliness Scale-3 and the subscales of the Attachment Perception Questionnaire (IPPA), which suggests good concurrent, differential, and convergent validity of the scale. Jowkar and Salimi (2011) standardized this questionnaire in Iran on students. The results of exploratory factor analysis confirmed the existence of three factors: romantic, social, and family loneliness. These three factors together explained 62.69% of the total variance in loneliness, indicating adequate construct validity of the questionnaire. The correlations with the Social Support Perception Scale ($r = -0.77$) and the Life Satisfaction Scale ($r = -0.42$) indicate good discriminant validity of the questionnaire. Jowkar and Salimi (2011) found Cronbach's alpha coefficients for the romantic, social, and family dimensions to be 0.92, 0.84, and 0.78, respectively. In the present study, the reliability of this questionnaire, based on Cronbach's alpha, was found to be 0.857.

Wilson's Sexual Fantasy Questionnaire (WSFQ): This Questionnaire) is a self-report tool developed by Glenn Wilson (1998) that consists of 40 items. The selected sexual fantasies in this questionnaire span a range from normal and pleasurable to abnormal and disturbing. Each respondent is assessed on a scale from "not at all" (1) to "always" (5) across various life situations, such as daydreams, during sexual activity, while masturbating, and in realistic fantasies. Consequently, the WSFQ is capable of measuring not only experience and sexual desire but also unrealistic sexual fantasies. The questionnaire is structured into four subscales: 1) Exploratory fantasies, 2) Intimacy-related fantasies, 3) Impersonal fantasies, and 4) Simple masochistic fantasies. Scores for the items related to daily fantasies should be

summed, and the total score across all 40 items represents the overall score for individual sexual fantasies. Wilson (2010) demonstrated that this questionnaire, considering the four factors, explains 44.50% of the variance in sexual fantasies, indicating adequate construct validity. Wilson (2010) reported a Cronbach's alpha reliability coefficient of 0.88 for the questionnaire. In Iran, this questionnaire was standardized by Mohammadpour Doughabadi et al. (2021), whose results indicated that the construct validity of the questionnaire was confirmed through factor analysis, with factor loadings for all items exceeding 0.40. The Cronbach's alpha reliability for the entire questionnaire was 0.97, and for the individual factors, the values were 0.95 for Exploratory fantasies, 0.91 for Intimacy-related fantasies, 0.94 for Impersonal fantasies, and 0.95 for Simple masochistic fantasies. The composite reliability (CR) was above 0.70, indicating good and acceptable reliability. In the present study, the overall reliability of this questionnaire, based on Cronbach's alpha, was found to be 0.902.

Marital Infidelity Questionnaire (MIQ): This Questionnaire was developed by Yeniceri and Kokdemir in 2006 to assess emotional and sexual infidelity. The questionnaire consists of 24 items with a 5-point Likert scale (ranging from "Strongly Disagree" = 1 to "Strongly Agree" = 5). It is composed of six factors: (a) Legitimacy (items 1 to 4), (b) Seduction (items 5 to 8), (c) Normalization (items 9 to 12), (d) Sexual Desires (items 13 to 16), (e) Social Context (items 17 to 20), and (f) Excitement Seeking (items 21 to 24). Yeniceri & Kokdemir (2006) reported Cronbach's alpha coefficients for the factors as follows: Legitimacy = 0.83, Seduction = 0.80, Normalization = 0.74, Sexual Desires = 0.84, Social Context = 0.73, and Excitement Seeking = 0.83. The results of exploratory factor analysis showed that the seven factors together explained 45.11% of the total variance in marital infidelity, indicating adequate construct validity of the questionnaire. This questionnaire was standardized in Iran by Karimi et al. (2019). They reported a total Cronbach's alpha of 0.91 for the entire questionnaire, and the Cronbach's alpha values for the subcomponents were: Legitimacy = 0.79, Seduction = 0.75, Normalization = 0.51, Sexual Desires = 0.80, Social Context = 0.71, and Excitement Seeking = 0.79. Karimi et al. (2019) confirmed the face and content validity of the questionnaire through expert evaluation. They also reported the convergent validity of the Marital Infidelity Questionnaire with the Attitude Toward Infidelity Questionnaire, which had a correlation of 0.75. They examined the construct validity of the questionnaire using confirmatory factor analysis, and the fit indices were RMSEA = 0.08, $\chi^2/df = 2.75$, CFI = 0.95, and GFI = 0.89, with factor loadings for all items greater than 0.40,

indicating adequate construct validity. In the present study, the overall reliability of this questionnaire, based on Cronbach's alpha, was found to be 0.919.

