Family and health Quarterly, vol13, Issu3, Autumn 2023, ISSN: 2322-3065
https://journal.astara.ir/article_705434.html?lang=en

Family and health

The role of resilience and self-efficacy in relapse after remission or recovery of substance use disorder in Shiraz

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Abstract

Introduction: Self-efficacy is the ability to resist drug use in a high-risk situation and has a direct relationship with relapse. The present study was conducted with the aim of predicting the return to drug use after recovery in people with substance use disorder based on resilience and self-efficacy.

Research method: The statistical population included all addicts who referred to addiction treatment centers in Shiraz in 1401, who had a clean period of at least 6 months after a period of drug use, but relapsed again. The sample size was determined based on the components of predicting variables among 200 people who were selected by available sampling method. Connor and Davidson's resilience, Schwartz's self-efficacy scale, and Beck and Wright's relapse scale were used to collect data. Data were analyzed using SPSS-26 software, Pearson correlation coefficient.

Findings: The results showed that resiliency and self-efficacy play a predictive role in relation to the return to drug use after recovery, which as self-efficacy increases, the resilience to return to drug use decreases and the intensity of the relationship between the return to drug use in levels the total score of self-efficacy and resilience is different.

Conclusion: Self-efficacy can predict the return to drug use after recovery, and self-efficacy has a negative and significant relationship with relapse, that is, as self-efficacy increases, relapse decreases.

Key words: Addicts, Resilience, Return to drug use, Self-efficacy

Received: 9/ May/ 2023 **Accepted: 13/ June/ 2023**

Citation: Kheradmanesh B, Mozaffari M. The role of resilience and self-efficacy in relapse after remission or recovery of substance use disorder in Shiraz, Family and health, 2024; 13(4): 183-193

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Introduction:

Drug addiction is a clinical and psychiatric disorder that is characterized by pathological and compulsive behaviors in drug seeking and drug use that preoccupy the addict and lead to significant functional impairment [1]. It is worth considering in relation to addiction and drug use that quitting drugs is not so difficult and difficult physically. It seems that the main problem is the person's return and starting over. In fact, addiction is a chronic disease with a probability of relapse and return to drug use up to 70% [2] after detoxification and entering rehabilitation treatments, a large number of drug users during the next 90 days. From the beginning of the treatment, they start using drugs again [3].

Resilience is another variable that is probably related to the temptation to consume. Resilience is defined as a process, the ability to adapt successfully to threatening conditions. In the context of the positive effect of resilience on physical and mental health, it emphasizes the basic characteristics of resilient people that promote mental health, such as being sociable, problem-solving ability, self-direction, feeling purposeful, and believing in a bright future to be by reducing the level of resilience in life events, a person feels a kind of mental pressure, anxiety and depression [4] Resilience is a psychological and personality trait that plays an important role in facing stress experiences and stressful events. [5]

Self-efficacy is one of the main and key concepts of Bandura's social learning theory. In this theory, which was later changed to social cognitive theory, self-efficacy means people's beliefs about their abilities to perform a task or adapt to a specific situation [6] self-efficacy is considered a motivational variable for learning. [7] And it can be divided into two general (general) forms and the perception of a specific task or situation [8] In addition, some other theoretical approaches assume self-efficacy as a personality trait. , can have an effect on the relapse of drug use [9];

Because it predicts positive outcomes. This structure based on purposeful thinking is defined as a person's confidence to successfully perform certain behaviors in high-risk situations [10] and is a key concept in several theories related to health behavior such as cognitive theory [11], theory of planned behavior [12] and in relapse models, it originates from the theory of social learning. These theories emphasize that a person's beliefs about his ability to successfully accomplish a behavioral goal (for example, to stop using drugs) are effective. In the field of drug abuse, there are also evidences that confirm these assumptions

It should also be added that when facing high-risk situations, there is a complex interaction between the perception of these situations and the ability to use strategic strategies. One of the models that investigated and understood this complex interaction is the cognitive-behavioral model of the relapse process. This model assumes that if a person has appropriate coping responses and high self-efficacy, there is little chance of relapse when faced with high-risk situations. In the same way, if a person is faced with situations that he is not ready to deal with, then drug use will occur [13].

