

Prevalence Of Opiate Abuse In A Rural Area Of Punjab

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Abstract

Research Question: To find out the prevalence of opiate abuse in a rural area of Punjab.

Objectives: To assess the prevalence of opiate abuse in a rural area of Punjab.

Study Design: Community based cross-sectional study.

Setting: The field practice area of Department of Community Medicine, Dayanand Medical College and Hospital, Ludhiana (i.e. Rural Health Training Center (RHTC) located at village Pohir, Block Dehlon, District Ludhiana, Punjab).

Participants: One thousand Seven hundred and thirty two study subjects, fifteen years and above were interviewed .

Materials and Methods: The study subjects were interviewed personally in local language by predesigned proforma and ASSIST V3, selected from sample frame of 15 villages by probability proportion to sampling size technique. Number of subjects (15 years and above) were 1732 interviewed in the present study.

Statistical analysis: The statistical analysis was performed by using Microsoft excel 2003 and Epi Info version 3.5.1.

Results: Study 7.62% individuals of the total population surveyed (1732) had used opiates during the past 12 months.

Conclusions: Age at first opiate use was 15-45 years. This study reflects the need to intensify efforts at the community level to protect productive age group from the evil of opiates abuse.

INTRODUCTION

“Drug abuse” is defined as self administration of a drug for non-medical reasons, in quantities and frequencies which may impair an individual’s ability to function effectively and which may result in social, physical, or emotional harm. (1) About 190 million people all over the world consume one drug or the other. Drug abuse causes immense human distress and the illegal production and distribution of drugs have spawned crime and violence worldwide. Today, there is no part of the world that is free from the curse of drug trafficking and drug abuse. (2) The problem in recent times has assumed dangerous proportions. Among young people, the drug abuse has become more or less a part of their subculture. Millions of drug addicts, all over the world, are leading miserable lives, between life and death. (3)

Drug abuse and drug dependence is showing an increasing trend. As a developing country, India is very much in the phase of these processes and the trends of drug abuse and dependence need to be watched. (4)

According to World Drug Report (2009) there were 25,71,52582 alcohol users, alcohol dependents were 8,22,88826, cannabis users were 82,28,883 and Opiate users were 2,057,221 in India. (5)

As lots of changes have occurred in the last two decades, thus the findings of studies conducted earlier may not be of much interest in the present scenario. Hence the present study was carried out to assess the prevalence and pattern of opiate abuse in a rural area of Ludhiana, Punjab.

AIMS & OBJECTIVES

Prevalence Of Opiate Abuse In A Rural Area Of Punjab

To assess the prevalence of opiate abuse in a rural area of Punjab and to study the pattern of opiate abuse in a rural area of Punjab.

MATERIALS AND METHODS

STUDY DESIGN:

Community based cross- sectional study

SETTING:

Rural field practice area (RHTC) of the Department of Community Medicine, Dayanand Medical College and Hospital caters 15 villages in Ludhiana, Punjab.

PARTICIPANTS:

Individuals aged 15 years and above residing in 450 selected house holds.

SAMPLE SIZE ESTIMATION:

The field practice area caters 15 villages. Total enumeration of house hold (6210) was done in all 15 villages(6). House holds were stratified in to four socio economic status groups (SES) as per Modified Udai Pareek Scale. (7). House holds were selected from each SES group on the basis of probability proportion to sampling size technique. 30 house hold were taken from each village making a total of 450 houses Sample interval for each village was calculated. First house was selected by currency note method and there after selection of other houses was done by adding sample interval so as to complete the size in the respective SES group.

TOOLS AND TECHNIQUE:

Subjects were interviewed personally in local language through oral questionnaire method and desired information was collected on pre-designed, pre-tested proforma and ASSIST V3.0. (8)

The data collected were tabulated and analyzed. The statistical analysis was performed by using Microsoft excel 2003 and Epi Info version 3.5.1.