3. Results

Out of the 320 participants, 26.3% were women, and 73.8% were men. Regarding age, 4.7% were under 20 years old, 62.8% were between 20 and 30 years old, 19.7% were between 31 and 40 years old, 7.8% were between 41 and 50 years old, and 5% were over 50 years old. In terms of marriage duration, 14.4% had been

married for less than 1 year, 42.5% had been married for 1 to 5 years, 21.6% had been married for 6 to 10 years, 7.2% had been married for 16 to 20 years, and 3.8% had been married for more than 20 years. As for children, 57.5% had no children, 30.6% had one child, 10.9% had two children, and 0.9% had three children. In terms of education, 17.7% had education up to the middle school level or lower, 23.8% had a high school diploma, 9.1% had an associate degree, 30.3% had a bachelor's degree, 11.9% had a master's degree, and 5.3% had a doctoral degree.

Table 1. Descriptive statistics n=320

variables	Min	Max	Mean	Std. Deviation	Skewness	Kurtosis
Lack of behavioral control	15	35	25.178	4.150	.109	-.243
Post-operative regret	8	32	22.122	4.401	-.016	-.566
For sexual arousal	9	28	19.191	3.533	.072	-.450
Romantic loneliness	6	25	15.991	4.519	.023	-.753
Family loneliness	5	25	16.400	4.276	.043	-.505
Social loneliness	6	25	16.163	4.391	.166	-.820
Exploratory fantasies	4	20	12.216	4.130	.305	-1.056
Intimacy-related fantasies	4	20	12.556	3.958	.084	-.882
Impersonal fantasies	4	20	13.022	3.951	-.157	-.925
Simple masochistic fantasies	4	20	13.403	3.957	-.105	-.912
Legitimateness	4	20	12.763	3.890	.071	-.756
Seduction	4	20	12.941	3.828	-.108	-.791
Normalization	15	49	31.619	6.673	.315	-.047
Sexual desires	12	49	30.991	6.936	.392	-.080
Social contexts	12	50	30.975	6.711	.350	.157
Sensation seeking	14	50	31.216	7.162	.226	-.073

As shown in Table 1, among the components of pornography addiction, lack of behavior control had the highest mean (18.25); among the components of emotional loneliness, family loneliness had the highest mean (16.40); among the components of sexual fantasies, simple masochistic fantasies had the highest mean

(13.40); and among the components of marital infidelity, normalization had the highest mean (31.62). The results of the correlation coefficients between exogenous and endogenous variables, as well as exogenous and mediator variables, are presented in the following correlation matrix.

Table 2. Inter-Item correlation matrix

variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Lack of behavioral control	1															
2. Post-operative regret	.674	1														
3. For sexual arousal	.664	.630	1													
4. Romantic loneliness	.586	.502	.493	1												
5. Family loneliness	.445	.361	.376	.566	1											
6. Social loneliness	.468	.308	.366	.554	.714	1										
7. Exploratory fantasies	.336	.272	.257	.485	.562	.649	1									
8. Intimacy-related fantasies	.291	.324	.348	.397	.539	.550	.662	1								
9. Impersonal fantasies	.366	.388	.343	.458	.510	.488	.585	.695	1							
10. Simple masochistic fantasies	.405	.387	.356	.427	.457	.475	.455	.571	.657	1						
11. Legitimateness	.445	.397	.423	.426	.467	.503	.507	.590	.585	.556	1					
12. Seduction	.373	.281	.311	.380	.393	.467	.420	.523	.535	.538	.672	1				
13. Normalization	.436	.478	.435	.260	.197	.233	.121	.300	.259	.329	.425	.348	1			
14. Sexual desires	.307	.270	.323	.279	.268	.332	.320	.434	.369	.409	.442	.514	.624	1		
15. Social contexts	.400	.424	.419	.242	.179	.251	.191	.298	.300	.329	.412	.382	.765	.687	1	
16. Sensation seeking	.201	.232	.196	.190	.164	.211	.170	.331	.309	.280	.332	.343	.634	.667	.659	1

As shown in Table 1, among the components of pornography addiction, lack of behavior control had the highest mean (18.25); among the components of

emotional loneliness, family loneliness had the highest mean (16.40); among the components of sexual fantasies, simple masochistic fantasies had the highest mean

(13.40); and among the components of marital infidelity, normalization had the highest mean (31.62). Correlation coefficients among exogenous, endogenous, and mediator variables are presented in the following correlation matrix.

