

# Substance Abuse and Psychiatric Disorders in HIV-Positive Patients: an Insight into Triple Diagnosis

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## ABSTRACT

**Introduction:** People living with mental health issues and substance abuse are at higher risk of contracting HIV moreover diagnosis of HIV, can precipitate new, or exacerbate existing mental health problems including substance abuse. There is lack of data on coexisting Mental illness and substance abuse in HIV patients.

**Material and methods:** The study was a retrospective chart review. All cases presenting to the ART center, during study period of one year, who were diagnosed with HIV and having comorbid substance abuse and other mental disorder as per ICD 10 were included in the study.

**Results:** Out of 2914 HIV patients registered in ART center, 151 patients with comorbid substance use disorder and other mental illness were included in our analysis. Depression was most common diagnosis (27%) in our subjects followed closely by anxiety disorders (23%). Majority of patients (77) was abusing Alcohol, 33 were using opioid, 20 were using Cannabis.

**Conclusion:** Drug abuse with mental illness in HIV patients continues to be a growing challenge, providing care to this medically fragile and complex population requires integrated and interdisciplinary approach.

**Keywords:** Triple Diagnosis, HIV, Substance Abuse, Mental Illness

## INTRODUCTION

Diagnosis of HIV has an impact on every aspect of individual life. People who are already living with mental health issues and substance abuse are at higher risk of contracting HIV moreover diagnosis of HIV as well as progression of symptoms, can precipitate new, or exacerbate existing mental health problems.<sup>1</sup> In turn, Psychiatric disorder and substance abuse in people living with HIV can increase an individual's need for health care services and interfere with his or her ability to comply with complex treatment regimens for HIV.<sup>2</sup> Persons with HIV who struggles with Psychiatric or substance abuse disorder may be more likely to engage in unsafe sex and needle-sharing behaviors than others, thus increasing the risk of spreading the disease.<sup>3</sup>

India has the third largest HIV epidemic in the world. In 2017, HIV prevalence among adults (aged 15-49) was an estimated 0.2%, This equates to 2.1 million people living with HIV.<sup>4</sup> The epidemic is concentrated among key affected populations, Sex workers, men who have sex with men (MSM), migrant workers and men who use drugs, however the vulnerabilities that drive the epidemic vary in different parts of the country. A key driver is unprotected sex among key populations and their clients, partners and spouses.

However, injecting drug use in the north and northeast of the country is also pushing up HIV prevalence. HIV prevalence among people who inject drugs (sometimes referred to as PWID) in India is high, with injecting drug use the major route of HIV transmission in India's north-eastern states. In 2017, 6.3% of people who inject drugs were thought to be living with HIV.<sup>5</sup> Less is known about the prevalence of HIV inpatients with a substance abuse disorder who aren't injection drug users. There is lack of national data on prevalence of HIV in mental disorder patients. Studies of youths in treatment and in the general population<sup>6,7</sup> suggest that major mental disorders (major depressive episode, manic episode, and psychosis), especially with comorbid substance use disorders, may be an important risk factor for HIV-AIDS risk.<sup>8</sup> The HIV Costs and Services Utilization Study (HCSUS) found: 36% of HIV clients with major depression, 26.5% with dysthymia, 15.8% with generalized anxiety disorder, 10.5% with panic attacks, 12% with drug dependence, 6.2% with frequently heavy drinking.<sup>9</sup> There is lack of study from India who has examined mental disorders, comorbid substance use disorders, and their relationship to HIV patients. The dearth of data prompted this investigation to look into the triple diagnosis menace.

## MATERIAL AND METHODS

This study was conducted at the Sir Sunderlal Hospital, Institute of Medical sciences, Banaras Hindu University, Varanasi a premier tertiary care hospital situated in northern part of India, covering and serving a large catchment area. The hospital is also a nodal center and center of excellence 'ART' center. The data was collected from the 'ART' center and psychiatry OPD. The study was a retrospective chart review. All cases presenting to the ART center, during study period, who were diagnosed with HIV and having comorbid substance abuse and other mental disorder as per ICD 10 were included in the study. The cases from the OPD

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services of psychiatry and de-addiction clinic who fulfilled the criteria were also included in the study. Incomplete charts were excluded from the study. Ethical approval was taken from the Institutional ethics committee.

## RESULT

Total number of HIV patients registered in ART center during study period of one year was 2914. 151 patients with comorbid substance use disorder and other mental illness were included in our analysis. Socio demographic profile of subjects is shown in Table-1. Majority of subjects (136) were male. Majority of patients with triple diagnosis (65%) were from age group 30-60 years and 32% patients were younger than 30 years. Majority of patients were married (87%) belonging to nuclear family (64%). Most of patients (73%) came from Rural background. 75.4% patients were belonging to Hindu community and 24.6% to Muslim community. Majority of subjects (29.8%) were at least Inter pass and 23.8% were illiterate. Most of subjects (29.1%) were working as semiskilled workers in non-organized sectors, 14.5% were unemployed, 13.9% were working as a driver. Majority of patients (37%) were from upper lower socio economic class.

