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Psychiatric and Medical Co-morbidities among the substance abusers presenting at Patna Medical college- A clinical study

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ABSTRACT

Background: The link between hazardous types of illegal drug use and significant public health issues is a critical issue for national and international drug policy. There are several negative health effects connected with drug use, with the avoidance of both overdose fatalities and drug-related blood-borne diseases being of special importance. However, there has been an increasing understanding in recent decades that the existence of mental illnesses connected with drug use poses a significant barrier for public health interventions. **Aims and Objectives:** • To investigate the trend of drug misuse in North Bihar Patients. • To determine the co-morbid & psychiatric medical illnesses. **Materials and Methods:** It was a cross-sectional research conducted over a one-year period on 200 drug abusers from North Bihar and presenting at Patna Medical College in the Indian state of Bihar. Individuals from the sample were separated into two groups based on their age (<25 Years & >25 years) and gender. The pattern of drug abuse, as well as the mental and medical co-morbidities that were linked with it, were investigated in relation to age and gender. **Results:** The sample size of the present study was 200 consisting of 183 males and 17 females. The total sample was analyzed separately with respect to age and sex. There were 55 patients below 25 years and 128 patients' ≥ 25 years. The study found that 91.5% of substance abusers were males. Among the males, 48.6% were abusing alcohol and 19.1% were abusing polysubstance. 18.6% were intravenous drug abusers and 8.2% showed high risk behavior. Among the females, 29.4% of the female patients were abusing alcohol. The percentage of women abusing poly-substance was 35.3% and poly-substance and alcohol was 17.6%. The number of female patients involved in high-risk behavior was only 11.8%. Intravenous drug abuse and high-risk behavior was commoner in age group < 25 years than in the age group of >25 years. 17.5% received a psychiatric co-morbid diagnosis and 38.5% received a medical co-morbid diagnosis. The prevalence of schizophrenia and depression among male patients with mental co-morbidity was 63.3 % (n=19), with depression accounting for 6.7 % (n=2). On the other hand, only five female patients, were found to have mental co-morbidity. **Conclusion:** The large number of young individuals taking intravenous drugs in north Bihar reflects the high level of human-to-human contact with bordering North-Eastern states and Nepal. The situation is critical, and immediate action is required.

Key words: Medical co-morbidities; Psychiatric co-morbidities; Substance Abuse

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INTRODUCTION

Substance abuse, often known as drug abuse, is defined as the use of a substance in quantities or ways that are detrimental to the user or others. It is a kind of substance abuse disorder. Drug abuse is defined differently in public health, medicine, and the criminal justice system. Criminal or anti-social behaviour may occur in some circumstances when a person is under the influence of a drug, and long-term personality changes in individuals may also occur.[1]

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In addition to potential physical, social, and psychological harm, the use of some substances may result in criminal consequences, which vary greatly depending on the local jurisdiction.[2]

In India, the traditional drugs of usage have been alcohol, opium, and cannabis, with moderate intake being ritualized in social gatherings.[3] According to studies published in the mid 1970s and 1980s, cannabis, opium, methaqualone, barbiturates, and mild tranquilizers were the most often misused drugs.[4,5] The first report of heroin usage occurred in 1985.[6] Since then, drug misuse has been prevalent among high school and college students, as well as non-student adolescents and mental patients.[7] According to a research on drug abusers performed in 9 metropolitan areas across India, 43 percent were misusing alcohol, 51 percent various opioids, and 6 percent cannabis.[8] The survey also discovered that the average age of the individuals was 33 years old, that 98 percent were male, that 57 percent were married, and that about 26 percent were jobless. It was also shown that Intravenous Drug Users made up 19% of all drug abusers, with Manipur having the highest prevalence of IDU (80%). A study conducted in 5 different centers in India[9] showed that more than 50% of the subjects from a particular center have had sex with multiple partners. It also revealed that IDUs shared needles at a rate ranging from 52% to 81%. The purpose of this study is to assess the drug usage pattern as well as the related medical and mental co-morbidities among outpatients of a tertiary hospital in north Bihar.

MATERIALS AND METHODS

The current cross-sectional study was conducted in the department of Psychiatric department of Patna Medical College. The study was approved by the Institutional Ethical Committee with Ref No: MF/27(16). The study duration was from January 2019 and December 2019. The sample size was 200 drug abusers' patient who attended the psychiatric OPD during the study period were included matching the inclusion and exclusion criteria.

Inclusion criteria

- Substance abusers
- Both Sexes.
- Aged >18 years.

Exclusion criteria

- Other psychiatric disorder
- Aged < 18 Years.
- Patients suffering from any chronic disease (Chronic respiratory disease, Cardiovascular disease, Diabetes, etc).

