The Research of Medical Science Review
ISSN: 3007-1208 & 3007-1216 Volume 3, Issue 7, 2025

FREQUENCY OF SOCIO-DEMOGRAPHIC CHARACTERISTICS IN SUBSTANCE USERS WITH SUBSTANCE-INDUCED PSYCHOSIS

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DOI: https://doi.org/10.5281/zenodo.16150969

Keywords
Demography, Psychotic disorders, Substance-induced psychoses, Substance users, Socioeconomic factors

Article History
Received on 10 April 2025
Accepted on 03 July 2025
Published on 19 July 2025

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Abstract

OBJECTIVE: *To determine the frequency of socio-demographic characteristics among substance users presenting with substance-induced psychosis.*

METHODOLOGY: *This descriptive cross-sectional research was carried out in both the outpatient and inpatient psychiatric departments of the Institute of Behavioral Sciences at Dow University of Health Sciences. The study involved 139 participants diagnosed with substance use disorders and substance-induced psychosis, with symptoms persisting for a minimum of one month and daily consumption of at least one standard alcoholic beverage. Each subject underwent a comprehensive clinical evaluation to validate the diagnosis. Socio-demographic information—such as age, gender, marital status, education level, place of residence, and employment status—was systematically collected. Statistical analysis was performed using SPSS software, version 26.*

RESULTS: *Mean age of the entire cohort was determined to be 32.48 ± 10.32 years, with male subjects comprising the majority of the study sample at 75.5%. Sociodemographic characteristics of the substance users were presented in the following manner: marital (married (56.1%), single (37.4%)), educational level (primary (33.1%); secondary (29.4%)), residence (urban (61.2%); rural (38.8%)) and jobs (Full time (33.8%); Part time (20.9%).*

CONCLUSION: *This research elucidates that psychosis induced by substance use is disproportionately observed among male subjects, individuals who are married, and those inhabiting urban settings, characterized by a higher occurrence among individuals with low to moderate levels of educational achievement and diverse employment circumstances. These results accentuate the critical necessity of integrating socio-demographic variables into the formulation of targeted interventions and preventive measures aimed at individuals susceptible to substance-induced psychosis.*

INTRODUCTION

Substance use is a major global health issue with high morbidity and mortality rates [1]. A 2020 report by the UNODC reported that some 284 million people aged 15-64 had used drugs in the last year, an increase of 26% on the previous decade. Drug use among the young is increasing, and indeed higher than that in previous generations. Worldwide, it was reported that 11.2

million injectors existed and half of them were infected with HCV, 1.4 million with HIV, and 1.2 million were infected with both the viruses [2]. In 2013 the estimated consumption of illicit drugs was 5.2% (problematic consumption 0.6%) [3]. Drug use often leads to long-term psychosocial dysfunctions, cognitive deficits, poor decision-making and performance [4]. Early onset of substance use greatly increases the risk of serious disorders, with 74.0% of those who have developed substance use disorders requiring treatment [5]. In addition, individuals who are substance using are also associated with socio-economic disadvantages; improvements in medical and behavioral health have positive impacts on employment and treatment outcome [6,7]. The concurrent use of several drugs is associated with a variety of psychiatric as well as medical problems [8]. Obtaining a job is a key aim for those recovering from SUD and is protective against relapse [9].

The pilot sample consisted of 30 respondents with a mean age of 41.17 years (SD = 10.89). Gender distribution was similar, the proportion of males to females was 50:50%. Approximately fifty percent of the sample with ASD was married (single, married, divorced, separated, widowed/widower representing 20% of the sample). The educational status of the respondents were 20% secondary and tertiary, higher secondary and primary level of education whereas 10% lacked formal and postgraduate education. Most (60%) of the participants lived in urban areas and 40% in rural areas. The cohort was diverse in terms of current employment status: 30% were unemployed, 20% were employed full-time, 16.7% were self-employed, 13.3% were part-time employed, and 10% were retired or students.

Additional evidence of characteristics of substance-induced psychosis among sociodemographic subgroups is justified, given the public health significance of this issue. Substance use disorders may lead to severe behavioral and psychological dysfunctions and result in long-lasting psychosocial problems, cognitive deficits, and decreased functionality. Early onset of substance use is associated with a substantially increased risk of such disorders and thus calls for targeted prevention. An understanding of other sociodemographic factors including age, gender, marital status, level of education, place of residence, and occupational status provides important insights into patterns of usage and their related risk factors. This knowledge allows for the development of interventions targeted at this population. It can improved treatment outcomes, address the social economic disparities and lead to better public health peddle and therapeutic formulation, tailored to this high risk population.

