Psychosocial Factors as the Determinants of Relapse in Individuals with Substance Use Disorder

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Relapse to substance abuse after withdrawal is one of the most perplexing and frustrating aspect of addiction. The word relapse defines as collapse/hindrance to the client's prior substance dependence behavior after treatment due to many psychological, social, and other associated factors. This study is designed to find out the psychological and social factors which determine relapse behavior in individuals with substance use disorder. A cross-sectional study was conducted among 200 relapse patients from November 2020 to January 2021 in different rehabilitations in Wazirabad, Gujranwala, Lahore, Gujrat, and Sialkot cities of Pakistan. Data were collected by using a psychosocial functioning scale. Data analyzed using SPSS 21. A total of 200 individuals were taken ,of which 170 were males and 30 females. The results indicates that the most important predictor was risk-taking 0.148 (100% of normalized importance) followed by social conformity 0.130 (88% of normalized importance), decision making confidence 0.128 (86.2% of normalized importance), childhood problem 0.125 (84.4% of normalized importance), hostility 0.125 (84.0% of normalized importance), depression 0.119 (80.5% of normalized importance), self-esteem 0.114 (76.6% of normalized importance) and anxiety 0.111 (74.7% of normalized importance).Social factors were connected with a high relapse rate. These results may help clinicians to improve treatment and policy guidelines for the prevention of relapse to drug addiction.

Keywords: Psychosocial factors; Relapse; Substance use disorder.

Introduction

Substance-Related and addictive disorders have had a destructive effect on mankind for eras. These disorders cause the death of millions of people per year, spend billions, and associate with violence, and homelessness, the number of crimes and illegal activities across the world [1]. where has become a major issue worldwide. Substance use disorder is generally recognized as 'Drug Addition.' "Wars on Drugs" have been confirmed by nearly all the governments around the globe, and numerous international organizations are working their best to find out a solution, but the issue still exists. People use different types of drugs to modify their behaviors, thinking patterns, and feelings. According to the country report of Pakistan, in 2013, an estimated 6.4 million of the population, including adolescents and adults, were abusing illicit drugs or substances [2].

In terms of substance use, relapse explains as a breakdown in an individual's substance use behavior or return to pre-treatment levels of smoking and drinking or continue using drugs after a certain period of sobriety [3]. ubstance abuse after successful detoxification is a common problem Worldwide, and the rate of relapse is relatively high in developing countries [4], [5]. Diagnostic and Statistical Manual of Mental Disorders (DSM-V) describe substance use disorder is considered a maladaptive way of substance use that leads to significant clinical impairment in daily functioning [6]. Various researchers documented that relapse is the biggest problem after rehabilitation and requires effective and essential preventive measures. More than 60 % of people with substance use disorder leads to relapse after treatment [7]. Other studies revealed that the rate of relapse typically reaches 45–70 % in 2 weeks to 5 months period following treatment [8], [9].

Substance dependence an episodic phenomenon, with reduction of use,of abstinence, and relapse as the prevailing pattern, usually associated with the number of events influenced by external factors, i.e., social pressure and availability of drugs. Moreover, multiple factors are associated with relapse to substance use disorder. These factors are categorized into demographic, psychological, and sociocultural factors such as low self-esteem, anxiety, depression, strong craving, social conformity, hostile behavior, work-related stress, and familial issues [10]. The cause of relapse in substance use disorder may vary from person to person, and more than one reason, such as anxiousness, risk-taking behavior, hostility, early initiation of drugs, poor self-control, poor stress management, childhood trauma, relief from fatigue or boredom, escape from reality, stigma and social factors including peer influence (One of the most important causes), ,easy availability of drugs, conflicts (usually interfamilial), cultural/religious reasons, lack of social or familial support, rapid urbanization [11]–[13].

International Scenarios

At least 35 million people worldwide are estimated to suffer from substance use disorder [14]. According to a survey published in 2014 by the Substance Abuse and Mental Health Services Administration (SAMHSA), more than 50 % of addicts return to relapse after the successful end of their treatment. Due to negative responses and inability to cope with these responses, they are very close to high-risk situations to relapse. Although some addicts have high self-control over previous addict behavior, others are not able to overcome their behavior of re-use [15].

A study conducted in China suggests that low self-efficacy predicts relapse in drug addiction. The relationship between the individuals who face relapse and their blood relations should be raised, and the rehabilitation center should take various measures to improve the psychological capital level and the level of self-awareness of the people who frequently use drugs, and it will be helpful to reduce their relapse rate [16].

Researchers have found poverty to be a risk factor for relapse in SUD. Homelessness and unemployment are associated with a high risk of engaging in hostility and risk-taking behavior,

which further leads to being a risk factor for fatal heroin overdoses in the United States [17]. Recent studies demonstrate that a low level of education also predicts relapse in youth [18].

