Demographic and Clinical Correlates of Deliberate Self-harm in Patients with Substance Use Disorder

Nadia Haroon,[1] Richard R. Howell,[2] Aysha Butt,[3] Ali Anjum,[4] Sadia Nikhet,[5] Sana Haroon[6]

Abstract

Objective: To evaluate the demographic and clinical correlates of deliberate self-harm in patients with substance use disorder.

Method: Correlational research design, the study was conducted in out-patient Department of Psychiatry, Services Hospital, Lahore. 75 male participants gave their consent to participate in the study. Demographic form comprised of information i.e. age, education, marital status, type and years of substance use, no. of hospitalization and relapses, history and means of self-harm etc were gathered. The participants with self-harm history were then given an Inventory of Deliberate Self-Harm to assess the means of self-harm. Descriptive analysis i.e. means, standard deviation, frequency and percentages were calculated for relevant variables. Pearson's Correlation was employed to assess the association between scale variables.

Results: The frequency of self-harm was 45.3% in the present study. The findings were significantly associated with being unemployed, long standing history of substance use, and opioid use disorder.

Conclusion: Keeping in view the high frequency of self-harm in substance use disorder, practical consideration should be taken by health care system to manage this issue at immediate level.

Keywords: Deliberate Self-Harm, Substance Use Disorder, Epidemiology

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Introduction

Suicide is the fourth leading cause of death among 15-19 years-old.[1] Strongest risk factor for suicide is deliberate self-harm, and it is applied on young as well as older people. Single episode of self-harm, in the following year, increases the risk of suicide to 60 to 100 times.[2] According to Keith Hawton, in his prospective study of 20 years duration of Deliberate self-harm (DSH) in young people, 57.4% of all deaths during study period were due to suicide.[4] The prevalence of DSH is 23.6%

in age range 12-19 years.[5] Psychiatric disorders and use of multiple substances also increase the risk for greater severity.[6]

Substance use disorder has been considered to be an important risk factor that is significantly associated with self-harm.[7] In another study, deliberate self-harm is the most common condition associated in substance use disorder i.e. 27.1% in substance users,[10] and recently 20% patients reported substance use at the time of self harm[3].

In Pakistan, substance use has reached to the alarming situation. About 5.8% or 6.45 million, of the population aged 15 to 64 used drugs in 2012.[8]

The severity and intent of attempting self-harm vary among the sub groups of substance use disorder from passive wish to death, imprecise plan to precise plan of action and to actively attempting self-harm.[7] Keeping in view the difference of severity or intent, socio-demographic and clinical correlates must be considered in

1. *Senior Registrar Punjab Institute of Mental Health. Lahore*
2-3: *Assistant Professor Department of Psychiatry, SIMS/Services Hospital, Lahore.*
4-5: *Senior Registrar Department of Psychiatry, Services Hospital, Lahore.*
6. *Resident PAF Hospital, Islamabad.*

Correspondence:
Dr. Nadia Haroon, *Senior Registrar, Punjab Institute of Mental Health. Lahore. Email: nida_pashu@hotmail.com*

evaluating the risk factors leading to self-harm in substance use disorder. The purpose of this study was to assess frequency and determinants of self-harm behavior in patients with substance use disorder. Secondly, to explore demographic and clinical correlates of increased rates of deliberate self-harm in substance use disorder in Pakistani context. This study may serve to highlight the issue, leading to further research in preparing effective management plans for patients of substance use disorder.

Material and Methods

Correlational research design was used to conduct this study in out-patient department of Psychiatry, Services Hospital, Lahore. An inclusion criterion was followed while recruiting include: male, age 15 years and above with history of any substance use disorder as per Diagnostic and Statistical Manual of Mental Disorders criteria. The process of data collection was started after approval from the ethical committee of hospital. Non-probability purposive sampling technique was used for data collection. Patients from outpatient department of Psychiatry, Services hospital, Lahore, strictly fulfilling the inclusion criteria were included. Informed consent was taken after explaining the purpose and method of study. Demographic information (age, education, birth order, marital and educational status, occupation and monthly income, type of family system ete) clinical information (age of onset of substance use, substance of use at time of data collection, no. and reason of relapses, attempts to withdraw, no. of hospitalization, history of self-harm etc) were recorded. Details about means and actions of self-harm were recorded by using 17-Item inventory named Deliberate Self-Harm Inventory.[11] The collected data was entered to IBM SPSS v21 for descriptive and correlation analysis.

Results

A total of 75 participants were enrolled in study after fulfilling the inclusion criteria. Demographic details of the sample are mentioned in **Table-I**. The mean age of patients were (31.5±9.02), majority were married (n=40; 53.3%), were employed (n=53; 70.7%), living in nuclear family system (n=43; 57.3%). Frequency of deliberate self-harm in substance use disorder was (n=34; 45.3%). Clinical details of sample are mentioned in **Table-II**. The mean of substance use in years were (8.09± 6.99), Majority of the patients were dependent on opioid i.e. heroin (n=40;53.3%), with cause of relapse was craving (n=21; 28%) and reason behind self-harm attempt

was mental or financial stress (n=31;41.3). Correlation

Table 1: *Demographic characteristics of patients (n=75).*

Demographic Variables	M±SD or f(%)
Age (years)	31.5±9.02
Education (years)	8.10±4.56
Marital status	
Unmarried	30(40)
Married	40(53.3)
Divorced	5(6.7)
Employment Status	
Unemployed	22(29.3)
Employed	53(70.7)
Family System	
Nuclear	43(57.3)
Joint	32(42.7)
Self-harm	
Yes	34(45.3)
No	41(54.7)