METHODOLOGY

This cross-sectional study was conducted in patients attending the outpatient (OPD) and inpatient (IPD) departments of psychiatry at the Institute of Behavioural Sciences, Dow University of Health Sciences over a period of six months. One hundred and thirty-nine participants were recruited by non-probability consecutive sampling technique.

Subjects, regardless of sex, who had experienced substance use and presented with SIP were included in the study if they aged from 18 to 60 years. Substance abuse was defined as having consumed any psychoactive substance (e.g. alcohol, cannabis, cocaine), pharmaceutically active substances (including sedatives or anxiolytics) or toxins able to cause bodily harm when ingested or administered in the human body. Participants were required to have used the substances for at least 1 month, at a level of at least 1 standard alcoholic drink per day (14 g of pure alcohol) or that would be the equivalent of that (e.g., 10 mg diazepam or 1 g of cannabis).

Substance-induced psychosis was diagnosed in those who had hallucinations (auditory, visual, or tactile) or delusions (paravone, grandiose, or bizarre) related to substance use or recent period of withdrawal within 1 month. The exclusion criteria included the diagnosis of schizophrenia, schizoaffective disorder, other neurological (e.g., epilepsy, dementia) comorbidities or severe head injury, and/or active central nervous system (CNS) infections like meningitis or encephalitis. Also, those who refused to participate were excluded from the study.

After a detailed explanation of the objective, method, risks and benefits of the study, written

consent was obtained. Every patient had a thorough clinical examination to confirm SIP diagnosis according to the predefined criteria. Socio-demographic data were collected, including age, sex, marital status, level of education, type of residence, and work status. Marital status was described as single, married, divorced, separated or widowed/widower. Several levels of education ranging from no formal education to postgraduation were cut. Urban or rural residential classification was recorded. Work status was defined by full-time, part-time, self-employed, unemployed, student, and retired. The family history of psychiatric disorder was considered as positive if the participant reported a first or second-degree relative with a psychiatric disorder.

All statistical analyses were performed using SPSS version 26.0. Descriptive statistics were used. Continuous variables were expressed as means and standard deviations and categorical variables were expressed in terms of frequencies and percentages.

RESULTS

The sample of 139 participants was empirically collected and the average age was found to be 32.48 ± 10.32 years. A large proportion of the respondents were older than 30, 61.2% of the total sample, compared to the younger ones (18–30), 38.8%. There was a large gender imbalance in the sample, with males forming the majority (75.5%) and females (24.5%). 19.4% reported having a family history of psychiatric disorder while 80.6% reported they did not. Regarding substance-induced psychosis subtype, 54.0% of patients were identified as using substances during recent time period while 46.0% were experiencing withdrawal symptoms. The mean duration of substance use was 11.29 ± 6.81 months; 65.5% of subjects had history of substance use duration of 2-12 months and 34.5% had history of substance use duration greater than 12 months. (TABLE I)

Among the 139 substance abusers included in the study, majority of them were married (56.1%) followed by single (37.4%) while less belonged to divorced (2.9%) or separated (3.6%). About one-third (33.1%) had completed primary education, almost 30% had completed secondary education, and nearly one-fifth (18.7%) had attained higher secondary education. A minority of respondents had completed postgraduate studies (14.4%) or tertiary education (1.4%), and 2.9% had no formal educational qualifications. All but 38.8% were of urban domicile while the remainder (38.8%) were from the rural areas. Employment pattern showed significant variation; 33.8, 20.9 and 15.1% of participants were employed in full, part-time and self-employment, respectively. In addition, 14.4% of the sample were defined as unemployed, 13.7% were studying at school, and 2.2% had retired. In terms of residential categorization, most of the participants 61.2% lived in urban areas and the rest 38.8% lived in rural areas. Wide-ranging employment status was presented: 33.8% full-time employment, 20.9% part-time employment, and 15.1% self-employed. In addition, 14.4% were registered as not working, 13.7% as students, and 2.2% were retired. (TABLE II)

A comparative analysis of the socio-demographic characteristics between the two specified age cohorts of substance users—those aged 18 to 30 years and those exceeding 30 years—uncovered several significant trends. The marital status exhibited a notable correlation with age ($p = 0.035$), revealing a greater prevalence of separated individuals within the younger cohort (9.3%) in contrast to the absence of such individuals in the older cohort, where as the proportions of single and married individuals were relatively analogous across both age groups. The educational attainment did not exhibit a statistically significant variance when analyzed by age group ($p = 0.581$), although the prevalence of postgraduate education was observed to be higher among younger participants (18.5%) than among their older counterparts (11.8%). Residential status did not show a statistically significant relationship with age: the majority in both cohorts was based in urban environments. Similarly, employment status did not vary significantly by age demographic: the percentage of full-time employed participants as well as non-employed were almost equal, whereas 3.5% more of the older participants were retired than the proportion of the younger participants. No retirees were reported in the younger cohort. (TABLE III).

