

ORIGINAL ARTICLE

Study of the Socio-Demographic Profile, Pattern of Substance Abuse and Criminal Behaviour in Patients with Opioid Use Disorder

Yadav R,¹ Rai RK,² Kumar DS,³ Singh VK,⁴ Singh AP,⁵ Kaul A.⁶

1-3,6. Department of Forensic Medicine & Toxicology, Moti Lal Nehru Medical College, Prayagraj.

4,5. Department of Psychiatry, Moti Lal Nehru Medical College, Prayagraj.

Abstract:

With the ongoing increase in supply, temptations, stressful lifestyle and easy availability, substance abuse is growing amongst different populations at an alarming rate. Its demand is increasing alarmingly in the younger generation due to various socio-economical reasons. Substance abuse has also been found to be associated with violent behaviour and infectious diseases. The aims of this study were to find out the socio-demographic profile, pattern of substance abuse and criminal behaviour associated with Opioid Use Disorder. 106 diagnosed patients of Opioid Use Disorder registered at the OST Centre, Department of Psychiatry, S.R.N. Hospital, associated with Moti Lal Nehru Medical College, Prayagraj were included. All patients were interviewed according to a semi-structured questionnaire prepared for the purpose of collection of information regarding patterns of opioid abuse and history of criminal behaviour, if any. Out of 106 cases, 48 were found with a history of criminal behaviour. Criminal behaviour was found mostly amongst the cases of unemployed and uneducated cases. Cannabis was found to be the most common substance used prior to initiation of opioid abuse. The 20-29 years age group was found to be the most vulnerable age group for initiation of opioid abuse and commission of crime. Accordingly, the 2nd and 3rd decade of life needs better familial and social support along with strict law enforcement related to the supply of illicit substances.

Keywords: Opioid addiction; Criminal behaviour; Criminality; Alcohol; Cannabis.

Introduction:

Consumption of different substances of abuse has been in existence all around the world since the dawn of civilization. Usually, adolescence is the critical phase of life when the first initiation of substance abuse takes place. Around 275 million people had used drugs worldwide during the last year, while over 36 million people suffered from drug use disorders. Between the years 2010-2019, the number of people using drugs has increased by 22 per cent and opioids continue to account for the largest burden of infectious disease attributed to intravenous drug use.¹ Violent behaviour is also linked with substance abuse and it can occur during various phases, such as acute intoxication, withdrawal, or substance-induced psychosis. Furthermore, violence may occur both in individuals who do and in those who do not suffer from a substance use disorder.²

Material and methods:

The present study was approved by the Institutional Ethics Committee (Ethics Committee Registration No. ECR/922/inst/UP/2017 issued under Rule 122DD/of the Drugs & Cosmetics Rule 1945), M.L.N. Medical College, Prayagraj. Written informed consent was obtained from adult research participants. The study was conducted in accordance with the World Medical Association Declaration of Helsinki on Ethical

Principles for Medical Research Involving Humans. The study was a descriptive cross-sectional study. This study aimed to find out the socio-demographic profile and criminal behaviour in patients with Opioid Use Disorder. The study has been conducted by the Department of Forensic Medicine and Toxicology, M.L.N. Medical College, Prayagraj and carried out on the patients of Opioid Use Disorder registered at Opioid Substitution Therapy Centre, Department of Psychiatry, Swaroop Rani Nehru Hospital, Moti Lal Nehru Medical College, Prayagraj. The duration of the study was 12 months. All patients of Opioid Use Disorder who arrived at Opioid Substitution Therapy Centre for initiation or follow-up of pharmacotherapy were included. Those excluded were the patients not willing to be included in the study or those having other unrelated psychiatric disorders like Schizophrenia, Bipolar Affective Disorder, Obsessive Compulsive Disorder and Dementia.

Results:

Total 106 cases (102 males and 4 females) of Opioid Use Disorder were taken in this study, out of which, 48 cases had criminal history, comprising 45.28%. Out of these 48 cases, 35 (32.41%) cases had conviction or penalization by the court of law.

Table-I indicates the occupational status of the cases. It is observed that 55 (51.89%) cases were skilled workers followed by 29 (27.35%) unskilled workers, 20 (18.87%) unemployed cases and 2 (1.89%) professionals. Amongst all the cases, the greatest proportion of criminal behaviour is found associated with unemployed and unskilled workers (more than 50%). Skilled workers have lesser such history, while no criminal tendency is observed in the professionals.

