Family Functioning and Relapse Among Drug Addicts: Mediating Role of Psychological Capital

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Drug abuse is an enduring and chronic lifestyle disorder and relapse rate to drug abuse is high, and its negative impact on individuals, families and society is severe. Family functioning has a significant impact on the beginning and maintenance of substance use. Psychological capital is an effective protective factor against substance abuse. The purpose of this research was to determine the relationship between family functioning and relapse among drug addict in Pakistan as well as the focused on mediating effect of psychological capital. Three scales translated into Urdu language including Advanced Warnings of Relapse Questionnaire (Sahar & Naqvi, 2020), Family Assessment Device (Epstein et al., 1983), and Psychological Capital Questionnaire (Luthans et al., 2007) along with informed consent and demographic sheet were administered on 150 male drug addicts of age 18 years above admitted for treatment in different Rehabilitation Centers of Rawalpindi and Islamabad. Results of current study demonstrated negative correlation between family functioning and warning of relapse. It was also concluded that psychological capital and relapse have negative relation with each other. Findings also revealed that psychological capital and family functioning have positive relation with each other. Outcomes showed mediating role of psychological capital between family functioning and relapse. Another outcome indicates that young drug addicts are more prone to relapse as compared to individuals of middle and late adult age. It was also depicted that individuals living in joint family system have more psychological capital than those living in nuclear system.

Keywords. Substance abuse, relapse, drug addicts, family functioning and psychological capital

Relapse to substance usage remains a key barrier to abstinence in those getting treatment for substance use disorders, according to a plethora of studies (Weerasinghe & Bartone, 2016). Drug misuse is a long-term condition which leads to chronic living style and poses significant health related challenges. Addiction of illicit drugs has serious psychiatric, psychological, emotional, and medical consequences for individuals, their family members and also for communities. Relapse is so common and has influence on life of individuals, families, and society. Social mechanism as well as psychological interventions in preventing reoccurrence of addiction can be studied in both conceptual and empirical way. Number of individuals have to pay the cost of drug abuse in form of depriving of their jobs, parents, relatives, freedom, and even sometimes result in losing lives and same happen as an outcome of relapses (Masood & Sahar, 2014). Different rehabilitation centers in Pakistan are working with aim to control usage of mind altering drugs and also to have control on problems arising in society due to drugs. Commonly applied therapeutic interventions in rehab centers of Pakistan includes the Alcoholics Anonymous treatment, individual therapy, group therapy based on rehabilitation skills and family focused therapy that are modified versions (Masood & Sahar, 2014).

Psychological capital has been found to be involved in predicting a broad range of behavioral and attitudinal outcomes related to work in large body of literature. As revealed in research that one of effective, protective and supportive variable against drug use problem is positive psychological state particularly the psychological capital (Tesfai, 2006). Family functioning can predict and assume intake of drugs by individual, the tendency for using psychoactive chemicals and inclination towards relapse (Azmi et al., 2018). Intimacy among members of household is one of the dimensions important to keep family functional. It helps in reflecting the cohesion of close bonds among members (Olson, 2000).

Research studies revealed the existence of positive relationship between psychological capitals and functioning within family (Sahin et al., 2010). Results of one study related to impact of psychological capital and family functioning shows that one dimension of psychological capital named as optimism has significant positive predictive relation with family functioning (Sahin et al., 2010).The relation of individual's level of hope and functioning of household can have significant positive prediction (Connelly, 2005). Similarly family functioning and other dimensions of psychological capital including resilience (Mathiesen & Prior, 2006) and self-efficacy (Reitz et al., 2014) also have positive predictive significant relation. According to postulation related to family

system, in way family system functions has valuable impact on individual's wellbeing and develop positive state of mind.