Mental disorder profile of patients- Depression was most common diagnosis (27%) in our subjects followed closely by anxiety disorders (23%). Substantial numbers of patients (33) were suffering from Schizophrenia and other Psychotic

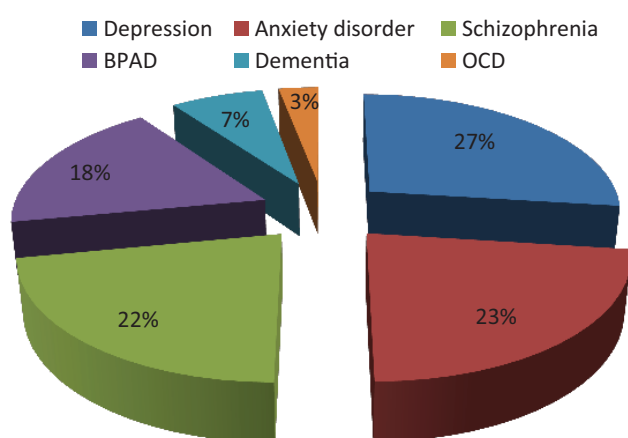


Figure-1: Profile of Psychiatric disorder

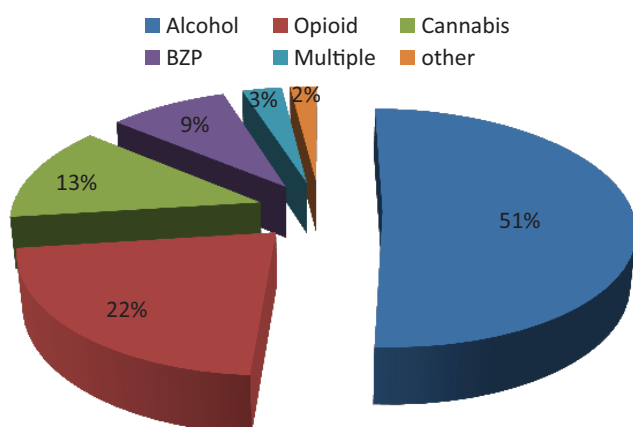


Figure-2: Profile of Substance Abuse

| Socio-demographic status of subjects |                      | N     | %     |
|--------------------------------------|----------------------|-------|-------|
| Age group                            | <30 yrs              | 48    | 32%   |
|                                      | 30-60 yrs            | 98    | 65%   |
|                                      | >60 yrs              | 5     | 3%    |
| Sex                                  | Male                 | 136   | 90%   |
|                                      | Female               | 15    | 10%   |
| Family Type                          | Nuclear              | 96    | 64%   |
|                                      | Joint                | 55    | 36%   |
| Marrital status                      | Married              | 131   | 86.8% |
|                                      | Unmarried            | 20    | 13.2% |
| Domicile                             | Urban                | 41    | 27.2% |
|                                      | Rural                | 110   | 72.8% |
| Religion                             | Hindu                | 114   | 75.4% |
|                                      | Muslim               | 37    | 24.6% |
| Education                            | Illiterate           | 36    | 23.8% |
|                                      | Primary              | 12    | 7.9%  |
|                                      | Highschool           | 16    | 10.5% |
|                                      | Intermediate         | 45    | 29.8% |
|                                      | Graduation           | 32    | 21.1% |
|                                      | Post Graduate        | 10    | 6.6%  |
| Occupation                           | Unemployed           | 22    | 14.5% |
|                                      | House maker          | 15    | 9.9%  |
|                                      | Driver               | 21    | 13.9% |
|                                      | Student              | 14    | 9.2%  |
|                                      | Semi-skilled         | 44    | 29.1% |
|                                      | Government           | 13    | 8.6%  |
|                                      | Self-employed        | 20    | 13.2% |
|                                      | Professional         | 2     | 1.3%  |
|                                      | Socioeconomic status | Upper | 15    |
| middle                               |                      | 47    | 31.1% |
| Upper lower                          |                      | 56    | 37.0% |
| Lower                                |                      | 33    | 21.8% |

Table-1: Socio- Demographic status of subjects

disorders. 27 subjects were Bipolar, 11 were having Dementia and 4 were suffering from Obsessive Compulsive disorder (Figure-1).

