



Prediction of Addiction Relapse Based on Perceived Social Support and Childhood Trauma

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Abstract

Background: The adverse effects of addiction relapse have always been major challenges in addiction treatment. Perceived social support and childhood trauma are determinants of drug addiction and relapse prevention. The current study aimed to predict drug addiction relapse based on perceived social support and childhood trauma in drug addiction treatment centers in Qom, Iran.

Methods: The present study examined 320 individuals, who visited drug addiction treatment centers in Qom, Iran and were selected using the purposive sampling method. The data collection tools included a demographic information questionnaire, the Social Support Scale, the Childhood Trauma Questionnaire-Short Form (CTQ-SF), and the Addiction Relapse Frequency Questionnaire. Data were analyzed using SPSS 20 and independent t-tests, analysis of variance (ANOVA), Pearson test, and multivariate regression.

Findings: The research results indicated that 49.4% (n = 158) of cases used opium. The results of multivariate regression of the factors related to addiction relapse indicated that the childhood trauma score had a significant effect on the relapse of more than 3 times in a way that childhood trauma increased the relapse rate of more than 3 times by 13%, but social support caused a significant reduction in the relapse rate of more than 3 times.

Conclusion: The research findings indicated that addiction relapse had a significant relationship with childhood trauma and perceived social support. The results can be a guide for future studies to expand psychological knowledge about the determinants of the treatment and prevention of addiction relapse and help to develop psychological explanations of this disorder.

Keywords: Social support, Childhood, Trauma, Addiction, Relapse

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Introduction

Addiction is a psychological and behavioral syndrome that causes a strong tendency to abuse drugs. Due to the psychological and physical dependence caused by drugs, most addicts reuse drugs after quitting addiction. Relapse is the process of going back to past unhealthy behaviors encouraging the person to use the substance or drug again. Addiction relapse is a physical, psychosocial, and spiritual disease. Addiction relapse affects all four dimensions of health and is important as 40%-75% of patients return to drug abuse after quitting addiction. In a research conducted in Iran, the prevalence of drug addiction relapse was reported as 50%.¹⁻³ Addiction is primarily a chronic disease related to reward, motivation, memory, and relevant circuits in the brain. Disruption in these circuits is characterized by biological, psychological, and social manifestations.⁴ Studies have emphasized the role of social interactions in preventing addiction relapse. Perceived social support is an effective factor in social interactions. Social support is a kind of support received from others that acts as a shield for many diseases and psychiatric problems. Perceived social support is the

understanding and evaluation of support from family, friends, and others and includes emotional experiences and the creation of attitudes.⁵⁻⁷ Various studies have proved the role of perceived social support in the prevention and treatment of drug abuse and relapse.⁸ According to Robb et al, social support for addicted people is associated with increasing their efficiency and reducing their addiction relapse.⁹ Studies have also indicated that many psychological factors are related to drug addiction and relapse. Childhood trauma and its long-term effects during adulthood are some of these psychological factors. Childhood trauma is characterized by physical, psychological, sexual, and family dysfunction. Childhood physical abuse refers to any kind of painful damage that leads to injury or physical symptoms in the child. Psychological abuse is defined as humiliation of the child by family members or threatening the child with physical harm. Sexual abuse means having sexual relationship with a child by an adult or someone who is at least five years older than the child. Family dysfunction includes any criminal behavior, violent behavior, or history of mental illness in the family.¹⁰⁻¹² The individuals who face



problems during their childhood usually transfer their problems to adulthood. Research shows that long-term emotional, physical, and sexual harassment in childhood leads to serious issues such as character disturbances.¹³ Previous studies have investigated the relationship between perceived social support and drug addiction as well as the relationship between childhood trauma and drug addiction. Nevertheless, no study has yet investigated the effects of these two factors on drug addiction relapse. Therefore, the present study aimed to predict addiction relapse based on perceived social support and childhood trauma.

Methods

The present study was conducted using a cross-sectional descriptive-analytical design.