Study tool

DSM-5 was used for screening.

Methodology

A total of 200 substance abusers from North Bihar and presenting at Patna Medical College in the Indian state of Bihar. Individuals from the sample were separated into two groups based on their age and gender. The pattern of drug abuse, as well as the mental and medical co-morbidities that were linked with it.

Substance abusers were defined as those patients who used any or a combination of drugs such as alcohol, heroin, cannabis, cigarettes, benzodiazepines, or other psychoactive substances. Patients who used more than one of the drugs listed above, other than alcohol, at the same time were referred to as polysubstance abusers in this research. The study included all patients who sought consultation between January 2019 and December 2019 regardless of when they sought consultation. The classification of and criteria for psychotic disorders described in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5).[10] When comparing proportions, the Chi square test was utilized. In cases where the frequency of occurrences was lower, the Fischer exact test was employed to compare proportions rather than the Chi-square test. The data was analyzed with the help of SPSS-23.

RESULTS

The sample size of the present study was 200 consisting of 183 males and 17 females. The total sample was analyzed separately with respect to age and sex. There were 55 patients below 25 years and 128 patient's ≥ 25 years. The mean age of male patients was 34.215±11.23 years (19-68 years). On the other hand, the mean age of female patients was 35.163 years (17-59 years) with SD ±12.46 years (Table 1).

According to the gender of the patients, 48.6 % (n=89) abused alcohol, and 19.1 % (n=35) abused a combination of drugs. The number of patients who abused polysubstance as well as alcohol was 10 in total (5.5 %). The intravenous method was used by 26.8 % (n=49) of drug abusers, according to the study. IDUs accounted for 18.6 % (n=34) of all males in the study. Male patients exhibited high-risk conduct in 8.2% (n=15) of their cases (sharing needles, unprotected sex, and multiple sex partners). Female patients, on the other hand, abused alcohol at a rate of 29.4 % (n=5), according to the data. The percentage of women abusing substance IUDs was 5.9 % (n=1), while the percentage of women abusing HRB was 11.8 % (n=2) (Table 2).

Medical Co-morbidity with respect to sex: was found male patients 37.2% (68) while female patients 52.9% (9) respectively (Table 3).

Psychiatric Co-morbidity with respect to sex: during the analysis it was found16.4% (30) of male patients while 29.4% (5) female patients respectively (Table 4).

The prevalence of schizophrenia and depression among male patients with mental co-morbidity was 63.3 % (n=19), with depression accounting for 6.7 % (n=2). Only five female patients were found to have mental co-morbidity. According to the diagnosis, male and female individuals suffered from bipolar affective disorder (Table 5).

Substance abuse pattern with respect to age: The sample size was divided into two groups, one <20 years and the other ≥ 20 years. There were 31 patients (15.5%) < 20 years and 169 patients (84.5%) ≥ 20 yrs in substance abusers. 6.4% of the patients (n=6) <20 years were abusing alcohol while15.4% (n=2) were abusing alcohol and Polysubstance. 34.3% (n=12) of the < 20 years patients had a history of IDU and 35.3% (n=16) reported having high risk behavior. In contrast 93.6% (n=88) of the patients ≥ 20 years were abusing alcohol and 87.8% (n=36) had a history of poly-substance abuse. Intravenous Drug Users of female cases were 65.7% (23). 64.7% (11) female case were reported high risk behavior (Table 6).

Table 1: Age and Sex distribution (n=200)

Sex	Age				
	Mean	SD	Maximum	Minimum	Median
Male	34.215	±11.23	68	19	33.2
Female	35.163	±9.865	59	17	35.1

Table 2: Pattern of substance abuse with respect to gender

Pattern of substance abuse	Male(n=183)	Female=(17)	P Value
Alcohol	89(48.6%)	5(29.4%)	Chi-Square-8.424 p Value- 0.077
Alcohol and Polysubstance	10(5.5%)	3(17.6%)	
Polysubstance	35(19.1%)	6(35.3%)	
Intravenous Drug Users	34(18.6%)	1(5.9%)	
High risk behavior	15(8.2%)	2(11.8%)	

Table 3: Medical co -morbidities with respect to gender

Medical Co-morbidities	Male(n=183)	Female=(17)	p Value
Present	68(37.2%)	9(52.9%)	Chi-Square-1.6364 p Value- 0.200
Absent	115(62.8%)	8(47.1%)	

