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RESEARCH ARTICLE

PREVALENCE AND PATTERN OF OPIOID ADDICTION IN HARYANA, PUNJAB AND RAJASTHAN.

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Key words:-

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Abstract

Introduction: Opiate is the one of the major drugs of abuse in India. In National household survey 2004, 0.7% of population was detected with opioid abuse disorder. There was lot of studies done at different states to find out prevalence of opioid abuse, but none of the study compared the opioid abuser disorder with other states. The present study was thus conducted to assess the prevalence and pattern of opioid dependence in state of Haryana, Punjab and Rajasthan.

Methodology: Total 540 patients with opioid dependence were enrolled from the three different deaddiction centers- one in Haryana, One in Punjab and One in Rajasthan from January 2016 to December 2017. Social demographic details were collected and pattern of opioid dependence were obtained by self-reporting and corroborated from cases notes.

Results: In sample of 540 patients with opioid dependence, 202 patients were from Haryana, 168 were from Punjab and 170 were from Rajasthan. Average age of patients was 39 to 40 years. All were male with education status above metric in more than 80% of sample size and more than 75% of patients were employed. Opioid abuse disorder was seen in mainly married patients with average duration of dependence 9 to 10 years. In different form of opioid, opium/bhukki (75-85%) was common form of opioid in all the three staes followed by heroin (13-25%) and pharmaceutical drugs (2-3%).

Conclusion: This study shows the social demographic profile is almost same in all the three states and opioid dependence was mainly seen in married and educated patients too.

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Introduction:-

Illicit opioid abuse has been increasing day by day. Opiate abuse could lead to damage at various levels and could lead to serious infections like HIV or Hepatitis. ¹According to World Health Organization (WHO), number of IV drug abusers are around 13 million around the world. ²The report published by United Nations Drug Control Program in 2000 on global illicit drug shows the estimated prevalence of opioid use in varies European countries

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was 0.11%. For countries like India and Bangladesh, the prevalence rate of opioid abuse was 0.15%.³The drug abuse is also increasing day by day in India. The prevalence of opioid abuse in young age group has expected shocking magnitudes in India. The change in social values, increase in financial stress, and decreasing supportive bonds among family members are leading to initiation into opioid use. According to a UN report, the registered heroin abuser are 1 million in India, and informally, there are as many as 5 million.⁴

Opiate is the one of the major drugs of abuse in India. In India, The National Household Survey of Drug Use was conducted in 2004 and in that survey; alcohol as the primary substance abuse was detected in 21.4% of population, followed by cannabis in 3.0% and opioids in 0.7% of population. The Drug Abuse Monitoring System to estimate the substance abuser in inpatient treatment centers showed 43.9% of alcohol addict, 26% of opioids addict and 11.6% of cannabis addicts.⁵

A rapid situation and assessment⁶ conducted by United National in Bangladesh, Bhutan, India, Nepal and Sri Lanka among 5800 male drug abusers showed that 76% of the opioid abusers currently injected buprenorphine, 76% injected heroin, 70% chasing, and 64% using propoxyphene. In World Drug Report on 81,802 treatment seekers in India showed around 61.3% of opioids abusers, 15.5% cannabis abusers, 4.1% sedatives abusers, 1.5% cocaine abusers, 0.2% amphetamines abusers, and 0.9% solvents abusers.

Drug Abuse Monitoring Systems data on profile of drug abusers indicate that among drug abusers from Rajasthan, 39.8% use opium and heroin is used by 30.45% of the person who seek treatment.⁸ The rapid assessment study conducted by PGI Chandigarh⁹ showed the prevalence of any substance dependence around 4.65%. The dependence rates on opioids, cannabinoids, and sedative hypnotics were found to be 1.53%, 0.52%, and 0.015%, respectively. The prevalence of injectable opioids was calculated to be 0.91%. Injectable buprenorphine was the most commonly abused opioid, followed by bhukhi/doda/opium and heroin.

