



# Investigating the relationship of childhood traumas and sexual guilt with sexual addiction in Iranian prostitutes

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## Abstract

**Background:** Prostitution is a social phenomenon, and its underlying factors require more scholarly attention. This study aimed to investigate the relationship of childhood traumas and sexual guilt with sexual addiction in Iranian prostitutes.

**Methods:** This was a cross-sectional study conducted on prostitutes who visited a health promotion center in Khorasan Razavi province, Iran in 2020. A total of 100 women agreed to participate in the study. Data collection tools included the Sexual Addiction Screening Test (SAST), Mosher Sex-Guilt Scale, and Childhood Trauma Questionnaire (CTQ). Data were analyzed using Pearson's correlation coefficient and multiple regression analysis.

**Findings:** The age of the participants ranged from 23 to 42, with a mean age of  $33.54 \pm 8.9$  years. About 40% of the participants were divorced, 13% were married, 27% were single, and 10% were widows. The findings indicated that 84% of the prostitutes met the criteria for sexual addiction according to SAST. Emotional abuse ( $r=0.41, P<0.001$ ), physical abuse ( $r=0.32, P<0.001$ ), sexual abuse ( $r=0.33, P<0.001$ ), emotional neglect ( $r=0.52, P<0.001$ ), and physical neglect ( $r=0.37, P<0.001$ ) had a positive and significant relationship with sexual addiction in prostitutes. There was no correlation between sexual guilt and sexual addiction ( $r=0.13, P=0.09$ ). Furthermore, the linear regression results showed that emotional neglect was the only variable positively associated with sexual addiction ( $\beta=0.5, P<0.001$ ).

**Conclusion:** The findings of this study suggested that childhood traumas can predict sexual addiction in female prostitutes.

**Keywords:** Prostitutes, Compulsive behavior, Adverse childhood experiences, Guilt

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## Introduction

Prostitutes are those who provide sexual services in return for monetary matters, food, transportation, or some other merchandise.<sup>1</sup> The proportion of prostitutes is estimated to be around 1.43% among 15-49-year-old Iranian women.<sup>2</sup> Countless parameters can explain prostitution. Social factors (poverty, the need for employment, lack of care services),<sup>3</sup> familial factors (early family environment, sexual abuse, physical abuse, and aggression in the family environment), and psychiatric disorders such as conduct disorder,<sup>4</sup> personality disorders, and antisocial personality disorder<sup>5,6</sup> increase the likelihood of prostitution. Despite using a wide range of parameters for explaining prostitution, it seems that sexual addiction, as one of the psychological issues, has not been considered as an explanatory variable for prostitution so far.

The label 'sexual addiction' describes people who have no power over their sexual personality and resume their sexual behaviors despite destructive results.<sup>7,8</sup> Patients with sexual addiction have an intense cognitive obsession with sexual cravings, dreams, and actions, use sexual

behaviors as stress releasers, and may fail to control and stop their sexual behavior,<sup>8</sup> despite its negative consequences.<sup>9</sup> Many factors affect the development and continuation of sexual addiction. For example, sexual addiction is associated with depression, substance abuse, and family adaptability.<sup>10</sup> Bromberg asserts that addictions are associated with unsymbolized dissociative experiences from early life (e.g., neglect, abuse).<sup>11</sup> Indeed, several researchers have observed that people with sexual addiction have typically experienced abuse or trauma (e.g., emotional neglect or psychological, physical, and sexual abuse) and insecure attachment within the family framework.<sup>10,12,13</sup> Furthermore, prostitutes often experience sexual abuse, physical abuse, and rape at high rates.<sup>12</sup> In a study, 33% of prostitutes were abused before the age of 18, 22% reported childhood physical abuse, and 31% reported childhood sexual abuse.<sup>14</sup> Other research has shown that adolescents who experience abuse are more inclined to leave their homes and participate in prostitution.<sup>15</sup> In fact, a pattern of childhood trauma may facilitate sexual acting out.<sup>16</sup> Childhood traumas are