Participants and procedure

The statistical population consisted of addicts who visited addiction treatment centers with a history of at least one addiction relapse. In the target statistical population (3 addiction centers), addicts who experienced at least one addiction relapse and were willing to participate in the study were selected using purposive sampling and were asked to fill out the questionnaires after signing the consent form. The sample size was calculated as 320 based on the formula proposed in the study by Ashrafi Hafez et al with the type I error of 0.05%, the type II error of 20%, the correlation between addiction relapse and social support as 0.48, and the necessary accuracy as 0.05.¹⁴ The inclusion criteria were a history of at least one addiction relapse and the individual's presence in addiction treatment centers. Those with mental disorders were excluded from the study. In addition to observing the confidentiality principle in the study, each person received a code to keep them anonymous.

Data collection tools

The data in this study were collected through questionnaires on demographic and background information, addiction relapse, perceived social support, and childhood trauma. The addiction relapse among the participants was measured by a question that assessed the addiction relapse frequencies. The Childhood Trauma Questionnaire-Short Form (CTQ-SF) developed by Bernstein et al was used to measure childhood trauma.¹⁵ This questionnaire is a screening tool to identify the individuals with experiences of childhood abuse and inattention and can be used for both adults and adolescents. It measures five types of childhood abuse, including sexual abuse, physical abuse, emotional abuse, emotional neglect, and physical neglect. The questionnaire has 28 items, 25 of which are used to measure the main components of the questionnaire and 3 are used to identify people who ignore their childhood problems. Bernstein et al calculated the Cronbach's

alpha coefficients of the questionnaire for a group of adolescents equal to 0.87, 0.86, 0.95, 0.89, and 0.78 for emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect, respectively. Its concurrent validity was reported in a range of 0.59 to 0.78 according to therapists' ratings of childhood trauma levels.¹⁵ In Iran, Ebrahimi et al reported Cronbach's alpha of the questionnaire for its five components from 0.81 to 0.98.¹⁶ The Social Support Scale developed by Sherbourne and Stewart¹⁷ in 1991 was used to measure social support in this study. This scale measures the level of perceived social support and has 19 items and 5 subscales. These subscales include tangible support, emotional support, informational support, affectionate support, and positive social interaction. This scale is a self-report tool and the respondents show their agreement or disagreement with each item on a 5-point Likert scale (never = 1, rarely = 2, sometimes = 3, often = 4, always = 5). The validity and reliability of the test were reported in a range of 0.74 to 0.93 using Cronbach's alpha coefficient. Tamannaifar and Mansourinik confirmed the face and content validity of this tool from the psychological experts' perspective and reported a reliability of 0.97 using Cronbach's alpha coefficient.¹⁸

Statistical analysis

The collected data were entered into SPSS software and analyzed using one-way analysis of variance (ANOVA), Pearson's correlation coefficient, and multivariate regression tests. The significance level was set at 0.05 for all the statistical tests.

Results

In this study, 96.9% (n = 310) of the participants were male and 1.3% (n = 10) were female, and their mean age was 41.35 ± 10.95 years. Most of the participants had primary education (41.3%, n = 132) and were working as freelancers (75.6%, n = 242). Temptation (44.7%, n = 143) and play-mate (addicted friends) (28.4%, n = 91) were the most common reasons for re-motivation to abuse drugs, and tiredness of drug abuse (1.38%, n = 122) and the importance of family (20%, n = 64) were the most motivational reasons to quit using drugs. Moreover, 60.9% (n = 195) of the participants were detoxified for less than one year. The analysis of social support indicated that 4.1% (n = 13) of the participants had poor social support, 55.6% (n = 178) had moderate social support, and 40.3% (n = 129) had high social support. The mean social support score was 57.17 ± 14.66 , which was in the range of 26-95, and the mean childhood trauma score was 62.44 ± 10.72 , which was in the range of 36-76.

The research findings also indicated that most of the participants used opium (49.4%, n = 158) and heroin (26.3%, n = 84) (Table 1).

In terms of the relationship of demographic variables

with social support and childhood trauma, the ANOVA indicated that education level, marriage, income level, and occupation had significant relationships with social support and childhood trauma ($P < 0.001$) (Table 2). The results also indicated that there was a significant relationship between education level and addiction relapse, and the mean number of addiction relapses was higher in those with a lower level of education.