Table II illustrates the educational status of the cases. The

Corresponding Author

Dr. Archana Kaul (Professor and Head)

Email : drarchanakaulmln@gmail.com, rishabh.dr19@gmail.com

Mobile No.: +91 79056 95250

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majority of the cases are illiterate i.e., 32 (30.19%) followed by those who received education up to primary level i.e., 31 (29.25%). It is followed by 21 (19.81%) cases with education up to high school, 12 (11.35%) cases with intermediate and at last 10 (9.43%) cases with graduate level education. The above table clearly reveals that education had a negative impact on criminal tendencies in the observed cases. The proportion of criminal association is found much higher in illiterate and primary level educated cases (more than 50%) in comparison with the cases that had higher educational levels.

Table III enlightens the relationship between different types of substance abused and criminal history. According to this table, out of 106 cases of Opioid Use Disorder, 48 cases have a history of criminal behaviour. Out of these 48 cases, those addicted to the combination of Cannabis and Opioid i.e. 26 (54.17%) have the highest incidence of the criminal act, followed by cases with

Table 1. Distribution of Cases on the basis of their Occupational Status (N=106).

Occupational Status	Male		Female		Total	
	No. of cases	With Criminal history	No. of cases	With Criminal history	No. of cases	With Criminal history
Professional	2 (1.89%)	0 (0%)	0 (0%)	0 (0%)	2 (1.89%)	0 (0%)
Skilled Worker	55 (51.89%)	21 (19.81%)	0 (0%)	0 (0%)	55 (51.89%)	21 (19.81%)
Unskilled Worker	29 (27.35%)	14 (13.21%)	0 (0%)	0 (0%)	29 (27.35%)	14 (13.21%)
Unemployed	16 (15.09%)	11 (10.38)	4 (3.77%)	2 (1.89%)	20 (18.87%)	13 (12.26%)
Total	102 (96.23%)	46 (43.39%)	4 (3.77%)	2 (1.89%)	106 (100%)	48 (45.28%)

Table 2. Distribution of cases on the basis of their educational status (N=106).

Educational Status	Male		Female		Total	
	No. of cases	With Criminal history	No. of cases	With Criminal history	No. of cases	With Criminal history
Graduate	9 (8.49%)	2 (1.89%)	1 (0.94%)	0 (0%)	10 (9.43%)	2 (1.89%)
Intermediate	12 (11.32%)	6 (5.66%)	0 (0%)	0 (0%)	12 (11.35%)	6 (5.66%)
High School	20 (18.87%)	9 (8.49%)	1 (0.94%)	0 (0%)	21 (19.81%)	9 (8.49%)
Primary	31 (29.25%)	17 (16.04%)	0 (0%)	0 (0%)	31 (29.25%)	17 (16.04%)
Illiterate	30 (28.30%)	12 (11.32%)	2 (1.89%)	2 (1.89%)	32 (30.19%)	14 (13.21%)
Total	102 (96.23%)	46 (43.39%)	4 (3.77%)	2 (1.89%)	106 (100%)	48 (45.28%)

isolated Opioid addiction i.e. 17 (35.42%). Alcohol and Opioid consumption are found in 2 (4.17%) cases with a criminal history. Alcohol, Cannabis and Opioid consumption are also found in 2 (4.17%) cases. Lastly, alcohol, cannabis, alprazolam and opioid consumption is found in only 1 (2.08%) individual. Cases who abused alcohol and opioid have committed crimes like bomb making (1) and theft (1). Cases who abused cannabis and opioid were charged by the law against crimes like theft (9), multiple crimes (7), attempt to murder (1), murder (1), bomb making (2), handling drugs (3), IPC 151 (2), IPC 355 (1). Cases that abused

alcohol, cannabis and opioid were charged against crimes like handling drugs (1), theft (1). One case that abused alcohol, cannabis, alprazolam and opioid had committed multiple types of crime. Cases who abused only opioid were charged against crimes like attempt to murder (2), bomb making (2), criminal intimidation (1), handling drugs (3), IPC 151 (1), murder (1), theft (1), multiple crimes (6). Overall, it can be concluded from the data of this study, as theft (25%) has the highest incidence amongst all types of crimes committed, that it could be executed for the purpose of obtaining the substance of abuse.

