



Substance Use Disorder in Punjab: Patterns, Challenges, and Implications

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Abstract— Various government agencies like the National Drug Dependence Treatment and Rehabilitation Programme (NDDTRO) in India and the United Nations Office on Drugs and Crime (UNODC) have reported that Punjab has a significant problem with substance abuse. This means that many people in Punjab struggle with addiction to drugs and alcohol. To better understand this issue, the present study aims to find out which substances are most commonly used in Punjab, what physical, social, and psychological effects these substances have on people, and why people in Punjab use these substances in the first place. Total a number of 52 participants who shared their insights on the issues mentioned earlier. The results revealed that substance use has a significant impact on a person's personal life, career, and financial well-being. Additionally, a majority of participants identified 'peer pressure' as one of the primary reasons for initially turning to substance use. The study contributes to the existing knowledge in this direction by shedding light on the specific substances and reasons for their use in a region that is known for its high prevalence.



Keywords— Substance Use Disorder (SUD), Punjab, Mental health

I. INTRODUCTION

The interplay between mental health and substance abuse has harbored growing attention in today's society within the field of psychology and psychiatry. As the world continues to see a higher prevalence of mental health disorders, especially those related to substances, exploring the intricate relationship between them has become of utmost importance.

Mental health can be defined as a state of mental well-being that enables individuals to cope with stresses in life. It is the way people think, feel, and behave and makes up their psychological, emotional, and social well-being. Mental health, also connected with physical health is a crucial part of an individual's life and welfare. Mental health is a delicate aspect of human well-being and there are a number of factors affecting it such as poverty, education, childhood trauma, loneliness, etc. There are also a number of social and cultural factors such as norms, stigmas, and societal expectations that can have an impact on mental health. Social factors may include isolation, and lack of

social connections, which is also connected to substance abuse that may damage relationships and isolate individuals from social settings and networks. Moreover, cultural norms in society may have an influence on an individual's perception of substance abuse and its acceptance, leading to mental health issues.

Substance abuse is the excessive use of drugs that is detrimental to the self and to society. It involves the use of psychoactive substances such as alcohol, illicit drugs, and prescription medicines. The Diagnostic and Statistical Manual - 5 (DSM-5) recognizes ten classes of drugs: alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, sedatives, hypnotics, stimulants, and tobacco. Substance abuse involves physical and psychological dependence. Physical dependence is created when the discontinuation of the substance causes withdrawal symptoms, leading to psychological dependence which is the state of the need to continue using the substance. Substance abuse may create a pattern of abusing substances that may lead to physical and psychological distress. As more of the population is slowly getting exposed to different

substances at a younger age, the curiosity to experiment is leading to patterns of substance use addiction and therefore, a significant increase in the prevalence of substance-related mental health issues. Substance abuse acts as a catalyst for mental health disorders. In 2021, among people aged 12 years or older, 61.2 million people used illicit drugs, which makes up 21.9 percent of the population, and with 46.3 million people aged 12 or older met the DSM-5 diagnoses criteria for having substance use disorder in 2021. With 21 percent of American adults experiencing a mental health condition in 2020, these values only continue to grow every year.

Substance use plays a significant role in mental health and its deterioration in individuals. With substances becoming a way of coping with anxiety and stress, they may provide temporary relief, but dependency may slowly increase and turn into an addiction. Substances like drugs and alcohol may disrupt the workings of the brain and the balance of chemicals, leading to a weakened ability to handle stress and therefore causing psychological and emotional impairment. India has seen a growing number of young substance abusers, especially in the state of Punjab; this problem has reached an alarming rate and continues to worsen each year.

National Drug Dependence Treatment and Rehabilitation Programme (NDDTRP) of the Ministry of Social Justice and Empowerment, Govt of India in its annual Report of 2021-22, presented that Punjab has the highest number of registered drug addicts in India, with over 1.5 lakh people registered for treatment. United Nations Office on Drugs and Crime (UNODC) presented a World Drug Report 2022 in which it was stated that Punjab has a "significant problem" with drug abuse, with an estimated prevalence of opioid use disorder of 10.8%. This is significantly higher than the national average of 2.1%. A non-government organization, Society for Promotion of Youth and Masses (SPYM) conducted Punjab Opioid Dependence Survey 2015, an estimated 7.5 lakh people in Punjab were addicted to opioids at the time of the survey.