This research has significance for counselors as well to understand about reducing familial issues. It helps to increase the effectiveness of family intervention to bring stability and reducing risk of drug usage again after treatment. Study was important to promote positive psychological qualities. Current research was beneficial to find how psychological capitals are involved in reducing risk of relapse among drug addicts and also role of family. Previously few studies made evaluation on demographic variables in relationship to psychological capital, family functioning and relapse prevention so in present research demographic characteristics will be focused. Current study will be helpful for understanding how much family support is important in preventing relapse and reducing warning relapse of drug addiction. This study will be important for individuals involved in drug addictions and also to their families for playing supportive role. Present research will also has significance in providing sound knowledge to coming researchers for doing research work on drug addiction.

The hypotheses of the present study are as follows:

Hypotheses

1. Good family functioning has negative relation with relapse among drug addicts.

2. Psychological capital has negative relation with relapse among drug addicts.

3. Good family functioning and psychological capital has positive relation among drug addicts.

4. Psychological capital has mediating role between family functioning and relapse among drug addicts.

5. Young individuals are more prone to relapse as compared to individuals of middle and late adult age group.

6. Individuals living in joint family system has high psychological capital as compare to those living in nuclear family system.

Method

Research Design

Research design followed in current research was cross-sectional.

Sample

The sample of current research based on 150 subjects who were involved in drug addiction and admitted in rehabilitation centres for treatment. This sample size has been determined by applying G*Power. Subjects from different rehabilitation centresof Islamabad and Rawalpindi were included in sample. Participants having age range 18 or above were included in study. Both married and unmarried participants were part of research. Only male participants were part of current study. Individuals belong to any regional and religious background was included without any discrimination. All the participants must be admitted and diagnosed with substance abuse disorder. Subjects with first treatment as well as previous treatment history were given preference. Convenient sampling method was applied for data collection of present research.

Instruments

Psychological Capital Questionnaire

The Urdu version of Psychological Capital Questionnaire-24 (Luthans et al., 2007) which includes 24 items and divided into four subscales consisting of six items for each of the four sub-scales Subscales are self-efficacy, hope, resilience, & optimism (Luthans et al., 2007). Items 1-6 measures Self-efficacy; 7-12 measures Hope; 13-18 measures Resilience; and 19-24 measures Optimism. Item no. 13, 20, and 23 are negatively scored items in this scale. Response categories of this scale ranged from *strongly disagree* (1) to *strongly agree* (6). To get a total composite score, an average of all 24 items was taken. In same way to get composite scores of subscales, all six responses for each of the items were summed. High scores on the scale indicates more psychological capital and similarly high scores on each sub-scale reflects higher self-efficacy, hope, resilience, and optimism. Reliability estimate of the scale was found to be .88.

Family Assessment Device

This scale was designed and proposed by Epstein et al. (1983). It was translated into Urdu language during current research. It was used as a device for measuring family functioning. It is a 4-point Likert scale. Responses for this scale ranging from *strongly disagree* (1) to *strongly agree* (4). It consisted of 60 items originally but in Urdu version 58 items were included. The internal consistency of the scale is .72 to .92. It comprises of seven subscales like problem solving, communication,

roles, affective responsiveness, affective involvement, behavior control and general functioning. If respondents have higher scores on this scale, it indicated good and better level of family functioning.

Advance Warning of Relapse Questionnaire-Urdu.

This scale is developed by Miller and Harris in (2000). Urdu translation of AWARE was used in current study (Sahar & Naqvi, 2020). It consists of 28 items. It is 7 point Likert-type scale. It aims to measure the warning signs that are involved with the condition of relapse. The reliability coefficient for the scale is .74. Item 8, 14, 20, 24 and 26 are reverse coded items. The higher scores on scale indicated more warning signs of relapse thus lowering relapse prevention. The score range exists from 28 (lowest possible score) to 196 (highest possible score) (Miller & Harris, 2000).

Procedure

After taking permission from concerned authorities for ethical approval, research was started by approaching drug addicts admitted in different drug rehabilitation centres of twin cities. Initially subjects according to inclusive criteria of study were briefed about study and its purpose. Then informed consent was taken from all participants of current research where they were requested to participate with honesty and ensured them confidentiality regarding the information they share while participating in research. Demographic sheet was provided along with three research instruments. All of the three scales for studying relation of research variables were in Urdu language. When any subject completed the research instrument, he was appreciated for response with word of thanks.

