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Frequency of Self-perceived Stigma in Patients with Polysubstance Abuse Disorder

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ABSTRACT

Objective: To determine the frequency of self-perceived stigma in patients with polysubstance abuse disorder presenting to a tertiary care psychiatric department.

Study design: Cross-sectional observational study. **Place and duration of study:** This study was conducted in the Department of Psychiatry, Lahore General Hospital, Lahore from November 2024 to April 2025. **Methodology:** A total of 150 patients aged 18 to 60 years with a clinically confirmed diagnosis of polysubstance abuse disorder and a history of substance abuse for at least 12 months were enrolled through non-probability consecutive sampling. Patients with severe cognitive impairment, acute psychiatric or medical crisis, or inability to understand study procedures were excluded. After informed consent, demographic characteristics, socioeconomic status, educational background, duration of substance abuse, and substance use profile were recorded. Self-perceived stigma was assessed using the Perceived Stigma of Substance Abuse Scale. A score of 19 or above was considered indicative of self-perceived stigma. Data were analyzed using SPSS version 26.0. Stratification was performed, and post-stratification chi-square test was applied. A p-value below 0.05 was considered statistically significant. **Results:** The mean age of participants was 31.4 ± 9.2 years, and 78.7% were male. The overall mean Perceived Stigma of Substance Abuse Scale score was 21.3 ± 4.6. Self-perceived stigma was identified in 96 patients, giving a frequency of 64.0%. Stigma showed significant association with educational status ($p = 0.037$), socioeconomic status ($p = 0.019$), and number of concurrently used substances ($p = 0.013$). No significant association was observed with gender, marital status, or age group. **Conclusion:** Self-perceived stigma was highly prevalent among patients with polysubstance abuse disorder. Lower educational attainment, lower socioeconomic status, and greater polysubstance complexity were significantly associated with higher stigma burden. These findings indicate that stigma is an important clinical barrier in this population and should be addressed during routine psychiatric and addiction care.

INTRODUCTION

The phenomenon of polysubstance abuse disorder (PSAD) presents a complex challenge within the landscape of mental health and substance use disorders. Characterized by the concurrent abuse of multiple substances, PSAD complicates both diagnosis and treatment, leading to multifaceted clinical presentations.[1] Beyond the immediate detrimental effects on physical and mental health, individuals afflicted with this condition often face a formidable foe within – the insidious grip of self-stigma. [2]

The societal stigma associated with substance use is a well-established phenomenon, characterized by pervasive negative stereotypes and discriminatory attitudes that significantly hinder recovery processes. This external stigma often transforms into self-stigma, a critical yet frequently disregarded obstacle in the path to recovery. Individuals suffering from polysubstance abuse disorder (PSAD) are particularly susceptible to absorbing societal prejudices, leading them to internalize derogatory labels such as "weak" or "morally corrupt." [3,4] This self-imposed stigma manifests as shame and isolation, which in turn diminishes their motivation to seek or adhere to treatment. Significantly, studies have underscored the importance of understanding self-perceived stigma in individuals with substance abuse disorders, highlighting its pivotal role in perpetuating substance use and deterring individuals from seeking treatment. [5] Yet, the specific prevalence and impact of this self-perceived stigma among patients with PSAD are areas that require further investigation.

Belete et al. (2021) conducted a study with 540 participants, of whom 76.9% were males with a mean age of 29.78±9.82 years, and 73.9% were unmarried. Notably,

63.9% (95% CI: 60–68%) scored above the mean on the Perceived Stigma of Substance Abuse Scale (PSAS). Among those reporting perceived stigma, 80.87% were khat users, and 61.7% were polysubstance users. [6] Another study by Alonso et al. (2008) in a multicenter setting involved 80,737 adults residing in households across 16 countries. This study revealed that 13.5% experienced perceived stigma, with higher rates in developing (22.1%) compared to developed countries (11.7%) [7]. Additionally, Alonso et al. (2009) found in their study of 815 participants with a 12-month mental disorder and significant disability, that 14.8% experienced perceived stigma, with higher prevalence among those with low education, who were married/living with someone, and unemployed. [8]