II. LITERATURE REVIEW

Arya Nair Kovilveetil (2021) in their study titled "A study on substance abuse among young people in Assam" explored the substances abused by people in urban slums and factors by a cross-sectional study. They found that the most commonly abused substance was tobacco, then alcohol, and patterns revealed that 29% used substances for fun, 25% by peer influence, 23% by curiosity, and 9% for stress relief.

Murthy et al (2010) in their study titled "Substance abuse and addiction research in India" analyzed substance

use among adult users. They found that this number is increasing and 14.2% of the participants were found to be using hazardous substances. 17 to 26% of alcohol users qualified for ICD-10 diagnosis of dependence- a prevalence of 4%. Tobacco prevalence was 55.8% among males

Kristiina Kussaari and Tanja Hirschovits-Gerz (2016) in their study titled "Co-occurrence of substance-related and mental health problems in Finnish healthcare system." explored how SUD co-occur with mental health issues in Finnish social and healthcare systems. This was explored through one-day intoxicant - related surveys (cross-sectional studies), with questionnaires. 50% of clients with substance abuse problems also had mental health issues with 26% having depression.

Priscilla Dass-Brailsford, and Amie C. Myrick (2010) in their study titled "psychological trauma and substance abuse: the need for an integrated approach" explored the co-occurring mental health disorders that may occur with substance-related problems. They studied the developmental and neurological link between PTSD and SUD. They found that the treatment for both should be integrated.

Dechenla Tsering, Ranabir Pal, and Aparajita Dasgupta (2010) in their study titled "Substance use among adolescent high school students" explored the harm of substance use among high school students. A cross-sectional study was done where 12.5% abused one of the substances whereas 15.1% were urban and 10.7% were rural counterparts. They found that despite students knowing the consequences, they still took up the habit.

Annabeth P. Groenman PhD et al (2017) in their study titled "Childhood psychiatric disorders as a risk factor for subsequent substance abuse: a meta-analysis" explored the correlation between childhood disorders and substance abuse. The meta-analysis showed that childhood ODD, CD, ADHD and depression increased the risk of developing SUD.

Brook et al (2002) in their study titled "drug use and the risk of MDD, alcohol dependence, and substance use disorder" explored, using a longitudinal study the risk of early drug use leading to later psychiatric disorders. Adult and young tobacco use was associated with an increased risk of alcohol dependence and substance use disorder at a mean age of 27 years.

Marc A. Schuckit (2006) in his study titled "Comorbidity between substance use disorders and psychiatric condition", explored substance-induced mental disorders and their implications by reviewing published manuscripts. Stimulant, cannabinoid-induced mental problems, and substance-induced anxiety conditions were seen in the review.

H.C Ganguli (2000) in his study titled “Epidemiological findings on prevalence of mental disorders in India” reviewed Epidemiological studies and found that in India, the burden of mental and behavioral disorders ranged from 9.5 to 102 per 1000 population.

Based on the review of the literature, it was found that many studies have been conducted to understand and unearth various factors and variables related to people with substance abuse disorder. The present research proposed the following objectives to revisit certain factors that have previously been examined:

- To identify the types of substances commonly abused in Punjab and their corresponding frequency of use.
- To examine the impact of substance abuse on physical and mental health outcomes among individuals in Punjab.
- To investigate the association between substance abuse and social and economic consequences in Punjab, such as employment, education, and relationships.
- To explore the social and cultural factors influencing substance abuse behavior and attitudes in Punjab.

Such revisiting was required to understand the real-time situation related to the substance abuse disorder.

III. METHODOLOGY

Sampling

The Convenience Sampling method was used. In this sampling method, researchers select individuals who are readily available and accessible to participate in the study.

In this case, the survey was conducted in rehabilitation centers, and the questionnaire was filled out by individuals with substance abuse disorders who are already present in these centers. This method is convenient because it does not require extensive effort to identify and recruit participants; instead, it relies on the accessibility of individuals within a specific location or context.

A total of 52 participants took part in the survey, with a notable gender distribution. Among the participants, 49 were male, while only 3 respondents identified as female.

Demographic details:

The data collection and research were carried out in Ludhiana, Punjab, under the outlook of MindPlus retreat and healthcare, Civil Hospital, and Hunjun Hospital.

The sample consisted of patients from both urban and rural parts of Punjab. The research was carried out in Punjab for a number of reports have indicated that the number of cases of substance abuse is substantially higher in Punjab. Conducting the present research in the state of Punjab allowed a deeper understanding of what kinds of substances are more commonly used, the common reasons for the likelihood of the populous to use substances, and other related factors.