Yamashita et al in a research entitled "Resilience and related factors as predictors of relapse risk in patients with substance use disorder" among 12 patients with substance use disorder from February to April 2015 in China, the findings showed that to prevent Relapse of patients,

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strengthening employment support services and encouraging patients to continue working in treatment were suggested as effective measures to increase resilience in people with substance use disorders, and supporting people to gain resilience was correlated with reducing relapse.[14]

Cao and Zhou in a research entitled "Relationship between social support and life satisfaction in people with substance use disorder: the mediating role of resilience" among 513 people with substance use disorder in Nanjing, China, showed that social support was significantly associated with Life satisfaction was related in people with substance use disorder. In addition, resilience had a mediating role between social support and life satisfaction in people with substance use disorder. Our results confirm that with increasing social support and life satisfaction, resilience increases and reduces relapse, and to some extent these findings provide a clearer understanding of the impact of resilience and social support on life satisfaction in people with substance use disorders gives. [15]

Yamashita et al. in a research titled "Resilience related to self-disclosure and risks of relapse in patients with alcohol abuse disorder" among 48 patients with alcohol use disorder in China in 2015, the results showed that patients with high resilience had a lower risk of relapse and deep self-disclosure. And one of the ways to support patients suffering from alcohol use disorder is to help build relationships with others and deepen self-disclosure, which as a result restores their natural ability and reduces relapse. [16]

In a research titled "Relationship between self-efficacy, emotional intelligence and social support of drug addicts in Oud" among 250 drug-addicted men on the east coast of Malaysia in 2019, Sohil Ahmad et al. showed the relationship between self-efficacy, emotional intelligence and social support. There is a negative and significant relationship. [17]

Wanjiti and Neuromoder conducted a research titled "The relationship between family support, self-efficacy and the incidence of relapse among youth recovered from addiction in a selected rehabilitation center in Limuru, Kenya" among 80 youth recovered from drug addiction in 2019. The results showed that increased family support led to It increases self-efficacy, and increasing self-efficacy reduces relapse. [18]

Abdelkawi et al. conducted a research titled "Relationship between craving for drug use and self-efficacy in drug addicts in withdrawal" among 250 male and female drug addicts admitted to the drug withdrawal and rehabilitation department of Al-Asa Psychiatric Hospital in Cairo. The results showed that a strong desire for drug addiction Although it is also known as a related factor in the continuation of substance use and relapse after cessation, self-efficacy is the ability to resist substance use in a high-risk situation and has a direct relationship with relapse, and those who had high self-efficacy in situations They showed more resistance than themselves. [19]

According to these materials and according to the existing research gap in this field, this study aims to "investigate the relationship between resilience, self-efficacy and relapse after the subsidence or recovery of substance use disorder in substance abusers of Shiraz" and Therefore, it can be said that what is the role of resilience and self-efficacy in relapse after the decline or recovery of substance use disorder in Shiraz?

Research Methods:

Based on the practical purpose and based on the method of data collection, the present study is a correlational descriptive study that examines the role of self-efficacy and resilience in relapse after recovery from substance use disorder in Shiraz city. In this research, self-efficacy and resilience, the predictor variables and relapse were considered as criterion variables and the statistical population of this research includes all men and women referred to addiction treatment centers who have been clean for at least 6 months after a period of drug use. And again, they had relapsed in the city of Shiraz in 1401. Sample Size in this research, 225 people were selected from addiction treatment centers using available sampling method. Research tools:

Resilience questionnaire: Connor and Davidson's scale was used to measure resilience, the producers of this scale believe that this questionnaire is well able to distinguish resilient people from non-resilient people in clinical and non-clinical groups and can be used in educational situations and To be used clinically, this tool consists of 25 graded items with 5 options, and the options are made up of a 5-level spectrum (I strongly disagree to strongly agree), the score of each person is equal to the total scores or the total values obtained from each of the questions. The average score is 50, a score less than 50 indicates low resilience and a score greater than 50 indicates high resilience [20] Cronbach's alpha coefficient of this scale was reported as 0.89.

They reported the internal consistency of this scale based on Cronbach's alpha of 0.9. Campbell-Silles (2007) standardized the initial resilience scale by selecting 10 items out of 25 items on a sample of 511 people. The construct validity of the new resilience scale Based on the confirmatory analysis, the factor loading for all ten questions has been loaded between 44 and 93%, which indicates the desired and acceptable construct validity for this scale. [21] Jokar: In a research, the validity and reliability of this scale was investigated in Iranian culture and with the use of factor analysis method confirmed its validity. Also, the reliability coefficient of the mentioned scale has been reported as 0.73 using the Cronbach's alpha method. In the research of Ramzanzadeh et al., the value of the Cronbach's alpha coefficient was 0.81, which indicates the good reliability of this scale.

Self-efficacy questionnaire: To measure self-efficacy, Schwartz and Jerusalem's self-efficacy scale was used, which includes 10 items, all of which measure the level of general self-efficacy, and it is one-dimensional. The items on a 4-point Likert scale measure people's self-efficacy from the spectrum (not at all correct to completely correct) Sanjand and the range of scores of this questionnaire is between 10 and 40, Schwartz and Jerusalem reported the reliability of this scale using Cronbach's Alpha method as 0.89. In order to standardize this test in Iran, it was performed on a sample of 587 students, Cronbach's alpha coefficient was calculated as 0.82.