The Punjab Opioid Dependence Survey (PODS) in Punjab on 3620 opioid abusers in 10 districts showed the 53% heroin abuser, 33% opium abuser and 14% who were abuse pharmaceutical opioid.¹⁰In one of the large-scale study conducted by National Drug Dependence Treatment Centre (NDDTC), New Delhi, took a representative sample of the general population (10-75 years old) in each of the 36 states and UTs of the India. More than 2 lakh households were assessed across the India and 473,569 individuals were interviewed during the assessment. In the consumption of opioids, which includes opium (doda/phukki/poppy husk), heroin (brown sugar/smack) and pharmaceutical opioids, the state of Haryana got the third rank in the country with 5.9 lakh people abusing opioid in different form. UP got the top spot with the number touching 10.7 lakh and Punjab is second with 7.2 lakh people who need help.¹¹ Though there is lot of data available on the opioid dependence in Punjab, but in state of Haryana and Rajasthan, data is very less. The present study was thus conducted to assess the prevalence and pattern of opioid dependence in state of Haryana, Punjab and Rajasthan.

Methodology:-

The study was conducted in three different states, namely Haryana, Punjab and Rajasthan in India. In each state, one regional deaddiction center (Gurgaon in Haryana, Mohali in Punjab and Jodhpur in Rajasthan) was selected for data collection from January 2016 to December 2017. The patients who visited these centers with opioid dependence were taken into the study after the written consent. Total 540 patients with opioid dependence were enrolled in the study. Pattern of opioid dependence were obtained by self-reporting and corroborated from cases notes. The diagnosis was made as per ICD-10 criteria¹² by psychiatrist and patients were subjected to a screening for psychiatric symptoms by the interviewing the patients and family members. They were requested to provide all the requisite socio-demographic information and reveal complete drug use history, which was followed by detailed psychiatric examination.

Statistical results:

Total 732 patients were visited at three different deaddiction centers and out of these 540 were included in the study after written consent. Sociodemographic profile like age, sex, education, income, marital status and employment status were described in all the three states separately and assessed with chi square for categorical variable. Opioid addiction related variable like type of opioid, duration of dependence and age of dependence were also assessed with chi square for categorical variable. All analysis was conducted with SPSS software version 21.0

Results:-

The comparison of sociodemographic profile of patients in Haryana, Punjab and Rajasthan group is shown in table

The patients are similar in sociodemographic profile in all the groups and there is no significant difference between all these three groups (table 1).

Table 1:-Comparison of sociodemographic characteristic of patients in Haryana,Punjab and Rajasthan

S.N.	Variables	Haryana (N=202)	Punjab (N=168)	Rajasthan (N=170)	P value
1	Age	39.113±8.311	39.69±8.359	48.51±12.55	0.241
2	Sex (Male)	202 (100%)	168 (100%)	170(100%)	0.913
3	Education				0.238
	Illiterate	32 (15.84%)	19(11.31%)	18(10.59%)	
	Metric	91(45.05%)	72(42.86%)	77(45.29%)	
	Intermediate	47(23.27%)	40(23.81%)	44(25.88%)	
	Graduate	32 (15.84%)	37(22.02%)	31(18.24%)	
4	Income (Per Month)				0.199
	Less than Rs 3500	62(30.69%)	52(30.95%)	50(29.41%)	
	Rs 3500 to 7000	56 (27.72%)	44(26.19%)	45(26.47%)	
	More than Rs 7000	84(41.59%)	72(42.86%)	75 (44.12%)	
5	Employment status				0.451
	Employed	174(86.14%)	147(87.5%)	125(73.53%)	
	Unemployed	28 (13.86%)	21 (12.5%)	45(26.47%)	
6	Marital Status				0.199
	Married	164(81.19%)	127(75.60%)	148(87.06%)	
	Unmarried	20(9.90%)	10(5.95%)	20(11.76%)	
	Divorced or Separated	18(8.91%)	31(18.45%)	2(1.18%)	

In table 2, the variables related to opioid dependence have shown no significance difference between the duration of dependence and age at dependence. Most of the patients have become dependent to opioid around age of 29 years after 9 to 10 years of dependence. Patients have taken opioid in different substitute like heroin, afim or capsule proxyvon which is a pain killer. Out of this different opioid substitute, most of patients have taken afim (70-85%) as derivative followed by heroin (10 to 25%) and capsule proxyvon (2-5%). Number of patients with different type of opioids is non-significant in all these three groups. There is no significant difference seen in nicotine dependence and any other dependence in either of the group. On previous history of detoxification, neither of the groups shows any significance results.

