

# ASSESSMENT OF RISK FACTORS OF RELAPSE IN DRUG ADDICTS IN REHABILITATION CENTERS IN PESHAWAR CITY

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## ABSTRACT

**Objective:** To find the common risk factors of relapse in drug addicts after being treated in a rehabilitation center.

**Materials And Methods:** This descriptive cross-sectional study was conducted in four rehabilitation centers, i.e., Da Haq Awaz, Lady Reading Hospital (LRH), and two Dost welfare Foundations in Peshawar City, from October 2019 to August 2021. The non-probability sampling method selected 70 addicts who had undergone single or multiple relapses. The Data was collected using a questionnaire, developed and validated via a structured seven-step process proposed by AMEE guide no. 87, which provides questionnaire development (conduction of literature review, synthesizing the literature review and development of items) and questionnaire validation (conduction of expert validation; content and face validation, cognitive interviews, and construct validation by pilot study resulting in a Cronbach's  $\alpha = 0.7$ ). Data were analyzed using SPSS-23.

**Results:** A total of 70 drug addicts participated in the study. All of them were males, out of which 78% were adults, 4.3% were elderly and the remaining 17.1% were adolescents. The most common risk factor of relapse was found to be the lack of hobbies,  $n=32$  (45.3%), followed by peer pressure,  $n=26$  (33%), while the least common was economic factors,  $n=13$  (18.6%). Association among variables such as age, peer pressure, family issues, polydrug abuse, lack of hobbies, disturbed sleep, and financial issues was significant  $p<0.05$ .

**Conclusion:** Among various risk factors for relapse, polydrug use, withdrawal syndrome, living status, peer pressure, family factors, lack of hobbies, psychiatric disorders, and financial aspects, lack of hobbies is the most common risk factor for relapse in drug addicts who had relapsed and were currently under the care of rehabilitation centers.

**Keywords:** Relapse, Drug Addiction, Substance Use Disorder, Rehabilitation.

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## INTRODUCTION

Substance abuse is defined as the use of any drug in a manner that deviates from approved social or medical patterns. The severity of substance use disorder (SUD) is classified into 4 levels based on the number of symptoms the patient has: at risk of SUD, mild SUD, moderate SUD, and addiction.<sup>1</sup> A drug addict is defined as a person using a drug such that the stoppage of that drug produces withdrawal symptoms in that person. Relapse is the return to drug-seeking and taking behavior after a prolonged period of abstinence.<sup>2</sup> While American Addiction Center defined "Relapse" as when a person returns to using drugs

after being sober for some time. Relapse shouldn't be confused with "lapse." A lapse is a tiny slip from the actual course of abstinence; that is, a person goes back to drug abuse but immediately stops. Victims usually undergo frequent lapses during their course of abstinence. Meanwhile, relapse is when a person in abstinence returns to a full-blown addictive lifestyle.<sup>3</sup>

Highly associated with morbidity and mortality, substance use disorder is the 2<sup>nd</sup> leading cause of disability according to a Global Burden Disease (GBD) study in 2017.<sup>4</sup> According to UNODC (United Nations Office on Drugs and Crimes), 284 million people, aged 15 to 64, mostly men, had used drugs in the last 12 months. It is a 26% increase in the last decade, which can be partly attributed to global population growth.<sup>5</sup> Globally, the prevalence of substance use disorders from 2010-2016 was stable at around 30.5 million, 36 million in 2019, and 36.3 million in 2020, while only 1 in 7 people received treatment for substance use disorder.<sup>6,7</sup>

Despite the rising trend of substance use disorder

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ders worldwide, there are no recent studies at a national level. A survey done by UNODC in 2013 showed Pakistan has around 6% or 6.7 million drug abusers, where 75% are males and 25% are females. However, 4.25 million individuals were drug-dependent.<sup>8</sup> Risk factors, Relapse, Drug addiction, Rehabilitation centres, Substance use disorder. Peshawar has a high prevalence of drug abuse because it is geographically located closer to Afghanistan, a major opium producer in the whole world, where the transit across the border is often unchecked.<sup>9</sup>

The situation of drug addiction in Pakistan, a developing country, is challenging, and serious measures must be taken to deal with them. One of the reasons for this high prevalence of drug abuse is relapse. The significant risk factors associated with relapse are peer pressure, lack of acceptance by society, family factors like addicts in the family and conflicts with relatives, polydrug abuse, lack of hobbies, psychiatric disorders, financial instability, and occupational factors.<sup>10-13</sup>

This study aimed to discover the most common risk factors of relapse in drug addicts who have suffered single or multiple relapses and are currently in the care of rehabilitation centers in Peshawar city. The outcomes of this study will be shared with professionals, the general population, and officials with the hope that this study may help them create policies and strategies to prevent relapse among drug addicts.