According to the National Institute of Drug Abuse, men have higher rates of almost all types of illicit drug abuse than women. However, females are just as likely as males to develop a SUD, but males may be more susceptible to craving and relapse in the early stages of the addiction cycle [19].

Relapse in substance use is an important public health concern in Pakistan and has a terrible effect on society. Information on psychological and social factors which predicts relapse is very important to develop preventive strategies and policies for the treatment of relapse in SUD. here is the least data on relapse available in Pakistan, , therefore, we organize this research to classify psychosocial factors which predict relapse in substance abuse in Pakistan.

Material and methods.

First, permission was taken from the research institutional review board of the university of Gujrat. A cross-sectional research design was employed in the current study. The population of this study included people with relapse of substance use disorder in the rehabilitation centers of Wazirabad, Sialkot, Gujranwala, Gujrat, and Lahore, Punjab, Pakistan. The target population consists of individuals with relapses. The purposive sampling technique was used for the selection of the sample. A sample of a total of 200 participants (170 men and 30 women) was selected from all the approachable rehabilitation centers of Wazirabad, Sialkot, Gujranwala, Gujrat, and Lahore in the present study.

Data were collected using the Psychosocial Functioning Scale, which contains 83 items and is scattered over nine subscales. Psychological Scales contains (Self Esteem, Depression, Anxiety, and Decision-Making Confidence); and Social Scales hold (Childhood Problems, Hostility, Risk Taking, and Social Conformity). The socio-demographic characteristics of interest were gender, age, family system, socioeconomic class, type of drug abuse, and relapse rate.

Data analyzed by using SPSS 21. For descriptive analysis, frequencies and percentages were computed. Artificial neural network analysis was used to check the predictive relationship between psychosocial factors and relapse in people with substance use disorder.

Result and discussion.

The following tables display the findings collected through questionnaires.

Table-1 Demographic Characteristics of the Sample (N=200)

Variable	f	%
Age		
<20	11	5.5
20-29	87	43.5
30-39	61	30.5
>40	41	20.5
Gender		
Male	170	85.0
Female	30	15.0
Socioeconomic class		
Lower class	15	7.5
Middle class	116	58.5
Upper class	69	34.5
Type of Drug		
Tobacco, heroine	77	38.5
Alcohol, cannabis	43	21.5
Heroin, opium	13	6.5
Cocaine, crystal meth	23	11.5

Alcohol, crystal meth, opium	22	11.0
All of these drugs	15	7.5
Other substances	7	3.5
Relapse rate		
2-3 times	84	42.0
4-5 times	63	31.5
Six times and above	53	26.5

Overall, there were 170(85%) men and 30(15%) women. ath m,The majority of participants having the age range 20-29(43.5%), belonging to the middle class 116(58.5%), frequently used tobacco and heroine 77(38.5%), with a 2-3 times of 84(42.0%) (Table 1).

Statistical Analysis

The dependent variable in the study is relapse which was calculated. The independent variables include psychosocial factors (Self-Esteem, Depression, Anxiety, Decision making confidence, Childhood Problems, Hostility, Risk-taking, and social conformity). It was assumed that these variables predict relapse in people with substance use disorder. The results in the tables are further explained in the text.

Table-2: Artificial Neural network analysis between Psychosocial factors and Relapse rate (N=200)

Relative error	
Training	**Testing**
.994	.998

The neural network analysis in the table shows the difference between training and testing. The less difference exists between the two, the better result is training for relative error was equal to 0.994, whereas the relative error was .998 in the case of testing.

Table-3: Importance of Independent variable (psychological factors) (N=200)

Sr.#	Variables	Importance
1	Self-esteem	0.114
2	Depression	0.119
3	Anxiety	0.111
4	Decision-making confidence	0.128
5	Childhood problem	0.125
6	Hostility	0.125
7	Risk-taking	0.148
8	Social conformity	0.130

In table 3 neural network model has given the importance of the variables; psychosocial factors. The results indicates that the most important predictor is risk-taking .148 (100% of normalized importance) followed by social conformity 0.130 (88% of normalized importance), decision making confidence 0.128 (86.2% of normalized importance), childhood problem 0.125 (84.4% of normalized importance), hostility 0.125 (84.0% of normalized importance), depression 0.119 (80.5% of normalized importance), self-esteem 0.114 (76.6% of normalized importance) and anxiety 0.111 (74.7% of normalized importance).

