ORIGINAL RESEARCH

Sociodemographic profile of patients with opioid dependence seeking treatment at tertiary health care centre- a cross sectional study from southern Rajasthan, India

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ABSTRACT

Background: Substance use related problems are globally prevalent and remain an ongoing health crisis affecting every region of the world.Overall in India, opioids are the third most common psychoactive substance used by Indians. Persons with opioid related problems are in need of help for the same.Knowledge of their socio demographic profile, pattern of opioid consumption and associated factors like substance consumption in their families, presence of any mental disorderetc may help for the same. **Method:** A cross-sectional study was conducted on 119 patients of opioid dependence seeking treatment at psychiatry OPD of tertiary health care centre of southern Rajasthan. A self-designed semi-structured proforma was used to gather information regarding sociodemographic variables and the associated factors. The results were examined and analyzed by using Statistical Package for Social Sciences. **Results:** Majority of the participants were male, from rural background, married, employed, hailing from joint family, from upper lower socioeconomic status and were consuming natural opioids. Current study also shows various reasons to start opioids, ways to procure it for the first time, reasons to restart opioid, and current reasons to quit the same. **Conclusions**: Findings of the current study show that the participants initiated opioid consumption at the productive years of their life with raw opioid being preferred type. Majority of them were also consuming nicotine. In an attempt to procure opioids they have to shell out significant amount of money that could have been utilized to fulfil the needs of their daily livelihood. Previous attempt to quit the substance shows their motivation. **Keywords:** Opioids, opioid dependence, opioid use, socioeconomic, motivation

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INTRODUCTION

Substance use related problems are globally prevalent and remain an ongoing health crisis affecting every region of the world. Substance use disorders are associated with health and behavioural problems, disturbed interpersonal relationships, low economic prospects, unsafe communities and political instability. People abusing substances and people around them face various burdens and traumas including health hazards, psychological problems, and financial problems.

As per a survey report presented by AIIMS New Delhi in the year 2019 on the magnitude of substance use in India found that overall in India alcohol was the

most common psychoactive substance (14.6% of the population) used by Indians.⁽¹⁾ After Alcohol, Cannabis and Opioids were the next commonly used substances in India being consumed by about 2.8% and 2.1% of the population respectively. Opioids included opium (or its variants like poppy husk known as doda/phukki), heroin (or its impure form – smack or brown sugar) and a variety of pharmaceutical opioids. Nationally, the most common opioid used was heroin (1.14%) followed by pharmaceutical opioids (0.96%) and opium (0.52%). About 0.7% of Indians (approximately 77 lakh individuals) were estimated to need help for their

opioid use problems and 3.1 Lakh people of Rajasthan state were in need of help for opioid related problems. In rural areas of Rajasthan, opium is consumed in social gatherings, marriages, even at condolence, for longevity and to enhance sexual pleasure. In the beginning of opioid introduction in our country, opioid use was restricted to elite class of the society. But now, the opium use is not restricted to any class. Knowledge of their sociodemographic profile, pattern of opioid consumption and associated factors like substance consumption in their families, presence of any mental disorderetc may help formulating and implementing evidence-informed policies and strategies to address the challenges posed by opioid use in Rajasthan. To our knowledge, there is paucity of recent literature on the above parameters as only few studies have been conducted so far in especially in southern Rajasthan. The objectives of the current study are to know sociodemographic profile of patients with opioid dependence attending psychiatry OPD and to identify the various associated factors.

MATERIAL AND METHODS

Study Design and Site: A cross-sectional study was conducted on patients of opioid dependence seeking treatment at psychiatry OPD of tertiary health care centre (Ananta hospital, Ananta Institute of Medical Science and Research Centre, Rajsamand, Rajasthan). self-designed Instrument: А semi-structured proforma was used to gather information regarding sociodemographic variables and associated factors like type of opioid consuming, age at initiation, personal history of any other substance and age at its initiation, family history of substance use, history of concurrent diagnosed psychiatric illness if any, average daily money spent to procure opioid, average number of attempts to leave opioid, past history of hospitalization for the treatment of opioid use disorder, reasons for the first time consumption of opioid, reasons to restart opioid use, reason to quit opioid at the time of enrolment in current study, way to get opioid the first time and ways through which the opioid substance was quitted in last attempt etc.

Study Population: The study population included all the patients of opioid dependence seeking treatment at Psychiatry OPD of Ananta hospital, Ananta Institute of Medical Science and Research Centre, Rajsamand, Rajasthan.