Results

Descriptive and correlational quantitative design was employed with the purpose to investigate the relation of warning signs of relapse, family functioning and psychological capital. After this, descriptive statistics were used to assess the research data statistically on SPSS. Cronbach alpha coefficients, mean, standard deviation, kurtosis, skeweness, inter-scale and item total correlation was computed to test the validity of scales. Then statistical analysis was done to test the hypotheses of study. Mediating analysis was also conducted through using extension of SPSS named as process macro. After doing analysis of the data, desired outcomes were obtained and then results were discussed and compared in light of previous literature according to topic of research.

Table 1

Correlation of Family Functioning, Risk of Relapse & Psychological Capital (N=150)

	Variables	1	2	3
1	Family Functioning	-	-.18[*]	.22[**]
2	Risk of Relapse		-	-.39[**]
3	Psychological Capital			-

[*]$p < .05$, [**]$p < .01$.

Table 1 showed that family functioning and relapse tendencies has significant negative relation which refers that good family functioning leads to reduce the risk of relapse. Family functioning and psychological capital has significant positive relation with each other which means if family functioning is more than psychological capital is high and vice versa. Correlation analysis reveals that psychological capital and risk of relapse has significant negative relation with each other which indicates that if psychological capital is high then warning of relapse can be less and if psychological capital is low then warning of relapse can be more.

Table 2

Group Differences along Family System on Study Variables (N=150)

Variables	Joint (n = 83) M(SD)	Nuclear (n = 57) M(SD)	t(148)	p	95% CI LL	UL	Cohen's d
Family Func.	157.39(12.82)	154.57 (7.80)	1.59	.11	-0.69	6.36	.41
Risk of Relapse	77.66(18.35)	82.86(22.09)	1.58	.11	-11.73	1.32	.23
Psy. Cap	114.30(13.76)	107.48(17.25)	2.69	.00	1.82	11.83	.22

Note. Func. = Functioning; Psy Cap = Psychological Capital.

As shown in Table 2 that significant mean differences exists for joint and nuclear family system on psychological capital while non-significant mean differences exists for family functioning and risk of relapse. Outcome of independent *t*-test analysis shown that mean score for family functioning and psychological capital is more among drug addicts living in joint family system, while mean value for warning of relapse is high among addicts living in nuclear family system.

Table 3

Group Differences along Age Groups on Study Variables (N = 150)

Variables	Young ($n = 74$) M(SD)	Middle ($n = 60$) M(SD)	Late ($n = 16$) M(SD)	F	p	η^2	Post hoc 1<2<3
FF	157.05(11.44)	156.66(10.95)	149.88(5.55)	3.04	.050	.06	1>2>3
Rel. Risk	83.44(22.05)	75.43(19.28)	81.06(9.25)	2.69	.000	.04	1>2<3
Psy Cap	108.47(16.73)	111.93(13.70)	121.56(14.36)	4.85	.000	.04	1<2<3

Note. FF = Family Functioning; Rel. = Relapse; Psy Cap = Psychological capital (df 1= 2, df 2 = 147).

Table 3 showed the result of One-way ANOVA which highlights significant differences for psychological capital and relapse risk in respect of age differences. It represents that psychological capital is high for subjects of middle age, while the risk of relapse are high for individuals of young age. Mean score for family functioning is more among young adults.

Table 4

Mediation Role of Psychological Capital in Relation between Family Functioning and Relapse (N=150)

Model	Predictors	R^2	B	p	t	CI
			Criterion: Risk of Relapse			
1	Constant		62.19	.00	3.44	[26.47, 97.91]
	Family Functioning	.05	.31	.00	2.72	[.08, .54]
2	Constant		60.05	.00	7.03	[115.07, 205.02]
	Family Functioning		-.18	.00	1.24	[-.66, -.27]
	Psychological Capital	.16	-.46	.00	4.71	[-.46, .11]

For step1: F (1,148) = 7.40. For step 2: F (2,147) =13.79.

