

Original Research Article

Pattern of Alcohol Use and Associated High Risk Behaviours among Alcohol Dependent Individuals in a selected De-Addiction Centre at Mangalore

Minnu Joy¹, Leena K.C², Rajeeve Mathew³

¹MSc Nursing, ²Professor, ³Assistant Professor,
Father Muller College of Nursing, Mangalore

Corresponding Author:

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ABSTRACT

Alcoholism is a serious health problem and is a major cause of disrupted family life, automobile and industrial accidents, poor job performance and increasing crime rates. The aim of my study is to assess the pattern of alcohol use and associated high risk behaviours among alcohol dependent individuals in a selected de-addiction centre at Mangalore. A descriptive design was used in the study. The sample consisted of 60 alcohol dependent individuals selected by convenient sampling method. Questionnaire on pattern of alcohol use and high risk behaviours were administered to collect data. The results of this study showed that 23.3% of subjects consumed 100 to 250 ml of alcohol almost everyday or everyday and 28.3% were unable to stop drinking once they started. 18.3% of subjects consumed spirits almost everyday/ everyday and 10% began their day with drinking. Among the subjects (41.7%) were unable to stay without drinking alcohol for a week. Highest risk (48%) was seen in the domain of self injury whereas the lowest risk was seen in the domain of sexual behaviour (17%). There was moderate positive correlation ($r=0.450$) between pattern of alcohol use and high risk behaviours of alcohol dependent individuals. There was a significant association of pattern of alcohol use ($p=0.035$) and high risk behaviours to the religion of the subjects ($p=0.038$).

Key words: De-Addiction centre; Pattern of alcohol use; High risk behaviours.

INTRODUCTION

Alcohol is consumed by large proportions of adults in most countries around the world. Though not causing significant problems for most drinkers, alcohol use is associated with numerous negative consequences for the drinker and society at large. Globally alcohol causes 3.2% of all deaths or 1.8 million deaths annually and accounts for 4.0% of disease burden. ^[1] Alcohol represents about 4% of the global burden of disease; this burden is higher in high-income countries and among men. Consequently, the global public health burden and economic costs of alcohol use are high. Alcohol consumption can result in

several negative consequences, ranging from health to social consequences and affecting friends or family and the workplace. ^[2] India is one of the largest producers and consumers of alcohol in the South East Asia Region. Of the total alcohol-users, 17% were classified as dependent users based on the International Classification of Diseases and Related Health Problems 10th Revision (ICD-10). ^[3] Apart from the fact that more and more people are drinking, a noteworthy trend is that more and more young people are starting to drink in this country. Data from Karnataka showed a drop from a mean of 28 years to 20 years between the birth cohorts

of 1920-30 and 1980-90. [4]

The morbidity and mortality associated with alcoholism is in part related to the link between alcohol use and high risk behaviour. Alcohol use has been shown to be positively correlated with a variety of risk taking behaviour such as high risk sexual behaviour, violent and criminal act, self injurious behaviour, and fatal injury including motor vehicle accidents. In individual based studies in the context of alcohol use, high risk behaviour is defined as an occurrence of event with probability of harm and bearing a temporal relationship to consumption of alcohol. [5]

Research suggests specific patterns of alcohol consumption increase the risk of morbidity and mortality. For example, heavy episodic drinking (HED), sometimes called “binge” drinking or the consumption of the equivalent of more than 60g of pure ethanol in a day, increases the risk for diverse alcohol-related harms. Several of these harms, including drunk driving, interpersonal violence, and injury have implications beyond the drinker by generating harm to others. Heavy episodic drinking is reported to be more common among drinkers in poorer drinking populations, within countries as well as globally. [6]

Today, alcohol dependence is recognized as a primary disease, a disease that progresses from bad to worse if not curbed, and a disease that can prove to be terminal due to various medical complications. In addition, the use of alcoholic beverages has several deleterious consequences on the family and society, in the form of damaged family and social relationships, reduced work output, road traffic accidents, and increasing crime rates. [7] Alcohol use is associated with risk behaviour which includes: drinking and driving, unprotected sex and multiple substance use. Data indicates that alcohol consumption is detrimental to cognitive behaviour and emotional development. Social consequences of alcohol abuse impose at least as much of a burden as the

alcohol effects on health. Alcohol abuse has a relevant association with violent behaviours. [6] It contributes to increased crime rate, violence and prevalence of injuries related to drinking and driving, thus, impacting society in negative and complex ways. [8] Studies on high risk behaviour and alcohol abuse have shown that high risk behaviour is associated with higher sensation seeking and risk taking attitudes. Keeping in view the above facts the present study was planned with the objective to determine the pattern of alcohol use among alcohol dependent individuals, to identify the high risk behaviours among alcohol dependent individuals and to find the correlation between pattern of alcohol use and high risk behaviours.