The results of the t-test indicated no significant relationship between gender and social support ($P = 0.14$), childhood trauma ($P = 0.068$), and addiction relapse ($P = 0.869$) (Table 2).

In terms of the relationship between demographic variables, Pearson's correlation coefficient indicated

significant relationships between social support ($P < 0.001$) and childhood trauma ($P < 0.001$) with addiction relapse (Table 3).

The results of multivariate regression of factors related to addiction relapse indicated that the childhood trauma score had a significant effect on two to three relapses and increased them by 6%, but social support was not significant in this relationship. The relapse of more than 3 times had a direct relationship with childhood trauma in a way that childhood trauma increased the relapse rate of more than 3 times by 13%, but social support caused a remarkable reduction in the relapse rate of more than 3 times (Table 4).

Discussion

The present study aimed to predict drug addiction relapse based on perceived social support and childhood trauma. The research results indicated that 96.9% of individuals, who went to drug addiction treatment centers, were male. In the studies by Supriyanto et al¹⁹ (96.63%) and Liu et al²⁰ (70.70%), most of the individuals who visited addiction treatment centers were male, which was consistent with the results of the present study. The present study

Table 1. Percentage of drug abuse by participants

Drug type	Number	Percent
Opium	158	49.4
Methamphetamine	20	6.3
Hashish	13	4.1
Heroin	84	26.3
Methadone	45	14.1

Table 2. Relationship of demographic variables with social support, childhood trauma, and addiction relapse

Demographic characteristics		Number	Social support		Childhood trauma		Addiction relapse	
			Mean \pm SD	<i>P</i>	Mean \pm SD	<i>P</i>	Mean \pm SD	<i>P</i>
Education	Elementary school	132	54.38 \pm 11.76	<0.001	65.90 \pm 8.00	<0.001	3.41 \pm 3.06	0.027
	Middle school	101	55.25 \pm 14.05		63.22 \pm 9.63		3.39 \pm 3.05	
	High school diploma	70	63.9 \pm 18.58		55.62 \pm 12.79		2.50 \pm 2.02	
	Academic degree	17	62.52 \pm 10.64		58.94 \pm 12.74		1.88 \pm 0.78	
Marital status	Single	74	61.62 \pm 17.36	<0.001	56.64 \pm 12.59	<0.001	2.66 \pm 2.72	0.402
	Married	225	55.54 \pm 12.86		64.55 \pm 9.06		3.29 \pm 2.86	
	Divorced	14	51.35 \pm 13.99		66.64 \pm 6.35		2.85 \pm 1.74	
	Widowed	7	74.14 \pm 19.83		47.57 \pm 12.21		3.28 \pm 3.90	
Occupation	Unemployed	48	58.64 \pm 13.81	<0.001	62.91 \pm 10.03	0.002	2.93 \pm 23.8	0.097
	Freelancer	242	55.67 \pm 14.46		63.10 \pm 10.41		2.27 \pm .94	
	Student	9	73.66 \pm 13.13		52.44 \pm 13.76		1.33 \pm 0.50	
	Employee	16	66.56 \pm 13.36		55.25 \pm 10.86		2.06 \pm 1.56	
Income (per month)	Retired	5	55.80 \pm 12.47	<0.001	66.80 \pm 11.7	<0.001	4.40 \pm 4.39	=0.0640
	<1000,000 Tomans	46	65.47 \pm 16.95		55.15 \pm 13.63		2.63 \pm 2.12	
	1000,000-2000,000 Tomans	25	60.32 \pm 19.31		55.0 \pm 13.58		3.20 \pm 4.27	
	2000,000-3000,000 Tomans	50	55.78 \pm 16.08		63.30 \pm 11.25		3.16 \pm 2.63	
Gender	>3,000,000 Tomans	199	55.21 \pm 12.25	=0.014	65.1 \pm 7.92	=0.068	3.22 \pm 2.78	=0.869
	Female	10	53.3 \pm 7.51		65.90 \pm 5.23		3.30 \pm 3.26	
	Male	310	57.3 \pm 14.82		62.33 \pm 10.83		3.12 \pm .80	