Results in Table 4 has shown mediating role of psychological capitals in relationship between functioning of family and relapse. Model 1 indicated that family functioning predicts relapse by gives 5% of its variation. The family functioning negatively predicts relapse. Model 2 shows the direct effect for family functioning and psychological capital which has positive relation with each other, on relapse. The R^2 value shows that family functioning and psychological capital explains 16% variation in relapse. A comparative analysis of model 1 and model 2 showed that the direct effect (path c' = -.18[**]is smaller than the total effect (path c = -.33[**]), both are significant and suggesting mediation. There was significant effect of family functioning on relapse among drug addicts. Also has significant mediating effect of psychological capital on family functioning and relapse warning.

Figure 1.

Showing direct and indirect relation between Family Functioning and Relapse and mediating role of Psychological Capital.
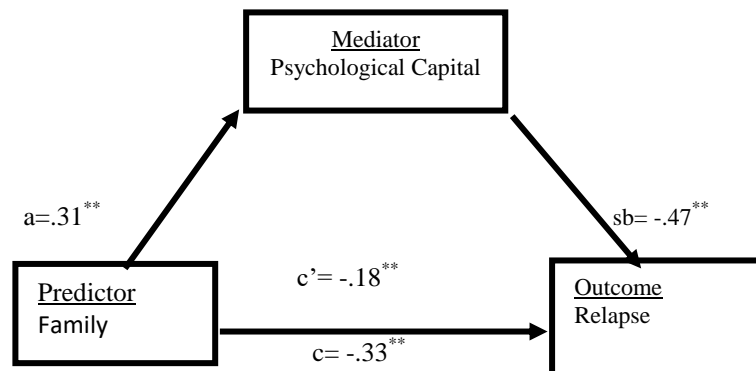
Discussion

The present research was conducted with aim to see the effect of family functioning on chances or warning of relapse and relation with psychological capital in Pakistan. In addition, the present study has also made important contributions to investigate the mediating role of psychological capital with family functioning and relapse among drug addicts. Current research has studied the effects of research variables with different demographic variables (e.g. age group, marital status, province, residence, employment status, monthly income, drug category etc.).

Analysis reveals that 49.30% individuals between ages of 18-25, 40% between age of 25-44 and 10.70% between ages of 44-60 were involved in drug addiction and are under treatment; while, 50.7% individuals who belong to urban areas and 49.30% from rural residence were involved in using drugs. 50.7% of subjects have education from middle to intermediate, 38.7% has graduation till master's while 10.7% has education above Masters. 51.3% of married subjects, 40% of unmarried and 7.0% of divorced drug addicts were considered in current research. Among the participants 67.3% were employed and 32.7% were unemployed. 56% of subjects of current research were from province Punjab, 10% from Sindh, 29.3% from KPK, 2% from GB and 2.7% from AJK. Cannabinoid is among the highly frequent used drug as 44.0% of subjects were taking cannabinoids. 17.3 % were using Opioids, 13.3% were using Amphetamines, 7.3% were using Alcohol, 10.70% were using

injections and remaining 7.3% were taking more than on drug. 74% of subjects were using drugs for more than 1 year. 73.3% of research participants have started taking drugs because of peer pressure. 53.3% of participants were willing to quit drugs while remaining 46.7% were not willing to leave using drugs.

It was hypothesized that good family functioning and warning of relapse has negative relation among drug addicts. The findings of current study through conducting correlation analysis reveal that family functioning has negative predictive effect on the warning of relapse among subjects involved in drug addiction. These results were in accordance with previous research which demonstrated that the individuals with better family functioning have lower chances of using drugs (Hummel et al., 2013). This shows that warning of relapse is less among drug addicts if family functioning is high, and warning of relapse is more if family functioning is low. Thus, hypothesis is accepted.

Hypothesis was proposed that psychological capital and relapse are negatively related among drug addicts. The results of current research has shown that warning of relapse and psychological capitals has significant negative relation with each other which indicates that warning of relapse are reduced or less if psychological capitals are high. These results supported the outcome of previous research which clearly mentioned that psychological capitals are protective factors against drug addiction (Tesfai, 2016). Hence, results supported research hypothesis.