## MATERIALS AND METHODS

A descriptive cross-sectional design was used to assess the contributing factors of relapse in drug addicts from October 2019 to August 2021. This study included subjects who had recovered after being treated in rehabilitation centers but unfortunately relapsed and are again under treatment in rehabilitation centers of Da Haq Awaz located on Warsak Road, LRH Psychiatry ward, Dost Welfare Foundation Warsak Road, and Hayatabad branches, located in Peshawar city. The sample size was calculated using Andrew Fisher's formula, which was 68. However, we included 70 participants.

Data was collected using a self-developed questionnaire and validated via a structured seven-step process proposed by AMEE guide no. 87. First, a questionnaire was developed by performing a literature review; 47 articles were included via the PRISMA approach, interviews were conducted to know the concept of interest among the targeted population, the literature review was synthesized accordingly, and questionnaire items were developed. Secondly, the questionnaire items underwent expert validation; content and face validation, Focus groups, and cognitive interviews were done to ensure the subjects interpreted the items in a manner intended for their use. Construct validation was done by a pilot study to check for reliability resulting in a Cronbach's  $\alpha = 0.7$ .<sup>14</sup>

A statistical software platform SPSS-23 was used to find out the frequencies and associations using the chi-square test for multiple associations with decreased probability of type 1 error using Bonferroni correction.

## RESULTS

All 70 participants were males, with  $n=58$  (82%) adults and  $n=12$  (17.1%) adolescents. More than half of the participants,  $n=39$  (55.7%), were single, and  $n=39$  (55.7%) belonged to rural localities. Almost two-thirds,  $n=44$  (62.9%), were employed, and three fourth,  $n=52$  (74.3%), lived in a joint family system. And more than three fourth,  $n=55$  (78.6%), had an education level up to secondary school, as shown in Table 1.

According to this study, lack of hobbies,  $n=32$  (45.4%), was the most common risk factor for relapse in drug addicts, and peer pressure,  $n=26$  (37.2%), was the second most common risk factor for relapse. The financial instability factor,  $n=13$  (18.6%), was the least common risk factor for relapse in drug addicts treated in various rehabilitation centers in Peshawar, as shown in figure 1.

We found significant associations between various variables, including age and peer pressure, age and family conflicts, family status and polydrug abuse, withdrawal syndrome and peer pressure, withdrawal Syndrome and mood swings, withdrawal syndrome and disturbed sleep, disturbed sleep and family conflicts, disturbed sleep and financial issues, financial issues and family conflicts.

## DISCUSSION

The study included drug addicts older than 15 years of age currently under treatment in different rehabilitation centers in Peshawar city. According to previous studies, socioeconomic factors play a major role in relapse among drug addicts.<sup>15</sup> An increase of 1% in unemployment creates the probability of relapse by 3% of drug usage, as shown in a study done by Kassani et al. The study participants were unemployed with no sense of responsibility and had free time to get involved in drug usage.<sup>16</sup> These findings are contrary to our results as our findings showed that financial instability (18.6%) is the least common factor leading to the relapse of addicts.

Previous studies also suggested how illiterate or less educated people are more inclined to relapse.<sup>17</sup> But our study revealed no apparent correlation between education and relapse. Some of the older studies highlighted the role of peer pressure in relapse among addicts. Peer pressure is one of the crucial indicators leading to deterioration among 50% of drug addicts.<sup>18</sup> Another research conducted in Saudi Arabia also showed that peer pressure played a major role in the relapse of drug addicts.<sup>19</sup> Our findings show that peer pressure (37.2%) is the second most common risk factor for relapse. However, this finding contradicts a study done in Bangladesh to assess relapse

**Table 1: Study findings of demographic parameters of participants.**

Variables		Frequency (%)
Age	15-19 (Adolescent)	12(17.1%)
	20 - 50 (Adult)	55 (78.6%)
	50 - Above (Old)	3(4.3%)
Gender	Male	70(100.0%)
	Female	0(0%)
Marital Status	Single	39(55.7%)
	Married	31(44.3%)
Region	Urban	31(44.3%)
	Rural	39(55.7%)
Occupation	Unemployed	26(37.1%)
	Employed	44(62.9%)
Family	Joint	52(74.3%)
	Nuclear	14(20.0%)
	None	4(5.7%)
Family	Illiterate	11(15.7%)
	Primary	7(10.0%)
	Middle	16(22.9%)
	Secondary	32(45.7%)
	Professional	4(5.7%)