Table 3. Correlation coefficients and significance levels of the relationship of social support and childhood trauma with addiction relapse

Measures	Childhood trauma	Social support (Total)	Positive social interaction	Affectionate support/Caring	Tangible Support	Emotional/Informational support
Addiction relapse	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	0.367	-0.350	-0.260	-0.273	0.311	-0.349

Table 4. Multivariate regression results of factors related to addiction relapse

Addiction relapse	B	Std. Error	Wald	df	Sig.	Exp (B)	95% Confidence Interval for Exp (B)	
							Lower Bound	Upper Bound
Intercept								
2.00 Social support	0.001	0.013	0.008	1	0.931	1.001	0.976	1.027
Childhood trauma	0.063	0.018	12.508	1	0.000	1.065	1.028	1.103
Intercept								
3.00 Social support	-0.046	0.020	5.544	1	0.019	0.955	0.919	0.992
Childhood trauma	0.124	0.030	17.570	1	0.000	1.132	1.068	1.20

a. The reference category is: 1.00.

also indicated that most of the cases who visited drug addiction treatment centers used opium. The results of a cohort study in Fars province, Iran and similar studies indicated that opium was the most commonly used drug.^{21,22} The reason for the large number of opium users in Iran is quite clear as it is located in the neighborhood of the largest source of poppy cultivation in the world, and thus this drug is easily available in Iran. Furthermore, people have been familiar with this narcotic drug since a long time ago and have traditionally considered it a pain reliever and used it. It seems logical that the prevalence of abusing this drug is higher than that of new industrial drugs.

Temptation was also one of the most important problems and causes of drug relapse. This result was consistent with the results of the majority of similar domestic and foreign studies because they also considered temptation as one of the most important factors in addiction relapse. Temptation expresses the feeling of wanting and the tendency to an unpleasant stimulus. When the behavior of abuse is inhibited, the dependent person feels the need, and this tendency is associated with an increase in attention bias, which itself leads to an increase in the temptation and excitement of re-using drugs.²³ The success of treatment and prevention of the temptation to reuse drugs can be facilitated by sensitizing families to the use of appropriate communication styles and highlighting the need for social support by families and social institutions for drug addicts as well as the need to reduce mental pressure.

The research results indicated that social support had a significant relationship with drug addiction relapse among addicts. The results of the present study were consistent with those of the research by Mousali et al,²⁴ who reported that social support, especially support from family, was an important factor in quitting drug abuse. Liu et al²⁰ reported that the perceived support of friends or peers had the greatest effect on the abstinence intention of Chinese drug users. In the studies by Supriyanto et al,¹⁹ Haghighi et al,²⁵ and Mousali et al,²⁴ it was found that perceived household support was a significant predictor of the improvement process of drug abusers in drug rehabilitation programs. Family is an

external social support; parents and education provided by them can prevent drug abuse in children.²⁶ It appears that not taking care of the emotional demands of addicts in society increases their failure in life, reduces their hope for the future, and causes them to become addicted and dependent on drugs and stimulants.

The results of the present study were congruent with the findings of the studies by Thompson et al,²⁷ and Panebianco et al²⁸ regarding the importance of perceived social support to promote recovery in drug addicts. High social support from a family with no history of addiction leads to reducing the probability of addiction in children, and in case of addiction, it increases the probability of successful treatment and relapse prevention. An important point about social support is the individual's perception which means that the individual's understanding of the environment is more decisive than the level of support.²⁹ According to studies, perceived social support is effective on physical and mental health and is associated with the decrement of mental disturbance, anxiety, and depression and an enhancement in mental well-being.²⁸ On the other hand, as a positive social witness, it can play a major role in the effectiveness of addiction treatments and preventing addiction relapse through increasing self-efficacy and self-esteem, as well as providing the opportunity to return to society.²⁷ A study on the effect of social support on relapse in alcohol and drug abusers indicated that higher structural support and experienced couple support to avoid relapse were predictors of a lower risk of relapse.²⁹ The lack of social support, which originates from family, friends, and society, reduces the individual's resistance to environmental stress and can lead to drug addiction relapse.⁶ In a study by Mokuolu and Ajiboye,⁷ it was shown that none of the dimensions of social support had a significant relationship with the determination to quit drug abuse, and the result was contrary to the results of the present study.

