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Socio-economic and demographic characteristics of alcohol and other substance abusers, undergoing treatment in Sikkim, a north east state of India

Sunil K Pandey* and Debranjana Datta

Department of Pharmacology, Sikkim Manipal Institute of Medical Sciences, Gangtok, Sikkim

ABSTRACT

The present study was conducted to generate information on Socio-economic and demographic characteristics of alcohol and other substance abusers, undergoing treatment in Sikkim. Socio-economic and demographic instrument was administered to the participants who were undergoing treatment for alcohol and/or substance abuse (n=241) in various treatment centres of Sikkim. Information was collected personally on printed instrument and data was descriptively analyzed using SPSS. Male participants (93.8%) outnumbered female (6.2%). Majority of the participants were either in the school dropout group or school completed (36.1%) group. Most of the samples were occupationally unemployed, urban residents, Nepali by ethnicity, single, and Hindu by religion (48.5%). Minimum age for starting of alcohol was 5 yrs and 7 yrs for drugs. Knowledge about AIDS and its transmission among patients undergoing treatment was satisfactory. Wide availability of alcohol and cold climate of Sikkim make this state susceptible for alcohol use and misuse and thus indirectly for other substance use. Alcohol drinking among parents, sibling and friends found to be important risk factor.

Key words: Substance, alcohol, abuse, Sikkim

INTRODUCTION

Alcohol and other substance misuse, abuse and addiction remains the major threat for all the continents for its dangerous and fatal consequences; that affects the individual, their family members, society and the country to its physical, psychological, economic status. The rapid change in lifestyle, stressful work environment are few risk factors for abuse and addiction.

Drug addiction is, 'a state of periodic or chronic intoxication produced by repeated consumption of the drug' (WHO). This includes compulsion to continue taking the drug; a psychological dependence upon the effects of the drug; and a detrimental effect on both the individual and society [1].

Alcohol has been in use around the world dating as far back as 3000-2000 B.C but widespread use began only after the appearance of agriculture [2]. The World Health Organization estimates 2 billion people worldwide who consume alcoholic beverages and 76.3 million with problem alcohol users [3]. Alcohol use has traditionally been prevalent among the population of Sikkim. Sikkim has an approximate population of 540,768 [5], a literacy rate of 70% and a landscape varying from 300 to 8585 metres in altitude [4]. National Family Health Survey-3(2005-06), Government of India, has also highlighted a significant prevalence of alcohol use in Sikkim-45.4% and 19.1% among above 15-49 years of age in males and females, respectively [5].

This study may add information on prevalence and pattern of abusers in Sikkim. The objective of this study was to know the status of participants and their abusing patterns.

Aims and objectives:

To Study the Socio-economic and demographic profile of alcohol and other substance abusers undergoing treatment in Sikkim.

Specific objectives was:

- To Describe Socio-economic and demographic characteristics using socio-demographic instrument

Research Question:

- What is the prevalence and status of alcohol and other substance abusers of Sikkim

MATERIALS AND METHODS

The study employed a method of cross sectional design for investigating current scenario of alcohol and other substance abusers who were undergoing treatment in various treatment centres of Sikkim. The investigator explained to the participant about nature and objective of the study and the questions involved and took the written consent from the participants. The questions were personally asked and answers were recorded on the printed instruments in English language.

Pre-devised, validated questionnaire was administered among alcohol and other substance abusers (n=241). Seven treatment centres were visited in order to collect data.

Instruments:

Socio-economic and demographic instruments carrying 29 items was used in the study. Standardization, and validation of instruments was carried out by statistical and expert analysis method. The instrument was broadly based on age, sex, marital status, occupation, community, ethnicity, religion, income, Past history of alcohol/drug, treatment initiator and treatment expenses.

Statistical Analysis – Objectives & Plan:

On sample estimation, it was found that the study needed to enroll a minimum of 224 subjects (n=224) and the participants studied here was n=241. Data was feeded in SPSS 20. The descriptive (frequency) analysis was done using SPSS 20.0.