As shown in Table 2, there were significant correlations among all observed variables. Prior to path analysis, the assumptions of normality and linearity were tested and confirmed. Skewness and kurtosis values for all variables ranged between -2 and +2, supporting the normality assumption. Linearity was examined through Pearson's correlation coefficient, which revealed significant correlations among all observed variables ($p < .05$). With these assumptions met, the goodness of fit of the proposed model was then evaluated using fit indices. To this end, structural equation modeling (SEM) was conducted using AMOS 24. The structural model depicting the role of pornography addiction in predicting marital infidelity, with emotional loneliness and dysfunctional sexual

fantasies as mediators, is presented in Figure 1.

Table 3 shows that the final model yielded a chi-square statistic of 342.75 ($df = 96$). The χ^2/df ratio is 3.57, which is below the conventional threshold of 5, indicating an acceptable model fit. The Goodness of Fit Index (GFI) is 0.879, also suggesting acceptable fit. The Root Mean Square Error of Approximation (RMSEA) is 0.089, which is below 0.10, further indicating satisfactory fit and supporting the proposed model. The Normed Fit Index (NFI) is 0.897, the Tucker-Lewis Index (TLI) is 0.904, and the Comparative Fit Index (CFI) is 0.923, all of which indicate good fit. Based on these fit indices, it can be concluded that the theoretical model is acceptable. Therefore, the relationships within the model and the regression coefficients among latent variables can be interpreted. Hypotheses were tested using p-values, with a significance criterion of $p < .05$. Overall, the proposed structural model demonstrated adequate fit, supporting the hypothesized relationships.

Table 3. Goodness-of-Fit indices for the revised model

Goodness-of-Fit Indices		Value	Interpretation
Baseline	CMIN (χ^2)	342.75	-
	DF	96	-
	sig	0.000	
	CMIN/DF	3.57	Good Fit
	GFI	0.879	Good Fit
	IFI	0.924	Good Fit
	CFI	0.923	Good Fit
	TLI	0.904	Good Fit
	NFI	0.897	Good Fit
Adjusted	RMSEA	0.089	Good Fit
	PNFI	0.717	Good Fit
	PCFI	0.738	Good Fit

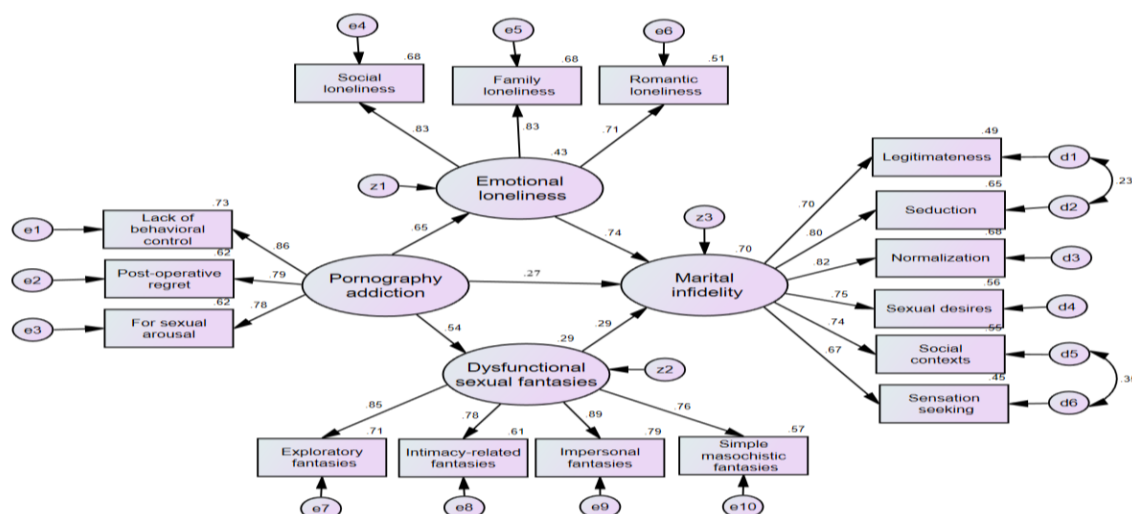


Table 2. The Final model of the role of pornography addiction in predicting marital infidelity with the mediating role of emotional loneliness and ineffective sexual fantasies

Regression coefficients in the Structural Equation Modeling (SEM) analysis indicate that there is a significant relationship between pornography addiction and emotional loneliness ($p < 0.05$, C.R = 10.75, $\beta =$

0.65). There is a significant relationship between pornography addiction and ineffective sexual fantasies ($p < 0.05$, C.R = 8.83, $\beta = 0.54$). A significant relationship exists between emotional loneliness and marital infidelity