Fig. 1 shows the history of other substances abused prior to Opioid use. The most common substance abused before Opioid addiction is found to be Cannabis in 58 cases, out of which, half of the cases (29 cases) have shown criminal history. Previous addiction to alcohol is found in 22 cases, having 6 cases with a criminal history. Similarly, 9 cases of tobacco addiction have shown criminal history in 5 while 3 cases of Alprazolam addiction have criminal history in only 1 case. Surprisingly, out of those 33 cases who started consuming opioid directly, without any prior substance use have criminal history in 15 cases.

Fig. 2 depicts the distribution amongst age groups of those cases who have criminal history (n=48) when they consumed Opioid for the very first time. According to this table, the majority have consumed Opioid for the very first time in their 3rd decade of life i.e. 27 (56.25%) cases. The second most common age group of beginning of Opioid consumption is found to be <19 years and 30-39 years, having 9 (18.75%) cases in each group. The least number of cases are from the >40 years age group with only 3 (6.25%) cases.

Fig. 3 depicts the age of the cases with criminal history when they committed the first crime. 3rd decade of life shows the most number of cases. The age group 20-25 years is found to be the most vulnerable age group for committing the crime with 16 (33.33%) cases. The second most common age group is 25-30 years with 11 (22.92%) cases. This indicates that, out of 48 cases, 27 have committed their first crime in their 3rd decade of life. It is also evident from the above table that with advancing age, criminal tendency reduced continuously as 10 (20.83%) cases are observed to commit the crime in 30-35 years of age while 3 (6.25%) in 35-40 years of age with only 2 (4.17%) after 40 years of age. A small number of cases have done the criminal act in their 15-20 years of age i.e. 6 (12.50%) cases.

Discussion:

In the present study, out of 106 cases, there are 102 male subjects and 4 female subjects of Opioid Use Disorder, 48 cases had criminal history constituting 45.28%. Distribution on the basis of their Occupational Status:- Amongst total 106 cases, 51.89% cases were skilled and 27.35% cases were unskilled workers. Similar to our results, studies conducted in relatively developed parts of India revealed that a larger proportion of Opioid abusers were unemployed or labourer as observed by Aggarwal et al., (2015)³ (in Kota), Kumar N et al., (2013)⁴ (in Mangalore). However, Bhat BA, Dar SA, Hussain A (2018)⁵ (in Kashmir) and Mohanty R, Senjam G, Singh NH (2018)⁶ (in Manipur) reported professional class as the major group involved. In this study, the greatest proportion of criminal behaviour was found associated

Table 3. Relation between substance abuse and criminal behaviour (n=48).

Types of crime	Alcohol And Opioid		Cannabis And Opioid		Alcohol, Cannabis and Opioid		Alcohol, Cannabis, Alprazolam and Opioid		Only Opioid		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Attempt to murder	0	0%	1	2.08%	0	0%	0	0%	2	4.17%	3	6.25%
Bomb making	1	2.08%	2	4.17%	0	0%	0	0%	2	4.17%	5	10.42%
Criminal intimidation	0	0%	0	0%	0	0%	0	0%	1	2.08%	1	2.08%
Handling drugs	0	0%	3	6.25%	1	2.08%	0	0%	3	6.25%	7	14.58%
IPC 151	0	0%	2	4.17%	0	0%	0	0%	1	2.08%	3	6.25%
IPC 355	0	0%	1	2.08%	0	0%	0	0%	0	0%	1	2.08%
Murder	0	0%	1	2.08%	0	0%	0	0%	1	2.08%	2	4.17%
Theft	1	2.08%	9	18.75%	1	2.08%	0	0%	1	2.08%	12	25.00%
Multiples types of crime	0	0%	7	14.58%	0	0%	1	2.08%	6	12.50%	14	29.17%
Total	2	4.17%	26	54.17%	2	4.17%	1	2.08%	17	35.42%	48	100%

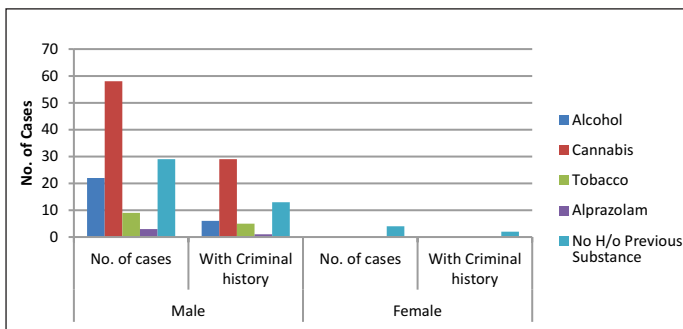


Figure 1. History of other substance abused prior to opioid use.

