ORIGINAL ARTICLE

SOCIODEMOGRAPHIC RISK FACTORS AMONG OPIOID DEPENDENT PATIENTS REPORTING AT TERTIARY CARE HOSPITAL

WASHDEV[1], M. IQBAL AFRIDI[2], SAIMA QURESHI[3], FAZEELA MOGHAL[4], SYED ZAFAR HAIDER[5]

[1]Assistant Professor, Dept. of Psychiatry, Dow University of Health sciences, Karachi
[2] Professor& HOD, Dept. of Psychiatry & Behavioral Sciences, JPMC, Karachi
[3] Consultant Psychiatrist, Pakistan Association of Mental Health, Karachi
[4] Assistant Professor Psychology, Institute of Clinical Psychology, Karachi
[5] Associate Professor, Dept. of Psychiatry & Behavioral Sciences, JPMC, Karachi

CORRESPONDENCE: DR. WASHDEV, E-mail: devamar88@gmail.com, Contact: 0333-2073742

ABSTRACT

OBJECTIVE
To determine the Sociodemographic risk factors in opioid dependent patients

STUDY DESIGN
Descriptive Cross Sectional

PLACE AND DURATION OF STUDY
The study was conducted at the Department of Psychiatry & Behavioural Sciences, Jinnah Postgraduate Medical Centre Karachi. The duration of study was from august 2012 to February 2013.

SUBJECTS AND METHOD
One hundred fifty seven (157) male and female cases were interviewed. Subjects fulfilling diagnostic criteria were enrolled after informed consent. A semi structured questionnaire proforma was used to collect the data. Patients suffering from organic brain disorder were excluded.

RESULTS
The mean ± SD age of respondents was 31.83 ± 8.99 years with range of 14-57 years. The mean ± SD age of onset of using opioids was 25.79 ± 7.17 years and age range for onset was between 13-40 years. The mean ± SD duration of using opioids among these patients was 5.29 ± 3.72 years (Range: 1-20 years). Almost 90% were under the age of 45 years. Majority of sample was male (94.3%), female were only 5.7%. Nearly half (47.8%) of opioid users were unemployed. Monthly income from an employment or from other sources was below 6000 rupees in about 30% of the sample.

CONCLUSION
Findings show that opioid dependent is more among productive age group and those who are uneducated or less educated. Heroin is the most commonly used opioids. Employment status and hence the income were scarce in patients of opioid addiction.

KEY WORDS
Sociodemographic, Risk factors, Opioid, Dependent.

INTRODUCTION

Over the years, an increase in trends of substance use or drug addiction especially opioids has been observed in most countries of the world. Health care providers are facing new challenges as patterns of substance use are progressively becoming more complicated[1]. According to a report released by The United Nation Drug Control Program in 2007, approximately 15.6 million of the world population uses some form of illicit opioids of which 11 million use heroin [2]. Additionally a local survey done in 2000 reported that there are approximately 4 million substance users in Pakistan of which 1.8 million use opioids especially heroin growing at an average rate of 7% annually [3]. This rapid increase in substance users poses an immense threat to the future of the country[1,4].

Pakistan along with its neighboring countries is the hardest targeted by opioid use due to their geographical location. Falling in the region which produces ninety percent of world's opiates, Pakistan is facing many problems[5]. Data by anti narcotic force during the year 2008 to 2011 revealed that opioid (Heroin) is the most commonly used drug in Pakistan followed by Alcohol and forty percent of the users were between the ages twenty five to thirty five years[6]. Smoking or inhalation was found to be the commonest method of use[6]. Young adults are found to be more vulnerable to opioid and other substance use. The findings were reported by Dr Imtiaz Dogar in a study conducted in Punjab[1]. Similar findings were reported by Marghoob and Sau in the studies conducted in Kashmir and India respectively[7,8]. Gender difference, Education and employment have found to be significantly associated with opioid and other substance use[9,10,11]. Thus Sociodemographic factors have a strong relation with outcome, and thus also affect the management plan. This study was conducted to assess the different sociodemographic risk factors, which will help determine the outcome, resulting in providing an appropriate management plan catered to the patients' needs.

SUBJECTS AND METHODS

Participants
One hundred fifty seven male and female patients were included in the study between the period of August 2012 to February 2013 from Department of Psychiatry & Behavioural Sciences, Jinnah Postgraduate Medical Centre: a tertiary care public sector health facility in Karachi. The department has specialized substance use clinic which is run twice

weekly with inpatient facility for all psychiatric disorder including substance use. The patients who were suffering from substances other than opioids and those having organic brain disorder such as dementia were excluded from study.

Instruments

The patients fulfilling the dependency criteria of opioids were included in study. The dependency was judged through ICD-10 criteria of Substance dependence (ICD-10)[12]. A semi structured questionnaire containing demographic data such as age, gender, education, employment, monthly income, type and route of opioid use was administrated in interview format.