($p < 0.05$, $C.R = 9.24$, $\beta = 0.74$). There is also a significant relationship between ineffective sexual fantasies and marital infidelity ($p < 0.05$, $C.R = 5.25$, $\beta = 0.29$). Finally, a significant relationship is found between pornography addiction and marital infidelity ($p < 0.05$, $C.R = 4.24$, $\beta =$

0.27) (Table 4). According to the results of the final model, the overall R^2 value is 0.70, indicating that 70% of the variance in marital infidelity is simultaneously explained by the linear combination of emotional loneliness, pornography addiction, and dysfunctional sexual fantasies.

Table 4. The Structural Model of Pathways and Their Standardized Coefficients in the Final Model

Path	B	S.E.	β	R^2	CR	P
Pornography Addiction → Emotional Loneliness	0.696	0.065	0.65	0.42	10.75	0.000
Pornography Addiction → Sexual Fantasies	0.864	0.098	0.54	0.29	8.83	0.000
Emotional Loneliness → Marital Infidelity	0.693	0.075	0.74	0.55	9.24	0.000
Sexual Fantasies → Marital Infidelity	0.168	0.032	0.29	0.084	5.25	0.000
Pornography Addiction → Marital Infidelity	0.102	0.024	0.27	0.073	4.24	0.000

Table 5. Baron and Kenny test statistics for the mediating variable

Variables	Effect	Estimate	95% CI Lower	95% CI Upper	p-value
Pornography Addiction * Emotional Loneliness * Marital Infidelity	Average Causal Mediation Effect (ACME)	0.633	0.49	0.78	0.000
	Average Direct Effect (ADE)	0.229	0.009	0.46	0.044
	Total Effect	0.862	0.677	1.04	0.000
	Average Causal Mediation Effect	0.735	0.527	0.99	0.000
Pornography Addiction * Sexual Fantasies * Marital Infidelity	Average Causal Mediation Effect (ACME)	0.244	0.131	0.37	0.000
	Average Direct Effect (ADE)	0.618	0.407	0.83	0.000
	Total Effect	0.862	0.661	1.04	0.000
	Average Causal Mediation Effect	0.283	0.15	0.44	0.000

**This analysis includes 320 observations and 1,000 bootstrap simulations to assess the significance of the effects

Baron and Kenny mediation analysis using R showed that emotional loneliness significantly mediated the relationship between pornography addiction and marital infidelity ($\beta = 0.735$, $p < .05$). The mediated proportion was 73.5%, indicating that a substantial portion of the overall effect of pornography addiction on marital infidelity operated through emotional loneliness. Moreover, dysfunctional sexual fantasies significantly mediated the relationship between pornography addiction and marital infidelity ($\beta = 0.283$, $p < .05$). Similarly, 28.3% of the overall effect of pornography addiction on marital infidelity was mediated through dysfunctional sexual fantasies (Table 5).

4. Discussion and Conclusion

The present study aimed to model the structural equations regarding the role of pornography addiction in predicting marital infidelity, with emotional loneliness and ineffective sexual fantasies as mediators. The findings indicated that the model predicting marital infidelity through pornography addiction, mediated by emotional loneliness and ineffective sexual fantasies, had an acceptable fit. This suggests that consistent and excessive consumption of pornography can lead to a reduction in marital commitment, an increase in desires for extramarital sexual relations, and a weakening of intimacy between partners. This relationship can be explained through cognitive, behavioral, and emotional processes. Based on psychological models related to addictive behaviors, the continuous consumption of

pornography can lead to changes in the brain's reward system, increased sexual arousal, the creation of unrealistic expectations of marital relationships, and a decrease in commitment to the spouse, ultimately increasing the likelihood of marital infidelity. These findings align with previous studies that have shown that pornography addiction can enhance the likelihood of infidelity by reducing emotional intimacy, increasing marital dissatisfaction, and boosting the desire for extramarital relations (Aghamiri et al., 2022; Beyramvand et al., 2024; Jha & Banerjee, 2022).