This research is designed to examine the frequency of self-perceived stigma in individuals suffering from polysubstance abuse disorder (PSAD), in light of the varying prevalence of perceived stigma across different regions. While there is local data on stigmatization related to other medical illnesses [2], specific information regarding stigma in the context of substance abuse is notably absent. This study aims to fill this gap by quantifying and understanding the internalized stigma experienced by PSAD patients. Such an analysis is crucial, as this form of stigma may serve as a significant barrier to treatment. By identifying the extent of self-perceived stigma, the study seeks to illuminate the challenges faced by these individuals, thereby guiding the development of region-specific interventions. This investigation is integral to the wider discourse on stigma reduction in mental health, potentially shaping public health policies and future research directions. The ultimate goal is to facilitate a more holistic approach to treatment that not only addresses substance abuse but also bolsters self-esteem and fosters sustainable recovery.

MATERIAL AND METHODS

This cross-sectional observational study was conducted in the Department of Psychiatry, Lahore General Hospital, Lahore, over a period of 6 months (from November 2024 to April 2025). Prior approval was obtained from the institutional ethical review board of the hospital before commencement of the study. Written informed consent was obtained from all participants after explaining the purpose of the study, the voluntary nature of participation, and assurance of confidentiality. Patients were recruited by non-probability consecutive sampling. The sample size was 150, calculated by taking the expected frequency of self-perceived stigma in patients with polysubstance abuse disorder as 61.7% at a 95% confidence level [6]. Patients aged 18 to 60 years with a clinically confirmed diagnosis of polysubstance abuse disorder and a history of substance use for at least 12 months were included. Polysubstance abuse disorder was operationally defined as the concurrent use of multiple psychoactive substances in which substance use was not restricted to a single drug class and no one substance was identified as the sole focus of abuse or dependence for at least 12 months, in accordance with Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition criteria. Patients with severe cognitive impairment that could interfere with understanding or completion of the assessment, those experiencing an acute psychiatric or medical crisis at the time of enrolment, and those unable to understand or communicate in the language of the study tools were excluded.

After enrolment, each participant underwent detailed assessment using a structured proforma. Demographic variables including age, gender, marital status, educational level, and socioeconomic status were recorded. Clinical history related to substance use was also obtained, including duration of substance abuse and the combination of substances being used. Self-perceived stigma was assessed using the Perceived Stigma of Substance Abuse Scale. This instrument consisted of 8 items rated on a 4-point Likert scale ranging from strongly disagree to strongly agree, with a total score ranging from 8 to 32. Higher scores indicated greater perceived stigma. Items 1, 2, 3, 4, 6, and 8 were reverse scored before calculation of the total score. A score of 19 or more was taken as the cut-off for high self-perceived stigma.

Data were entered and analyzed using Statistical Package for the Social Sciences version 26.0. Qualitative variables, including gender, marital status, educational status, socioeconomic status, and self-perceived stigma status, were presented as frequencies and percentages. Quantitative variables, including age, duration of substance abuse, and total Perceived Stigma of Substance Abuse Scale score, were expressed as mean with standard deviation. Stratification was carried out to assess the effect of demographic and socioeconomic variables on self-perceived stigma. Post-stratification chi-square test was applied to examine associations between categorical variables and stigma status. A p-value of less than 0.05 was considered statistically significant.

RESULTS

Among 150 patients with polysubstance abuse disorder, the mean age was 31.4 ± 9.2 years, and the largest proportion belonged to the 26 to 35 year age group. Most participants were male, nearly half were single, secondary education was the commonest educational level, and more than half belonged to the low-income group. The mean duration of substance abuse was 6.8 ± 4.2 years. These findings are detailed in **Table 1**.