Table 2:-Variable related to opioid dependence in all groups

S.N.	Variables	Haryana (N=202)	Punjab (N=168)	Rajasthan (N=170)	P value
1	Duration of dependence (in years)	9.59±6.202	10.30±6.894	9.73±6.672	0.871
2	Age at dependence (in years)	29.46±6.863	29.17±6.468	29.66±6.954	0.989

3	Type of opioids				0.199
	Heroin	51(25.25%)	39(23.21%)	23(13.53%)	
	Afim/Bhukki	146(72.28%)	125(74.40%)	142(83.53%)	
4	Pharmaceutical drugs	5(2.47%)	4(2.38%)	5(2.94%)	0.243
	Previous history of detoxification	106 (52.48%)	71(42.26%)	68(40.00%)	
	Buprenorphine substitution	10(9.43%)	25(35.21%)	16(23.53%)	
	Other pharmacotherapy substitution	36(33.96%)	10(14.08%)	23(33.82%)	
	Outpatient detoxification	24(22.64%)	14(19.72%)	11(16.18%)	
	Inpatient detoxification	5(4.72%)	2(2.82%)	5(7.35%)	
	Unassisted withdrawal	13(12.26%)	18(25.35%)	12(17.65%)	
	Residential rehabilitation	15(14.16%)	1(1.41%)	1(1.47%)	
	Outpatient counseling	3(2.83%)	1(1.41%)	0(0.00%)	

Discussion:-

In the present study, a significant association of drug abuse was observed with male gender age above 30 years. Male predominance in substance abuse is universal and has also been seen in various other studies.^{13, 14} Basu *et al* studied the changing pattern of substance abuse in North India (from 1978 to 2008) observed that majority of the subjects were males and maximum prevalence of drug abuse was in the age group of 26–35 years.¹⁵ The findings of the National Household Survey also observed the highest prevalence (37%) in the age group of 31–40 years.⁵ Education level has been found to have an impact on the risk of drug abuse. In the study, drug abuse was seen mainly who had clear metric or intermediate. This finding is similar to study conducted in by PGIMS, Rohtak where addiction was mainly seen in population who attained education above metric. The current finding is dissimilar to a national survey by the Ministry of Social Justice and Empowerment (2002) found that 29% of the drug abusers were illiterates and a significant number of them came from lower strata.¹⁷ The current study showed the opioid addiction mainly in employed and married male which is similar to study done by Meena *et al* (2002)¹⁸ in which around 80% of patients were employed and married and dissimilar to study conducted by Zafer *et al* in which most of patient with substance abuse were unemployed and unmarried.¹⁹

In present study, patients mainly take opioid in form of opium (bhukki) or afim. “Bhukki” (poppy husk) has been called the poor man’s addiction. Its main source of supply in Punjab is Rajasthan and Madhya Pradesh, where the cultivation of poppy is licensed. In our study, 76.5% patients were taking opioid in form of afim or bhukki in all three states. Similar finding we have seen in study from Punjab done by Nagaraj *et al*, where around 84% patients were abusing afim/bhukki as source of opioid addiction.²⁰ Bhukki or afim is the lighter form of opium which is part of the culture in these state and most of the people use afim or bhukki for their daily use.²¹ That is the reason, in our study, most of the patients with opioid dependence were taking bhukki or opium. In current study, number of opioid dependent, who were taking heroin or capsule proxyvon, were very less as compared to bhukki. 20.5% patients were taking heroin and 3% were taking capsule proxyvon or other pharmaceutical medicine as source of opioid dependence. This result was dissimilar to National Household Survey⁵ which showed the prevalence of heroin abuse was just 0.2% in India and similar to study conducted by Sharma *et al*, in which 20.8% patients were dependent upon heroin.²²

In the current study, very less patients (2 to 3%) were taking pharmaceutical drugs like capsule proxyvon, tramadol, lomotil as source of opioid abuse which is similar to study conducted by Nagaraj *et al*, in which hardly 1% patients used opioid in form of capsule proxyvon, lomotil and tramadol.

We suspect that there could be some under-reporting by the abusers who can be considered as the limitation of the study. However, it gives definitive clues regarding pattern of drug use in Haryana, Punjab and Rajasthan. More multicenter studies are required to compare data and to generalize for the whole state.

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