Relapse questionnaire: The relapse prediction scale was developed by Wright et al. It is a 45-question self-assessment scale. The questions are answered on a 5-point Likert scale (0=none, 1=weak, 2=moderate, 3=strong, 4=very strong). Each question contains a situation in which the subject should imagine himself. The total score of the subject is between 0 and 60: the return prediction rate is weak. A score between 60 and 90: the rate of return prediction is average.

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A score higher than 90: the return prediction rate is strong. The normalization of this scale by implementing it on substance-dependent patients in the recovery period, confirmed its appropriate validity with factor analysis and reported Cronbach's alpha of 0.94 for the subscale of the probability of use and 0.97 for the subscale of the strength of desire. Also, the correlation obtained between the two mentioned subscales using the Pearson correlation method was significant.

According to the sample size, 200 people from all the people who referred to addiction treatment centers who were abstinent for at least 6 months after a period of drug withdrawal and relapsed, were selected by available sampling method. Necessary explanations about the objectives of the research and assurance regarding the confidentiality of the information, which was one of the ethical points observed in the research, and obtaining their consent to participate in the research by providing the questionnaires, demographic information was asked at first, and then the questionnaire. The issues raised in the tool section were presented to the people and they were asked to complete the questionnaire according to the instructions and not to leave any questions unanswered as much as possible.

The questionnaire was completed individually and during one session, and after being collected, it was analyzed using SPSS software, version 26, on two descriptive and inferential levels.

Findings:

In the table below, we examine the mean and standard deviation of the lowest and highest values in the variables of resilience and self-efficacy and return to drugs.

225 questionnaires were collected, 25 outliers and distorted items were removed and the analyzes were performed on 200 people. Out of the 200 people in the sample group, there were 180 men (90%) and 20 women (10%) and the most age group was 26 to 35 years old (37.5%) and also most of the single people (61.5) with post-graduate education degree (46.5%), most of the people had a history of drug use between 1 and 3 years (45.5%), which are shown in the following tables.

Table 1. Descriptive statistics of research variables

Variable	Number	The lowest amount	The maximum amount	Average	The standard deviation
Back to drugs	200	62	206	125.96	41.365
Resilience	200	37	113	69.58	21.597
Efficacy	200	15	46	27.78	8.558

As can be seen from the above table, the average and standard deviation for the dependent variable of returning to drugs are 125.96 and 41.36, respectively. Also, for the resilience and self-efficacy variable, the average and standard deviation are equal to with 69/58, 27/78 and 21/59, 8/55 was obtained.

The use of parametric tests requires compliance with several basic assumptions; one of the most important assumptions indicates that the observed difference between the distribution of scores of the sample group and the normal distribution in the society is equal to zero. For this purpose, the

Kolmogorov-Smirnov and Velvin test was used, and the reliability and validity of the indicators related to the research questionnaire were also examined. And the results of the implementation of these assumptions regarding the scores of the research variables are shown in the following tables.

Table 2. The results of the normality test of the research variables (Kolmogorov-Smirnov test)

Variable	**Z S**statistic	**The significance level**
Back to drugs	1.307	0.066
Resilience	1.203	0.120
Efficacy	1.240	0.0721

The significance level of the Kolmogorov-Smirnov test for research variables is greater than 0.5. Therefore, the null hypothesis that the data is normal is accepted, and as a result, these variables have a normal distribution. Reliability test:

Table 3: Cronbach's alpha reliability

Variable	**Cronbach's alpha reliability**
Back to drugs	0.856
Resilience	0.798
Efficacy	0.751

According to the rules of statistics, if the value of Cronbach's alpha coefficient of a questionnaire is more than 70%, the questionnaire is reliable and ready for analysis and inference for the society. As shown in the above table, the questionnaire has good reliability because the fit indices of the model in Cronbach's alpha section for all research variables are more than 0.7.

Resilience can predict the return to substance use after recovery.

Table 4. Pearson correlation between resilience and return to materials

The correlation coefficient	**-.692****
The significance level	.000
Number	200

Considering the obtained correlation coefficient (-0.692) and significance level less than 5% (0.000), we conclude that the correlation coefficient is significant and according to the value of the correlation coefficient, it can be said that the variable of resilience has a significant and inverse relationship with the variable of returning to drug use after recovery and the higher the level of resilience, the lower the motivation to return to drug use after recovery. Self-efficacy can predict relapse to substance use after recovery.