defined as any verbal or physical assault on the child that impairs his/her self-esteem and results in sexual abuse or failure to provide basic psychological, emotional, and physiological needs.<sup>17</sup> Psychological traumas often include heightened fear, feelings of powerlessness, lack of control, and perceived threat of destruction.<sup>18</sup> Childhood traumas are usually divided into five categories: emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect. Using verbal attacks, threats, and humiliating behaviors towards a child or teenager can have a detrimental impact on their mental and emotional well-being, constituting emotional abuse. Instances of physical and sexual abuse involve an older adult committing acts of violence or sexual assault against a child or adolescent. Emotional neglect refers to not receiving the necessary emotional and psychological support to fulfill basic needs such as love, care, and warmth. Physical neglect is the absence of basic care including food, sleep, education, and safety, which are crucial for a person's well-being and growth.<sup>19</sup>

Furthermore, prostitutes, sexual addicts, and victims of trauma tend to feel guilty.<sup>20-22</sup> Guilt is evoked when individuals believe their actions or behaviors have transgressed from the moral code or their own beliefs.<sup>23</sup> Moreover, sexual guilt is defined as an emotional response that creates an unpleasant sense when the sexual action is incongruent with internal moral/ethical/religious opinions and values.<sup>24</sup> Therefore, different people have different acceptable sexual attitudes and behaviors, which can cause feelings of guilt in others. Prior research has found that feeling sexual guilt is related to lower levels of sexual desire,<sup>25</sup> lower levels of sexual activity,<sup>26</sup> less positive perspectives of sex,<sup>26</sup> and fewer sexual partners.<sup>27</sup> Sexual guilt motivates people to avoid situations that might tempt them to violate norms.<sup>28</sup>

Prostitution has negative social and health consequences for women. The well-documented consequences include sexual harassment, rape, violence, physical assault, and stigma. Moreover, individuals engaged in prostitution exhibit the highest incidence of human immunodeficiency virus (HIV) infection among all sociodemographic groups that have been surveyed.<sup>1</sup> Therefore, it is important to recognize and investigate the underlying psychological factors to take steps to treat and improve the lifestyle of these people. Nevertheless, past studies have paid more attention to the economic and social factors in prostitutes and have not examined the effective psychological factors. One of the psychological factors that have not been taken into account in female prostitutes is sexual addiction and its predictor variables. Therefore, the current study aimed to determine what percentage of Iranian prostitutes meet the criteria for sexual addiction according to SAST. In addition, this study aimed to investigate the relationship of sexual guilt and childhood traumas with sexual addiction in Iranian prostitutes.

## Methods

### *Participants and procedure*

This cross-sectional and applied study was conducted on prostitutes who visited a health promotion center in Khorasan Razavi province, Iran in 2020. The total number of prostitutes who visited this center in 2020 was 132. A total of 100 people were selected using convenience sampling. At first, the research proposal was approved by the Shandiz Institute of Higher Education. After obtaining permission from the provincial health center, the researchers contacted the prostitutes by phone. Only 100 of these women came to the center. The objectives of the study were explained to the participants, who then provided informed consent to take part in the study and allowed the publication of the findings. The participants were asked to answer the questions on the Sexual Addiction Screening Test (SAST), Mosher Sex-Guilt Scale, Childhood Trauma Questionnaire (CTQ), and a demographic information checklist in a private room. The participants themselves read and answered the questions. The process of completing the questionnaires for each participant took about an hour. One of the researchers was in the room to answer possible questions asked by the participants. The questionnaires were completed from April to June 2020. Besides, the personal details of the participants were kept private and an identifying code was given to each participant.

### *Instruments*

#### *Demographic information checklist*

A short checklist was used to assess the demographic characteristics of the participants including age, education (primary school, diploma, bachelor's degree), marital status (divorced, married, single, widowed), and duration of prostitution.