Study Period: April 2022 to March 2023.

Sample Size and Sampling: The minimum sample size was calculated on assumption of 95% level of significance, 80% power of the study and 29.5 anticipated mean value of age (years) of initiation opioid use in the study group while keeping population mean \pm Standard Deviation 27.55 \pm 7.26.⁽²⁾ Hence the minimum sample was 109. After 10% adjustment of non- responders the final sample size was 119. The method of sampling was purposive sampling.

Ethical Clearance: The study was approved by Institutional Ethics Committee of the Institute.

Study Procedure: Participants were explained about the objectives of the study. After providing written consent they were asked about details of the proforma that included various socio-demographic variables and associated factors. Opioid dependence was diagnosed using ICD-10 criteria by two psychiatrists independently. Active opioid withdrawal state was ruled out using COWS with score less than five. Socio-demographic profile was evaluated using modified Kuppuswamy scale revised for the year 2021. ⁽³⁾ Use of opium and poppy husk or doda-chura was clubbed as natural opioids.

Statistical Analysis: The results of the study were examined and analyzed by using Statistical Package for Social Sciences (SPSS 25.0). Socio-demographic variable including age, sex, locality, marital status, educational attainment, employment status, current living arrangement, variable under Modified Kuppuswami socio-demographic scale -education of head of the family, occupation of head of the family, monthly income of the family were described using descriptive statistics. The categorical variables were described by numbers and percentages while continuous variables were described by average and standard deviation.Socio demographic data for categorical variables was summarized using frequencies and percentages. The mean and standard deviation were used to present for continuous variables. To accomplish this, fully completed questionnaire was entered in Microsoft Excel 2017 and then processed for cleaning and coding. The cleaned data was exported to SPSS version 25 for further data analysis.

RESULTS

Mean age of the sample was 44.72 years (± 12.87 years, 2 standard deviation). Table 1 shows sociodemographic characteristics of the sample.

Sociodemographic characteristics	Frequency (N,%)
Sex	
Male	117 (98.3)
Female	2 (1.7%)
Locality	
Urban	36 (30.3%)
Rural	83(69.7%)
Marital Status	
Married	110 (92.4%)

Unmarried	5 (4.2%)
Divorced/Separated	1 (0.8%)
Widow/widower	3 (2.5%)
Educational attainment	
Illiterate	20(16.8%)
Literate	11(9.2%)
Primary	19(16%)
Secondary	60 (50.4%)
Graduate	5 (4.2%)
Post graduate	4 (3.4%)
Employment Status	
Never employed	2 (1.7%)
Presently unemployed	15 (12.6%)
Full time employed	68 (57.1%)
Part time employed	6 (5.0%)
Self employed	25 (21.0%)
Student	0
Housewife/girl	0
Any Other	3 (2.5%)
Current living arrangements	
Joint family	77(64.7%)
Nuclear family	42(35.3%)
Alone	0
With friends	0
Any other	0
Socioeconomic status	
(Kuppuswamy Classification)	2 (1.7%)
Upper	13 (10.9%)
Upper-middle	15 (12.6%)
Lower middle	86 (72.3%)
Upper-lower	3 (2.5%)
Lower	

As shown in table 1, majority of the sample is males, belonging to rural background, married, has attained secondary education, full time employed, currently living in joint family, and hailing from upper-lower socioeconomic status.

Table 2: Type of opioid consumed

Type of opioid consumption	Frequency (N,%)
Natural opioid (Opium/ doda-chura)	112(94.1%)
Smack/ Brown sugar/ Pharmacological opioids	15 (12.6%)

Table 2 shows majority of patients were consuming natural/ raw opioids in the form of either opium or dodachura. The Mean duration since first time consumption of opioid for the sample was 13.36 years (\pm 12.05, 2 standard deviation).

Table 3: Type of substance use and mean age at the initiation of the substance
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		Mean Age at the initiation of the substance
Type of Substance	Frequency (N, %)	use (Years, ± 2 standard deviation)
Opioid	119 (100%)	21.57±5.00
Alcohol	47 (39.5%)	20.28±3.88
Cannabinoids	25 (21%)	20.28±3.88
Sedative hypnotic drugs	4 (3.4%)	28.5±10.96
Nicotine	106 (89.1%)	20.03±6.03

Table 3 shows that in addition to opioids, majority of the participants were consuming nicotine (89%) followed by alcohol (39.5%). The table also shows mean age at the initiation of substances.