One of the critical processes through which pornography addiction to marital infidelity is the change in the brain's reward system. Neuroscience research has shown that the continuous viewing of pornography increases the activity of the brain's dopamine pathways, which play a key role in creating pleasure and motivation to repeat specific behaviors (Voon et al., 2014). The Increased dopamine release as a result of frequent pornography consumption can desensitize the reward system, meaning the individual will require stronger or more varied sexual stimuli to achieve the same level of pleasure. This process, known as "downward modulation of pleasure sensitivity," can reduce the attractiveness of the spouse compared to pornography content and increase the desire to experience extramarital relationships. Vega (2024) showed that excessive pornography consumption alters the way sexual stimuli are processed and attended to in the brain, and these brain changes ultimately increase the desire for new sexual experiences outside the framework

of marriage. Research by [Beyramvand et al. \(2024\)](#) also demonstrated that men addicted to pornography are more likely than others to seek extramarital sexual relationships, highlighting the impact of changes in the brain's reward system on the increased likelihood of marital infidelity.

In addition to neurological changes, pornography addiction can also affect individuals' sexual behaviors through social learning. According to social learning theory ([Bandura, 1986](#); [Nikmehr et al., 2021](#)), individuals internalize new behavioral patterns by observing and replicating the behaviors of others. In this context, continuous exposure to pornography content can solidify the behaviors displayed in such content as acceptable patterns for sexual and marital relationships. Research by [Nikmanesh & Ganjali \(2021\)](#) showed that repeated exposure to these stimuli can alter an individual's attitude toward marital commitment and increase the likelihood of sexual disloyalty. These findings are consistent with the present study, as it showed that individuals addicted to pornography tend to have more negative attitudes toward monogamy and marital commitment, thus increasing the likelihood of marital infidelity. Studies have demonstrated that training self-control skills, correcting misconceptions about sexual relationships, and enhancing emotional intimacy between partners are effective strategies for reducing the negative effects of pornography on marital relationships ([Rustin et al., 2024](#)). Overall, the findings of the present study indicate that pornography addiction can lead to an increased likelihood of marital infidelity through three main mechanisms: changes in the brain's reward system, social learning patterns, and a reduction in marital intimacy. These results highlight the importance of addressing the negative effects of continuous pornography consumption and emphasize the need for psychological interventions to mitigate its consequences.

Among these factors, emotional loneliness plays a significant mediating role in the relationship between pornography addiction and marital infidelity. The present study found that individuals addicted to pornography often experience emotional distance and lack of intimacy in their marital relationships, which can serve as a precursor to marital infidelity. Research by [Mohammadi et al. \(2022\)](#) also showed that continuous pornography consumption leads to a decrease in the quality of marital communication and an increase in emotional distance between spouses, which can ultimately lead to marital infidelity. According to the theory of basic needs ([Baumeister & Leary, 1995](#)), humans need intimacy and emotional support in their relationships. When these needs are unmet in a marriage, the individual may seek alternative behaviors to compensate for this emotional

void, such as excessive use of pornography or engaging in extramarital relationships. Research by [Abbaspour Gelsefidi & Khaleghipour \(2025\)](#) further emphasizes this point, showing that emotional loneliness is one of the most important precursors to marital infidelity. To explain this relationship, we can refer to the basic needs theory, which asserts that individuals require intimacy and emotional support to maintain their psychological well-being ([Baumeister & Leary, 1995](#)). When these needs are not met in a marital relationship, individuals may seek out substitutes to fill this emotional gap. Pornography consumption is one of these maladaptive substitutes that may initially serve as a temporary escape from loneliness; however, in the long term, this dysfunctional cycle can deepen emotional distance and increase the risk of infidelity.

According to the results of the study, another key cognitive mechanism that can more deeply explain the relationship between pornography addiction and marital infidelity is dysfunctional sexual fantasies. In the present study, it was observed that individuals addicted to pornography are continuously engaged in unrealistic and obsessive sexual fantasies, which are often based on unrealistic and idealized content. These types of fantasies not only contradict the natural realities of sexuality but also create unrealistic and often unfulfillable expectations. As a result, these individuals may gradually distance themselves from their real sexual experiences, and this gap between imagined expectations and marital realities can have profound negative impacts on the individual's attitudes and behaviors, significantly increasing the likelihood of marital infidelity and even unfaithfulness. These findings are specifically consistent with the results of studies by [Shadgahraz et al. \(2022\)](#) and [Stefanska et al. \(2024\)](#), which demonstrated that individuals who repeatedly consume pornography are significantly more likely to engage in dysfunctional and unrealistic sexual fantasies. These fantasies can directly or indirectly affect the individual's real sexual experiences and, in some cases, may strengthen their tendency toward risky sexual behaviors. In other words, individuals addicted to pornography may increasingly seek sexual excitement and stimulation outside the boundaries of their marital relationships due to the incorrect comparison between sexual fantasies and real experiences. This cognitive pattern can be explained through the framework of the Excessive Sexual Stimulation Hypothesis. According to this theory, prolonged and constant exposure to artificial and intense sexual stimuli (primarily through pornography) can reduce the individual's sensitivity to real marital relationships. This decrease in sensitivity to real sexual relationships means that the individual

gradually becomes dissatisfied with sexual fulfillment within the marriage and seeks newer and more complex sexual excitement outside the marital relationship. In other words, this theory suggests that individuals addicted to pornography, by experiencing artificial and extreme sexual stimuli, gradually seek new and more thrilling experiences to satisfy their sexual needs, which can lead to unfaithful behaviors and a lack of commitment in marital relationships.

