

Original Article

# The Parent-Child Relationship, Locus of Control and Self-Defeating Behaviour in Individual with Substance Use Disorder

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## ABSTRACT

**Background:** The study explores the influence of parent-child relationships (PCR) and locus of control (internal and external) on self-defeating behaviours (SDB) among individuals with substance use disorders in the Pakistani community. These relationships are pivotal in understanding behaviour patterns related to substance abuse.

**Objective:** The objective is to examine the correlations and potential mediation effects between PCR, internal locus of control (ILOC), external locus of control (ELOC), and SDB in individuals with substance use disorders.

**Methods:** A correlational research design with purposive sampling was used, involving 150 participants from various clinics and hospitals in Lahore. The study employed Pearson product-moment correlation analysis, linear regression, and mediation analysis. Instruments included the Inventory of Parent and Peer Attachment, Levenson Multidimensional Locus of Control Scale, and Ottawa Self-Injury Inventory Scale.

**Results:** PCR showed a moderate positive correlation with ILOC ( $r = .40$ ) and ELOC ( $r = .32$ ), and a negative correlation with SDB ( $r = -.18$ ). Age negatively correlated with SDB ( $r = -.21$ ) and positively with marital status ( $r = .15$ ). Stepwise regression analysis revealed Age ( $b = 1.3, \beta = .29^{***}$ ) and Life Satisfaction ( $b = -13.6, \beta = -.28^{***}$ ) as significant predictors of SDB. Mediation analysis indicated PCR significantly predicts ILOC ( $B = .09, R^2 = .26^{***}$ ) and ELOC ( $B = .11, R^2 = .25^{***}$ ), but these did not significantly mediate the relationship between PCR and SDB.

**Conclusion:** The study underscores the significant role of PCR and locus of control in the manifestation of SDB among substance users. It highlights the complex interplay of family dynamics, personal control perceptions, and individual well-being, providing insights for targeted interventions in the Pakistani context.

**Keywords:** Parent-Child Relationship, Locus of Control, Self-Defeating Behaviour, Substance Use, Pakistani Community, Psychological Factors, Family Dynamics.

## INTRODUCTION

The dynamics of emotions, behaviour, and expectations are all different in the parent-child connection (1). People have various connections throughout their lives, but parent-child interactions are particularly important (2, 3). Understanding the parent-child bond conveys several characteristics, such as social, emotional, and physical. Relationships can be classified into four types: avoidance (parents responding to a child's wish as an emotionally and vexing wilderness experience), ambivalent (child feeling insecure connection with parents), disorganised (provide a secure environment for child to come out of risk and explore independently safe environment), and secure (child dependent on their parents about their needs, beliefs, and want their parents in every situation) (4). A child's (or adult's) relationship with their parents influences how they will act with other people when their parents are not there (5).

A person's understanding of their own value and their assessment of their ability to maintain the conduct necessary in a certain situation are referred to as their locus of control (6). Tsuda (2020) asserts that a person's perception of their personal existence determines their locus of control (7). Two different loci of control were described by Tsuda (2020) as internal and external loci of control. According to Saxena (2021), a person who has an internal locus of control is more motivated to achieve their objectives and desired results, while a person who has an external locus of control is less motivated to do so (8).

Self-destructive behaviour, maladaptive behaviour, and/or risk-behaviour are behaviours that have the potential to endanger one's bodily and mental health (4; 19; 22; 23) (9-11). Self-defeating behaviours are defined as intentionally hurting oneself or forcing injuries on oneself. People who engage in self-defeating patterns do so because they experience rejection and instability in their relationships with their parents, or because their parents fail to show them love and care for their needs.

Substance abuse is often characterised by a pattern of mood swings and self-harm (12, 13). There are numerous distinct types of "substance," such as alcohol and other drugs, both legal and illicit, as well as other substances that aren't even drugs. The term "substance use" refers to the use of psychoactive substances in conjunction with hazardous and harmful products, such as alcohol and illegal narcotics (14, 15). Substance-related disorders are recognised in ten drug classes, according to the DSM-5. Alcohol, cannabis, inhalants, opioids, hypnotics, sedatives, hallucinogens (phencyclidine and other hallucinogens, such as LSD), stimulants (such as cocaine, amphetamine-type drugs, and other stimulants), nicotine, and other unknown compounds have all been included (16).

