



PREVALENCE AND PREDICTORS OF ALCOHOL USE AMONG ADULT FEMALES RESIDING IN A RURAL AREA OF RANCHI, JHARKHAND: A CROSS SECTIONAL STUDY

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ABSTRACT

Introduction: Alcoholic beverages have been a part of social life since ages in the western countries. While alcohol abuse is a problem universally it has not left India untouched. Not only men but also women have included alcohol as a part of their social habit. **Aims and objectives:** This study aims to find out the prevalence of alcohol use among women residing in rural field practice area of Rajendra Institute of Medical Sciences, Ranchi and to find out the factors leading to initiation and consumption of alcohol. **Methodology:** This was a cross sectional study done in rural field practice area, ormanjhi of RIMS, Ranchi for a duration of 28 months (from September 2016 to November 2018). The sample size came out to be 336. Templates for data entry were generated in Microsoft office Excel sheet and analysis was done using SPSS 20.0. **Results:** After analysis of 336 females, it was found that 188 out of 336 (55.95%) of the study subjects are above the age of 40 years, approximately half of them were Hindu (50.9%) and about 46.1% of the study subjects were illiterate. The prevalence of alcohol use among females was found to be 56 out of 336 (16.7%) and 48 out of 336 (14.3%) are current users of alcohol. Among alcoholics custom (39.29%) was the reason for initiation of alcohol, followed by amusement (25%). Total of 24 out of 56 (42.85%) alcoholic women said family member was the reason for their initiation of alcoholic drink. Addiction to alcohol consumption was strongly associated with age group of study subjects. Elderly women were more common consumers of alcohol. **Conclusion:** we conclude that about 14.3% of women are current consumers of alcohol.

KEYWORDS : Predictors, Alcohol, Women

Introduction

Substance abuse is becoming a very complex human behaviour. It can be defined as self-administration of a substance for non-medical reasons, in quantities and frequencies which may impair an individual's ability to function effectively resulting in social, physical, or emotional harm. [1] Alcoholic beverages have been used since ages and have become a part of social life in humans. Though the pattern of its intake is evolving but has become pervasive today. Cultural differences influence the pattern of alcohol consumption. Alcohol consumption per capita has fallen since 1980 in most developed countries, it has risen steadily in developing countries, alarmingly so in India. The pattern of drinking in India has changed from occasional and ritualistic use to social use. [2] Alcohol use in women in India has been on the rise owing to the changing sociocultural milieu. It is increasingly being recognized as a serious threat to their health and well-being due to their unique, gender-based, physiological vulnerability factors. [3] Women start to have alcohol-related problems sooner and at lower drinking levels than men because women have less water in their bodies than men and alcohol resides predominantly in body water. So, if a woman and a man of the same weight drink the same amount of alcohol, the woman's blood alcohol concentration will tend to be higher, putting her at greater risk for harm. [4] Likely reasons why women drink heavily in India are Depression, Anxiety, Family history, Interpersonal problems, Living with a partner with alcohol dependence etc.

The prevalence of alcohol use among women in India was 2.2% according to NFHS 3 data and it has fallen to 1.2% in NFHS 4 data. The scenario in Jharkhand is quite different from that of India. In Jharkhand, the prevalence of alcohol use among women according to NFHS 3 data was 9.9% and it has gone down to 4.1% according to NFHS 4 data. [5,6] Though the prevalence is declining but still it is much higher when we compare it with the national data, this could be due to the tribal predominance in this state coupled with their cultural practices.

Alcohol abuse is associated with large number of health issues and social problems and with more than 100 000 deaths

per year. The third goal of the 17 Sustainable Development Goals (SDGs) which focuses on health, specifies the strengthening, prevention and treatment of the harmful use of alcohol. [7]

When we look at literatures, we have very limited data available on women consuming alcohol from this part of Jharkhand and also it is a matter of important concern as alcohol affects the health of females more adversely than men. Also, the health of women acts as an important forerunner for the health and productivity of the future generations. Hence, this study was conducted to find out the prevalence of alcohol use among women and factors leading to initiation and consumption of alcohol.

