

Substance Use Disorder: A Review

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Abstract: *The purpose of the study is to explore the co morbidities in substance use disorder including alcohol, cannabis, marijuana, opioids, and those abusing multiple drugs. Alcohol remains the most widely used substance among students. Among illicit substance heroin and cocaine have most serious health related effects. Most of substance users are unaware of the serious ill effects of their habit. Use of substance other than alcohol has also been associated with elevated risk of suicidal behavior in both clinical and population studies. This study suggests psychiatric co morbidity in patients with substance use disorders.*

Keywords: Illicit substance, Heroin, Cocaine, Substance use disorders

1. Introduction

Around the globe, substance abuse remains a challenge in 21st century. Drug abuse and drug dependence represent different ends of the same disease process. The growing of menace of alcohol and drug abuse at both international and national levels is of great concern today. Drug dependence is the body's physical need or addiction, to a specific agent [1]. According to ICD 11 (International Classification of Disease), disorders due to substance use and addictive behavior are mental and behavioral disorders that develop as a result of the use of predominantly psychoactive substances, including medications, or specific repetitive rewarding and reinforcing behavior [2]. The scope of the problem of substance abuse is suggested by the fact that there are more death, illness and disabilities from substance abuse than from any other preventable health condition; Milton 2001

According to the United Nation Office and Drugs and Crime (UNDOC, 2018) surveys showed that the extent of drug use remains higher in younger generation than older people [3]. Alcohol remains the most commonly used substance among students. Worldwide alcohol causes 1.8 million deaths each year. The youth are increasingly being adaptive to lifestyle that disturbs their health. Use of substance other than alcohol has also been associated with elevated risk of suicidal behavior in both clinical and population studies. Substance users often abuse more than one substance.

Epidemiological surveys indicate that substance use disorders and mood disorders and mood anxiety disorders have strong association when considered on a lifetime basis *Bridget. F et al (2004)* [4]. In Germany, epidemiologic survey (2015), indicates the use of psychoactive substance highly prevalent in general population [5]. There is a need to continuously monitor changes in trends in substance abuse. According to a study substance induces disorder and substance induced symptoms lead to thrice the risk of suicide [6]. Co morbid psychiatric disorders are more common in adolescents who have substance use disorder. However, co morbidity in psychiatric terms and in context of substance use disorders usually refers to the co occurrence of psychoactive substance use and other mental disorders [7]. In a study it was found that depressive and

anxiety disorder commonly co-occurred in patients with alcohol use while schizophrenia was commonly found in cannabis dependent individual [8]. A number of psychiatric disorders are commonly associated with Substance Use Disorders (SUD) in youth. According to National Survey on Drug use and health (NSDUH) in 2018, an estimate 164.8 million people aged 12 or older in the United States (60.2 per cent) were past month substance users (i.e tobacco, alcohol, illicit drugs) [9].

Illicit drugs include the use of marijuana, cocaine (including crack) heroin, hallucinogens, inhalants, methamphetamine as well as misuse of prescription stimulants, tranquilizers or sedatives (including benzodiazepines) and pain relievers. *Cannabis* is most widely cultivated, trafficked and abused illicit drug. Half of all drug seizures worldwide are cannabis seizure. About 147 million people, 2.5% of the world population, consume cannabis (annual prevalence) compared with 0.2% consuming cocaine and 0.2% consuming opiates [10]. *ATS (amphetamine type stimulants)* refers to group of drugs whose principle members are methamphetamine and amphetamine. Smoking, sniffing, inhaling are most common methods of administration of these drugs. *Opiates* an increase in intravenous heroin abuse has lead an increase prevalence of HIV /AIDS. The number of inhalants users was about 1 million in 2002 [11]. Globally, it is estimated that 13.5 million people take opioids, including 9.2 million who use heroin.

As substance use is gaining popularity among students, adults, youth it would be necessary to examine their knowledge towards substance abuse Health education is an important strategy of all programmes to prevent and control drug abuse. The strategy used is to increase knowledge of consequences of drug use. Psychosocially based approach aim at enhancing social skills and specific drug refusal skills which is an important adjunct. Interventions aims at imparting life skills training, counseling, and providing newer opportunities to the adolescents so that their energy channelizes in a proper direction and it includes as a part of broader strategy. Important modalities of intervention include behavioral treatment, manual guided therapy (including drug refusal skills, problem solving skills and social skills), group treatment.