The conclusion of this study indicates that pornography addiction not only negatively impacts the quality of marital relationships but also significantly increases the likelihood of marital infidelity through the development of complex psychological mechanisms such as dysfunctional sexual fantasies and emotional loneliness. This pattern, where excessive pornography consumption leads to the replacement of sexual realities with unrealistic fantasies, causes a reduction in intimacy and emotional interactions between spouses, creating emotional gaps. In particular, this flawed cycle can result in increased marital infidelity and lack of commitment, which in turn reinforces negative feelings and isolation in the individual. Therefore, it is crucial to focus on psychological and therapeutic interventions to mitigate these effects and strengthen marital relationships. These findings emphasize the importance of addressing the psychological and cognitive dimensions of pornography addiction and clearly highlight the need for the development of therapeutic programs and preventive interventions to reduce the negative impact of this phenomenon on marital relationships. In the field of clinical psychology and marital counseling, attention to interventions that can help correct these cognitive and psychological processes is of particular importance. Specifically, teaching self-control skills, correcting misconceptions about sexual relationships, and strengthening emotional intimacy between spouses can effectively prevent the negative effects of pornography on marital relationships.

Despite its contributions, this study had several limitations. A key limitation was the use of convenience sampling, and self-report measures (e.g., questionnaires) may have been subject to social desirability and recall biases. For future research, it is recommended that random sampling methods be employed and that cultural and social factors be examined in relation to pornography addiction and its marital consequences. Additionally, cognitive-based therapeutic interventions and efforts to correct sexual misconceptions - along with educational programs designed to enhance sexual health literacy across diverse communities - could represent effective strategies for improving marital quality and reducing infidelity. The adoption of educational and

cultural policies to curb excessive pornography consumption and promote sexual literacy is essential. Such measures could serve as an effective step toward reducing marital infidelity and strengthening couple relationships. In this regard, future research could evaluate the impact of various therapeutic approaches on the negative outcomes of pornography addiction and assess the role of psychological interventions in improving marital quality. Ultimately, by decreasing dependence on pornography and fostering emotional connection, relationship quality and stability can be enhanced, thereby helping to prevent infidelity.

5. Ethical Considerations

Compliance with ethical guidelines

All ethical principles were observed in this study. Participants were informed about the purpose of the research and the procedures involved. They were also assured of the confidentiality of their information and were free to withdraw from the study at any time. Furthermore, the research results will be made available to them upon request.

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Authors' contributions

All authors were actively involved in the design, conduct, and writing of all parts of this study.

Conflicts of interest

The authors declare no conflicts of interest.

References:

- Abbaspour Gelsefidi, M., & Khaleghipour, S. (2025). Causal Modeling of Post-Traumatic Stress Disorder Based on Posttraumatic Growth and Sense of Coherence with Mediating Role of Feelings of Loneliness in Women Affected by Husband's Marital Infidelity. *Journal of Modern Psychological Researches*, 19(76), 84–96. Doi:10.22034/jmpr.2024.62712.6315
- Aghamiri, F. S., Luetz, J. M., & Hills, K. (2022). Pornography addiction and its impacts on intimate female partner wellbeing—A systematic narrative synthesis. *Journal of Addictive Diseases*, 40(4), 472–480. Doi:10.1080/10550887.2021.2021058
- Atapour, N., Falsafinejad, M. R., Ahmadi, K., & Khodabakhshi-Koolae, A. (2021). A Study of the Processes and Contextual Factors of Marital Infidelity. *Practice in Clinical Psychology*, 9(3), 211–226. Doi:10.32598/jpcp.9.3.758.2
- Beyramvand, Y., Omid Arjenaki, Z., & Salehzadeh, M. (2024). Predicting the Tendency to Marital Infidelity Based on the Use of Internet Pornography with Mediating Role of Marital Quality. *Journal of Applied Psychological Research*, 14(4), 185–201. Doi:10.22059/japr.2024.336861.644159

- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497-529. Doi:10.1037/0033-2909.117.3.497
- Busch, T. M., Goodwin, G. J., Dempsey, M. R., Conrads, G. S., & Wilson, S. M. (2024). Exploring the Impact of Fantasizing on Romantic Relationships and Attachment. *Sexuality & Culture*. Doi:10.1007/s12119-024-10289-x
- Corral, C., & Calvete, E. (2014). Early maladaptive schemas and personality disorder traits in perpetrators of intimate partner violence. *The Spanish Journal of Psychology*, 17 (1): Doi:1-10. 10.1017/sjp.2014.1
- DiTommaso, E., Brannen, C.L., & Best, L.A. (2004). Measurement and Validity Characteristics of the Short Version of the Social and Emotional Loneliness Scale for Adults. *Educational and Psychological Measurement*, 64, 119 - 99. Doi:10.1177/001316440325845
- Finkel, E. J., Hui, C. M., Carswell, K. L., & Larson, G. M. (2014). The Suffocation of Marriage: Climbing Mount Maslow Without Enough Oxygen. *Psychological Inquiry*, 25(1). Doi:10.1080/1047840x.2014.863723
- Ghazanfari Shabankare, M., Heidari, A., Makvandi, B., & Marashian, F. S. (2021). Relationship of Forgiveness and Feeling of Loneliness with Attitudes toward Marital Infidelity Regarding the Moderating Role of Marital Satisfaction in Married Students. *Avicenna Journal of Neuro Psycho Physiology*, 8(2), 77–83. Doi:10.32592/ajnp.2021.8.2.103
- Gheibi, M. N. , Karimi Sani, P. and Karimi, Q. (2025). Analyzing Effective Individual, Interpersonal, and Social Factors in Reducing Marital Infidelity in the Virtual Space: A Qualitative Study. *Journal of Family Relations Studies*, 5(2), 21-33. Doi:10.22098/jfrs.2025.16580.1228
- Grubbs, J.B., Sessoms, J.C., Wheeler, D.M., & Volk, F. (2010). The Cyber-Pornography Use Inventory: The Development of a New Assessment Instrument. *Sexual Addiction & Compulsivity*, 17, 106 - 126. Doi:10.1080/10720161003776166
- Healy-Cullen, S., Taylor, K., & Morison, T. (2024). Youth, Pornography, and Addiction: A Critical Review. *Current Addiction Reports*, 11(2), 265–274. Doi:10.1007/s40429-024-00549-z
- JCL, M. T. (2010). The effects of pornography addiction on marital consent. *Studia Canonica*, 44(2), 343.
- Jha, A., & Banerjee, D. (2022). Neurobiology of Sex and Pornography Addictions: A Primer. *Journal of Psychosexual Health*, 4(4), 227–236. Doi:10.1177/26318318221116042
- Jowkar, B., & Salimi, A. (n.d.). Examining the psychometric properties and validity of the Social and Emotional Loneliness Scale for Adults (SELSA-S). *Majazi*, 1(1), 0–0. SID. https://www.behavsci.ir/article_67748.html
- Karimi, Sara, Yousefi, Rahim, & Soleymani, Mehran. (2019). making marital infidelity questionnaire as valid one. *clinical psychology & personality (daneshvar raftar)*, 17(1 (32)), 237-248. sid. <https://sid.ir/paper/208782/en>
- Kline, R. B. (2021). *Principles and Practice of Structural Equation Modeling* (5th ed.). Guilford Press.
- Mardhatillah, A. (2017). Youth Pornography Exposure: Addiction Screening Test and Treatment Recommendation. <http://www.ijsrp.org/research-paper-0817.php?rp=P686674>
- Meydani, A., Atadokht, A. and Mikaeli, N. (2022). The Role of Brain/Behavioral Systems, Prosocial Personality, and Cognitive and Emotional Empathy in Predicting Extramarital Relationships. *Journal of Family Relations Studies*, (), -. Doi:10.22098/jhrs.2022.10746.1056
- Mohammadi, A., Imani, S., & Khoshkonesh, A. (2022). The Comparing Effectiveness of Narrative Exposure Therapy and Emotion- Focused Couple Therapy on Loneliness and Marital Intimacy among Women Affected Infidelity. *Iranian Journal of Psychiatric Nursing*, 10(5), 70–81. Doi:10.22034/IJPN.10.5.4
- Mohammadpour Doughabadi, N., Kimiaei, S A., Ahmady, K. & Kareshki, H. (2021). Psychometric Characteristics of Iranian Version of Wilson Sexual Fantasy Questionnaire in Iranian Couples. *IJPN*, 9 (5) :1-13 <http://ijpn.ir/article-1-1872-fa.html>
- Nikmanesh, Z., & Ganjali, S. (2021). Relationship Between the Use of Pornography and Marital Sexual Satisfaction with Attitudes Towards Marital Infidelity in Married Women in Zahedan City. *International Journal of High Risk Behaviors and Addiction*, 10(3), Article 3. <https://doi.org/10.5812/ijhrba.109168>
- Nikmehr, P., Salmani, A. & Jafari, E. (2021). Investigating the Role of Social Anxiety in Predicting Students' Academic Self-Efficacy. *Journal of Family Relations Studies*, 1(1), 51-58. Doi:10.22098/jhrs.2022.1422
- Rustin, C., Ratele, K., & Florence, M. (2024). Pornography and Quality of Life: An African Feminist Psychological Lens. In M. Florence, W. Vanderplasschen, M. Yu, J. De Maeyer, & S. Savahl (Eds.), *Handbook of Addiction, Recovery and Quality of Life: Cross-cutting Perspectives from Around the Globe* (pp. 393–407). Springer Nature Switzerland. Doi:10.1007/978-3-031-65873-0_27
- Shackelford, T. K., Besser, A., & Goetz, A. T. (2008). Personality, marital satisfaction, and probability of marital infidelity. *Individual Differences Research*, 6(1), 13–25. <https://psycnet.apa.org/record/2008-05654-002>
- Shadgahraz, S., Ataran, E., Khodadadijokar, F., Moghadam, M. A., & Abad, A. H. M. M. (2022). Survey of the sexual satisfaction and the prevalence of marital infidelity (online and sexual) in the Iranian population. *Psychology of Woman Journal*, 3(3), Article 3. Doi:10.61838/kman.pwj.3.3.2
- Smaniotto, B., Le Bigot, J., & Camps, F.-D. (2022). “Pornography Addiction”: Elements for Discussion of a Case Report. *Archives of Sexual Behavior*, 51(2), 1375–1381. Doi:10.1007/s10508-021-02133-2
- Stefanska, E. B., Longpré, N., & Rogerson, H. (2024). Relationship Between Atypical Sexual Fantasies, Behavior, and Pornography Consumption. *International Journal of Offender Therapy and Comparative Criminology*, 68(9), 915–935. Doi:10.1177/0306624X221086569