#### *Sexual Addiction Screening Test (SAST) (Core Scale)*

SAST is the most widespread scale used in experimental practice. It was designed by Carnes and O'Hara (1991) to distinguish characteristics that may illustrate sexual addiction. The 20-item Core Scale of the SAST-R was utilized in this study to assess the participants' experiences of mental obsession, lack of control, and relationship destruction due to sexual behavior.<sup>29</sup> The participants respond 'yes' or 'no' to each item; a 'yes' response is scored 1 point and a 'no' response is scored 0. The minimum score in this questionnaire is 0 and the maximum score is 20. Even though SAST is not a diagnostic tool, Carnes et al. suggested that a score of 6 would effectively categorize individuals as either being in the experimental or non-experimental range of sexual addiction.<sup>30</sup> Carnes et al. reported a Cronbach's alpha value of 0.81 for female students and 0.85 for male students.<sup>30</sup> Additionally, the Core Scale showed reliability for the male sample, given that 92.9% of men who scored above the cutoff point

had experienced trauma as a result of their high sexual activity.<sup>31</sup> Zahedian et al found a test-retest reliability of 0.92 for the Iranian population of sex addicts. The validity of this questionnaire has been proven by confirmatory factor analysis in the Iranian population of sex addicts.<sup>32</sup> The internal consistency for the current study was found to be high ( $\alpha=0.86$ ).

#### Mosher Sex-Guilt Scale

This scale was developed by Mosher in 1998 and consists of 50 questions to analyze guilt feeling about sexual matters. The items are scored on a Likert scale (0-6) estimating sexual guilt in a range of 0-300.<sup>33</sup> Mosher reported this questionnaire has good validity and reliability.<sup>33</sup> In Iran, the Cronbach's alpha of the questionnaire among 917 university pupils was 0.87. Test-retest reliability (with two-week interval) among 225 university students was 0.77.<sup>34</sup> Content validity was estimated as 0.82 using the Kendall coefficient among seven psychology professors. The convergent and discriminant validity of the questionnaire were calculated by performing it coincidentally with the five-factor Sexual Knowledge and Sexual Behavior Questionnaire.<sup>34</sup> The internal consistency for the current study was found to be 0.74.

#### Childhood Trauma Questionnaire (CTQ)

This is a brief and self-report scale including 28 questions (25 items plus the three-item validity scale) to examine relatively numerous childhood disturbance experiences among adolescents and adults.<sup>35</sup> The participants show their attitude concerning each statement of the questionnaire on a scale from 1 (never true) to 5 (very often true). The main five-factor structure including emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect has been conducted on different samples (e.g., adolescents, substance users, prostitutes).<sup>20,35</sup> Moreover, the five subscales have high internal consistency on prostitutes.<sup>20</sup> In Bogaerts et al's study, the lowest Cronbach's alpha was reported for the physical neglect subscale (0.62) and the highest was reported for the sexual abuse subscale (0.90).<sup>20</sup> Test-retest reliability and internal consistency of the scale for the Iranian population were 0.9 and 0.79, respectively. The Pearson correlation coefficient between CTQ and the General Health Questionnaire was acceptable (0.42) indicating the convergent validity of CTQ.<sup>36</sup> The internal consistency for the current study was found to be 0.82.

#### Statistical analysis

Data were analyzed using SPSS software (version 22). Initially, descriptive statistical characteristics such as mean, standard deviation, minimum, and maximum were analyzed. Pearson's bivariate correlations were used to assess the bivariate relationship of sexual addiction with childhood traumas and sexual guilt. Finally, an enter

linear regression analysis was performed to predict sexual addiction based on childhood traumas and sexual guilt in prostitutes. Before the correlation analysis, data met the assumption of normality based on the Kolmogorov-Smirnov test. In the regression analysis, it was confirmed that there was no multicollinearity. The level of significance in the current study was set at  $P < 0.05$ .