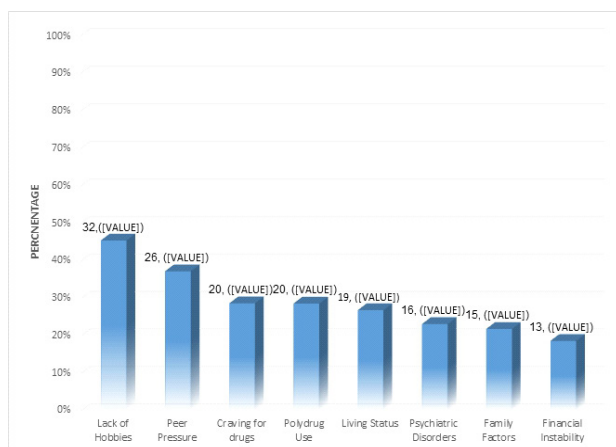
**Table 2: Study findings of demographic parameters of participants.**

Variable	Associated with	Chi-2Value	Sig.Value at $\alpha=.05$
Age	Peer pressure	9.894	.042
	Family issues	13.428	.004
Family Status	Polydrug abuse	17.76	.023
	Joint family	28.95	.000
Withdrawal Syndrome	Polydrug use	42.740	.000
	Peer pressure	28.5	.000
	Lack of hobbies	26.644	.009
	Mood Swings	37.935	.002
	Disturbed Sleep	37.629	.002
Polydrug use	Peer pressure	50.229	.000
	Lack of hobbies	37.80	.000
	Difficulty Focusing	46.716	.000
Disturb sleep	Family Conflicts	21.464	.044
	Mood Swings	46.608	.000
	Difficulty Focusing	39.412	.000
	Financial issues	36.68	.002
Financial instability	Family Conflicts	28.362	.005

in victims of substance use disorder.<sup>20</sup> The age factor also plays a big role in relapse among addicts. Worldwide the studies regarding relapse and adolescents have variable results, where some show an increased risk while others favor decreased risk.<sup>21,22</sup> Our results showed that the risk of relapse is remarkable among adults (78.6%) while other age groups, including adolescents (17.1%) and old age

(4.3%), are least likely to relapse.

There is an obvious relationship between drug-seeking for emotional stability and reassurance. If one's family disowns a person, one cannot rely on others for support.<sup>23,24</sup> These results follow our findings. Our results showed that family factors like addicts in the family



**Fig 1: Age distribution of all subjects**

and conflicts with relatives (21.8%) play an essential role in relapse among addicts. Relapse was more profound in polydrug abusers as compared to single-drug users.<sup>25-27</sup> Our results also supported these findings that one-third of participants who had relapsed were using multiple drugs simultaneously, which led to more relapse chances. Psychiatric disorders are highly associated with drug abuse and relapse among addicts.<sup>28</sup> Our results also proved that psychiatric disorders (23.1%), including mood swings and weeping spells, are responsible for relapse among addicts, with disturbed sleep and insomnia being highly accountable.

Our study highlighted that a lack of hobbies (45.4%) plays a major role in relapse among addicts. Most of the individuals under study confessed that they were aware of all the negative impacts of addiction but failed to control their urges under any circumstances because they felt like their day did not go right without doing drugs. Another major finding of our study is withdrawal syndrome (28.6%) leading to relapse. Withdrawal syndrome as a risk factor for relapse was not measured previously. Instead of struggling with withdrawal symptoms and embarrassment alone in front of family and the public because of the lack of rehabilitation services, relapse seemed a better option for subjects. Few of the previous studies showed these factors playing a role in relapse,<sup>13</sup> but the literature of our region lacked the assessment for these two factors.

Another important aspect of our study was finding associations between various variables, indicating that relapse is not dependent solely on one factor but is a multifactorial phenomenon. Most of the previous literature didn't show associations between various risk factors for relapse, so significant associations between risk factors for relapse is our new finding.

## CONCLUSION

This study concluded that the most common risk factor for relapse was lack of hobbies (sitting idly), followed by peer pressure, while the least common was

financial factors. It was found that other risk factors for relapse, including polydrug abuse, withdrawal syndrome, etc. play a minor role in relapse. Our findings also indicated that relapse in the victims of a substance use disorder is dependent not merely on single but multiple factors. Policies at public health levels should be devised and implemented in the form of activities that involve the victims of substance use disorder to avoid relapses in them.

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#### AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under

<b>Jan MM:</b>	Data collection/analysis, questionnaire development/validation, Paper Writing
<b>Akhunzada UF:</b>	Data collection/analysis, questionnaire development/validation, paper writing
<b>Ahmad T:</b>	Financial management & data collection
<b>Waheed F:</b>	Data collection & literature review
<b>Ehsan N:</b>	Data collection & literature review
<b>Bilal LZ:</b>	Data collection & literature review
<b>Akbar T:</b>	Literature review
<b>Ullah H:</b>	Data collection
<b>Malik AS:</b>	Literature review
<b>Nawaz S:</b>	Data collection
<b>Ahmed F:</b>	Review and Supervision

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.



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