Note. M= mean, SD= Standard Deviation. f= frequency

Table 2: *Clinical details of patients (n= 75).*

Clinical variables	M±SD or f(%)
Duration of Abuse (years)	8.09±6.99
Type of substance use	
Opioid use disorder	40(53.3)
Cannabis use disorder	14(18.6)
Alcohol use disorder	7(9.3)
Stimulus use disorder	6(8)
Tobacco use disorder	5(6.6)
Sedative, hypnotics or anxiolytics use disorder	3(4)
Causes of relapse	
Craving	21(28)
Peer Pressure	17(22.7)
Stress	14(18.7)
Reason of self-harm	
Intoxification	3(4)
Mental/financial stress	31(41.3)
In remission	1(1.3)

Note. f = Frequency, % = Percentage

analysis of sample was mentioned in **Table-III**. Results revealed negative relationship with employment status and self-harm. Whereas, positive relationship with dura-

Table 3: *Association between self-harm attempts with demographic variables (N=75)*

Measures	1	2	3	4	5	6	7	8	9	10
1.age	-	.05	.01	.0 5	.07	-.02	.454**	-.08	-.01	-.01
2.Employment status		-	.09	.01	.11	-.09	-.16	-.19	-.04	-.401**
3.Education			-	.22	-.17	-.08	-.18	.03	.335**	.04
4.Religiousinclination				-	-.15	.23	.01	-.14	.05	-.01
5.No. of addicts in family					-	-.10	.17	-.17	.001	.143
6.Family system						-	.07	.251*	.05	-.05
7.Duration of abuse							-	.01	-.02	.349**
8. No. of hospitalization								-	.290*	.09
9. No. of relapses									-	.13
10.Total self-harm score						-				-

Note.*.p < .05; **.p< .01; ***.p< .001

tion of abuse with self-harm.

Discussion

The present research was carried out to evaluate the demographic and clinical correlates of deliberate self-harm in patients with substance use disorder in Pakistani population because substance use has increased in recent years in Pakistan[8] and according to international literature the most common condition associated with substance use disorder is DSH.[10] This work has not been done on Pakistani population at large. The findings suggest that self-harm is frequently present in patients with substance use disorder and the findings also revealed several demographic and clinical correlates including middle age, married/un-married, employed, living in nuclear family system, severity of substance use disorder with shorter duration of abuse, opioid dependence, with peer pressure being the most common cause of relapse and mental/financial stress being the reason being attempting self-harm. Duration of substance use and unemployment were significantly correlated with self-harm attempts. Conflicts with family and psychosocial stressor were also identified in another Pakistani study[9]. The mean age of substance use patients who attempted self-harm was 31.5+9.02. Previous researches carried on demographic profiles suggests that patients with substance use disorder in their early thirties are going through severe emotional pain i.e. anger, frustration, sadness and lack healthy coping skills to manage their emotional pain.[7,12]

Demographic profiles of sample revealed that majority of the patients are married/unmarried, employed and living in nuclear family system. These findings were in line with previous researches carried out in India[7,12,13]

suggests that lack of poor social support, day to day life stressors and financial instability can be viewed as risk factor for continued use of substance leading towards repeated attempts of self-harm. A Pakistani study reports the most common reason for attempting SH was inter-personal relationship issues (54.3%).[15]

The frequency of deliberate self-harm in substance use disorder was 45.3%. The findings of our study are in agreement with previous studies showing deliberate self-harm is the most common condition associated in substance use disorder i.e.44.8%,[14] 32.7%,[7] 23.6%[5] and 27.1%.[10] Williams and Hasking[15] suggest that both substance use and self-harm are associated with poor impulse control. There is extensive research evidence linking impulsivity with substance use.

The clinical profile of the sample revealed that majority of the patients who attempted self-harm has longer duration of substance abuse and are opioid depended. Patients with longer and consistent use of substance use, attempts self-harm as an alternative method. People who usually harm themselves with cutting, burning etc may shift to other drugs as an alternative method.[16]

The presence of opioid dependence is significantly associated with self-ham attempts. Previous researches[7,16] revealed that opioid substances release endorphins i.e. associated with positive feelings and reduction in pain, the same is true for self-harm thus increasing the risk of attempting self-harm in patients with opioid dependence.

The most common method of attempting self-harm was cutting self with sharp instruments.

Results from correlation analysis revealed significant relationship of self-harm and employment. Unemployed

person has greater chances of attempting self-harm as compared to employed one. The correlation analysis further revealed significant positive relationship with duration of abuse. The longer the duration the higher rate of attempting self-harm.

This study served to highlight the issue and leads to further research in preparing effective management plans for patients of substance use disorder.

Conclusion

We concluded that the frequency of deliberate self-harm is higher in substance use disorder in Pakistani population. Demographic as well as clinical profile should be taken into account when dealing with risk of self-harm attempt so that further chances of attempting self-harm can be minimized.

Conflict of Interest: None

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Authors Contribution

NA, RRH: Conceptualization of Project
SN, AA: Data Collection
NH: Literature Search
SH: Statistical Analysis
AB: Drafting, Revision
NH, RRH: Writing of Manuscript