OBSERVATIONS

Table 1

Village wise population and number of houses

| S.no | Name of Village | Population | Total no of houses |
|------|-----------------|------------|--------------------|
| 1 | Jagera | 2143 | 452 |
| 2 | Rangia | 1749 | 317 |
| 3 | Khera | 1849 | 398 |
| 4 | Gopalpur | 2006 | 388 |
| 5 | Pandher Kheri | 1192 | 225 |
| 6 | Kilahans | 1220 | 242 |
| 7 | Jhamat | 2145 | 402 |
| 8 | Saharan Majra | 1652 | 279 |
| 9 | Bhikki khattra | 1688 | 347 |
| 10 | Rurka | 2594 | 466 |
| 11 | Kalahar | 2224 | 448 |
| 12 | Khatra | 2459 | 460 |
| 13 | Lehra | 1815 | 374 |
| 14 | Siabar | 4527 | 905 |
| 15 | Pohir | 2300 | 507 |
| | Total | 31,563 | 6210 |

Table 2

Number of households selected in 15 villages

| Socio-Economic status group | Percentage | Number of households per village | Number of household in 15 villages |
|-----------------------------|------------|----------------------------------|------------------------------------|
| High | 4% | 1 | 15 |
| High middle | 42% | 13 | 195 |
| Low middle | 49% | 15 | 225 |
| Low | 5% | 1 | 15 |
| Total | 100% | 30 | 450 |

Table 3

Village wise number of subjects interviewed

| S.no | Name of Village | No of houses in study | Number of subjects interviewed |
|-------|-----------------|-----------------------|--------------------------------|
| 1 | Jagera | 30 | 109 |
| 2 | Rangia | 30 | 121 |
| 3 | Khera | 30 | 100 |
| 4 | Gopalpur | 30 | 110 |
| 5 | Pandher Kheri | 30 | 119 |
| 6 | Kilahans | 30 | 130 |
| 7 | Jhamat | 30 | 116 |
| 8 | Saharan Majra | 30 | 112 |
| 9 | Bhikki khattrra | 30 | 99 |
| 10 | Rurka | 30 | 124 |
| 11 | Kalahar | 30 | 134 |
| 12 | Khattrra | 30 | 106 |
| 13 | Lehra | 30 | 110 |
| 14 | Siahar | 30 | 130 |
| 15 | Pohir | 30 | 130 |
| Total | | 450 | 1732 |

Table 4

Prevalence of substance ever used

(N=1732)

| Substances ever used | Number | Percentage |
|----------------------|--------|------------|
| No | 1198 | 69.17 |
| Yes | 534 | 30.83 |

Table 5

Prevalence of substance abuse* in past 12 months

(N=1732)

| Substance used | Number | Percentage |
|----------------|--------|------------|
| No | 1248 | 72.05 |
| Yes | 484 | 27.95 |

Table 6

Age Wise Distribution Of Substance Abuse

| SN | Age (years) | NUMBER | Prevalence of substance abuse (%) | Opiate abuse in past 12 months (%) |
|-------|-------------|------------|-----------------------------------|------------------------------------|
| 1 | 15-24 | 453 (100) | 55 (100) (12.14) | 11 (20.00) |
| 2 | 25-34 | 359 (100) | 100 (100) (27.86) | 25 (25.00) |
| 3 | 35-44 | 298 (100) | 99 (100) (33.22) | 31 (31.31) |
| 4 | 45-54 | 251 (100) | 96 (100) (38.25) | 28 (29.16) |
| 5 | 55-64 | 193 (100) | 65 (100) (33.68) | 21 (32.30) |
| 6 | ≥ 65 | 178 (100) | 69 (100) (38.76) | 16 (23.18) |
| Total | | 1732 (100) | 484 (100) (27.95) | 132 (27.27) |