Procedure

The approval was taken by ethical review committee. An informed consent regarding the inclusion of patient's data in this study was obtained after assuring them confidentially. In case of minors consent was taken from parents. The data collected was analyzed using computer package SPSS (Statistical Packages of Social Sciences) version 17.0. Clinical characteristics were summarized in terms of frequencies and percentages for outcome variables (for example marital status, education, type of opioid use, route of administration). Mean and standard deviation was computed for quantitative variables (for example age, duration of opioid use, age of onset, monthly income). Stratification with respect to age, duration of opioid use, age of onset, monthly income and gender was done to see the risk.

RESULTS

The mean ± SD age of respondents was 31.83 ± 8.99 years with range of 14-57 years. The mean ± SD duration of using opioids among these respondents was 5.29 ± 3.72 years (Range: 1-20 years). The mean ± SD duration of using opioids among these respondents was 5.29 ± 3.72 years (Range: 1-20 years).

Majority of sample was male (94.3%), Almost 90% of patients were under the age of 45 years with a majority (46.5%) being of age 25-34 years. Interestingly about 20.4% were very young of age 14-24 years. The opioid users with age more than 55 years were only about 2% of all. Forty seven percent opioid users were single and had never married, 33.1% were living a married life, while 19.1% were separated/ divorced or widowed (Table 1).

The ethnicity of opioid users was mixed. Urdu speaking were most in number n=46; 29.3%. Least were Punjabi speaking (n=13; 8.3%). Three quarters of opioid users were either illiterate or educated up to primary only. Maximum education was graduation which was found in 5.7% opioid users (Table 1).

Nearly half (47.8%) of opioid users were unemployed. Monthly income from an employment or from other sources was below 6000 rupees in about 30%. About 16.6% had monthly income 9000-12000 rupees, 14.6% had 12000-15000 rupees while only 5.1% had monthly income >15000 rupees (Table 1).

Heroin was most commonly used opioid agent (in 83.4%) followed by morphine (8.3%). Eight percent used pentazocine. Most common route of administration was Nasal (69.4%) followed by Intravenous in 21% opioid users (Table 2). Sixteen percent opioid users were also having other opioids addicts in their families.

Table 1
Sociodemographic characteristics of opioid users.

Characteristic		Number	Percents
Gender	Male	148	94
	Female	09	6
Age (Years)	14-24	32	20.38
	25-34	73	46.49
	35-44	36	22.9
	45-54	13	8.3
	55 & Above	0	1.9
Marital status	Single	75	47.8
	Married	52	33.1
	Widowed	0	2.5
	Separated/ Divorced	26	16.6
Language	Balochi	25	15.9
	Pashto	34	21.7
	Punjabi	13	8.3
	Sindhi	28	17.8
	Urdu	46	29.3
	Other	11	7.0
Educational status			
	Not Educated	55	35.0
	Primary	63	40.1
	Matric	19	12.1
	Intermediate	11	7.0
	Graduate	9	5.7
Employment status			
	Employed	82	52.2
	Unemployed	75	47.8

Table 2
Frequency, types and routes of used opioids.

Type of Opioid	Frequency	Percent
Heroin	131	83.4
Morphine	13	8.3
Pentazocine	9	5.7
Others	4	2.5
Route of administration	**Frequency**	**Percent**
Oral	13	8.3
Nasal	109	69.4
Intravenous	33	21.0
Intramuscular	2	1.3

DISCUSSION

This descriptive cross sectional study finds out various Sociodemographic risk factors. It was interesting to note that majority of the patients were young (between 24-35) with a mean ± SD age of respondents being 31.83 ± 8.99 years. Alarmingly, nearly 90% of dependents were under the age of forty five which is considered as productive and reproductive age. Imtiaz Dogar and colleagues in a study conducted in Punjab, reported that mean age of pre-treatment opioid users who were motivated to quit was between 30 to 34 years which is similar to the findings of current study1. Haque also found similar age typology in Pakistan[13]. Study conducted by Kalra and Bansal in Punjab province of India found that mean age of drug use was 25.46 ± 7.613 years[14]. In another study from USA, Copersino ML, et al found that mean age of study participants (non-treatment seekers substance users) was 35 years[15]. Similar findings in term of average age from other Asian and Western countries signify that young age adults are found to be more vulnerable to opioid and other substance use.

Considering the gender difference in our study only 6% female approached as compared to 94% male. These findings were similar to study conducted by Ahmad B in Peshawar[16]. However the findings were different from the study conducted by De leon in America where the female substance users were 30% [17]. Study conducted by Ellen Tuchman also shows that this ratio was not widely separated[18]. In western countries less widening of gender difference than most of eastern countries like Pakistan may be due to reason that in eastern countries addiction in females is culturally unacceptable. The local reason behind this may be that this study was conducted in public sector hospital where female approaches less for treatment than the private sector hospital due to cultural influence. Study conducted by Saeed Farooq and colleagues in Leady Reading hospital Peshawar also reported the same findings[4].