Table 1

Baseline Demographic and Clinical Characteristics of Study Participants (n = 150)

Variable	Frequency (n)	Percentage (%)
Age Group (Years)		
18 – 25	38	25.3
26 – 35	62	41.3
36 – 45	31	20.7
46 – 55	14	9.3
56 – 60	5	3.3
Mean Age ± SD	—	*31.4 ± 9.2 years*
Gender		
Male	118	78.7
Female	32	21.3
Marital Status		
Single	72	48.0
Married	58	38.7
Divorced	14	9.3
Widowed	6	4.0
Educational Background		
Illiterate	28	18.7

Primary Education	45	30.0
Secondary Education	52	34.7
Higher Education	25	16.7
Socioeconomic Status (Monthly Income, PKR)		
Low (< 50,000)	85	56.7
Medium (50,000 – 100,000)	51	34.0
High (> 100,000)	14	9.3
Mean Duration of Substance Abuse ± SD	—	6.8 ± 4.2 years

All participants reported concurrent use of two or more substances. Tobacco/nicotine was the most frequently used substance, followed by cannabis and opioids, while benzodiazepines and alcohol were also common. Smaller proportions reported prescription painkillers, stimulants, synthetic cannabinoids, hallucinogens, club drugs, inhalants, and anabolic steroids. Concurrent use of three substances was the most frequent pattern, followed by two and four substances. These data are presented in **Table 2**.

Table 2

*Substance Use Profile Among Study Participants (n = 150)**

Substance / Category	Frequency (n)	Percentage (%)
Types of Substances Used		
Tobacco / Nicotine	138	92.0
Cannabis	128	85.3
Opioids (heroin, morphine)	112	74.7
Benzodiazepines	78	52.0
Alcohol	65	43.3
Prescription Painkillers	45	30.0
Stimulants	22	14.7
Synthetic Cannabinoids	15	10.0
Hallucinogens	8	5.3
Club Drugs (MDMA, ketamine)	6	4.0
Inhalants	4	2.7
Anabolic Steroids	3	2.0
Number of Substances Used Concurrently		
2 Substances	38	25.3
3 Substances	67	44.7
4 Substances	31	20.7
≥ 5 Substances	14	9.3

The overall mean Perceived Stigma of Substance Abuse Scale score was 21.3 ± 4.6, which was above the predefined threshold for self-perceived stigma. A total of 96 patients, representing 64.0%, had stigma present, whereas 54 patients, representing 36.0%, were stigma absent. Participants with stigma had substantially higher mean PSAS scores than those without stigma. These findings are presented in **Table 3**.

Table 3

Frequency of Self-Perceived Stigma and PSAS Score Distribution (n = 150)

Measure	Frequency (n)	Percentage (%)	Mean PSAS Score ± SD
PSAS Score Distribution			
Overall Mean PSAS Score	—	—	21.3 ± 4.6
Score Range (Observed)	—	—	10 – 31
Scores below threshold (< 19)	54	36.0	17.1 ± 2.8
Scores at or above threshold (≥ 19)	96	64.0	23.8 ± 3.2
Self-Perceived Stigma Status			
Self-Perceived Stigma Present	96	64.0	23.8 ± 3.2
Self-Perceived Stigma Absent	54	36.0	17.1 ± 2.8
Total	**150**	**100.0**	**21.3 ± 4.6**

Stratification analysis showed no statistically significant association of self-perceived stigma with gender, marital status, or age group. However, stigma was significantly associated with educational status, socioeconomic status, and number of concurrently used substances. Higher stigma frequencies were observed among illiterate patients, low-income participants, and those using a greater number of substances, indicating a clear social and clinical gradient.