The findings of the present study also indicated that drug addiction relapse had a significant relationship with childhood trauma. People with a record of childhood trauma and substance abuse were prone to relapse when faced with hard and uncomfortable positions. Previous studies have indicated that the motivation for relapse

is the desensitization of emotions when individuals are exposed to high levels of distress.^{11,30} Psychological injuries during childhood can aggravate various disorders in life like the addictive behavior.^{11,31,32} According to the study by Sanders et al,³³ it is common for people who have experienced childhood trauma to use drugs as a confrontation mechanism. These results were in line with the findings of the present study in which traumatic experiences continued to affect participants' lives years later. Whenever participants discussed the reasons of relapse, it became clear that their psychological turmoil was related to their relapse. The participants stated that they used the drugs to calm themselves and achieve relaxation. It was predicted that people utilized drugs as a means to cope with the tension caused by childhood traumas.

Childhood injuries can affect the organization of one's personality, feelings of alienation, and consequently depression in the later periods of addicts' lives, and addiction relapse is a strategy to get rid of this suffering.³⁴ The results of the study by Hyman et al indicated that childhood trauma increased the probability of cocaine use relapse and intensification of cocaine use after primary relapse in women. Childhood trauma jeopardizes the optimal development of excitement adjustment and collective information processing capabilities and discloses children to the danger of unsure attachment connection, negative self-improvement, and peer relationship difficulties.³⁵ A study in Scotland indicated that injecting heroin was an effective means of eliminating distressing thoughts and feelings associated with the initial trauma.³⁶ Self-medication is a potential mechanism underlying the observed association between adverse childhood experiences and early nonmedical drug use and other opioid use behaviors in a way that individuals use psychoactive drugs as an avoidant coping method to reduce traumatic emotional states. Numerous studies indicated that exposure to traumatic stress in early life could interfere with normal growth processes and potentially lead to neurological, psychological, and social damage.³⁷ The findings of the current study can be a guide for future studies to expand psychological knowledge about factors effective in the treatment and prevention of drug addiction relapse and help to develop psychological explanations of this disorder. Practically, especially in clinical settings, the results of the present study on drug dependence can help to manage and reduce the intensity of drug consumption and reduce the costs imposed on individuals and their families, society, and the healthcare system.

One of the limitations of this study was its descriptive-analytical and cross-sectional design as the causal relationships could not be established between the variables, hence the interpretation of the results should be done with caution. Furthermore, the sampling

method and the fact that the study was conducted only in three private addiction treatment centers in Qom were other limitations of the present study; therefore, the generalization of the findings should be done with caution. It is recommended to conduct similar studies in other cities and provinces with different cultures to increase the generalizability of the findings.

Conclusion

The research results indicated that drug addiction relapse had a significant relationship with perceived social support and childhood trauma. Drug abuse and addiction are major problems and concerns in today's world. Addicts and their families as well as those in charge should seek help from specialists such as psychiatrists and psychologists for reduction of temptation to use drugs and prevention of relapse. The results of this study are applicable in mental health and primary and secondary prevention programs. It is necessary for experts to perform a comprehensive assessment of the background personality and family environment of the addicted person before giving advice. Providing social support for drug addicts, who are quitting, and increasing the awareness of families about child upbringing during childhood and adolescence can be effective measures in preventing drug addiction and relapse. Thus, it is suggested to hold workshops in drug addiction treatment centers about addiction relapse, provide social support, and raise the level of theoretical and practical awareness of addicts' families in dealing with addicts.

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Authors' Contribution

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Competing Interests

The authors declare that they have no competing interests.

Ethical Approval

The current research was approved by the ethics committee of Qom University of Medical Sciences with the code IR.MUQ.REC.1400.071 and ethical considerations were observed by explaining the research objectives to patients as well as voluntary participation in the study and informed consent.

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