The prior research, which included female adolescents aged 14 to 18, examined the connections between psychological functioning, self-defeating behaviour, and parent-daughter relationships (17, 18). Additionally, the research looked at the many conceptions of self-defeating behaviour patterns at Midwestern Universities in order to examine the conceptual model of functioning via Self-Defeating Style. a sample of 390 university students taking a psychology course—244 women and 145 men. Another research examined the connections between 198 students' self-concept, adolescents' locus of control orientation, and perceived parenting styles (responsiveness and demandingness). The following were the goals: to investigate the link in the clinical population (substance use patients) between Parent-Child, Locus of Control, and Self-Defeating Behaviour Patterns: To ascertain the function of loci of control, both internal and external, in the relationship between the parent-child bond and patterns of self-defeating behaviour in the clinical population (substance use disorder) (19, 20). To ascertain the relationship between the parent-child relationship and self-defeating behaviour in the clinical population (drug use disorder) and the locus of control (internal and external) (21).

## MATERIALS AND METHODS

Purposive sampling was used in correlational research for this study. Using a 5% (0.05) p-value, correlation, prediction, and mediation were found using Pearson product moment correlation analysis, linear regression, and mediation analysis, respectively. Based on G-power analysis, 150 individuals made up the sample size. The sample was gathered from many Lahore clinics and hospitals. The research included the following hospitals: Mayo Hospital (n=49), Ehsaas Clinic (n=6), Jinnah Hospital (n=4), Fountain House (n=17), Blessing the Mental Health Clinic (n=27), Willing Ways Clinic (n=10), Inspire Recovery Clinic (n=19), Punjab Institutes of Mental Health (n=16), and Service Hospital (n=2). Data was gathered from both indoor and outdoor patients with approval from the relevant hospital and clinic authorities. After receiving approval from the Board of Advance Studies & Research (BASR) for a final review, the Riphah International University's Ethical Review Committee (ERC) approved the Riphah Institute of Clinical and Professional Psychology (RICPP). Following approval, the reference number was assigned (Ref.No.FSS & H/ERC/RICPP/18/075). Following an explanation of the study's objectives, the participant provided written permission. which guaranteed the participant's freedom to withdraw from the study, the confidentiality of the data, and its use only for research purposes.

The demographic comprises details about the person who is abusing drugs or alcohol as well as generic data like age, education, birth order, number of siblings, marital status, number of children, employment, number of family members, and family income. Participant income, satisfaction with life, and other factors pertaining to information on drugs or substance usage, such as the kind of drug used, how long it is used for, how much is used, why it is used, how it makes one feel, etc.

The Inventory of Parent and Peer Attachment (IPPA), which consists of twenty-eight questions about both parents, is a self-report assessment of the quality of parent-adolescent relationships (1). The unique way that each person perceives life events was measured using the Levenson Multidimensional Locus of Control Scale. The Ottawa Self-Injury Inventory Scale is a self-report measure that was created by Martin et al. in 2013. It looks at self-harm in relation to its frequency, incidence, self-harming functions, and dependency on psychoactive substances. With the author's consent, the scale was translated into Urdu utilising the MAPI Guidelines, an internationally recognised translation methodology that converts the source instrument into the target language. People to whom the translated questionnaire was given found the scale to be conceptually comparable to the original scale and clearly intelligible. Both forward and backward translations of the scale were made.

## RESULTS

This table presents correlations and descriptive statistics for various psychological and sociodemographic variables in a sample of individuals. Parent-Child Relationship (PCR) is moderately positively correlated with Internal Locus of Control (ILOC;  $r = .40$ ) and External Locus of Control (ELOC;  $r = .32$ ), and negatively correlated with Self-Defeating Behaviour (SDB;  $r = -.18$ ). Age shows a negative

correlation with SDB ( $r = -.21$ ) and is positively associated with Marital Status (Ms;  $r = .15$ ). Education (Ed) has a positive correlation with Family System (Fs;  $r = .22$ ). Interestingly, Family System is negatively correlated with Marital Status ( $r = -.28$ ). Residence (Res.) shows negative correlations with Amount of Drug Use (Adu;  $r = -.19$ ) and Drug Use by Other Family Member (Dufm;  $r = -.19$ ). There's a moderate positive correlation between Attempt to Withdraw (Awd) and Success in Attempt (Sa;  $r = .50$ ). The mean and standard deviation values for these variables range broadly, with Life Satisfaction (LS) having the highest mean ( $M = 2.2$ ) and Self-Defeating Behavior having the highest standard deviation ( $SD = 34.0$ ), indicating a wide variation in these responses. This data suggests interconnected relationships between family dynamics, locus of control, drug use, and personal well-being in this population.