Data analysis and discussion:

Following the quantitative method of study, the survey was conducted and the responses were collated in the Excel sheet to process the data for analysis. Various data heads were created based on the queries posed in the survey. The analysis reports were further reflected in pie charts to understand and demonstrate the results.

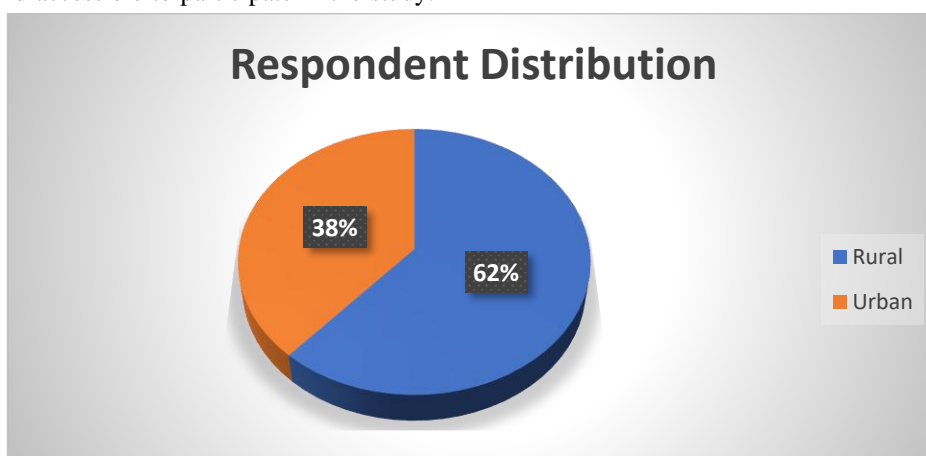


Fig.1: Distribution of sample

The distribution of respondents between rural and urban areas was scrutinized as part of the research inquiry, with the objective of discerning regional disparities in the

prevalence of Substance Use Disorder (SUD). Participants were explicitly queried regarding their residential backgrounds, either rural or urban in nature. The analytical

findings, as depicted in Figure 1 in the form of a pie chart, unveil a significant disparity in the geographic origins of individuals afflicted by SUD.

A notable majority of respondents, constituting 62% of the total, hailed from rural regions. This observation underscores that a substantial proportion of individuals grappling with Substance Use Disorder are residents of rural areas. In contrast, 38% of the respondents were from urban areas, signifying a relatively smaller representation from urban backgrounds.

These findings substantiate a higher prevalence of Substance Use Disorder within the rural locales of Punjab, thus illuminating a critical regional dimension to the challenge of substance abuse within the studied population. This geographical insight has implications for the targeted allocation of resources and interventions to address the specific needs of individuals residing in rural areas affected by SUD.