All of these factors, i.e., self-esteem, depression, anxiety, risk-taking, childhood problem, hostility, social conformity, and decision-making confidence,contributed to relapse. The most important factor was risk-taking, and the less important factor was anxiety which can be observed in the figure.
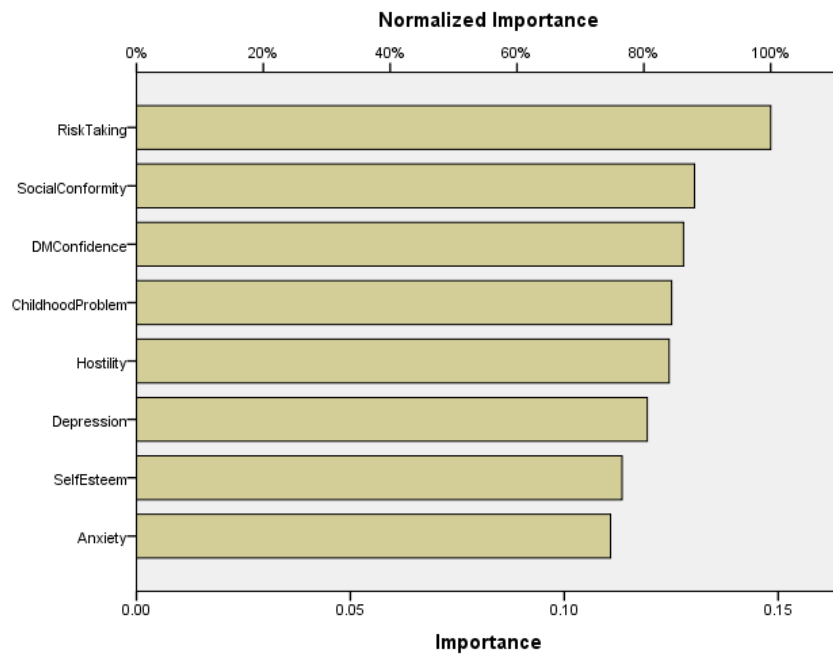
Figure-1: Normalized Importance of Psychosocial factors and Relapse

Hence, a reasonable neural network model explained the importance of the independent variable: psychosocial factors and dependent variable relapse. The figure showed how results were dominated by risk-taking behavior more followed by other psychosocial factors, i.e., self-esteem, depression, anxiety, decision-making confidence, hostility, social conformity, and childhood problems.

Discussion

The purpose of this study was to assess different psychosocial factors that predict relapse in individuals with substance use disorder. We found that various psychosocial factors lead to relapse, i.e., risk-taking, social conformity, decision-making confidence, childhood problems, etc.

The results indicate that the most important predictor is risk-taking. Clark and Jack conducted a study on antisocial behavior in the context of drug addiction. According to the findings of this study, it was proved that drug abusers are more likely to have a history of antisocial behavior. These people show hostility, aggression towards humans, and animal, damage property, and serious rules violation. The results indicate that sample of relapse has a high level of social conformity [20], [21]. Such findings are directly consistent with the assertion by Reif [22] that social conformity leads to relapse in people with substance use disorder because when a person comes back to a society where the consuming drug is fashion, then this situation stimulates that person to engage in substance abuse due to fit in the society.

The findings of this study highlight high levels of anxiety also cause relapse in people with SUD. Numerous studies have shown a high level of ,anxiety, and aggression in people with relapse. , A low level of interpersonal trust and insecurity, A low level of interpersonal trust and insecurity, predicts a high level of anxious and aggressive behavior [23], [24]. Chauhan, Nautiyal, Garg, and Singh research to find out predictors of relapse in cases of opioid/alcohol dependence. the r fromThe result of this study showed that clients who had relapsed experienced a high number of undesirable events, high negative mood states, poor family and social support, high level of social anxiety, and positive family history of drug addiction [25], [26]. Another research supports the current findings and claims that abusers experienced depression and hostile behavior more often as compared to nonusers because abusers were more likely to show hostility towards the environment and had less control over their depressed feelings [27].

This study revealed that people using multiple substances, such as two to three substances at a time, were having relapse rate than those who only used one substance. These findings collaborated with the previous research [28]. This study shows that men are more likely to abuse almost all types of drugs than women. These findings collaborated with National Survey on Drug Use and Health [29].

The study is rich in information but also has some limitations, ingincluding being restricted to some cities of Punjab and small sample size. So, the finding cannot be generalized to other populations with substance dependence. More rehabilitation centers could have been explored if the study had been extended to more cities.

Conclusion

Relapse among substance abusers occurs due to the strong impact of psychosocial factors. Risk-taking behavior, social conformity, poor decision-making confidence, high level of anxiety, and low self-esteem are major factors of relapse. Other variables, such as depression, hostility, and childhood problems, were found to be significant predictors of relapse. These findings may help clinicians to identify substance abuse patients that lead to relapse and develop essential interventions and policy guidelines for the prevention of relapse to drug addiction in Pakistan. It also helps in future research studies on relapse prevention in Pakistan.

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