Ethical issues: The study protocol and questionnaires were approved by the RPEC (Research Protocol Evaluation Committee) and Institutional Ethical Committee (IEC)

RESULTS

Table 1, 2, 3 and 4 shows the socio- economic and demographic characteristics of subjects (n=241) participating in the study. Male participants (93.8%) outnumbered female (6.2%). Majority of the sample were either in the school dropout group (37%) or school completed (36.1%) group. Most of the samples were occupationally unemployed (31.1%), urban residents, Nepali by ethnicity, single, and Hindu by religion (48.5%). The participants were having literacy rate of 92.03% for male and 52.33% for female, marital status (married-43.98%). Most participants had concrete houses. Majority were Nepali by ethnicity and were in the income group of Rs 0-10000 (73.9%) and had used alcohol (68.4%) or drug (77.4%) or both between past 21-30 days. Minimum age for starting of alcohol was 5 yrs and 7 yrs for drugs. Predominant participants were in the age group of 15-30 yrs (70.5%) and 16-25 yrs (54.4%) for alcohol and drugs respectively. First treatment initiator for maximum samples was family members (63.1%). According to most of the treatment undergoing patients (37.8%) the cost of treatment was between Rs 12501-22500.

Table1. Socio-demographic and economic characteristics of patients participating in the study (N=241)

Variables	Category	Frequency (n)	Percentage (%)
Gender	Male	226	93.8
	Female	15	6.2
Education	Illiterate	26	10.8
	School drop out	89	37.0
	School completed	87	36.1
	Graduation	39	16.1
Income source	Student	16	6.6
	Salaried	68	28.2
	Self employed	83	34.4
	Unemployed	74	30.7
Occupation	Self occupied (Other than business)	67	27.8
	Officials	44	18.2
	Business	41	17.0
	Students	14	5.8
	Unemployed	75	31.1
Community	Urban	165	68.5
	Rural	76	31.5
Ethnicity	Lepcha	5	2.1
	Bhutia	34	14.1
	Nepali	161	66.8
	Others	41	17.0
Marital status	Single	122	50.6
	Married	108	44.8
	Separated/Widower	11	4.5
Religion	Hindu	117	48.5
	Buddhism	74	30.7
	Islam	1	.4
	Christianity	41	17.0
	Others	8	3.3
Socio-economy, income	0-10000	178	73.9
	10001-20000	40	16.5
	20001-30000	18	7.5
	>30000	05	2.1

Table2. Pattern of drug or Alcohol use among the abusers and their family

Variables	Category	Frequency (n)	Percentage (%)
Past 30 day use alcohol (n=177)	0-10 days	18	10.2
	11-20 days	38	21.4
	21-30 days	121	68.4
Past 30 day use drugs (n=146)	0-10	7	4.8
	11-20	26	17.8
	21-30	113	77.4
Age of alcohol 1st use (n=173)	5-15 yrs	38	22.0
	15-30 yrs	122	70.5
	>30 yrs	13	7.5
Age of drugs 1st use (n=149)	7-16	56	37.5
	16-25 yrs	81	54.4
	>25 yrs	12	8.1
Parental alcohol	Yes	126	52.3
	No	115	47.7
Parental drug use	Yes	3	1.2
	No	238	98.8
Sibling alcohol use	Yes	75	31.1
	No	166	68.9
Sibling drug use	Yes	10	4.1
	No	231	95.9
Friend's alcohol use	Yes	192	79.7
	No	49	20.3
Friend's drug use	Yes	144	59.8
	No	96	39.8

Table 3. Treatment Characteristics of participants

Variables	Category	Frequency (n)	Percentage (%)
Treatment	Yes	241	100
1st treatment initiator	Self	60	24.9
	Family	152	63.1
	Relative	24	10.0
	Law enforcement	5	2.0
Treatment source	Private hospital	11	4.6
	NGO	230	95.4
Treatment expense source	Self	67	27.8
	Parents	106	44.0
	Relatives	15	6.2
	Others	14	5.8
	Family	39	16.2
Treatment cost in Rs	2500-12500	30	12.4
	12501-22500	91	37.8
	22501-32500	69	28.6
	Don't know	51	21.2