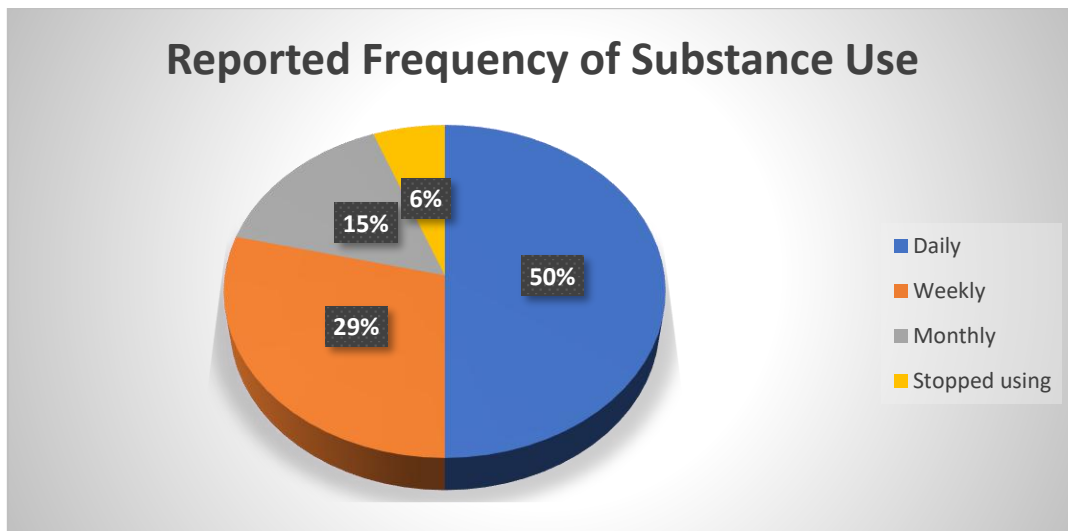


Fig. 2: Frequency of Substance Use

In order to ascertain the frequency of substance use within the surveyed population, a structured inquiry was employed, and the resulting responses were systematically gathered and analyzed. The outcomes, as visually represented in Figure 2 in the form of a pie chart, provide insights into the patterns of substance use among the respondents. It was observed that a substantial proportion of the sample, constituting 50%, engaged in the continued abuse of substances on a daily basis. This high-frequency pattern of substance use indicates a noteworthy prevalence of daily consumption within the cohort. Furthermore, 29% of the sample reported utilizing substances on a weekly basis, signifying a regular but less frequent pattern of substance use. Additionally, 15% of the respondents acknowledged using substances on a monthly basis, suggesting a less frequent but persistent engagement with

substance consumption. Conversely, a smaller segment of the sample, specifically 6%, had ceased using substances altogether. This observation underscores the presence of a minority within the studied population who have successfully abstained from substance use.

These findings shed light on the diverse range of substance use patterns, with a substantial portion of individuals engaging in daily substance abuse. Additionally, the existence of individuals who have chosen to discontinue substance use underscores the potential for recovery and cessation efforts within this population. These insights are integral to understanding the prevalence and nature of substance use behaviors among the respondents.

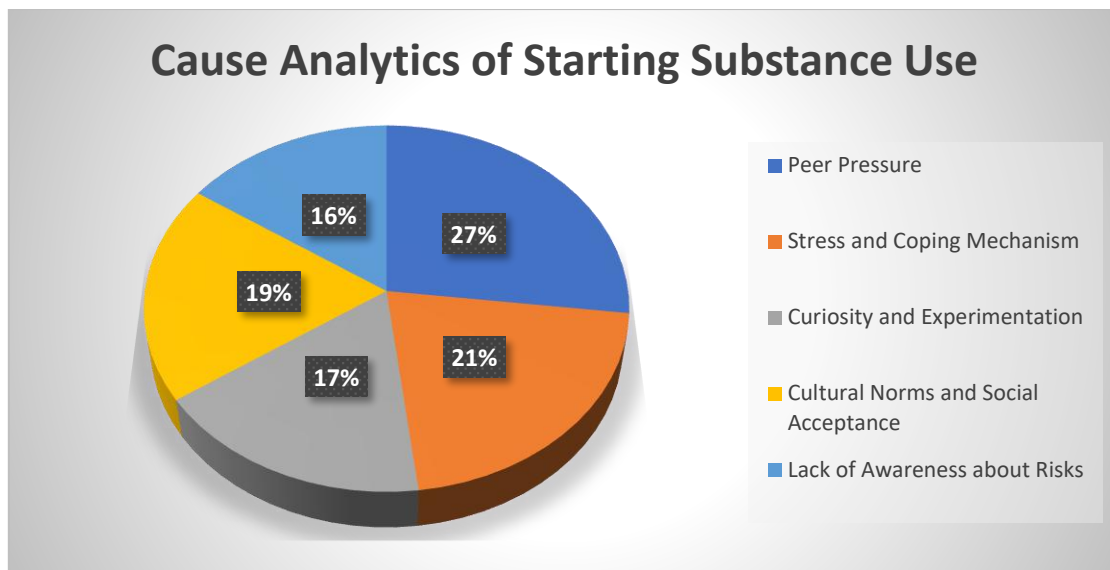


Fig 3: Cause analytics

To facilitate a comprehensive self-assessment of the factors precipitating substance abuse initiation among the respondents, a specific inquiry was posed, and their responses were methodically compiled and analyzed. The outcomes, as visually represented in the pie chart (Figure 3), revealed a striking diversity of reasons cited by individuals for embarking on substance consumption.

A notable 27% of the respondents attributed their initial engagement with substance use to "peer pressure." It was underscored that the prevailing social context and the acceptance of such behavior among their peer group played a pivotal role in their decisions. Furthermore, 21% of the respondents identified the presence of multiple stressors in their lives as a key impetus for their involvement in

substance abuse. These stressors, which manifested in various forms, were significant enough to lead them down the path of substance consumption as a coping mechanism.

These findings illuminate the multifaceted nature of the factors precipitating substance abuse initiation among the studied cohort. Peer pressure emerged as a predominant influence, reflecting the profound impact of social dynamics on individuals' decisions. Additionally, the prevalence of stressors as a contributing factor underscores the complex interplay between psychosocial stressors and the initiation of substance use. These insights provide valuable perspectives for devising targeted interventions and support mechanisms for individuals grappling with substance abuse issues.