Methodology

Study area and Design

This community based cross sectional study was conducted in Ormanjhi block of Ranchi district catering a total population of 94137, as per census 2011.

Sample size

The exact prevalence of female alcohol users in ormanjhi block was not known, so a pilot study was conducted. Sample size was decided by the formula $n = \frac{4pq}{d^2}$ Prevalence obtained by pilot study (p) = 30% = 0.30, Assuming $d = 0.05$. The final sample size obtained was 336. All women above the age of 20 years both married as well as unmarried, residing in the study area of Ormanjhi block, Ranchi and willing to participate in the study were included in the study. Married daughters of the village who reside in some other village but visited the study village during study, Women who are unable to communicate and severely ill women who are admitted in hospital during the data collection period were excluded from the study.

Sampling technique

The sampling technique used in this study was a multi stage random sampling. Rural field practice area of RIMS, Ranchi has 3 sub-centres- Irba, Chakla and Anandi. 2 AWCs from each sub centres were randomly selected by lottery method, so a total of 6 AWCs were included in the study. Final sample

size obtained was 336, and this had to be taken from 6 villages, so 56 families were visited per village.

Data Collection Tool

A semi structured questionnaire was developed and pre tested in the community among ten subjects. All necessary modifications were made and final questionnaire was used for data collection.

Data collection technique:

After selection of the villages, the AWW of each AWC were approached. A discussion on the plan of conducting the study was done and they were requested to co-operate. The AWWs were requested to accompany along with the MSW to each household. The Sahiyya of the village also accompanied us often to the households. Informed consent was taken from the study subjects in hindi language. Data was collected by interview method using the pre tested questionnaire.

Data entry and analysis

Proper template was generated for data entry in Microsoft office Excel 2007 and data was analyzed by using software-Statistical Package for Social Science (SPSS) 20.0 version.

Ethical clearance

Ethical approval for the study was obtained from Institutional Ethics Committee of RIMS, Ranchi.

Results

The socio demographic characteristics of adult women residing in rural field practice area of Rajendra Institute of Medical Sciences are shown in table 1. About 45.24% (152 out of 336) of women were in the age group 41 – 60 years and those in geriatric age (>60 years) constituted only 10.71% (36 out of 336). Half of the total number of study participants (171 out of 336) were hindu by religion and those of Sarna religion constituted 17.9% (60 out of 336). Non tribal women were more in number as compared to tribals which constituted 111 out of 336, 33%. Approximately half of the study participants 155 out of 336, i.e 46.1% were completely illiterate.

Table 2 shows the prevalence of alcohol consumption. History of alcohol use ever in life time was found in 56 out of 336 women constituting 16.7% and history of current use of alcohol was found in 48 out of 336 women constituting 14.3%.

Table 3 shows the cause of initiation of alcohol in women and it was found that custom was the most common reason for initiation of alcohol followed by amusement. Custom as a cause of initiation was found in 22 out of 56 (39.29%) and amusement as a cause of initiation was found in 14 out of 56 (25%) of the women.

Table 4 shows that alcoholic women themselves and their family played equal role in their initiation of alcoholic drink.

Table 5 shows the association between age group and addiction to alcohol. A strongly significant association was found between the age group of the study subjects with their history of alcohol consumption. (p <0.001) on applying chi square test. The history of alcohol consumption was most common in elderly women aged ≥ 61 years. It was found that 51.43% of the women aged ≥ 61 years were addicted to alcohol consumption.