DISCUSSION

This (study investigated the demographic characteristics of the people with substance-induced psychosis and compared it to the previous studies. Results from our cohort contribute significantly and are consistent as well as dissimilar with several regional and global investigations. Using a variety of sources, the narrative details generic features as well as unique socio-demographic characteristics of substance-induced psychosis.

Marital status was reported for majority of patients to be married (56.1%) followed by single (37.4%), separated (3.6%) and divorced (2.9%) among our study population.values not shown in the table below. These observations are consistent with those reported by Khan MM et al. [10] who found 56.7% were married, 37.5% single, 3.3% separated and 2.5% divorced. These parallel results suggest marriage might not offer a protective effect against substance-induced psychosis, as the traditional assumption is that marriage provides a buffer against psychiatric vulnerability. Instead, persons in different marital categories do not differ by vulnerability. Studies by Temmingh et al. [11] and Razak et al. [12] Also, others have also hinted that marital status may not have manifold predictive value in determining primary psychotic illness from substance-induced disorders, therefore illustrating the need for holistic /broad-based psychosocial assessments.

In terms of level of education, most of the participants had completed primary school (33.1%), followed by secondary (29.4%), higher secondary (18.7%), postgraduate (14.4%), no education (2.9%) and tertiary (1.4%). This is consistent with the results of Khan MM et al. [10] and also [10] reported that 50% had secondary educational level, 33.3% primary, 14.2% higher, 2.5% uneducated. Khan T et al. [13] described a similar educational gradient: secondary (30.2%), higher secondary (27.9%), university level (16.3%), primary (15.1%), and illiterate (10.5%). Even if the classifications differ slightly between studies, the overall coherence is reflected in the prevalence of low or middle education among people with an MHD. These data indicate that lower educational levels may be a contributing or a proxy marker of increased vulnerability to substance use and its concomitant psychiatric morbidities. This is also supported by the study of Jha et al. [14], who emphasized the correlation of level of education with severity of substance use as well in readers of cannabis.

Residential status in our investigation found that Urban dwellers had higher prevalence of SIPS (61.2%) compared to rural (38.8%). While not directly comparable due to insufficient reporting on residence status in most of the studies included in the present review, this is consistent with an observation of Di Paolo et al. [15] and Gambaro et al. [16], in the urban hospital, which saw more substance-induced psychiatric admissions. Urban areas are also associated with increased drug availability, stress, and access to medical care, and this overrepresentation of urban cases within psychiatric institutions may be understandable.

Our employment status findings were of intriguing difference from prior results. Most participants were full-time employed (33.8%), part-time employed (20.9%), self-employed (15.1%), unemployed (14.4%), students (13.7%), and retired (2.2%). In contrast, Khan T et al. [13] had a much higher rate of unemployment (77.9%) and lower employment (22.1%). These differences are likely due to variations in socio-economic status of study population or institutional sampling bias. Mostafa et al. [17] concluded that there was a significantly lower HRQoL in persons with substance-induced psychosis, besides the sources of variance related to having a job among this population, emphasizing that having a job (even only a part-time one gained through sheltered employment) may prove to be a protective factor by offering structure and possibly reducing psychosocial stressors.

Additionally, Razak et al. [12] and Di Paolo et al. [15] offered information on clinical and biological factors of SIPS but observed that sociodemographic factors such as level of education and working activity continued to be considered in both the diagnostic and therapeutic planning. Their findings now put an emphasis on the fact that whereas patient characteristics may be different depending on the drug (such as methamphetamine as opposed to cannabis as opposed to alcohol), demographic

data remain constant in predicting presentation and outcome.

The current study provides useful information on the socio-demographic features of substance-induced psychosis (SIP); however, several limitations should be recognised. First, the NP-cs sampling technique should be taken into consideration as this introduces a selection bias, as patients who visited the psychiatry OPD and IPD during the data collection period were included without a random method. This restricts the generalizability of the results to non- treatment-seeking populations, especially those that may not present to formal psychiatric services. In addition, the research was single centered (tertiary care center) and conducted in a short period of six months which does not include the seasonal variations or some characteristics of the profile of the patients among other institutions or regions.