Table 4

Stratification Analysis: Association of Demographic Variables with Self-Perceived Stigma (n = 150)

Variable	Stigma Present n (%)	Stigma Absent n (%)	Total n (%)	χ^2 Value	p-Value
Gender				0.044	0.834
Male	75 (63.6%)	43 (36.4%)	118 (100%)		
Female	21 (65.6%)	11 (34.4%)	32 (100%)		
Marital Status				3.142	0.370
Single	48 (66.7%)	24 (33.3%)	72 (100%)		
Married	33 (56.9%)	25 (43.1%)	58 (100%)		
Divorced	11 (78.6%)	3 (21.4%)	14 (100%)		
Widowed	4 (66.7%)	2 (33.3%)	6 (100%)		
Educational Background				8.471	**0.037***
Illiterate	22 (78.6%)	6 (21.4%)	28 (100%)		
Primary Education	32 (71.1%)	13 (28.9%)	45 (100%)		
Secondary Education	31 (59.6%)	21 (40.4%)	52 (100%)		
Higher Education	11 (44.0%)	14 (56.0%)	25 (100%)		
Socioeconomic Status				7.962	**0.019***
Low (< 50,000 PKR)	61 (71.8%)	24 (28.2%)	85 (100%)		
Medium (50,000–100,000)	30 (58.8%)	21 (41.2%)	51 (100%)		
High (> 100,000)	5 (35.7%)	9 (64.3%)	14 (100%)		
Age Group (Years)				2.621	0.623
18 – 25	26 (68.4%)	12 (31.6%)	38 (100%)		
26 – 35	40 (64.5%)	22 (35.5%)	62 (100%)		
36 – 45	20 (64.5%)	11 (35.5%)	31 (100%)		
46 – 55	8 (57.1%)	6 (42.9%)	14 (100%)		
56 – 60	2 (40.0%)	3 (60.0%)	5 (100%)		
Number of Substances Used				10.824	**0.013***
2 Substances	18 (47.4%)	20 (52.6%)	38 (100%)		
3 Substances	43 (64.2%)	24 (35.8%)	67 (100%)		
4 Substances	23 (74.2%)	8 (25.8%)	31 (100%)		

≥ 5 Substances	12 (85.7%)	2 (14.3%)	14 (100%)		

DISCUSSION

The present study demonstrated that self-perceived stigma was common among patients with polysubstance abuse disorder, with 64.0% of participants meeting the operational criterion for stigma on the Perceived Stigma of Substance Abuse Scale. This frequency is notable because it confirms that stigma is not a peripheral issue in this population, but a central clinical concern. The observed proportion is strikingly close to the 63.9% reported in an Ethiopian sample of patients with problematic substance use, in which a substantial proportion were polysubstance users, and is also comparable to the 61.6% rate of moderate-to-high self-stigma reported among individuals with opioid use disorder receiving opioid agonist treatment [6,9]. The present findings therefore support the view that internalized stigma remains highly prevalent across different substance-using populations, despite variation in setting, culture, and substance profile.

The mean stigma score in the present study was also above the threshold used to define stigma, which is consistent with prior work showing moderate to high stigma burden among treatment-seeking patients with substance use disorders. Earlier clinical studies had already shown that shame and self-stigma are strongly embedded in addiction care settings and are associated with poorer engagement in treatment, weaker therapeutic alliance, and higher likelihood of treatment dropout [4,10]. More recent work has reinforced this interpretation by showing that higher perceived stigma at treatment entry reduces the likelihood of treatment completion, while internalized stigma contributes to non-disclosure of substance use, avoidance of medical care, and discontinuation of treatment because of stigmatizing experiences [11,12]. Against this background, the high frequency observed in the present study has direct clinical relevance, because such stigma may influence whether patients enter treatment honestly, remain engaged, and benefit from care.