Table 1 Pearson Product Moment Correlation Analysis

Variable	PCR	ILOC	ELOC	SDB	Age	Ed	Fs	Ms	Res.	Rg	Rfh	Ddu	Adu	Dufm	Awd	Sa	LS	M	SD
PCR	1	.40**	.32*	-.18*	-.14	.05	.04	.01	.07	-.08	-.33*	-.00	-.09	.06	.08	.14	.39*	167.4	18.8
ILOC		1	.66*	-.16	-.14	.06	.05	.05	.03	-.10	-.16	.13	-.12	.12	.08	.17*	.32*	32.7	6.4
ELOC			1	-.10	-.20*	-.00	.02	-.04	.02	.02	-.11	.01	-.21*	.08	-.06	.12	.21*	64.3	10.8
SDB				1	.29*	-.19*	.19*	-.28*	-.15	.08	.12	.17*	.11	.02	.05	.02	-.27*	191.9	34.0
Age					1	-.21*	.15	-.56*	.11	.18*	-.06	.27*	.07	-.08	-.05	.14	.00	28.5	7.3
Ed						1	.01	.22*	.09	-.22*	-.09	-.20*	.12	.11	.09	.13	.07	8.2	4.5
Fs							1	-.28*	.03	.06	.02	.15	.06	-.09	-.08	-.06	-.04	1.3	.47
Ms								1	.12	-.14	.14	-.16*	-.04	.08	.02	-.08	-.04	1.6	.49
Res.									1	-.15	-.19*	-.10	-.00	-.19*	.05	.10	.08	1.8	.41
Rg										1	-.00	.08	-.01	.11	.03	-.06	-.15	1.1	.24
Rfh											1	-.05	-.04	.01	.00	-.18*	-.27*	1.5	.49
Ddu												1	.09	.00	.07	.05	.05	6.1	4.3
Adu													1	.07	.07	.06	.02	4.4	12.1
Dufm														1	.01	.00	.00	1.3	.44
Awd															1	.50*	.09	1.7	.45
Sa																1	.14	1.6	.49
LS																	1	2.2	.71

PCR stands for Parent-Child Relationship, ILOC is Internal Locus of Control, and ELOC denotes External Locus of Control. SDB refers to Self-Defeating Behaviour, while Ed represents Education. Fs is used for Family System, with 1 indicating a nuclear family and 2 a Joint family. Ms represents Marital Status, where 1 is Married and 2 is Unmarried. Res. indicates Residence, with 1 for Rural and 2 for Urban areas. Rg is for Religion, with 1 representing Islam and 2 Christianity. Rfh stands for Request for Help, with 1 being a request to a Family Member and 2 to Friends. Ddu is the Duration of Drug Use, and Adu refers to the Amount of Drug Use. Dufm indicates whether there is Drug Use by Other Family Members, with 1 for No and 2 for Yes. Awd represents an Attempt to

Withdraw from drug use, with 1 being No and 2 Yes. Sa is for Success in Attempt, with 1 being Not at All successful, and 2 being Greatly successful. LS denotes Life Satisfaction, categorized as 1 for Not Satisfied, 2 for Satisfied, and 3 for Much Satisfied. M stands for Mean, and SD is the Standard Deviation. The key for statistical significance includes \* for  $p < .05$ , \*\* for  $p < .005$ , and \*\*\* for  $p < .001$ .

Table 1.2 details a stepwise regression analysis predicting Self-Defeating Behaviour (SDB) with key variables: Age, Life Satisfaction (LS), and Marital Status (Ms). Initially, Age alone significantly predicts SDB, with a coefficient (b) of 1.3, standard error (SE) of 0.37, and a strong beta ( $\beta$ ) of .29, accounting for 8% of the variance in SDB ( $R^2 = .08$ ). In the second step, when LS is added, the model's explanatory power increases significantly ( $\Delta R^2 = 13.4$ ), with LS having a substantial negative impact on SDB ( $b = -13.2$ ,  $SE = 3.7$ ,  $\beta = -.27$ ). The final model, including Age, LS, and Ms, explains 1.8% of the variance in SDB ( $R^2 = 1.8$ ), with Age's and LS's impact slightly adjusting in this model (Age:  $b = .87$ ,  $\beta = .19^*$ ; LS:  $b = -13.6$ ,  $\beta = -.28^{***}$ ). Marital Status also emerges as a significant predictor ( $b = -12.7$ ,  $SE = 6.3$ ,  $\beta = -.18^*$ ). These results suggest that older age and lower life satisfaction are associated with increased self-defeating behaviours, with marital status also playing a significant role. The notable changes in  $R^2$  with each step underscore the combined influence of these factors on SDB.