It was hypothesized for current study that psychological capital and good family functioning has positive relation with each other. The results of current study showed presence of significant positive relation between psychological capitals and family functioning which demonstrated that if psychological capital is high then family functioning is also high and vice versa. These outcomes are consistent with previous researches which also suggested existence of positive relation between psychological capital and family functioning (Sahin et al, 2010). Therefore, hypothesis is accepted.

It was postulated that psychological capital play mediating role between functioning of family and relapse. Mediation analysis was conducted through process macro to test this hypothesis. Findings of analysis reveals mediating effect of psychological capital on family functioning and relapse. Family functioning is predictor, psychological capital is mediator and relapse is outcome variable. These outcomes are consistent with results of previous studies which indicated that psychological capitals can mediate the role of functioning of family and preventing relapse (Sun et al., 2019).

Another outcome of present research was that significant mean differences found for psychological capital on basis of family structure while nonsignificant mean differences for family functioning and warning of relapse. It was obtained that subjects living in joint or collective family system, as compare to nuclear family system, have more mean scores for family functioning which can be because joint family structure has more communication, more exposure to household issues, direct association between two generation and good involvement as illustrated in previous study (Naz & Gul, 2014; Therborn, 2004). As it was postulated that individuals living in joint family system as compare to nuclear family system has more psychological capital. So hypothesis was accepted. In joint structure, psychological capital are high because individuals in joint family structure have more interaction, more social support, more attention and affection, more engagement, easy expression of emotions and have different problem solving strategies. These outcomes are consistent with previous finding (Fomby & Cherlin, 2007). While mean score for warning of relapse is high for those living in nuclear family system although statistically non-significant, because they have less intimacy with family, usually live in isolation, lack of communication, are introverted and reluctant in expressing their emotions related to stressful events. Similar results have been shown in previous study conducted in China (Chen & Chen, 2020).

Findings further showed that family functioning is more among drug addicts of young adult age which can be because individuals at young age are more supervised by family, have good family support, more interaction with family member and have good affective involvement. Another finding was chances of relapse were seen more among individuals of young age because at this individuals may have more interaction with peer and friend circle, have more curiosity for new experiences, poor self-control and may have poor coping strategies against stress. These findings are in accordance with previous findings (Bakhsh & Zakir, 2018; Hazarika et al., 2000; Meldrum & Hay, 2012). It was also hypothesized in current study that young people are more prone to relapse. This hypothesis is accepted and results are also consistent with previous study which showed that individuals of young age have more curiosity and motivation to experience new things which lead them towards drug behavior and relapse (Duan et al., 2009) While psychological capital was found high among drug addicts of middle age which can be because people at this age has attained much confidence on their abilities, have more experience, can have healthy coping strategies, stayed hopeful and more optimistic. Similar findings were mentioned in previous research which showed psychological capital were high among individuals of older age (Avey et al., 2011).

Implications

In order to reduce the relapse possibility for drug addiction, firstly it is necessary to educate and counsel the family members of individuals to take good care more about them, provide essential psychological support and encouragement, and also create a warm and comfortable atmosphere for them, and thereby improve their family functioning. Individuals involved in drug addiction can be treated better by means of group counselling with emphasis on the psychological capital.

Conclusion

This present study is a helpful to understand the importance of family setup in managing the risk for relapse among drug addicts as findings have identified a strong relation between warning of relapse and functioning of family. This study also concluded about the involvement of positive psychological traits in enhancing life quality of individuals involved in drug addiction by reducing possibility of recurrence of substance use as results has clearly demonstrated that psychological capital has significant relation in lowering warning for reusing and moving toward stage of relapse. The results also indicated that psychological capital play mediating role between functioning of family and relapse. To sum up, this study has shown that the risk of relapse of drug addicts is directly related to their family function, and indirectly through the mediation of psychological capital.

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