Figures in the parentheses indicate percentage

Table 7

Age And Gender Wise Distribution Of Substance Abuse

| SN | Age (years) | Gender | NUMBER (%) | Prevalence of substance abuse | | | Opiate abuse in past 12 months |
|-------|-------------|--------|------------|-------------------------------|--------|------------|--------------------------------|
| | | | | Total | Number | Percentage | |
| 1 | 15-24 | MALE | 259 (100) | 55 | 49 | 18.92 | 11(22.45) |
| | | FEMALE | 194 (100) | | 6 | 3.09 | |
| 2 | 25-34 | MALE | 196 (100) | 100 | 99 | 50.51 | 25 (25.25) |
| | | FEMALE | 163 (100) | | 1 | 0.61 | |
| 3 | 35-44 | MALE | 141 (100) | 99 | 97 | 68.79 | 31(31.96) |
| | | FEMALE | 157 (100) | | 2 | 1.27 | |
| 4 | 45-54 | MALE | 135 (100) | 96 | 94 | 69.63 | 28(29.78) |
| | | FEMALE | 116 (100) | | 2 | 1.72 | |
| 5 | 55-64 | MALE | 93 (100) | 65 | 64 | 68.82 | 21(32.81) |
| | | FEMALE | 100 (100) | | 1 | 1.00 | |
| 6 | ≥ 65 | MALE | 99 (100) | 69 | 69 | 69.70 | 16(23.18) |
| | | FEMALE | 79 (100) | | 0 | 0 | |
| Total | | MALE | 923 (100) | 484 | 472 | 51.14 | 132(27.27) |
| | | FEMALE | 809 (100) | | 12 | 1.48 | |

Figures in the parentheses indicate percentage

Table 8

Religion wise prevalence and pattern of drug abuse in past 12 months

| Religion | Prevalence | | Pattern of Substances used in past 12 months |
|---------------|------------|------------|--|
| | Number | Percentage | Opioids |
| Hindu (n=146) | 43 | 29.45 | 10 (23.26) |
| Sikh (n=1534) | 429 | 27.97 | 119(27.74) |
| Muslim (n=30) | 4 | 13.33 | 1 (25.00) |
| Others (n=22) | 8 | 36.36 | 2 (25.00) |

Figures in the parentheses indicate percentage

Table 9

Caste wise prevalence and pattern of drug abuse in past 12 months

| Caste | Prevalence | | Pattern of Substances used in past 12 months |
|-----------------------------|------------|------------|--|
| | Number | Percentage | Opioids |
| Schedule caste (n=682) | 210 | 30.79 | 55(26.19) |
| Non schedule caste (n=1050) | 274 | 26.10 | 77(28.10) |

Figures in the parentheses indicate percentage

Table 10

Nativity wise prevalence and pattern of drug abuse in past 12 months

| Nativity | Prevalence | | Pattern of Substances used in past 12 months |
|--------------------|------------|------------|--|
| | Number | Percentage | Opioids |
| Punjabi (n=1703) | 475 | 27.89 | 131(27.57) |
| Non Punjabi (n=29) | 9 | 31.03 | 1(11.11) |

Figures in the parentheses indicate percentage

RESULTS

Increasing trend in prevalence of opiate abuse was seen from 15 to 44 years of age and 65 years and above there was decreasing trend. Males were predominately abusing opiate. Religion wise cases of Sikhs community were 90.15%. More than one out of five cases (58.33%) were non schedule caste.

The maximum number of cases (99.24%) were Punjabi by nativity. It was observed that 71.99% cases were married. Out of 132 cases, 67.42% cases were having primary education, followed by cases having no education (25.76%). Majority (47.73%) of cases were laborers. Considerable number (38.63%) belonged to family income of Rs1001-5000. Age of initiation of opiate abuse was maximum in age group of 14-45 i.e productive age group. Friends as company of initiation of opiate abuse were 85.60%. For initiation of opiate abuse peer pressure accounted for 38.64% cases, followed by 35.60% cases who wanted to start with opiate and 15.15% cases tried out of curiosity. Majority (68.94%) had no awareness regarding harmful effects of opiate abuse.