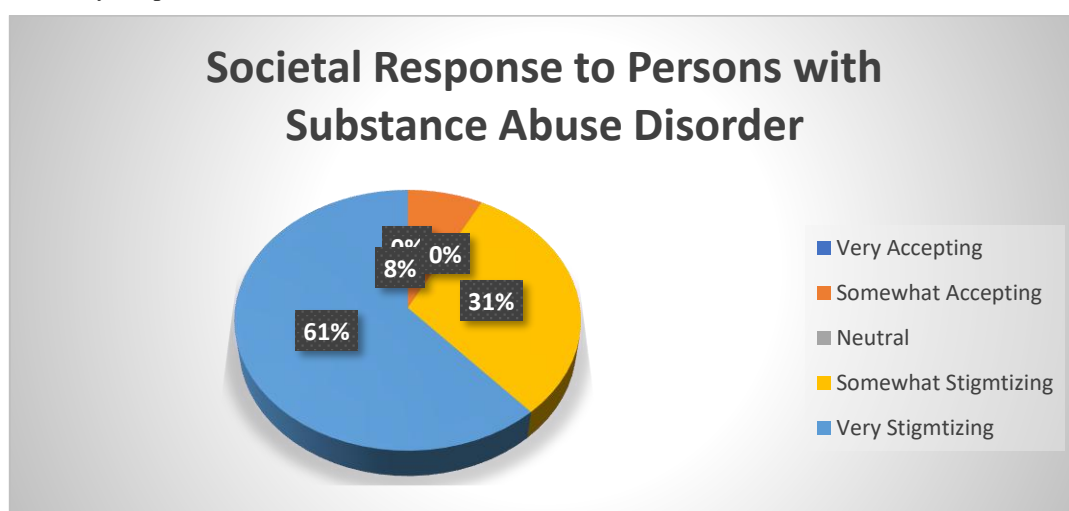


Fig. 4: Societal responses

In order to ascertain the extent of stigma associated with Substance Use Disorder (SUD) within the context of Punjab, this study incorporated a specific inquiry aimed at gauging respondents' personal experiences with societal responses to their SUD. The questionnaire included a question designed to validate the prevailing anticipation regarding the presence of stigma surrounding SUD.

The analysis of responses, comprising both quantitative and qualitative elements, revealed a profound prevalence of stigma attached to SUD within the study population. Specifically, a substantial 92% of participants, combining those who stated that SUD was "very stigmatized" (61%) and those who found it to be "stigmatized" (31%), acknowledged experiencing significant societal

stigmatization in relation to their SUD. This overwhelming majority underscores the pervasive nature of the stigma surrounding SUD within the studied region. Conversely, a mere 8% of respondents indicated that society held an accepting view of their SUD. This minority perspective reflects the existence of a limited segment within the population who perceive a more supportive societal response to their SUD.

These findings substantiate the presence of extensive stigma surrounding SUD in Punjab, highlighting the urgent need for targeted awareness campaigns, education, and support systems to address the pervasive societal attitudes towards individuals grappling with Substance Use Disorder.