#### Results

Table 1 shows the basic demographic characteristics of the participants. The age of the participants ranged from 23 to 42, with a mean age of  $33.54 \pm 8.9$  years. Moreover, 40% of participants were divorced ( $n=40$ ), 13% were married ( $n=13$ ), 27% were single ( $n=27$ ), and 10% were widows ( $n=10$ ). Besides, 41% of participants had a diploma ( $n=41$ ), 12% had a bachelor's degree ( $n=12$ ), and 47% had a primary school degree ( $n=47$ ). The mean duration of prostitution was  $5.2 \pm 1.1$  years.

Data related to the mean, standard deviation, minimum, and maximum of variables of the study are presented in Table 2.

According to Table 2, the mean scores of sexual addiction, sexual guilt, emotional abuse, and sexual abuse were  $10.78 \pm 3.4$ ,  $171.31 \pm 40.11$ ,  $13.84 \pm 5.8$ , and  $7.31 \pm 3.51$ , respectively. According to SAST, 84 (84%) participants had scores higher than the cut-off point (above 6).

Table 3 reports correlations among childhood

Table 1. Demographic characteristics of the participants

		Mean $\pm$ SD	Range
Age		33.54 $\pm$ 8.9	23-42
Duration of prostitution		5.2 $\pm$ 1.1	4 months to 8 years
		Frequency (%)	
Education	Diploma	41(41%)	
	Bachelor's degree	12(12%)	
	Primary school degree	47(47%)	
Marital status	Divorced	40(40%)	
	Married	13(13%)	
	Single	27(27%)	
	widowed	10 (10%)	

Table 2. Mean, standard deviation, minimum, and maximum of variables

Variable	Mean	Standard deviation	Minimum	Maximum
Sexual addiction	10.78	3.4	2	20
Sexual guilt	171.31	40.11	89	258
Childhood traumas				
Physical abuse	9.44	4.69	5	23
Emotional abuse	13.48	5.8	5	25
Sexual abuse	7.31	3.51	5	23
Emotional neglect	12.8	5.4	5	25
Physical neglect	11.42	5.02	5	23

**Table 3.** Pearson's correlation matrix between research variables

	Sexual addiction	Sexual guilt	Physical abuse	Emotional abuse	Sexual abuse	Emotional neglect	Physical neglect
Sexual addiction	1						
Sexual guilt	0.13	1					
Physical abuse	0.32 ( <i>P</i> <0.001)	0.06 ( <i>P</i> =0.16)	1				
Emotional abuse	0.41 ( <i>P</i> <0.001)	-0.02 ( <i>P</i> =0.14)	0.55 ( <i>P</i> <0.001)	1			
Sexual abuse	0.33 ( <i>P</i> <0.001)	0.06 ( <i>P</i> =0.15)	0.62 ( <i>P</i> <0.001)	0.43 ( <i>p</i> <0.001)	1		
Emotional neglect	0.52 ( <i>P</i> <0.001)	-0.09 ( <i>P</i> =0.10)	0.57 ( <i>P</i> <0.001)	0.70 ( <i>P</i> <.001)	0.56 ( <i>P</i> <0.001)	1	
Physical neglect	0.37 ( <i>P</i> <0.001)	-0.04 ( <i>P</i> =0.13)	0.47 ( <i>P</i> <0.001)	0.60 ( <i>P</i> <0.001)	0.43 ( <i>P</i> <0.001)	0.71 ( <i>P</i> <0.001)	1

traumas, sexual guilt, and sexual addiction. The bivariate correlations indicate that sexual addiction had a significantly positive correlation with physical abuse ( $r=0.32, P<0.001$ ), emotional abuse ( $r=0.41, P<0.001$ ), sexual abuse ( $r=0.33, P<0.001$ ), emotional neglect ( $r=0.52, P<0.001$ ), and physical neglect ( $r=0.37, P<0.001$ ), but it had no significant relationship with sexual guilt ( $r=0.13, P=0.09$ ). Overall, the results of the correlation analysis provide evidence for the relationship between sexual addiction and childhood traumas in prostitutes.