MATERIALS AND METHODS

Design

Descriptive design has been used to determine the pattern of alcohol use and associated high risk behaviours among alcohol dependent individuals

Participants

The study was conducted on 60 alcohol dependent individuals in a selected de-addiction centre. Convenient sampling method was used to select the subjects.

Setting

The study was conducted in Father Muller De-addiction centre, Mangalore.

Data Collection Instruments

Questionnaire was used to assess the pattern of alcohol use and associated high risk behaviours. The tool used to collect the data consisted of 3 sections. Section A: Baseline Performa (9 items), and Section B: Questionnaire on pattern of alcohol use (20 items), and Section C: Questionnaire on high risk behaviours following alcohol use (20 items). Under pattern of alcohol use questionnaire the content were distributed in 4 domains: frequency, amount, type and occasion. Under high risk behaviour questionnaire the content were distributed in 4 domains: crime and violence, self injury, sexual behaviour and road traffic accidents. The internal consistency of the tool was

obtained by test - retest method. The tool was administered to six alcohol dependent individuals in a selected de-addiction centre. Karl Pearson's co-relation co-efficient equation was used for the test. The reliability quotient for the questionnaire on pattern of alcohol use ($r=0.96$) and questionnaire on high risk behaviours ($r=0.93$) indicated high reliability of the tool.

Procedure

The alcohol dependent individuals who fulfilled the inclusion criteria were identified. The investigator introduced her self and explained the purpose of the study and informed consent was obtained. The average time taken to complete both questionnaires ranged between 15-20 minutes. The collected data was compiled for analysis.

Ethical issues

Ethical clearance to conduct the study was obtained from the Institutional Ethical Committee. The voluntary nature of research was explained to each participant, and issue of privacy and confidentiality were discussed. Trial was registered to government trail registry prior to the first enrolment.

Data Analysis

The data was analysed and presented under the following headings: description of baseline characteristics, determination of

pattern of alcohol use of alcohol dependent individuals, assessment of high risk behaviours following alcohol use of alcohol dependent individuals, relationship between pattern of alcohol use and associated high risk behaviours, association of pattern of alcohol use and selected baseline variables, association of high risk behaviours and selected baseline variables.

RESULTS

Sample characteristics of alcohol dependent individuals

Most (50%) of the subjects belong to age group of 29- 39 and are from Hindu religion (53.3%). Most of the subjects were married (66.7%), living in nuclear family (56.7%), in rural area (68.3%). Among the subjects majority of them (80%) got information about alcohol from their friends.

Pattern of alcohol use of alcohol dependent individuals

The pattern of alcohol use is summarised in terms of frequency, amount, type and occasion of alcohol consumption over the period of last one month, as reported by the subjects.

Table 2 depicts the distribution of subjects according to their frequency of alcohol use. Maximum subjects (38.3%) consumed alcohol for about 5 times a week.