Substance use disorder

Jeffrey et al 2009 conducted a study on illicit drug use, such in the United States thus findings concluded the promotion of mental health of mental health associated with substance abuse and has approach to preventing and treating drug abuse. Study demonstrates that the knowledge obtain from the study is for the betterment of nation's public health.

Liza et al (2017), assessed a cross sectional survey in the pattern of drug use among 110 male adolescents in which more than half subjects used solvents like petrol, nail polish which was easily available to them whereas, study findings revealed that 55.6% of male adolescents reported the use of one or more substance in their lifetime, common substances include any kind of tobacco (77.05%), inhalants (26.23%), and alcohol (11.47%).

Dalia et al (2019), evaluated the prevalence of drug use among students of vocational school in Lithuania conducted a cross sectional questionnaire survey collected the data from random 912 students. Study concluded with 56% men and 44% women reported any drug use in their life.

Okita Dan (2020), studied a descriptive research design on sources of drug abuse by girls in secondary schools on 371 girls out of which 74 girls were from secondary school comprising 17 public and 57 private secondary schools and primary data was collected from questionnaire, interview schedules, focused discussions groups. From the findings, study indicates 28% of students got drugs from chemists/ pharmacies as they were the main source of drugs to the girls, study recommends that school administration, government, parents should be more strict and vigilant in curtailing drug use among students in secondary schools.

Ronald et al (2017), conducted a descriptive cross sectional study on perceived factor influencing drug abuse among university students in Western Uganda on 225 students. Results revealed that most common demographic factor was age with percentage of 46.2%, the most influencing social factor was peer pressure with 86, curiosity 43.5%, under stress 57%.

Katherine et al (2004), evaluated on assessment of bipolar disorder and substance abuse as predictors of suicidal behavior in acutely hospitalized psychiatric on 7819 inpatients. Subjects included with bipolar mania were 948, unipolar depressive episode were 3626, schizophrenia schizoaffective disorder 2255, bipolar depression 990. To sum up substance induce disorder and substance induce symptoms lead to thrice the risk of suicide whereas, patient diagnosed with bipolar disorder were prone to double the risk of suicide.

Michael et al (2014), observed on the recent research on substance use disorder recovery management which mainly focuses on sustain recovery from chronic substance use disorder and recovery management. Study mainly concerns on the areas on a) continuing care b) recovery management checkups c) technology based interventions. The study concluded that the age between 18-25 years are more prone to onset of substance use disorder.

Hassan et al (2018), observed the comparison of buprenorphine and buprenorphine/ nalaxone in opioid dependent men by means of double blinded trials in group of 100 men. Clinical Opiate Withdrawal scale (COWS) and Adjective Rating scale For Withdrawal (ARSW) scores determined the rate of severity of withdrawal. Conclusion demonstrates that buprenorphine / nalaxone is as effective as buprenorphine in controlling opiate withdrawal.

Samuel (2016), explored on the psychosocial factor influencing youth alcoholism at Agogo, Ghana in which study was performed on youth 18-30years of age who attended the substance abuse clinic at Agogo, both male and female were considered in the study. The study was conducted in total no. of 12 participants individual questionnaire based study. Results concluded that peer pressure, youth unemployment, poverty, inadequate knowledge of effects of alcohol would lead to addiction of alcohol in youths.

Alphonse et al (2017), did a focused study on assessment of effects of Khat consumption on health non school going youth in Somalia. The study targets around 5276 youth sample size of 107 respondents, based on descriptive cross sectional study design with either qualitative or quantitative approaches. Khat consumption had cardiovascular effects, psychiatric effects dependency syndrome, effects on respiratory system, effects on oral and gastrointestinal systems. Results indicate more than 75 per cent were in their 20s or below were majority of respondents, 68.2% were male whereas female consumers were 31.8%.

Simon et al (2015), researched on psychopathology in substance use disorder with and without substance induced psychosis by means of retrospective study. Data collected from medical record of the patients (n=379) with more than 18 years of age, both male and female were included in the study. Results concluded out of 379 patients 5% (19) were diagnosed with SIPD (Substance induced psychotic disorder) and 95% (360) were diagnosed with SUD (substance use disorder) without substance induced psychotic disorder.