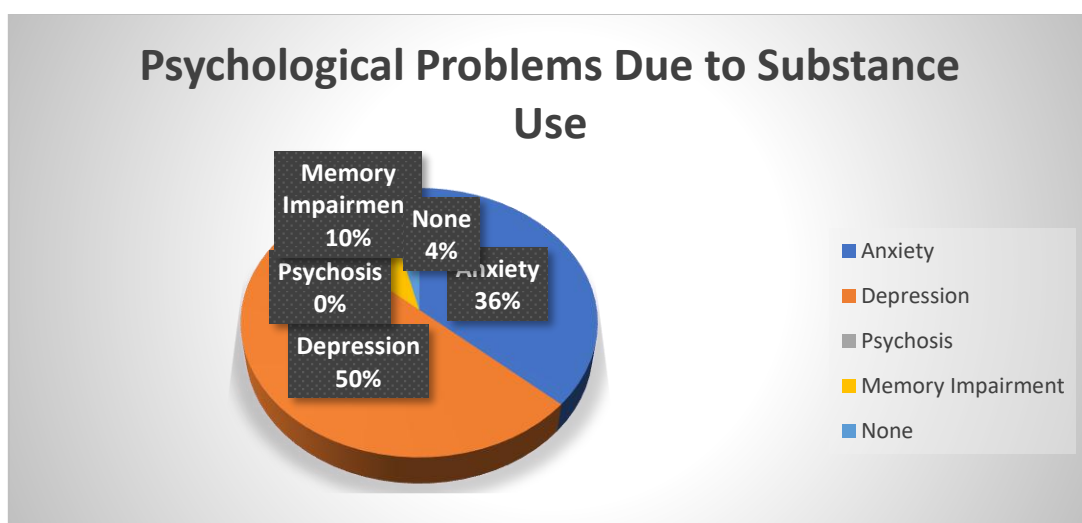


Fig. 5: Psychological problems due to substance use

Fig 5 presents an illustration of the influence of Substance Use Disorder (SUD) on mental health. This study involved a detailed exploration of the psychological aspects of anxiety, depression, and anger, with an emphasis on self-assessment of behavioral symptoms in response to substance abuse. Respondents were provided with instructions to evaluate their behavioral symptoms and were presented with four response options. The prevailing and most frequently reported consequence of Substance Use

Disorder among the respondents was 'depression,' with 50% of participants acknowledging experiencing this condition as a result of their disorder. Following closely, 36% of the respondents indicated 'anxiety' as a significant impact of SUD on their mental health. 'Memory loss' was reported by 10% of respondents, signifying its presence as another consequential effect of SUD. Whereas only, 4% of the participants reported that they perceived no discernible impact of Substance Use Disorder on their mental health.

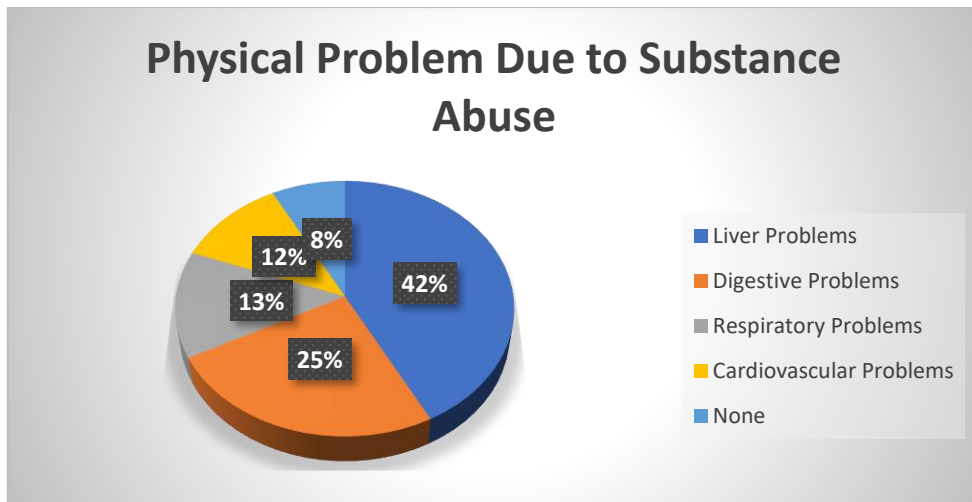


Fig 6: Physical Problem due to substance use

In accordance with the findings depicted in Fig 6, the study revealed a spectrum of physical repercussions arising from substance abuse. These repercussions encompassed a range of physiological ailments and conditions, with varying degrees of prevalence among the surveyed population.

A substantial portion of the respondents, constituting 42%, acknowledged experiencing liver problems attributable to their substance abuse. This finding underscores the significant strain that substance misuse places on the liver's physiological functions. A quarter of the surveyed individuals reported encountering digestive problems as a consequence of their substance abuse habits. This highlights the impact of substance misuse on the gastrointestinal system, necessitating attention and intervention. Thirteen

percent of the respondents cited the manifestation of respiratory disorders linked to their substance abuse. These disorders indicate the multifaceted health ramifications associated with substance misuse, particularly concerning pulmonary health. A notable 12% of participants identified cardiovascular problems as a direct outcome of their substance abuse. This observation underscores the potential cardiovascular risks associated with substance misuse. A minority of respondents, comprising 8%, conveyed that they did not perceive any discernible physiological impact on their health resulting from substance abuse. This perspective, while less prevalent, is a noteworthy consideration in understanding the diverse range of experiences within the studied population.