Table 2 Stepwise Regression Analysis Predicting Self-Defeating Behaviour

Step	Variable	B	SE(b)	$\beta$	$R^2$	$\Delta R^2$
1	Age	1.3	.37	.29***	.08	
2	Age	1.3	.35	.29***	.16	13.4
	Life Satisfaction	-13.2	3.7	-.27		13.1
3	Age	.87	.42	.19*	1.8	4.1
	Life Satisfaction	-13.6	3.6	-.28***		
	Marital Status	-12.7	6.3	-.18*		

$R^2$  = Coefficient of Determination for each step,  $\Delta R^2$  = Change in  $R^2$  from the previous step, Key: \*  $p < .05$ , \*\*  $p < .005$ , \*\*\*  $p < .001$

Table 3 Mediation Analysis of Parent-Child Relationship and Locus of Control on Self-Defeating Behaviours

Part A: Direct Mediation Analysis					
Predictor	Mediator	B	SE	$R^2$	
PCR	I-LOC	.09**	.03	.26***	
PCR	E-LOC	.11*	.05	.25***	
I-LOC	SDB	-.55	.59		
E-LOC	SDB	.26	.34		
Part B: Indirect Mediation Analysis					
Mediator	Effect on SDE	B	SE	95% CI Lower Limit	95% CI Upper Limit
I-LOC		-.05	.07	-.17	.11
E-LOC		.03	.05	-.07	.15

PCR: Parent-Child Relationship, I-LOC: Internal Locus of Control, E-LOC: External Locus of Control, SDB: Self-Defeating Behaviours, SDE: Self-Defeating Effects, B: Unstandardized regression coefficient, SE: Standard Error,  $R^2$ : Coefficient of Determination, CI: Confidence Interval and \*  $p < .05$ , \*\*  $p < .005$ , \*\*\*  $p < .001$

Table 1.3 presents a mediation analysis examining the roles of Internal (I-LOC) and External Locus of Control (E-LOC) in the relationship between Parent-Child Relationship (PCR) and Self-Defeating Behaviours (SDB). In Part A, the direct mediation analysis shows that PCR significantly predicts I-LOC ( $B = .09$ ,  $SE = .03$ ,  $R^2 = .26^{***}$ ) and E-LOC ( $B = .11$ ,  $SE = .05$ ,  $R^2 = .25^{***}$ ). However, when looking at the effect of these loci of control on SDB, I-LOC and E-LOC show non-significant direct effects (I-LOC:  $B = -.55$ ,  $SE = .59$ ; E-LOC:  $B = .26$ ,  $SE = .34$ ). In Part B, the indirect mediation analysis reveals that neither I-LOC nor E-LOC significantly mediate the relationship between PCR and SDB, as indicated by their confidence intervals overlapping zero (I-LOC:  $B = -.05$ , 95% CI [-.17, .11]; E-LOC:  $B = .03$ , 95% CI [-.07, .15]). These results suggest that while PCR significantly predicts both forms of locus of control, these do not translate into significant mediating effects on self-defeating behaviours. This indicates that other factors might be at play in the relationship between parent-child dynamics and self-defeating behaviours.