Table 4: Family history of substance use and its type, Concurrent diagnosed psychiatric disorder

Factor (N)	Frequency (N, %)
Positive family history of any substance use (N=119)	39 (32.8%)

Positive family history of opioid use (N=39)	24(61.53%)
Diagnosed psychiatric disorder (N=119)	24(20.2%)

Table 4 shows, about 32.8% of the participants reported positive family history for any substance use, of which 61.53% participants reported positive family history for opioids. The positive family history for opioids was approximately 20 percent of the total sample (24 out of 119). Approximately 20 percent participants reported diagnosed psychiatric disorder. Reported psychiatric disorders were Depressive

disorder, Anxiety disorders and Sleep related disorders.

As reported by participants, average daily money spending to procure opioid was 359.87 ± 368.65 INR.Average number of attempts to leave opioid was 1.52 ± 1.76 for the participants.Only 15 patients (i.e., 12.6%) participants of the current study had past history of hospitalization for the treatment of opioid use disorder.

Correlates	N (%)
Reason for first time consumption of opioid	
Family problems	9 (7.6%)
Improved sexual functioning	0 (0%)
Loneliness	3 (2.5%)
Curiosity	13 (10.9%)
Availability of easy money	0 (0%)
Break up of a relationship	0 (0%
Enjoyment/ for fun/ to experience a kick	36 (30.3%)
Peer pressure	24 (20.2%)
Increased work capacity	34 (28.6%)
Reason to restart opioid	
Sexual performance	4 (4.7%)
Loneliness/sad mood	13 (15.1%)
Sleep/appetite problem	4 (4.7%)
Peer pressure	13 (15.1%)
Increased work pressure	4 (4.7%)
Family tension	9 (10.5%)
Easy availability of money	3 (3.5%)
Easy availability of substance	36 (41.9%)
Reason to quit opioid this time	
Self-decision	35 (40.7%)
Family Pressure	14 (16.3%)
Medical issue	11 (12.8%)
Mental health issue	1 (1.2%)
Availability problem	5 (5.8%)
Cost	20 (23.3%)

Table 5 shows most reported reasons for the first time consumption of opioid use were for Enjoyment/ for fun/ to experience a kick, to increase the work capacity, and under peer pressure in descending order. The reported reasons to restart opioid in participants were easy availability of substance, loneliness/sad mood, and peer pressure in descending order. The participants reported reasons to quit opioid at the time of enrolment in current study as self-decision, issue of cost, and family pressure in descending order.

Ways	N (%)
Ways to get opioid first time	
Dealer	1 (0.8%)
Pharmacy/outlet	0 (0%)
Colleague	12 (10.1%)
Friend	67 (56.3%)
Relative	38 (31.9%)
Self	1 (0.8%)
The way opioid was quitted last time	
Self	29 (33.7%)
Faith healers	1 (1.2%)
Ayurvedic medicines	13 (15.1%)
With medicines from psychiatrist	25 (29.1%)
With medicines from non-psychiatrist professional	18 (20.9%)

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Table 6 shows that common reported ways to get opioid the first time were through friends, through relatives, and through colleagues in descending order. The reported common ways through which the opioid substance was quitted in last attempt were by self, with medicines from psychiatrist, and with medicines from non-psychiatrist professional in descending order.

DISCUSSION

The current study was conducted to know sociodemographic profile of patients with opioid dependence and to identify the various associated factors. The mean age of the sample was 44.72 years.Kapoor A et al conducted a multi-centric study to find prevalence and pattern of opioid addiction in Haryana, Punjab and Rajasthan and found the mean age of their sample from Rajasthan was 48.5 years.⁽⁴⁾Similar to our study their study populationalso consisted of all male patients. The mean of sample was relatively young in other Indian studies being 37.5 years in a study conducted by Judith et al⁽⁵⁾, 27.6 years in the study conducted by Farhat et al⁽⁶⁾. Another study conducted by Kumar V et al, reported their mean age of the population to be the ones falling in the young age group (18-40 years)⁽⁷⁾. The age group of 21-30 years remained common in other studies such as Gul et al⁽⁸⁾, and Majumder et al⁽⁹⁾. The reason for slight difference in the mean age may be attributed to the fact that majority of our study sample reflected a portion of the rural community hence, it did not account for the adolescents and younger age groups. Our sample initiated any opioid consumption averagely at the age of 21.57 years, with average duration since the first time consumption being 13.36 years. Kapoor A et al in their study found 29.66 years to be the mean age at opioid dependence and 9.73 years age as mean duration of opioid dependence.⁽⁴⁾Similar to our study the age at initiation of opioids was 25.46 years in the study conducted by Bansal and Kalra⁽¹⁰⁾ while itwas between 20-29 years in studies conducted by Bhatt BA⁽¹¹⁾ and Mohanty⁽¹²⁾. This implicates that the most useful and productive stage of a person's life is thrown into opioid abuse.Majority of the sample were males, belonging to rural background, married, having attained secondary education, employed for full time basis, currently living in joint family, and hailing from upper-lower socio-economic status. This can be explained on the basis of relatively higher mean age of our sample and the catchment area our institute caters to chiefly. These socio-demographic parameters are comparable to study done by Kapoor A et al.⁽⁴⁾