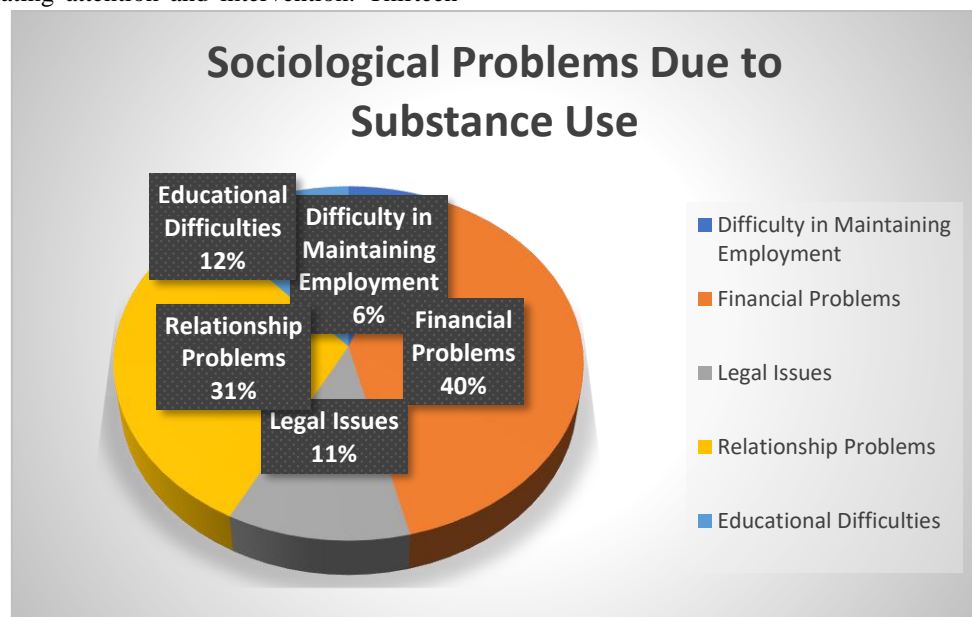


Fig. 7: Sociological problems due to substance use

The study delved into a comprehensive examination of the sociological challenges encountered by the respondents within the context of Substance Use Disorder (SUD). These sociological problems encompassed a range of domains, and their prevalence was meticulously investigated.

The most frequently cited sociological problem among respondents was financial difficulties, with 21% of individuals acknowledging this challenge. The prevalence of financial issues underscores the profound economic implications of SUD. Relationship difficulties emerged as another prevalent sociological problem, reported by 16% of the respondents. These problems encompassed interpersonal challenges arising within familial, social, or romantic contexts. A notable percentage, specifically 6% of the participants, revealed that they faced legal issues as a consequence of their substance abuse. This underscores the

potential legal ramifications associated with SUD. Educational challenges were experienced by 6% of the respondents, highlighting the impact of substance abuse on academic pursuits and attainment. A smaller yet significant segment, comprising 3% of the sample, encountered difficulties in sustaining employment due to their substance abuse.

The study's exploration of these sociological problems was instrumental in elucidating the multifaceted impact of substance abuse on individuals' lives. It underscores the intricate interplay between SUD and social factors, illuminating the need for comprehensive interventions and support systems to address the diverse sociological challenges faced by individuals affected by substance abuse.