DISCUSSION

The prevalence of ever user (Table 4) in present study was found to be 30.83%. The prevalence of substance abuse in other studies conducted at different places in India have been reported in the range of 19.78% to 58.7%. In a study conducted in Agra by Dube and Handa (1971) on drug use in

Indian population, higher prevalence rate of drug use (50.08%) was found (9). Another study done by Meena et al in 2002 in Rohtak city studied Prevalence and pattern of alcohol and substance abuse in urban areas and reported a prevalence rate of 19.78% (10). Naskar et al in 2004 studied some socio economic factors on drug abuse among the undergraduate medical students in Calcutta, and found prevalence of total drug abusers was 48.9% (11). Another study conducted by Juyal et al (2006) on substance use among intercollege students in Dehradun reported the prevalence of substance abuse for ever users as 58.7%.(12) Similar higher percentage (43.4%) of substance abuse was reported in 2008 by Sarangi et al in their study on substance abuse among adolescents in urban slums of Sambalpur. (13)

In the present study 27.95% had used one or the other substance during the past 12 months (Table 5). Similar findings (27.9%) has been reported by Naskar et al (2004) (11), where as the rate of regular use of substances was found to be 31.3 % by Juyal et al (2006) (12). Comparatively lower prevalence (18.3%) was reported in a study conducted by Dube et al (1978), amongst college students (14). Sethi and Manchanda (1978) studied Pattern of drug abuse among male students in Lucknow and categorized 11.5% students as 'drug abusers' (15). Study conducted in Punjab by Singh (1978) on drug abuse prevention with special reference to alcohol use reported drug abuse for current users as 20.4% (16). 21.4% drug abusers were reported by Sethi and Trivedi in 1979 in a study on drug abuse in rural population of Bantra (Lucknow). (17) In the study conducted by Meena et al (2002) in urban areas of Rohtak city, prevalence rate of 19.78% was reported (10).

There were 484 cases who were consuming one or the other substance, out of which 27.27% cases were consuming opioids. (Table 6). Bhalla et al in 2006 studied profile of substance abusers using the emergency services in a tertiary care hospital in Sikkim and found alcohol abusers were 77.8%, cannabis 5.6%, heroin 1.97% and other opioid abusers 14.8%.(18)

In present study (Table 7) it was observed that out of 1732 subjects, economically productive age group i.e. 25-54 years comprised of 908 subjects and among them prevalence of substance abuse was found to be 32.49%, whereas a higher prevalence (38.76%) was observed in the older age group of 65 years and above. It was observed that with increase in age of study group there is gradual increase in prevalence of substance abuse. The pattern of consumption of substance abuse indicates that alcohol was being most commonly

consumed in all the age groups followed by tobacco, opioids and cannabis. A study done by Meena et al (2002) in urban areas of Rohtak city observed that 42.41% of users were in the age group of 25-34 years (10). Singh et al (2004) in a comparative study of prevalence in urban and rural area of Amritsar reported that percentage of the regular users in age bracket of 40-49 years and 50-59 years were 26.3% and 71.4% respectively. In Urban area 87.5% of users and in rural area 82.9% of users were consuming alcohol daily (19). Mohan et al (2004) in study conducted at de-addiction Clinic in a Psychiatric Hospital Jammu, found 59% of the users belonged to 20-30 yrs of age group and 25% belonged to 30-40 yrs age group (20). Shastri and Kolhatkar (1989) studied socio-demographic features of cannabis and heroin abuse in Bombay and revealed that Seventy-two percent of addicts belonged to the age group of 20-24 years. (21) In 2008 Sarangi et al conducted a study among adolescents in urban slums of Sambalpur and found prevalence to be 55.2% in the 16–19 years of age group. (13)

LIMITATIONS

The study is based on interview of the respondent, so misreporting due to recall bias, local customs and taboos could not be ruled out.

RECOMMENDATIONS

Awareness levels were observed to be less among cases. Information, education and communication programs with aid of folk media i.e. story telling, puppetry, drama should be planned.

With the help of NGO's, community leaders, religious leaders, community and medical personnel's efforts should be made for reducing the availability and consumption of drugs and launching an effective education and information programme for high lighting the harmful effects of drugs and measures for its control.

The younger generation (productive age group) should be specially targeted, who may be the future drug abusers

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