Majority of patients of our sample were consuming raw opioids (94.1%) in the form of either opium or doda-chura. Kapoor A et al also found that around three fourth of their sample was consuming raw opium (*afim/bhukki*) with sample from Haryana being 72.2 %, Punjab being 74.4% and Rajasthan being 83.5%.⁽⁴⁾Our findings are in contrast to study done by Bhat et al who found heroin was the most commonly used opioid in their study conducted on patients with opioid use disorder attending the de-addiction centre of a tertiary care hospital in north India.⁽¹¹⁾ Α retrospective study by Randhawa А on sociodemographic profile and pattern of substance abusers from Punjab found that heroin was the most abused.⁽²⁾Another study conducted by Farhat et al in Kashmir on patients attending de-addiction centre found that diverted pharmaceutical products were the main source of opioid abuse in their studied population and more than half of them used to abuse more than one drug at a given time.⁽⁶⁾ Basu D et al in their study on changing pattern of substance use found that there is changing trend of consumption of synthetic opioids from natural opioids over last the three decades.⁽¹³⁾ The difference in current study can be attributed to the higher availability of raw opioids in rural areaswith its culturally sanctioned useand to methodological differences.

In addition to opioids, majority of our study participants were consuming Nicotine (89%) followed by Alcohol (39.5%), Cannabinoids (21%) and Sedative Hypnotic drugs (3.4%).Similarly Kumar V et al in their study on patients presenting to hospital of mental health and rehabilitation in Himachal also found comorbid consumption of Tobacco, Alcohol, Cannabis etc.⁽⁷⁾ Bhat et al found that majority of their participants (97.3%) were consuming tobacco prior to participation in their study.⁽¹¹⁾ Others were consuming cannabis, alcohol, benzodiazepines and solvents in decreasing order. This may be due to gateway drug effect i.e., use of one substance consumption is coupled to increase the probability of using another substance.

About one third participants reported positive family history for any substance use, out of which 61.53% participants reported positive family history for opioids. The positive family history opioid abuse was approximately one fifth of the total sample. This can be explained by the fact that substance use disorders are heritable and psychosocial factors together contribute significantly in their etiology. One fifth of the participants reported diagnosed psychiatric disorder in current study and the reported disorders were depressive disorder, anxiety disorders and sleep related disorders respectively. As comorbidity is a rule rather than an exception in substance use disorder patients, there can be many possible explanations for this. Genetics and stress may contribute to development of both psychiatric disorder as well as substance use disorder. Use of substances by psychiatric patients as self-medication to feel better is also common. Substance use itself can also contribute to the development of a psychiatric disorder. Still in many cases it may be difficult to comprehend which condition preceded first. Other Indian studies have found higher psychiatric comorbidies, and commonly encountered psychiatric disorders were Personality disorders, ADHD, Mood disorders, Anxiety disorders etc.⁽¹¹⁻¹²⁾ We found lower comorbidities because we enquired primarily about patient's alreadydiagnosed comorbidities rather than using a structured diagnostic schedule or use of any diagnostic criterion. This highlights importance of early identification of comorbid psychiatric disordersin such patients with dual diagnosis along with the need to effectively provide pharmacological as well as psychosocial management by health professionals as early as possible.