Claudia et al (1996), performed a focused longitudinal eight months study on drug abuse from 370 adults with aged 18-40 years by means of Snowball technique in Brazil. Computer diagnoses were generated according to the Diagnostic and Statistical Manual of Mental disorders (DSM III -R) criteria, cases in the study were drug abusers. Results demonstrated that 65% of cases and 52% of the controls were classified as having had at least one lifetime psychiatric disorder with observed distribution of 185 matched pair which showed p1 value of 0.52 and p2 value of 0.51, indicating no selection bias in this study.

Sung et al (2005), investigated on trends and correlates of non medical use of opioids among youth in which study was performed on youth age 12-17 years and the data analyses was from National survey on drug use and health. The target of the study was prevention campaigns and focuses on family bonds and peer resistance skills.

Cassidy et al (2001), researched on substance abuse in bipolar disorder on 392 patients hospitalized for maniac or mixed episode of bipolar disorder by means of cohort study which comprises of 114 white males, 77 black males, 122 white females and 78 black females based on DSM III-R (Diagnostic and Statistical Manual of Mental disorders) criteria. Chi – square statistics were used to test for correspondence of lifetime alcohol abuse and lifetime drug abuse. Conclusion of the study came out to be rates of lifetime substance abuse were high for both alcohol and drugs 48.5% and 43.9% respectively, it also concluded that rate of abuse in male were higher than female.

Ab Majid et al (2017), conducted a cross sectional study on 300 students with more than 18 years of age, on psychiatric co morbidity in patients with substance use disorder. Subjects were assessed with four weeks of complete abstinence from psychoactive substance screened with Mini International Neuropsychiatric Interview Plus (MINI –plus) 6.0 for presence of psychiatric co morbidity. Conclusion came out to be out of 300 subjects 22.3% were poly substance, opioid 21.3%, benzodiazepine 7%, cannabis 26% used these substances. Out of 300 subjects 174 were found to have dual diagnosis, psychotic disorder were most common psychiatric co morbidity followed by major depressive disorder.

2. Discussion

There is limited published literature on co morbidities of substance induced disorder in psychiatric patients in India. Most of the studies have cross-sectional descriptive design and few of them have retrospective chart review. The existing literature on substance use psychiatric disorders has limited domains. Most of the studies on substance use disorder have focused on substance induced psychotic disorder (SIPD). Studies in recent years also indicates substance users are more prone to suicide than non substance users. The information gathered indicates an association of psychiatric co morbidities in substance users. A study concluded that age between 18-25 years is prone to onset of substance use disorder. Research states that substance use disorders and mood disorders and mood anxiety disorders have strong association linked when considered on lifetime basis.

Overall, literature review points towards a frequency of psychiatric symptoms in those with substance use disorder. A focused study on khat consumption was conducted in which it conclude that khat consumption had adversely effected cardiovascular system, psychiatric, had led to dependency syndrome, effected on respiratory system and also put detrimental effect on gastrointestinal system. Another qualitative study on service deliveries for individual with co occurring cannabis disorders and psychiatric disorders reported that depressive and anxiety disorders commonly occurred in alcohol users whereas, schizophrenia was commonly observed in cannabis dependent individual.

In conclusion, substance abuse is a worldwide problem affects all ages and genders and geographical locations. The most common psychiatric disorders seen with substance use include antisocial personality disorders, depression, panic

disorders, schizophrenia and other anxiety disorders. Several studies have described the adverse effects of substance use and review of research suggests that high prevalence of psychiatric disorder among substance dependent individual. The predominant factors observed in these studies were unawareness of demerits of the substance use especially adolescents, peer pressure, ease of availability of the illegal drugs, curiosity, under stress. Recent study reiterates that most of the school going students got drugs from chemist/pharmacies as it was the easiest and cheap source. Another study conducted on illicit drug use which concluded the promotion of mental health associated with substance abuse and has approach to prevent and treat drug abuse, however knowledge obtained from the study is for the better for the nation's public health. Exploration of mental health awareness programs, knowledge about pro and cons of drugs, may lead to depletion of substance users.

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