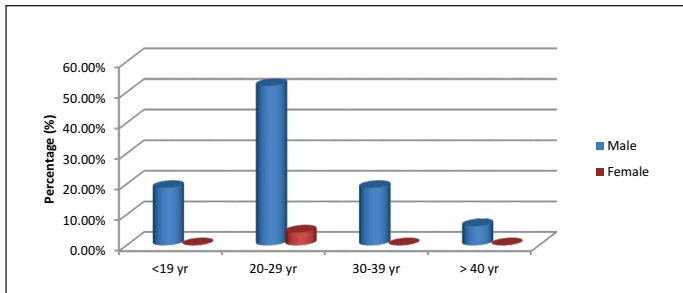


Figure 2. Age at first use of opioid in cases with criminal history (n=48).

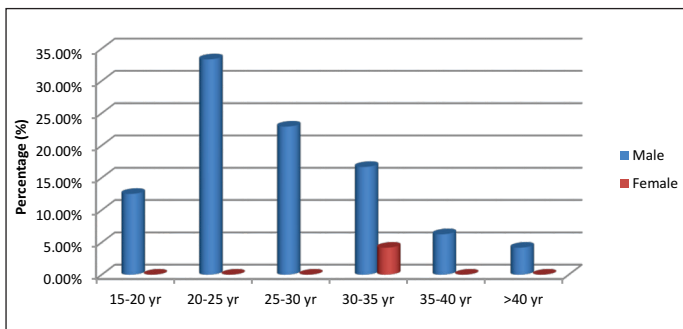


Figure 3. Age of the case at the commission of first crime (n=48).

with unemployed and unskilled workers. Skilled workers had the lesser tendency, while no criminal tendency was observed in the professionals.

Distribution on the basis of their Educational Status:- In this study, the majority of the cases were illiterate (30.19%) followed by those who received primary level education (29.25%). Our findings that lower education level is associated more with

Opioid use has also been reported by Aggarwal et al., (2015)³ (in Kota) in which the maximum number of cases of Opioid abuse received primary to middle-level education (60%). However, our results differ from Mohanty R, Senjam G, Singh NH (2018)⁶ (in Manipur) in which maximum cases received higher secondary education (42.5%), Jumade PP, Kasbe AM, Giri PA (2016)⁷ (in Mumbai) in which majority of cases received secondary education (53%) along with Kumar N et al., (2013)⁴ (in Mangalore) who found out that majority of the cases were graduated (39.8%). The present study also reveals the fact that education had a negative impact on criminal tendencies amongst the observed cases. The proportion of criminal association was found much higher in illiterate and primary level educated cases in comparison with those cases who received higher level education.

Relation between Substance Abuse and Criminal Behaviour:- Out of 48 subjects with a criminal history, cases who abused alcohol and opioid committed crimes like bomb making (1) and theft (1). Cases who abused cannabis and opioid were charged by the law against crimes like theft (9), multiple crimes (7), attempt to murder (1), murder (1), bomb making (2), handling drugs (3), IPC 151 (2), IPC 355 (1). Cases that abused alcohol, cannabis and opioid were charged against crimes like handling drugs (1), theft (1). One case that abused alcohol, cannabis, alprazolam and opioid had committed multiple types of crime. Cases who abused only opioid were charged against crimes like attempt to murder (2), bomb making (2), criminal intimidation (1), handling drugs (3), IPC 151 (1), murder (1), theft (1), multiple crimes (6). Overall, it can be concluded from the data of this study, as theft had the highest incidence amongst all types of crimes committed, that it could have been executed for the purpose of obtaining the substance of abuse.