- Tunçel, A. (2025). Sexual Fantasies: Attachment Style. In T. K. Shackelford (Ed.), *Encyclopedia of Sexual Psychology and Behavior* (pp. 1–6). Springer Nature Switzerland. Doi:10.1007/978-3-031-08956-5_2204-1
- Vega, C. S. (2024). 8: Sexual fantasies and older, Indigenous Purépecha women: sociocultural constraints and possibilities. Doi:10.46692/9781447368441.010
- Voon, V., Mole, T. B., Banca, P., Porter, L., Morris, L., Mitchell, S., Lapa, T. R., Karr, J., Harrison, N. A., Potenza, M. N., & Irvine, M. (2014). Neural correlates of sexual cue reactivity in individuals with and without compulsive sexual behaviours. *PLoS ONE*, 9(7), e102419. Doi:10.1371/journal.pone.0102419
- Webster, K. (2022). Pornography Use And Its Effect On Marital Quality. Doctoral Dissertations and Projects. <https://digitalcommons.liberty.edu/doctoral/3866>
- Wilson GD. (1988). Measurement of sex fantasy. *Sexual and Marital Therapy*, 13(1):45-55. Doi:10.1080/02674658808407692
- Wilson, G.D. (2010). Measurement of Sex Fantasy. *Sexual and Relationship Therapy*, 25, 57-67. Doi:10.1080/14681990903550134
- Yeniceri, Zuhale & Kokdemir, Dogan (2006). University student's perceptions of and explanations for infidelity: the development of the infidelity questionnaire (INFQ). *social behavior and personality*, 34(6): 639-650. Doi:10.2224/sbp.2006.34.6.639
- Zivari Rahman, M., Ghanbari, S., & Shokouhi-Moghadam, S. (2021). Psychometric Properties of the Youth Pornography Addiction Screening Tool. *Addiction & Health*, 13(4), 207–220. Doi:10.22122/ahj.v13i4.299
- Zhong, L., & Vangelisti, A. L. (2025). Conceptualizing Injured Partners' Relational Uncertainty Following Marital Infidelity: A Relational Turbulence Theory Perspective. *Journal of Family Communication*, 25(1), 57–75. Doi:10.1080/15267431.2024.2433206