Table 5: Pearson correlation between self-efficacy and return to substances

Pearson	**-.687****
The significance level	.000
Number	200

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According to the obtained correlation coefficient (-0.687) and the significance level is less than 5% (0.000), we conclude that the correlation coefficient is significant and according to the value of the correlation coefficient, it can be said that the self-efficacy variable is related to the return variable. There is a significant and inverse relationship with drug use after recovery, and the higher the level of self-efficacy, the lower the motivation to return to drug use after recovery.

Discussion and conclusion:

The results of the hypothesis test (resilience can predict the return to drug use after recovery).

In order to test the hypothesis, Pearson's correlation coefficient was used, and the obtained R2 value showed that resilience explained 69.2% of the variance of returning to drug use after recovery, and as a result, resilience can return to drug use after recovery, it was confirmed and resilience has a negative and significant relationship with relapse, that is, with the increase of resilience, relapse decreases. In this study, the results are in line with the findings of Freyver and Mirhashmi Ghorbanzadeh. And thanks to Karmi Cao and Zhou Yamashita, it was obtained.

In explaining such a finding, it should be mentioned that resilience is effective flexibility against life events, and by reducing the level of resilience in life events, a person feels some kind of mental pressure, anxiety and depression. In other words, resilience is the ability to recover, compensate and be flexible after facing stressful events. Resilient people have higher physical and mental health compared to people who are not optimistic about life and are impatient and less tolerant of threatening situations.

Research evidence shows that resilient people have better mental health, more self-regulation skills and higher self-esteem and are supported by their parents and are less likely to engage in risky behaviors such as substance abuse. With a decrease in resilience, the temptation to use drugs increases in drug dependent people. A decrease in the level of resilience against life events in a person is accompanied by a feeling of psychological pressure, anxiety or depression and makes a person prone to return to drug use. Resilience strengthens self-esteem by increasing the levels of positive emotions and thus leads to positive adaptability and mental well-being of a person.

Resilient people with characteristics such as being sociable, problem-solving ability, self-management and feeling purposeful and believing in a bright future have higher psychological well-being and have the ability to adapt to problems. By improving the level of resilience, a person can resist and overcome the factors that cause many psychological problems, and show resilience against the temptation to use drugs.

High resilience by creating adaptive flexibility leads to the reduction of substance abuse in people. High levels of resilience help a person to use positive emotions and emotions in order to overcome adverse experiences and return to a favorable situation. In fact, resilience through increasing the levels of positive emotions strengthens self-respect and successfully copes with negative experiences, and makes a person less likely to turn to drugs when faced with problems and negative emotions.

Based on this explanation, resilience leads to positive adaptability by strengthening self-esteem as a mediating mechanism. This explanation requires that if the structure of resilience is weak, self-esteem is weakened and the process of dealing with negative experiences becomes ineffective. Therefore, psychological vulnerability, depression, anxiety and attitudes towards drug use are consequences of weak resilience. People who have high resilience are hopeful when faced with threatening situations and use effective coping styles and resilience, which is a source of support against stressful factors, makes a person adapt to this situation effectively. to be

Also, resilient people have problem-solving skills, a sense of competence and sufficiency, intimate relationships, and secure attachment. These people take advantage of this ability when facing difficulties and adversities in life and use constructive communication with others, and this factor reduces depression, anxiety and mental pressure, and as a result, mental health increases. And on the other hand, it makes people less likely to abuse drugs and use effective ways to reduce problems.

The results of the hypothesis test (self-efficacy can predict the return to drug use after recovery)

In order to test the hypothesis, the correlation coefficient was used, and the R2 value obtained showed that self-efficacy explained 68.7% of the variance of the return to drug use after recovery, and as a result, self-efficacy can lead to the return to drug use after recovery. It was confirmed that self-efficacy has a negative and significant relationship with relapse, that is, with the increase of self-efficacy, relapse decreases. In this study, the results were consistent with the findings of Sohil Ahmad and his colleagues, Abdul Lakawi, Vanjini and Normo. Came.

In explaining this result, it should be said that self-efficacy predicts positive outcomes. This structure based on purposeful thinking is defined as a person's confidence to successfully perform certain behaviors in high-risk situations and is a key concept in several theories related to health behavior such as social cognition theory, planned behavior theory and in models Oud originates from the theory of social learning. These theories emphasize that a person's beliefs about his ability to successfully accomplish a behavioral goal (for example, to stop using drugs) are effective.

In the field of drug abuse, there are also evidences that confirm these assumptions. It should also be added that when facing high-risk situations, there is a complex interaction between the perception of these situations and the ability to use coping strategies. One of the models that investigated and understood this complex interaction is the cognitive-behavioral model of the relapse process. This model assumes that if a person has appropriate coping responses and high self-efficacy, there is little chance of relapse when faced with high-risk situations. In the same way, if a person is faced with situations that he is not ready to deal with, then drug use will occur.

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