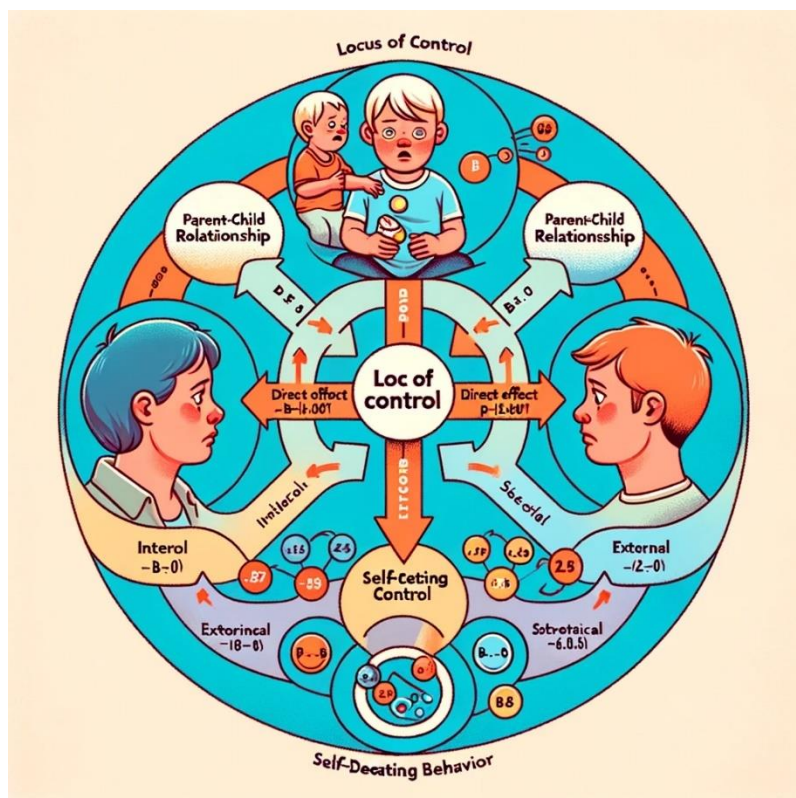


Figure 1 Emerged model PROCESS when hypothesized model.

## DISCUSSION

This research provides a comprehensive understanding of how parent-child relationships and internal and external loci of control influence self-defeating behaviours among substance users in the Pakistani community, drawing connections with existing literature. The study's findings reveal that a robust parent-child relationship is positively associated with an internal locus of control. This relationship suggests that substance users with a strong bond to their parents are more influenced by internal forces, echoing Szabó-Morvai's (22) research on the beneficial effects of authoritative parenting on adolescents' sense of internal control. Additionally, the Bowles' work supports this view, highlighting the resilience and security that a nurturing parent-child relationship can foster (23, 24).

Interestingly, the research also shows a positive correlation between the parent-child relationship and an external locus of control (25, 26). This indicates that certain parental styles may inadvertently encourage a sense of external control among individuals (27). Furthermore, the study uncovers a significant negative

correlation between parent-child relationships and self-defeating behaviour, suggesting that negative parental interactions, such as rejection or insecure attachment, can lead to such behaviours in substance users. This finding aligns with Zeynel and Uzer's research, which links psychological discomfort and unsatisfactory attachment styles to self-defeating behaviours (28).

In terms of locus of control, the study finds that external locus of control negatively correlates with age and duration of drug use but positively correlates with life satisfaction. This suggests that as individuals age or prolong their drug use, their perception of external control diminishes. Mizani (2022) findings corroborate this, indicating that older adults typically exhibit a greater external locus of control (29). Conversely, the internal locus of control shows a negative relationship with both success in attempts and life satisfaction, highlighting the profound impact personal control perceptions have on life outcomes and contentment.

A critical aspect of this study is its examination of the relationship between life satisfaction and self-defeating behaviour, revealing a negative correlation consistent with previous findings linking lower life satisfaction to increased drug use and self-defeating behaviours. This suggests a potential pathway through which life dissatisfaction might exacerbate harmful behaviours in substance users.

This research, while comprehensive, is not without limitations. The specificity of the Pakistani community context may limit the generalizability of the findings to other cultural or geographical settings. Additionally, the cross-sectional nature of the study restricts the ability to infer causality. Future research could benefit from a longitudinal approach to better understand the dynamics of these relationships over time. Despite these limitations, the study significantly contributes to the understanding of psychological and familial factors influencing substance use and offers valuable insights for interventions aimed at improving life satisfaction and parental relationships to mitigate self-defeating behaviours in substance users.

## CONCLUSION

In conclusion, the study sheds light on the intricate relationship between demographic variables, parent-child dynamics, locus of control, and self-defeating behaviours in the context of substance use. It emphasizes the influence of parenting styles and individual perceptions of control over one's life circumstances. These findings contribute to a deeper understanding of the psychological and familial factors impacting substance users, offering potential pathways for interventions and support.

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