Table 1: Socio-demographic profile (n = 336)

s. no	Variable	Frequency	Percentage	
1	Age	21-40	148	44.05
		41-60	152	45.24
		≥61	36	10.71

2	Religion	Hindu	171	50.9
		Muslim	72	21.4
		Christian	33	9.8
		Saran	60	17.9
3	Ethnicity	Tribal	111	33
		Non tribal	225	67
4	Education	Illiterate	155	46.1
		Literate	59	17.6
		Primary	55	16.1
		Secondary	37	11
		Above secondary	30	09
5	Occupation	Government service	31	9.2
		Housewife	158	47
		Farming	40	11.9
		Daily wage worker	54	16.1
		Others	53	15.8
6	Marital status	Married	255	75.9
		Un-married	16	4.8
		Divorced/seperated	21	6.3
		Widow	44	13.1
7	Family type	Nuclear	193	57.4
		Joint	143	42.6
8	Socio economic status	Class I	03	0.9
		Class II	21	6.3
		Class III	52	15.5
		Class IV	114	33.9
		Class V	146	43.5

Table 2: Prevalence of alcohol use (n = 336)

S. no.	Variable	Frequency	Percentage
1	Alcohol use ever	56	16.7
2	Current user of alcohol	48	14.3

Table 3: Distribution of alcoholic females on the basis of cause of initiation of alcohol (n = 56)

Cause of initiation of alcohol	Frequency	Percentage (%)
Amusement	14	25%
Peer pressure	11	19.64%
Stress	09	16.07%
Custom	22	39.29%
Total	56	100%

Table 4: Distribution of alcoholic women according to person responsible for alcohol initiation (n = 56)

Person responsible for initiation	Frequency	Percentage
Family member	24	42.85%
Friend/Neighbour	10	17.87%
Self	22	39.28%
Total	56	100%

Table 5: Association between age group and addiction to alcohol (n = 336)

Age group (years)	Alcohol Consumption		Total	X ² Df P value
	Yes	No		
21 – 40	12 (8.11%)	136 (91.89%)	148 (100%)	38.269 2 0.000
41 – 60	26 (16.99%)	127 (83.01%)	153 (100%)	

≥ 61	18 (51.43%)	17 (48.57%)	35 (100%)	
Total	280	56	336	

Discussion:

In the current study on prevalence and predictors of alcohol use among adult women, it was found that there was a difference in prevalence of ever use of alcohol (16.7%) and current use of alcohol (14.3). This means there are women who have quit consumption. The reason for the same could be increased level of awareness among them through the medium of health care workers, social media or due to increase level of literacy now as compared to earlier days.

In the current study, most common age group of the study subjects was 41 – 60 years in 45.24% of study subjects and women aged ≥ 61 years accounted for 10.71% of the cases. However, in a study done by B.S. Deswal et al [8] in a remote hilly population of West Kameng district of Arunachal Pradesh it was found that about 25.85% of the women were in the age group 40 – 59 years which is very less than the findings of the present study. This difference can be attributed to the large sample size of the study population in this study which is approximately double as that of present study.

The prevalence of alcohol use among women in the present study was found to be 16.7% and that of current consumers of alcohol was found to be 14.3%. In a study by Jeetendra Yadav et al [9] the prevalence of alcoholism among women was found to be 14.3% which is exactly similar to the finding of the current study. The similarity in the characteristic of study population could be a reason for such findings. Study done by Jeetendra Yadav et al was in north eastern state which also has predominance of tribal groups as in the state of Jharkhand. In a similar study conducted by B.S. Deswal et al [8] they found that prevalence rate of alcohol consumption was 34.7% among females.

In the present study it was found that 51.43% of the women aged above 61 years were addicted to alcohol intake and the association between age group and alcohol consumption was found to be significantly associated. This implies that elderly women are more addicted to alcoholism, this can be attributed to the fact that people now a days are aware about the health effects and the custom is gradually changing.

Conclusion: After conducting the present study it was concluded that, women in geriatric age group are most common consumers of alcohol and most women initiated alcohol consumption due to their custom and tradition. Family members played a very important role in persuading the women to start consuming alcohol.

Conflict of Interest: Nil

Financial Support: Nil

Acknowledgement : I express my sincere thanks to my guide and all faculties of my department for their permission and help in conducting this study. I am thankful to the staffs for their co operation and help. Last but not the least I express my thanks to my study subjects who gave me their consent and time for the conduct of study.

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