The second reason may be that present population predominately to the lower or middle socioeconomic group, while drug dependence in females is mainly a higher socioeconomic class as compared with lower class. This ratio of gender was narrow in the study conducted in Defense and Clifton colleges of Karachi. The study found that of 34% drug users 21% were male where as 13% were female[3]. Over all females approach less for treatment so females should be focused more. There may be separated OPD days for female substance users due to cultural background and stigma associated with female substance users.

Our data in this study gave the results that Urdu speaking patients were highest in number (29.3%) followed by Pashto (21.7%), Sindhi (17.8%) & Balochi (15.9%). This presentation may due to reason that the study was conducted in Karachi which is having majority population of Urdu speaking people followed by Pashto, Sindhi & Balochi speaking people. Similar findings were noted by Khwaja[9]. Marriage was not found to be significantly associated as risk factor with opioid use because half of sample was married and half unmarried. Similar findings were reported by Zaidani conducted in Iranian population[10]. The important observation in our study was that of married person one third were separated or divorced, which signify that opioid use may lead to conflicts in the family relationship. There may be many reasons of unbroken family like low socioeconomic status, psychological issues or others.

Unemployment in young adulthood increased the risk of subsequent onset of heroin, that's what we find in our study where 47% of the patients were unemployed. Wu in his study also found that unemployment was significantly associated with substance use[19]. Therefore, it is important to provide vocational education and training to people with opioid dependence so that unemployment may be targeted. Seventy five percent of the patients were either uneducated or having primary education. Opioid use has more prevalence in less educated people[20].

Most common opioid used was heroin followed by morphine and pentazocine. Interestingly there were only few reported cases of codeine or oxycodeine although it is commonly used by general population and easily available over the counter. This picture reflects the fact that heroin addiction increased in the country with Afghan war in late 70's and a surge in its users came in 90's. Beside that Heroin was found to be most commonly used opioid agent and presence of about 20% very young heroin addicts of age 14-24 years shows that our society is long going to pay the toll of Afghan war. Other countries of the subcontinent India and Bangladesh are also going through same situation due to its geographical location where heroin is the main substance used[11,21].

Commonest route of use was inhaling followed by Intravenous. Sau in his study conducted on Indian population found the same pattern[8]. Concern was the upward trend in IV use which was found as 21% in this study. This is in contrast to total percentage of IV users from the study conducted by Saeed Farooq and group in 2006 in which they estimated it as 10%[4,6]. Anti narcotic force in their survey estimated percentage of IV user as 16%. Erana Kuo in his study conducted in Lahore and Quetta also found rising pattern in IV use[22]. Common reasons in his study were history of substance use in family, and onset in group. These findings may be due to the fact that ratio IV use is increasing day by day in the country. The reason behind this may be that IV use causes higher amount of dependency. Other possible reason for preference of IV use could be the change in opioid especially heroin quality. Patients with IV use need special concentration and consideration due to complication

LIMITATIONS

This study was done in a public sector hospital; it should also be conducted in a private sector hospital for comparison of sociodemographic characteristics. Moreover, the study was undertaken in an urban setting because of which its results may be generalized with caution as far as rural populations are concerned. Thus a community based research is recommended for further analysis of these data.

CONCLUSION

Heroin is the most commonly used opioid agent. Opioid addiction is common in younger population, resulting in loss of many years of productive life. It also causes deterioration of social and occupational life, leading to divorce and loss of jobs.. The productive age group needs special attention and guidance to deal with this menace. Mostly opioid users were not educated .Government and law enforcement agencies must take fruitful steps to decrease the demand and supply of opioids and other substances.

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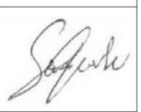
Sno.	Author Name	Affiliation of Author	Contribution	Signature
1.	Dr. Washdev	Assistant Professor, Dept, of Psychiatry, Dow University of Health sciences. Karachi	Research Design/ conduction & corresponding Author	
2.	Prof. Dr. M. Iqbal Afridi	Professor & HOD, Dept of Psychiatry & Behavioral Sciences, Jinnah Postgraduate Medical Center, Karachi	Research idea/ Area, Supervised in Research, & Critically evaluated the script	
3.	Fazeela Moghal	Assistant Professor Psychology, Institute of Clinical Psychology, Karachi	Contributed in Discussion writing and compiling results	
4.	Dr. Saima Qureshi	Consultant Psychiatrist Pakistan Association of Mental Health. Karachi	Contributed in data collection and results compilation	
5.	Dr. Syed Zafar Haider	Associate Professor, Dept, of Psychiatry & Behavioral Sciences, Jinnah Postgraduate Medical Center Karachi	Contributed in evaluation & compiling results