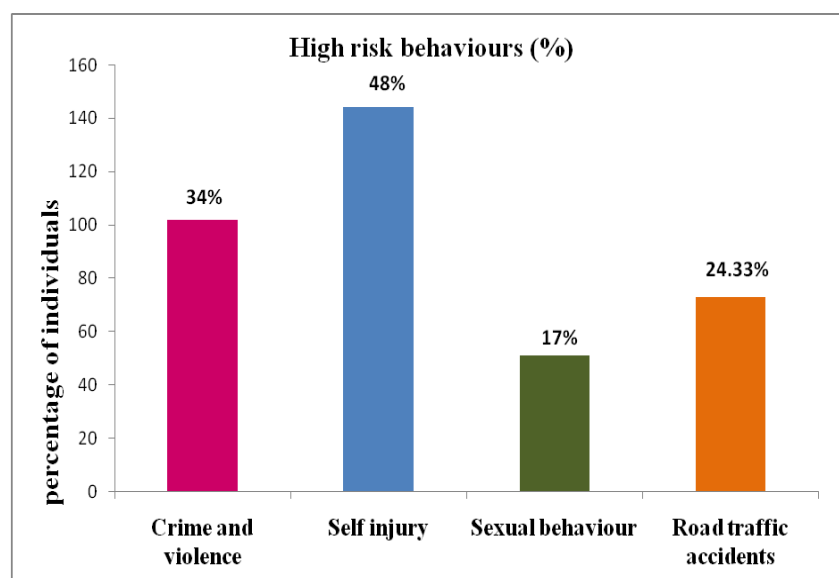


Figure 1: Frequency and percentage distribution of subjects, according to their high risk behaviours

Table 1: Frequency and percentage distribution of subjects, according to their Baseline characteristics. N = 60

Variables	Frequency (f)	Percentage (%)	Mean± SD
Age			
18-28	6	10	
29-39	30	50	36.08± 11.21
40-49	17	28.83	
50-60	7	11.7	
Religion			
Hindu	32	53.3	
Muslim	3	5	
Christian	25	41.7	
Education			
No formal education	4	6.7	
Primary	10	16.7	
Secondary	22	36.7	
Pre university	11	18.3	
Graduate/ diploma	11	18.3	
Postgraduate & above	2	3.3	
Occupation			
Agriculture	28	46.7	
Professionals	15	25	
Business	17	28.3	
Marital status			
Single	17	28.3	
Married	40	66.7	
Seperated	2	3.3	
Divorced	1	1.7	
Income (in rupees)			
Below 10000	22	36.7	
10000- 25000	29	48.3	16792± 16121.72
25000 and above	9	15	
Type of family			
Joint	24	40	
Nuclear	34	56.7	
Living alone	2	3.3	
Place of living			
Urban	19	31.7	
Rural	41	68.3	
Source of information about alcohol			
Parents	8	13.3	
Friends	48	80	
Books	2	3.3	
Media	2	3.3	

Table 2: Frequency and percentage distribution of subjects, according to the frequency of alcohol use. N = 60

Variables	Rarely		Occasionally		Often		Almost every day/ everyday	
	f	%	f	%	f	%	f	%
Consumed drink with alcohol content	3	5	18	30	17	28.3	22	36.7
Drank upto 3 pegs in one occassion	21	35	22	36	9	15	8	13.3
6 or more pegs in one occassion	21	35	21	35	11	18.3	7	11.7
Drank about 5 times a week	14	23	12	20	11	18.3	23	38.3
Drank about 3 times a week	18	30	14	23.3	14	23.3	14	23.3

Table 3: Frequency and percentage distribution of subjects, according to the amount of alcohol use. N = 60

Variables	Rarely		Occasionally		Often		Almost everyday/ everyday	
	f	%	f	%	f	%	f	%
Consumed 60-100ml on one occassion	13	21.7	18	30	14	23.3	15	25
Consumed 100-250ml on one occassion	20	33.3	16	26.7	10	16.7	14	23.3
Consumed above 450ml on one occassion	34	56.7	18	30	1	1.7	7	11.7
Able to stop drinking after 1 or 2 drinks	17	28.3	27	45	15	25	1	1.7
Not able to stop once started	14	23.3	16	26.7	21	35	9	15

Table 3 depicts the distribution of subjects according to the amount of alcohol use. 23.3% of subjects consumed 100 to 250 ml of alcohol almost everyday or everyday

and 28.3% were unable to stop drinking once they started.

Table 4 depicts the distribution of subjects according to their amount of

alcohol use. 18.3% of subjects consumed spirits almost everyday/ everyday and 10% began their day with drinking.

Table 5 depicts the distribution of

subjects according to the occasion of alcohol use. Among the subjects (41.7%) were unable to stay without drinking alcohol for a week.