Table 4 shows the results of the enter regression analysis. Childhood traumas and sexual guilt as predictor variables predicted 30% of the variance of the dependent variable (sexual addiction) in prostitutes ( $F=5.31, P<0.0001$ ). Emotional neglect significantly predicted sexual addiction in women ( $\beta=0.5, P<0.0001$ ). However, it should be noted that the predictive effects of physical abuse, emotional abuse, sexual abuse, physical neglect, and sexual guilt were all very small and insignificant.

**Discussion**

This study aimed to find out whether childhood traumas and sexual guilt were related to sexual addiction among Iranian prostitutes. To the best of the researchers' knowledge, this is the first study investigating sexual addiction in female prostitutes. The present study revealed that besides economic factors, sexual addiction in female prostitutes should be taken into account seriously. Moreover, 84% of prostitutes met the criteria for sexual addiction according to SAST. The results suggested that sexual addiction among prostitutes is quite widespread. In a study similar to the present study, it was shown that male sex workers obtained higher scores on the sexual addiction scale than other men. Sexual behaviors in male sex workers interfered with their lives and they failed to control their sexual impulses.<sup>37</sup> Another study found that sexual compulsivity increases the likelihood of risky sexual behaviors and relationships with multiple sexual partners.<sup>38</sup>

**Table 4.** Enter regression analysis for predicting sexual addiction

Model	B	Standard error	$\beta$	t	P value
Physical abuse	0.11	0.11	0.13	0.99	0.32
Emotional abuse	0.18	0.14	0.15	1.22	0.22
Sexual abuse	0.15	0.11	0.23	1.29	0.2
Emotional neglect	0.7	0.14	0.5	6.7	<i>P</i> <0.001
Physical neglect	0.12	0.7	0.14	1.3	0.17
Sexual guilt	0.08	0.08	0.05	0.7	0.7

All subscales of the CTQ (physical neglect, physical abuse, emotional abuse, emotional neglect, and sexual abuse) were positively correlated with sexual addiction among prostitutes. Furthermore, linear regression results showed that only emotional neglect significantly predicted sexual addiction in women. Similar to the results of the present study, a study in Iran indicated that sex addicts scored significantly higher in childhood traumas than control participants.<sup>39</sup> Based on many studies, pathological primary caregiver-infant relationships play a role in the occurrence of addictions.<sup>40</sup> In other words, failure to attain intimacy in an early relationship can lead to the development and maintenance of addiction behaviors.<sup>41</sup> Parental abuse and a subjective or real feeling of abandonment and neglect can increase the likelihood of traumas.<sup>42</sup> reported that repetition is the common result of severe trauma that manifests itself in the form of intrusions, flashbacks, and re-enactment. As a result, memory problems exist in many victims of childhood traumas, and they reexperience the trauma in a hidden form without knowing its origin. These flashbacks can become addictive and give the person the illusion of capacity, control, and relief from isolation, anxiety, and depression.<sup>43</sup> Therefore, people who have experienced childhood traumas usually have two different reactions: They deny their need for attachment and avoid close relationships or get "preoccupied" with their love void and are constantly anxious about being rejected, which is frequently seen in "sex addicts". Such individuals fill the void of love and loneliness with sexuality. Therefore,



sexual addicts can have anonymous sex with multiple individuals without feeling satisfied. Such individuals use sex to make sure they are loveable. The internal working models of sexual addicts are full of self-hatred and the need to make up for it by pretending to be strong, effective, or qualified.<sup>44</sup>