Table 4: Psychiatric co -morbidities with respect to gender

Psychiatric Co-morbidities	Male(n=183)	Female=(17)	p Value
Present	30(16.4%)	5(29.4%)	Chi-Square-1.825 p Value-0.176
Absent	153(83.6%)	12(70.6%)	

Table 5: Psychiatric co-morbidities with respect to gender

Psychiatric Co-morbidity	Male(n=30)	Female=(05)	P Value
Schizophrenia	19(63.3%)	02(40%)	Chi-Square-9.333 p Value- 0.500
Depression	02 ((6.7%)	01((20%)	
Impulse control disorder	1(3.3%)	00	
Sleep	1(3.3%)	00	
Somatization	1(3.3%)	00	
Boderline pd	1(3.3%)	00	
Generalized anxiety disorder	1(3.3%)	00	
Panic attack	1(3.3%)	00	
Mania	1(3.3%)	02(20%)	
Restless leg syndrome	1(3.3%)	00	
Substance induced psychiatric disorder	1(3.3%)	00	

Table 6: Pattern of substance abuse and co morbidity with respect to age

	<20 Years	≥ 20 Years	P Value
Substance Abuse			
Alcohol (n=94)	06(6.4%)	88(93.6%)	Chi-Square-20.823 p Value-0.0003
Alcohol and Polysubstance(n=13)	02(15.4%)	11(84.6%)	
Polysubstance(n=41)	05(12.2%)	36(87.8%)	
Intravenous Drug Users(35)	12(34.3%)	23(65.7%)	
High risk behavior(n=17)	06(35.3%)	11(64.7%)	
Psychiatric Comorbidity			
Present (n=35)	06(17.1%)	29(82.9%)	Chi-Square-2.896 p Value-0.088
Absent (n=165)	52(31.5%)	113(68.5%)	
Medical Comorbidity			
Present (n=77)	04(5.2%)	73(94.8%)	Chi-Square-8.744 p Value-0.003
Absent (n=123)	25(20.3%)	98(79.7%)	

DISCUSSION

According to the findings of the current study, 91.5% (183) of the patients were male, and 48.6 % of the patients were alcoholics. These findings are consistent with the prior findings that alcohol is the most often misused substance and that men are more likely than women to engage in substance abuse (Mittal and Ch'ien 1998).[5]

On the other hands, 29.4% of the female patients were alcoholics, which was greater than the proportion in previous studies. This can be explained by the fact that women using alcoholic beverages is acceptable in this community and is even considered a component of tribal ceremonies.

The mean age of the patients in the current research is 34 years, which is precisely the same as the age of the patients in the Mittal and Ch'ien study conducted in 1998.[8]

A total of 17.5 % of the abusers in the current research were IDUs, according to the findings. This figure is higher than the national figure of 19% but lower than the rates of Manipur (80%). The fact that North Bihar's statistics are higher than the national average might be explained by the state's closeness to Nepal and the north-eastern states.

When Dorabjee and Sampson (2000)[10] conducted their research, they discovered that - 81 % of "injection" drug abusers were sharing needles with one another However, just 17% of the respondents engaged in high-risk behavior (which included needle sharing), according to the findings of the current study. This is most likely due to improved patient knowledge of HIV transmission channels and the success of the syringe exchange program, which is administered by non-governmental organizations (NGOs) and funded by the state government.

Sharma discovered in 1995 that drug addiction is frequent among persons who have been diagnosed with a mental illness. This is mirrored in the findings of the current study, which revealed that 16.4 % of all male patients were given a mental diagnosis in the hospital setting. Females accounted for just 29.4 % of the participants in this study. According to the findings of the current study, 87.8 % of patients under the age of 20 were misusing several substances, with IDUs accounting for 65.7 %. This demonstrates the appearance of a shifting trend in drug addiction, as well as an increase in the number of younger individuals at risk.

Limitations of the study

This study did not include all of the patients who were treated at the tertiary care center. Only those patients who came in for a consultation gave their consent to participate in this study.

CONCLUSION

As a result of its physical proximity to some of the north-eastern states and Nepal, North Bihar has a high incidence of illicit drug users and engages in high-risk behavior. Thousands of people from this region leave Bihar for work and livelihood opportunities in other states in India and Nepal, resulting in greater inter-ethnic contact between the two countries' citizens. In this perspective, the fact that the number of IDUs and the number of young individuals misusing poly-substances is greater than the national average is concerning.

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Author's Contribution:
VPS-Concept and design of the study; prepared first draft of manuscript; **VPS-** Interpreted the results; reviewed the literature and manuscript preparation; **NPS-** Concept, coordination, review of literature and manuscript preparation; **APS-** Statistically analysed and interpreted, preparation of manuscript and revision of the manuscript.

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