Profile of Substance abuse- Majority of patients (77) was abusing Alcohol, 33 were using opioid, 20 were using Cannabis, 14 subjects were abusing Benzodiazepines. 5 Patients were dependent on multiple substances.(Figure-2)

## DISCUSSION

Patients with triple diagnosis pose great challenge to the treating physicians as well as addiction medicine specialists or psychiatrists. Substance abuse and psychiatric disorders commonly occur together, the spread of the human immunodeficiency virus (HIV) among drug users has added a third potential clinical problem, to the difficulties already presented by drug abuse and psychiatric disorders. In our study out of total 2914 registered HIV patients during study period of one year, 151 had triple diagnosis. So prevalence of Triple diagnosis in our study was 5.1% which is less compared to The HIV Costs and Services Utilization Study (HCSUS) as about 13 percent of HCSUS participants had psychiatric symptoms and were either drug-dependent, heavy drinkers, or both.<sup>9</sup> Majority of patients (65%) with triple diagnosis were from young age group 30 to 60. 90% patients with triple

diagnosis in our study were male. HIV prevalence is higher among men than women, with 0.25% of men and 0.19% of women living with HIV as of 2017 in India.<sup>10</sup> This is due to high prevalence among key populations including men who have sex with men, migrant workers and men who use drugs. The prevalence of the various Psychiatric disorders is similar to what has been found in the other studies. Most common psychiatric disorder in our study was Depression followed by Anxiety disorders. Findings are similar to Chandra et al.<sup>11</sup> they found depression in 40% and Anxiety in 36% HIV patients. In HCSUS also 36% HIV patients had major depression<sup>9</sup>. Most common substance abused by patients in our study was alcohol followed by opioid and cannabis. Our findings are similar to Ahuja et al. they found 44.4% of HIV patients with alcohol dependence.<sup>12</sup>

Relationship between HIV & substance abuse with mental illness is bidirectional. HIV plus substance abuse increases risk for psychiatric illness and psychiatric illness increases risk for HIV plus substance abuse. Effective management of psychiatric illness and substance abuse can decrease HIV transmission and effective treatment for psychiatric illness and substance abuse in HIV positive patients can improve patient outcome. Preexisting psychopathology is only one of the many contributors to the mental health problems of HIV-infected drug users. Other factors include continued drug use, with its acute and chronic mental and behavioral consequences, and HIV itself-through direct effects on CNS as HIV encephalopathy and indirect effects such as secondary infections or neoplasms involving the central nervous system. The psychosocial factors associated with HIV, such as stigma, isolation, ostracism, are yet another cause of additive distress that contributes to mental health problems. The psychological problems of these patients include denial, aggressive and antisocial behavior, depression, anxiety and continued drug abuse.<sup>13</sup> Intravenous drug users are an increasingly important group among HIV-infected patients. The role of drug use in AIDS extends beyond simply transmitting the HIV through injection. Another way in which drug use may be involved in the spread of HIV is through drug-induced disinhibition of behavior, mainly in the form of intoxication-related hyper sexuality due to stimulant use, as well as through unsafe, promiscuous sexual behavior in sex-for-drugs transactions that can accompany drug use. The chaotic and impulsive life-style associated with drug use contributes to a disregard for safety in sexual behavior or in the hygiene of drug use itself. Drugs like opiates, cocaine, alcohol, marijuana, and others are also implicated in immune suppression.<sup>14</sup> Psychopathology associated with drug use may complicate and further exacerbate the neuropsychiatric and mental health problems associated with AIDS itself. There are a number of common sources of psychological distress, these stressors are similar to those faced by non-drug-using HIV-infected patients, but they can be more intense because of the special vulnerabilities of drug users. Some sources of psychological distress include the awareness of a terminal illness, isolation and ostracism, losses of health and sexuality and the negative attitudes of health care providers. Psychiatric problems are

particularly important in that as the poor coping skills and ego deficits in these patients may lead them to respond to the added stresses of illness by increasing their drug use.

Our study delineate the need for assessment of psychiatric disorder in HIV patients and team treating HIV patients should include Psychiatrist for proper management of triple diagnosis cases. Our study was hospital based and some patients with severe common mental disorder might unlikely to be available in the hospital due to their severity of common mental disorder. This could influence the prevalence of common mental disorder and it might not be generalized to the total population of people living with HIV/AIDS in the region. Also, our study was cross-sectional and it cannot show the cause-effect relationship between common mental disorder and independent variables. A prospective study in community is needed for better understanding of Triple diagnosis.

## CONCLUSION

Drug abuse with mental illness in HIV patients continues to be a growing challenge, providing care to this medically fragile and complex population requires integrated and interdisciplinary approach. The health care establishments have to make significant strides in addressing the needs of these patients. Just as the mental health community developed programs for the dual diagnosed patient, the HIV/AIDS community must now strategize and advocate for the triply diagnosed, who deserve a uniform and replicable model for treatment.

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