As seen in the regression analysis, among childhood traumas, emotional neglect was the best predictor of sexual addiction in prostitutes. According to some studies, emotional neglect plays an essential role in problems of mental health.<sup>45</sup> Emotional neglect is the result of a caregiver's emotional lack and unavailability. In this relational framework, there is complete disengagement between caregivers and their children.<sup>43</sup> In addition, due to the lack of emotional reflection, the emotional needs of the child are ignored due to the needs, conflicts, fears, and projections of the parents. Emotional neglect and abuse generally occur together, but have different effects.<sup>46</sup> Emotional neglect has more cognitive effects and academic problems compared to physical abuse. Moreover, emotional neglect is more related to social isolation, psychological disorders, and internalizing problems than physical abuse.<sup>45</sup> In another research, it was reported that among childhood traumas, emotional neglect was more strongly associated with substance abuse in adolescence.<sup>47</sup> The consequences of the parent's emotional unavailability for the emotional needs of the child are a sense of inadequacy, worthlessness, low self-esteem, a fragile Ego, disorganization of self-state, and low emotion regulation. Emotional neglect distorts children's perception of relationships, affecting their ability to use them for learning, closeness, and friendship.<sup>48</sup>

Contrary to our assumptions, no relationship was found between sexual guilt and sexual addiction among female prostitutes. The Mosher Sex-Guilt Scale is a complex questionnaire in which each question has two parts. This may be why the participants, most of whom with undergraduate education, were not able to answer the questions accurately and correctly. Although there was no association between sexual guilt and sexual addiction in this study, researchers should not stop searching for a better understanding of the connection between sexual guilt and sexual addiction. In addition, since many factors play a role in creating sexual guilt feeling (for example, self-esteem, age, religiosity, depression, and parental influences),<sup>40</sup> it is better to control or examine these factors in future studies.

To the best of the researchers' knowledge, no other studies have been conducted to identify the prevalence and predictors of sexual addiction in Iranian prostitutes. Therefore, the present study was a pilot study to provide background information for other studies. Nevertheless, there may be some limitations in this study. For instance, the study was based on participants' self-reports which could have led to biased results. Furthermore, the

majority of prostitutes participating in this study had low education, which might have affected the accuracy of their answers, especially on the Mosher Sex-Guilt Scale. In addition, this study was conducted on a small sample, due to the taboo of prostitution in Iran and the fact that prostitutes do not go to government centers. Furthermore, data were gathered from a social health promotion center for women in Khorasan Razavi and it is unclear how these results may be generalized to other areas of Iran. Additionally, it is not clear how participants in this study may have been differentiated from nonparticipants. Moreover, a cross-sectional study cannot provide information about the cause of prostitution or sexual addiction. Although it appears that sexual addiction symptoms are common in prostitutes, it is not clear how to treat sexual addiction and childhood traumas. Thus, experimental research is needed to explore the effectiveness of interventions addressing sexual addiction among prostitutes.

According to the results of this study, it is suggested that prostitutes be screened for sexual addiction and childhood traumas in the relevant centers providing services to them. Besides, the psychological treatments offered to these people, need to focus on self-control, impulsivity, and traumas. Future research should examine how psychological treatments focusing on sexual addiction and childhood traumas can change the quality of life of prostitutes.

## Conclusion

The results of this study suggested that the prevalence of sexual addiction in Iranian prostitutes is high, and childhood traumas are related to sexual addiction in these women.

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## Authors' Contribution

**Conceptualization:** Maryam Ghazaei, Nayereh Rafei.

**Data curation:** Maryam Ghazaei.

**Formal analysis:** Maryam Ghazaei.

**Investigation:** Maryam Ghazaei, Nayereh Rafei.

**Methodology:** Maryam Ghazaei.

**Project administration:** Nayereh Rafei.

**Software:** Maryam Ghazaei

**Supervision:** Maryam Ghazaei.

**Writing—original draft:** Nayereh Rafei.

**Writing—review & editing:** Maryam Ghazaei.

## Competing Interests

The authors declare no potential conflict of interest.

## Ethical Approval

The present study was approved by the research committee at the Shandiz Institute of Higher Education.

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