Table 4: Frequency and percentage distribution of subjects, according to the type of alcohol use. N = 60

Variables	Rarely		Occasionally		Often		Almost everyday/ everyday	
	f	%	f	%	f	%	f	%
Consumed wine	38	63.3	12	20	7	11.7	3	5
Consumed beer	30	50	18	30	10	16.7	2	3.3
Consumed other spirits	10	16.7	19	31.7	20	33.3	11	18.3
Began work with drink in morning	31	51.7	15	25	8	13.3	6	10
Dranks in excess at one occassion	24	40	23	38.3	6	10	7	11.7

Table 5: Frequency and percentage distribution of subjects, according to the occasion of alcohol use. N = 60

Variables	Rarely		Occasionally		Often		Almost everyday/ everyday	
	f	%	f	%	f	%	f	%
Stays without drinking in a week	25	41.7	23	38.3	10	16.7	2	3.3
Interested in drinking alone	12	20	16	26.7	20	33.3	12	20
Alcohol use more on weekends	14	23.3	14	23.3	17	28.3	15	25
Attended alcohol parties	17	28.3	19	31.7	13	21.7	11	18.3
Prefered drinking night time	9	15	15	25	16	26.7	20	33.3

High risk behaviours of alcohol dependent individuals

The highest risk behaviour (48%) was seen in the domain of self injury whereas the lowest percentage was seen in the domain of sexual behaviour (17%).

Relationship between pattern of alcohol use and high risk behaviours

There was moderate positive correlation ($r= 0.450$) between pattern of alcohol use and associated high risk behaviours.

Table 6: Correlation between pattern of alcohol use and high risk behaviours. N = 60

Variables	Overall high risk behaviours	
	p value	Pearson Correlation (r)
Frequency	0.009	0.336
Amount	0.001	0.490
Type	0.001	0.412
Occassion	0.135	0.195
Overall pattern	0.000	0.450

Association of pattern of alcohol use with baseline variables

The findings of the study show that there was significant association of pattern of alcohol use and religion of the subjects ($p=0.035$).

Association of high risk behaviours with baseline variables

The findings of the study show that there was significant association of high risk

behaviours following alcohol use and religion of the subjects ($p=0.038$).

DISCUSSION

This study intended to assess the pattern of alcohol use and associated high risk behaviours of alcohol dependent individuals in a selected de-addiction centre. In this study, maximum subjects (38.3%) consumed alcohol for about 5 times a week. 23.3% of subjects consumed 100 to 250 ml of alcohol almost everyday or everyday and 28.3% were unable to stop drinking once they started. 18.3% of subjects consumed spirits almost everyday/ everyday and 10% began their day with drinking. Among the subjects (41.7%) is unable to stay without drinking alcohol for a week. A prospective study on alcohol drinking patterns among 100 males found that subjects preferred to take drinks occasionally (59%) and 20% preferred to take drinks on daily basis. Least number of cases (6%) preferred to take drinks thrice weekly. [9]

In this study, the highest percentage of high risk behaviours (48%) was seen in the domain of self injury whereas the lowest percentage was seen in the domain of sexual behaviour (17%). An exploratory study on high risk behaviours following alcohol use in alcohol dependent men admitted in a

Medical College Hospital in Bangalore found most common (51%) behaviour was road traffic accidents following alcohol use. Among the subjects (46%) reported engaging in high risk sexual behaviour, (24%) subjects showed self-injurious behaviour and (24%) engaged in criminal and violent acts. [5]

The findings of the study showed that there is a moderate positive co- relation ($r= 0.450$) between pattern of alcohol use and high risk behaviours. A descriptive study conducted among patients admitted to the Emergency Department (ED) of a public hospital, Argentina also indicated the positive co-relation between alcohol use and high risk behaviours. [10]

CONCLUSION

The main purpose of the study was to assess the pattern of alcohol use and associated high risk behaviours among alcohol dependent individuals. Majority of the subjects were aged 29- 39 years and from Hindu religion. Most of the subjects were married, living in nuclear family, in rural area. Among the subjects most of them got information about alcohol from their friends. There was a moderate positive co- relation between pattern of alcohol use and high risk behaviours. A significant association was found between religion and pattern of alcohol use. A significant association was found between religion and high risk behaviours following alcohol use. The present study is an attempt to assess the pattern of alcohol use and associated high risk behaviours among alcohol dependent individuals. The scope for detailed exploration in this field is immense.

Limitations

A structured questionnaire was used to collect information on pattern of alcohol use and associated high risk behaviours, the responses were therefore restricted. No attempt was made to reduce the high risk behaviours following alcohol use as assessed by high risk behaviour questionnaire. Generalization of the findings limited to the population studied.

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