In most of the studies, it was found that substance abuse plays a significant role in the criminal behaviour of the cases, especially when the case is an abuser of multiple types of substances. A study conducted by Sharma S, Sharma G, Barkataki B (2016)⁸ found that the most common crime associated with Opioid abusers were Snatching and Burglary, with Cannabis use it was found to be Murder or Attempt to murder, while amongst alcohol and inhalant users, Rape was the commonest crime. Other studies which found a positive relationship between substance abuse and criminal behaviour are Hammersley et al., (1989),⁹ Lundholm, L.

(2013)¹⁰ and Javier Fernández-Montalvo et al., (2013).¹¹

Prior substance abused before initiating with Opioid:- Amongst total 106 cases, the most common substance abused prior to Opioid addiction was found to be cannabis in 58 cases, out of which, half of the cases had shown criminal behaviour. Criminal history was found in 6 out of 22 cases of alcohol addiction. Surprisingly, amongst those 33 cases who started consuming Opioid directly, 15 had a criminal history. Many studies found history of other substances like Cannabis, alcohol, tobacco, etc. getting consumed by the case before initiating with Opioid, such as Bhat BA, Dar SA, Hussain A (2018)⁵, M.-F. Poirier et al., (2004)¹², S. E. Back et al., (2011).¹³

Age of patient at the initiation of Opioid consumption:- Amongst 48 cases with criminal history in this study, the majority had consumed opioid for the very first time in the 3rd decade of their life i.e. 56.25% cases. Second most common age group was found to be <19 years and 30-39 years, having 18.75% cases in each group. The least number of cases were from the >40 years age group. It is now established that age group of 20-29 years is the most vulnerable age group for opioid initiation followed by the age group <19 years in the majority of the studies. Mohanty R, Senjam G, Singh NH (2018)⁶ had 50% cases who initiated opioid abuse between 20-29 years of age while Bhat BA, Dar SA, Hussain A (2018)⁵ had 89.19% of cases who initiated before 19 years of age. In an article, 'Cannabis as a Gateway Drug for Opioid Use Disorder' written by Arthur Robin Williams,¹⁴ it was summarized that several converging lines of inquiry have shown that adolescent and young adult (i.e. through age 24) brain development is key to executive functioning and behavioural control, that cannabis can change adolescent gene expression and alter these key periods of neuro development, that genes can predict the priming impact of cannabis on opioids and that there is likely individual variation in the risk of cannabis use in adolescence having a deleterious effect on adolescent brain maturation and downstream vulnerability to opioid exposure and addiction.

Age of the patient at the commission of first crime:- Out of 48 cases with criminal history, 27 had committed the first crime in their 3rd decade of life. It is also evident from the data that with advancing age, criminal tendency reduced continuously as 20.83% of cases were observed to commit crime at 30-35 years of age, 6.25% at 35-40 years of age and only 4.17% after 40 years of age. It was also observed that few cases had done the criminal act in their 15-20 years of age i.e. 12.50% of cases. In a study conducted by Gordon et al., (2004)¹⁵ in the USA, it was reported that the mean age of the first crime of the 161 youth who had committed one or more crimes (other than drug use and possession) was 11.2 years (SD = 3.1). Few studies have also suggested that there is a correlation between early onset initiation of drugs and criminal behaviour, such as C. Gustavson et al., (2007),¹⁶ Slade et al., (2008).¹⁷

Conclusion:

The present study was conducted on 106 patients of Opioid Use Disorder including 102 male and 4 female patients, out of which 48 had criminal history. The greatest proportion of criminal

history was found associated with groups of unemployed or unskilled workers, uneducated or primary level educated subjects. The most common type of crime committed by the subjects was found to be theft. A combination of cannabis and opioid was found to be associated with the majority of the crimes attempt to murder, murder, theft, handling drugs, etc. The most common substance abused by the cases before initiating opioid abuse was found to be cannabis while a decent proportion of individuals began directly with opioid.

According to the findings of this study, it can be concluded that 3rd decade of life is the most vulnerable age group for getting involved in addiction of substance abuse and committing crime. Many factors can be said to be responsible for such vulnerability such as childhood trauma, history of substance abuse amongst family members, literacy level, employment status, social and cultural effects along with the willpower of the individual. It is a multi-factorial phenomenon and needs to be dealt with all together. The role of family members, educational institutes, Government organizations and Law enforcement bodies are important in moulding an individual to not get involved in these illicit Activities.

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