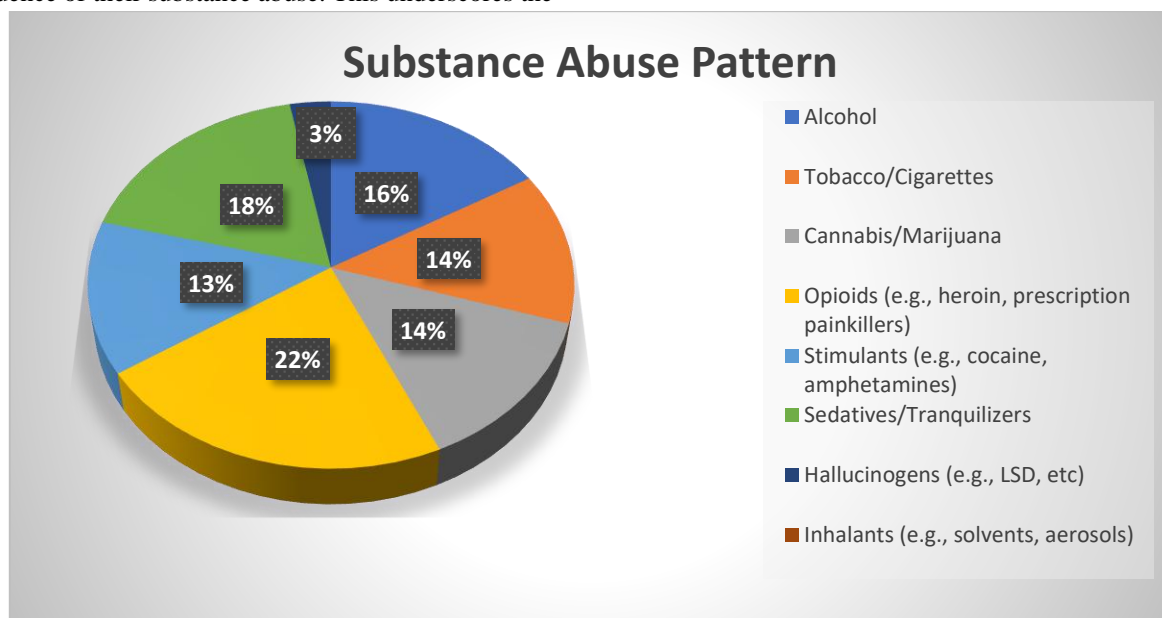


Fig. 8: Substance use patterns

The survey findings, as elucidated through Figure 8, provide a comprehensive insight into the diverse spectrum of substances consumed by the respondents. It is noteworthy that the prevalence and types of substances used vary among the surveyed individuals. Approximately 22% of the respondents reported the consumption of opioid products, indicating a noteworthy presence of these substances within the studied population. A total of 18% of the respondents disclosed the use of sedatives and tranquilizers, signifying a significant proportion engaging with these substances. Alcohol consumption was acknowledged by 16% of the respondents, highlighting its prevalence as a substance of choice among a segment of the population. Approximately 14% of the respondents indicated the use of tobacco and cigarettes, underscoring the persistence of tobacco-related habits. Stimulant use,

exemplified by substances like cocaine, was reported by 13% of the respondents, indicating its presence within the cohort. A total of 14% of the respondents confirmed the use of cannabis or marijuana-based products, reflecting their popularity among certain individuals. A smaller percentage, specifically 3% of the respondents, reported the use of hallucinogenic drugs, representing a distinct but less prevalent category of substance use.

IV. CONCLUSION

The research has shed light on the intricate web of Substance Use Disorder (SUD) within the context of Punjab, unveiling a multifaceted landscape characterized by diverse patterns of substance consumption, sociological challenges, and pervasive stigma. Through a meticulous

analysis of survey responses, several key findings have emerged, each of which contributes to a more comprehensive understanding of the complex dynamics associated with SUD in this region.

First and foremost, the prevalence of SUD in Punjab is underscored by the sheer diversity of substances consumed, ranging from opioids and sedatives to alcohol, tobacco, stimulants, and hallucinogens. This spectrum of substance use patterns reflects the nuanced nature of substance abuse within the studied population, necessitating tailored interventions and support systems to address the specific needs of individuals based on their substance preferences.

Furthermore, the study illuminates the profound sociological challenges entwined with SUD. Financial difficulties were identified as the most prevalent sociological problem, with a substantial percentage of respondents citing its impact. Relationship problems, legal issues, educational difficulties, and employment instability also emerged as significant challenges stemming from substance abuse. These findings underscore the far-reaching social implications of SUD, emphasizing the imperative need for holistic interventions that address not only the substance use itself but also the sociological challenges faced by affected individuals. The pervasive stigma surrounding SUD within Punjab is a critical dimension revealed by this research. A striking 92% of participants reported experiencing significant societal stigmatization associated with their SUD. This finding highlights the urgent need for comprehensive awareness campaigns, education initiatives, and support systems to combat the deeply ingrained societal attitudes that further exacerbate the challenges faced by individuals struggling with SUD.

In addition, the study unraveled the regional dimension of SUD, with a higher prevalence observed in rural areas compared to urban locales. This geographic disparity underscores the necessity for targeted resource allocation and interventions to address the specific needs of rural communities grappling with SUD.

In conclusion, this research provides a comprehensive portrait of the Substance Use Disorder landscape in Punjab, characterized by diverse substance consumption patterns, sociological challenges, and pervasive stigma. It underscores the imperative for a holistic approach that encompasses not only substance-focused interventions but also sociological support mechanisms and awareness campaigns. By addressing the intricate web of factors surrounding SUD, policymakers, healthcare professionals, and community leaders can work collaboratively to alleviate the burden of SUD and enhance the well-being of affected individuals within the region.

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