As reported by participants, average daily money spending to procure opioid was 359.87 INR. This spending shows the direct economic burden on the patient as well as indirect impact of community and country at large as the patient is left with less money to fulfill the needs of daily activities. Majumdar et al in their study found that drug use led to financial shortcomings like loss of legal earnings and borrowing from family members and friends.⁽⁹⁾ Sharma M et al in their study on relationship between level of motivation and personality disorder in patients with opioid dependence also reported psychosocial problems such financial, as interpersonal/family, employment legal and complications due to the use of substance.⁽¹⁴⁾

Average number of attempts to quit opioid was 1.52 for the participants while only one eighth (N=15) participants of the current study had past history of hospitalization for the treatment of opioid use disorder.Majumdar et al, in their study on drug treatment seekers found that majority (59%) of their patients attempted to quit drugs for the first time while less than one fourth (22.4%) already tried once before to quit the substance.⁽⁹⁾Gul and Sharma et al in their study on patients with substance use reported that one third of their patients (33%) had one previous attempt to quit the substance.⁽⁸⁾In our study the reported common ways through which the opioid substance was quitted inlast attempt were by self, with medicines from psychiatrist, and with medicines from non-psychiatrist professional in descending order. Less than one third (29.1%) participants with history of failed last attempt to quit the opioids reported they did it in consultation to Psychiatrist and took medicine for it. This shows that participants were motivated to some extent for detoxification and bringing them for psychiatric consultation for de-addiction could have helped in overall reduction in total number of lapses caused by substance use.

The common reported ways to get opioid the first time were through friends, through relatives, and through colleagues in descending order. The most reported reasons for the first time consumption of opioid use were for enjoyment/ for fun/ to experience a kick, to increase the work capacity, and under peer pressure in descending order. Farhat et al in their study on patients with opioid abuse found that half of their participants consumed opioid for the first time due to peer pressure followed by experimentation or enjoyment purposes, and prescriptional opioid use.⁽⁶⁾Kalra and Bansal et al in their study on drug abuse among patients in Deaddiction centre in Punjab reportedly found 20% of their population started for enjoyment/ experimentation and 9.5% due to peer pressure.⁽¹⁰⁾In contrast to our study, Gul and Sharma et al in their study found that improved sexual performance was most important cited reason to initiate the substance while another one fourth participants cited peer pressure as their reason. ⁽⁸⁾Majumdar et al, in their study on patients seeking treatment for substance dependence found peer pressure as most reported (55.2%) reason to initiate drug use followed by curiosity/experimentation (32.9%).⁽⁹⁾

The reported reasons to restart opioid in participants were easy availability of substance, loneliness/sad mood, and peer pressure in descending order. Gul and Sharma et al in their study found that more than half of their patients reported peer pressure as the reason to restart the substance. (8)Kadam M et al in their comparative study of factors associated with relapse in alcohol and opioid dependence found that reasons cited for current relapse for opioid use were desired for positive mood state, craving/urge, sleep problems, external pressure to use and social or family problems in descending order.⁽¹⁵⁾The current findings highlight the importance of relapse prevention strategies to target emotional states, craving for substance, external pressure to use and thereby empower them to deal with crisis or difficult circumstances in a more effective way.

The participants reported reasons to quit opioid at the time of enrolment in current study as self-decision, issue of cost, and family pressure in descending order.Farhat et al in their study found self-motivation in majority of their patients as the main reason to seek treatment followed by health related issues (17%) and loss of self- esteem in society (13%).⁽⁶⁾ As reported by Majumdar et al drug abuse leads to complications such as medical complications, family/social complications. ⁽⁹⁾Autonomous will along with the issue of cost are facilitatory factors to motivate the patient get rid of opioids use and related problems.

CONCLUSIONS

Findings of the current study show that the participants initiated opioid consumption at the productive years of their life with raw opioid being preferred type. Majority of them were also consuming nicotine. In an attempt to procure opioids they have to shell out significant amount of money that could have been utilized to fulfil the needs of their daily livelihood. Previous attempt to quit the substance shows their motivation. Current study also shows various reasons to start opioids, ways to procure it for the first time, reasons to restart opioid, and current reasons to quit the same.

IMPLICATIONS OF THE STUDY

Findings of the current study may provide directions to find ways to help save and improve lives of people consuming opioids. There is need to design health and educational programs, and implementing them with special target being adolescents and youth to promote healthy life styles so that they can refrain themselves from any substance use and seek early professional help for both substance related problems as well as for other comorbid mental health conditions.

LIMITATIONS AND FUTURE DIRECTIONS

This was a cross sectional study with small sample size conducted at single site. So, future studies can be planned at multiple centres with large sample size with follow up with structured assessment of mental and physical health, impact on caregivers, family and society at large.

CONFLICT OF INTEREST

No conflict of interest declared.

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