An important finding of the present study was the statistically significant association between lower educational attainment and higher stigma. Patients who were illiterate or had only primary education showed markedly higher stigma frequencies than those with higher education, suggesting a social gradient in stigma burden. This pattern aligns with previous literature indicating that low educational status is associated with greater perceived stigma in patients with mental and substance-related disorders [8]. A similar interpretation is supported by recent data showing that stigma is amplified in the presence of psychosocial disadvantage, psychological distress, and reduced access to protective social resources [13]. Lower education may limit access to accurate health information, increase endorsement of moral explanations of addiction, and reduce confidence in seeking professional help, thereby intensifying self-blame and social withdrawal.

Socioeconomic disadvantage was also significantly associated with stigma in the present study, with the highest burden observed in the low-income group. This finding is clinically plausible and consistent with the broader stigma literature, which shows that social marginalization and addiction-related stigma frequently reinforce each other. Population studies have demonstrated that stigma is more common among socially vulnerable individuals, and that it contributes to treatment avoidance and reduced care utilization in disadvantaged groups [14,15]. In practical terms, poverty may magnify stigma through unstable housing, unemployment, family conflict, and repeated negative encounters with healthcare or law-enforcement systems. The present study adds locally relevant evidence that stigma in polysubstance abuse disorder is not simply a psychological phenomenon, but is closely interwoven with social deprivation.

No statistically significant associations were found between stigma and gender, age group, or marital status. The absence of a gender effect is in agreement with recent findings showing no significant difference in internalized stigma by gender among patients attending virtual clinics for mental illness and substance use disorder [16,17]. However, this contrasts with some earlier studies in which stigma was reported to be greater among women, particularly in mixed substance use disorder samples and in settings where substance use by women carries stronger social disapproval [18]. This discrepancy may reflect contextual differences, underrepresentation of women in addiction services, or the possibility that stigma is so pervasive in polysubstance use disorder that gender-specific contrasts become less pronounced within heavily burdened clinical samples.

The most distinctive finding of the present study was the clear dose-response relationship between the number of concurrently used substances and the prevalence of self-perceived stigma. Stigma increased progressively from patients using two substances to those using five or more substances, and this trend reached statistical significance. This observation is strongly supported by prior evidence. Internalized stigma has been shown to be higher in individuals using three or more substances than in single-substance users, and polysubstance use has repeatedly been associated with higher shame scores, greater self-devaluation, shorter treatment retention, and poorer treatment motivation [10,14,15].

The substance profile of the present sample may also help explain the observed stigma burden. Tobacco, cannabis, opioids, benzodiazepines, and alcohol were the most commonly used substances, with a large proportion reporting use of three or more agents. Previous work suggests that stigma is particularly pronounced in opioid- and stimulant-related disorders, and may be further aggravated when more socially feared or legally sensitive substances are involved [19,20]. Similarly, stigma scores have been found to be higher among heroin and benzodiazepine users than among alcohol users at treatment entry, while sustained abstinence appears to lessen internalized stigma over time [11,21]. The present study did not compare stigma across individual drug classes, but the predominance of opioid and sedative exposure within a complex polysubstance pattern may have contributed to the high overall stigma rate.

The study contributes new information to the medical literature by providing local evidence on self-perceived stigma specifically in patients with polysubstance abuse disorder, a group that is often merged with broader substance use samples in prior work. The findings indicate that stigma screening should be incorporated into routine psychiatric and addiction assessment, especially for patients with low education, limited income, and use of multiple concurrent substances. These patients may require more than detoxification or pharmacotherapy alone. Targeted psychoeducation, supportive counseling, family engagement, non-judgmental clinical communication, and structured stigma-reduction interventions may be necessary to improve treatment participation and continuity.

CONCLUSION

Self-perceived stigma was found in nearly two-thirds of patients with polysubstance abuse disorder, indicating that it is a major and clinically relevant problem in this population. The burden of stigma was significantly greater among patients with lower education, poorer socioeconomic status, and use of a higher number of substances. These findings suggest that assessment of stigma should be incorporated into routine addiction services, as early recognition of stigma may improve treatment engagement, continuity of care, and overall recovery outcomes.

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