Another limitation is the self-reported history of substance use and family psychiatric history. This method might be subjected to recall or under reporting and this due to stigmatization particularly on illegal and socially unaccepted substance use. Furthermore, SIP criteria were clearly defined, however, clinical diagnoses not being based on standardized instruments like structured interviews or toxicological screenings might affect diagnostic accuracy.

Despite these limitations, the present study has some strengths to its credit. It provides more precise and definite operational definition of substance use and psychosis, which can help in consistent selection of subjects. The detailed socio-demographic profiling helps to describe the vulnerable population and the findings can be used for future intervention. In addition, the mixture of inpatient and outpatients will help generalize the findings to a wider clinical population.

Probability sampling and multicenter design are desirable for external validity which need to be explored in future. Use of validated diagnostic tools and objective measures of substance use verification (i.e., urine drug screens) in the study methods would improve the rigor of the study. Paired and longitudinal studies are highly recommended to further investigate causality and long-term consequences in patients in the context of substance-induced psychosis.

CONCLUSION

This research elucidates that psychosis induced by substance use is disproportionately observed among male subjects, individuals who are married, and those inhabiting urban settings, characterized by a higher occurrence among individuals with low to moderate levels of educational achievement and diverse employment circumstances. These results accentuate the critical necessity of integrating socio-demographic variables into the formulation of targeted interventions and preventive measures aimed at individuals susceptible to substance-induced psychosis.

Table I: Demographic Characteristics of Study Participants (n=139)

Variable	**n** (%)
Age (Mean ± SD) = 32.48 ± 10.32 years	
18 – 30 years	54 (38.8)
>30 years	85 (61.2)
Gender	
Male	105 (75.5)
Female	34 (24.5)
Family History of psychiatric illness	
Positive	27 (19.4)
Negative	112 (80.6)
Status of Substance Induced Psychosis	
Recent Substance User	75 (54.0)
Withdrawal	64 (46.0)
Duration of Substance Used (Mean ± SD) = 11.29 ± 6.81 months	

2 – 12 months	91 (65.5)
>12 months	48 (34.5)

Table II: Frequency of Socio-Demographic Characteristics in Substance Users (n=139)

		Frequency N	Percentage (%)
Marital Status	Single	52	37.4%
	Married	78	56.1%
	Divorced	4	2.9%
	Separated	5	3.6%
Educational Status	No Formal Education	4	2.9%
	Primary Education	46	33.1%
	Secondary Education	41	29.5%
	Higher Secondary Education	26	18.7%
	Tertiary Education	2	1.4%
	Postgraduate Education	20	14.4%
Residential Status	Urban	85	61.2%
	Rural	54	38.8%
Employment Status	Full Time	47	33.8%
	Part Time	29	20.9%
	Self Employed	21	15.1%
	Unemployed	20	14.4%
	Student	19	13.7%
	Retired	3	2.2%

Table III: Comparison of Age Group with Socio-Demographic Characteristics in Substance Users (n=139)

		18 – 30 Years (n=54)	>30 Years (n=85)	P-Value
Marital Status	Single	18 (33.3%)	34 (40.0%)	0.035
	Married	30 (55.6%)	48 (56.5%)	
	Divorced	1 (1.9%)	3 (3.5%)	
	Separated	5 (9.3%)	0 (0.0%)	
Educational Status	No Formal Education	0 (0.0%)	4 (4.7%)	0.581
	Primary Education	18 (33.3%)	28 (32.9%)	
	Secondary Education	15 (27.8%)	26 (30.6%)	
	Higher Secondary Education	10 (18.5%)	16 (18.8%)	
	Tertiary Education	1 (1.9%)	1 (1.2%)	
	Postgraduate Education	10 (18.5%)	10 (11.8%)	

Residential Status	Urban	31 (57.4%)	54 (63.5%)	0.470
	Rural	23 (42.6%)	31 (36.5%)	
Employment Status	Full Time	18 (33.3%)	29 (34.1%)	0.474
	Part Time	11 (20.4%)	18 (21.2%)	
	Self Employed	8 (14.8%)	13 (15.3%)	
	Unemployed	11 (20.4%)	9 (10.6%)	
	Student	6 (11.1%)	13 (15.3%)	
	Retired	0 (0.0%)	3 (3.5%)	

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