Table 4. Socio-demographic differences between Male and Female

Characteristics	Male	Female	P value
Education			
Literate	208 (92.03%)	8(53.33%)	$\chi^2 = 30.08$, df= 1 P<0.0001
Illiterate	18 (7.96%)	7(46.66%)	
Marital status			
Married	96 (42.47)	10 (66.66%)	$\chi^2 = 8.008$, df= 1 P=0.0047
Other	130	5	
Parental alcohol			
Father	94(82.45%)	5(41.66%)	$\chi^2 = 10.73$, df= 1 P= 0.0011
Both father and mother	20	7	

Table 5. Differences in knowledge of AIDS between urban and Rural respondents

Characteristics	Urban	Rural	P value
AIDS- Knowledge			
Yes	150 (61.5%)	61 (25.01%)	$\chi^2 = 5.411$, df= 1 P= 0.020
No	15 (6.15%)	15 (6.15%)	
AIDS- Transmission			
Yes	148 (60.68%)	58 (23.78%)	$\chi^2 = 7.505$, df= 1 P= 0.006
No	17 (6.97%)	18 (7.38%)	

DISCUSSION

The participants were having lower literacy (Amit Goel et al, 2009-98%), marital status (Amit Goel et al, 2009-57.3%) while most participants had concrete houses which was more but of same trend as Amit Goel et al, 2009 study. More number of respondents were in school dropout group and majority were Nepali by ethnicity which was comparable to Amit Goel et al, 2009 study [6] [Table 1, 4]. A high percentage of alcohol and/or other substance use among Nepalese Population (66.8%) could be explained by the fact that the predominant population in Sikkim is of Nepalese [7, 8]. Compared to NFHS-3 survey, present study shows literacy in men (NFHS-3- 83%), higher than NFHS-3 and literacy of females (NFHS-3-72%), marital status of male (NFHS-3-55.33%) lower than NFHS-3 while; the marital status of women was almost similar (NFHS-3-64.66%) [9]. In the present study, more number of male respondent had their both parents alive compared to female counterparts. Parental status of alcohol use differ significantly between the sexes, the history of use of alcohol by fathers were more in case of males and by both the parents in case of females [Table 4]. The Drug Abuse Monitoring Survey conducted in 203 treatment centres in different states of India reflected that 42% had completed higher secondary education and above 70% were employed and 71.9% were married which is larger than our present study [10]. 54.4% of drug abusers started taking drugs in the age group of 16-25 years that is lower than Amit Goel et al 2009 study (74.6%) and NHS (60%). For alcohol using population 70.5% participants started taking alcohol in the age group of 15-30 yrs. Past month frequency of use of alcohol alone or with drug was around 70% in 21-30 days use group. Family history (Hartman, Lassem, Hopfer, Crowley & Stalling, 2006) [11] and drug use by friends (Bjorkqvist, Batman & Aman-back, 2004) [12] were found to be important risk factors for drug and alcohol use. Parental alcohol use was significantly higher

than substance use and it was more in female (80%) and rural (63.1%) respondents. 79.67% and 59.8% respondents had more than one alcohol using and drugs using friends respectively. This highlights an important role of alcohol and other substance use among friends. Knowledge about AIDS and its transmission found to be appreciably good in both urban and rural respondents and significant difference was found in both the variables and between the groups. The P value was 0.020 between urban and rural groups for the knowledge about AIDS and $P=0.006$ between two groups for the knowledge about AIDS transmission and both the values are lesser than $P=0.05$ [Table 5].

CONCLUSION

From the participant's responses it could be concluded that the number of male abusers were more than female. Alcohol use could be correlated with the climatic and geographical location of Sikkim. Pattern of alcohol drinking among parents and friends found to be one of the important risk factor. Nepalese being the dominant community outnumbered others. Knowledge about AIDS and its transmission among the patients undergoing treatment was sufficiently good. There is a need of identify people who need treatment especially from rural areas and there is a need to increase the availability and acceptability of treatment.

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