

Prevalence of health problems among the regular alcohol users (chronic alcoholics) in urban and rural area of district Amritsar: Punjab: India

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DOI: <https://doi.org/10.17511/ijphr.2019.i1.05>

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Introduction- The menace of alcohol abuse in the Punjab State is not less prevalent than the rest of India. Alcoholism in Punjab is assuming an alarming proportion. Chronic alcohol abuse may lead to mal-absorption of various substances, calcium, vitamin B complex and iron leading to health problems. **Objective-** To assess the impact of prolonged alcohol use on different systems of the body leading to health problems. **Methods-**The present cross-sectional study was conducted in rural and urban field practice areas attached to the Department of Community Medicine, Government Medical College, Amritsar. The target population in urban area was 847 and in rural area it was 737. Three sets of proforma i.e. A, B and C were evolved. **Results-** Majority of the regular alcohol users were suffering from different liver diseases like fatty infiltration 60 (56.08%), alcoholic hepatitis 25 (23.36%), alcoholic cirrhosis 10 (9.35%). In cardiovascular system assessment, 23 (21.50%) were suffering from severe hypertension. Recurrent chest infections were observed in 32 (29.91%). In CNS assessment it was observed that 37 (34.58%) were suffering from loss of recent memory and 51 (47.68%) from insomnia. Delayed ejaculation was observed in 30 (28.04%). **Conclusion-** There is urgent need for further indepthcommunity based research in a larger sample and for a longer period, should be undertaken jointly by the specialists from the medical profession, social scientists and enforcement agencies to have real picture of alcohol consumption and its effect on health.

Keywords: Regular users, Chronic alcoholics, Malnutrition, Anaemia, Hypertension, Hepatitis, Liver disease, Tremors, Insomnia

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Yash Mitra, Assistant Professor, Department of Community Medicine, Punjab Institute of Medical Sciences, Jalandhar, Punjab, India. Email: mitrayash@yahoo.com	Singh G, Mitra Y, Singh J, Padda AS. Prevalence of health problems among the regular alcohol users (chronic alcoholics) in urban and rural area of district Amritsar: Punjab: India. Public Health Rev Int J Public Health Res. 2019;6(1):35-40. Available From https://publichealth.medresearch.in/index.php/ijphr/article/view/98	

Manuscript Received 2019-02-02	Review Round 1 2019-02-10	Review Round 2 2019-02-16	Review Round 3	Accepted 2019-02-20
Conflict of Interest No	Funding Nil	Ethical Approval Yes	Plagiarism X-checker 6%	Note
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Introduction

Alcoholism is a disorder characterised by pathological pattern of alcohol use that causes a serious impairment in social or occupational functioning, is termed as alcohol abuse, or, if tolerance or withdrawal is present, it is called alcohol dependence.

Alcoholism, is a progressive and permanent disease. Apart from this, excessive use of alcohol effects the functioning of various systems in the body and leads to several complications: Alcohol related problems or diseases affect 5-10% of World's population each year and accounted for approximately 3% of the global

Burden of the diseases. 2 million deaths occur world-wide each year due to alcohol consumption, of which about 50% are from cirrhosis of liver, 35% from cancer of liver or oesophagus, 10% from alcohol dependence syndrome and about 5% from injuries caused by motor vehicles [1].

In USA, the alcohol related problems cost nearly \$ 43 billion/year as a result of lost production, motor vehicle accidents, crime, social problems and demand for health care services [2]. India has always been described as an abstinent culture i.e. society where the majority do not drink and have clearly negative attitudes towards alcohol use.

In such a situation, one would expect the overall consumption level to be generally low. However, studies show that alcohol use is infact fairly wide spread and social attitudes are more ambivalent than negative. The menace of alcohol abuse in the Punjab State is not less prevalent than the rest of India. Alcoholism in Punjab is assuming an alarming proportion.

Alcoholism is a chronic illness, psychic, somatic or psychosomatic, which manifests itself as a disorder of behaviour. It is characterised by the repeated drinking of alcoholic beverages, to an extent that exceeds customarily, dietary use or compliance with the social customs of the community and that interferes with the drinker's health or the social or economic functioning.

The most prevalent disorders of alcohol use were diseases of the GIT, Liver, Gall bladder and Pancreas, Bronchitis, Emphysema and Asthma. Involvement of CVS i.e. hypertension, psychiatric disorders associated with alcoholism was neurosis. There are present various personality disorders.

Chronic alcohol abuse may lead to malabsorption of various substances, calcium, Vitamin B complex vitamins and iron [3].

Objectives-To determine the prevalence of alcohol related health problems among the regular alcohol users (chronic alcoholics).

Methods

Type of Study: Community based cross-sectional study

Sampling Method: Random Sampling Method was used for sample collection. The present study was conducted in rural and urban field practice areas attached to the Department of Community Medicine, Government Medical College, Amritsar, covering a population of 10000 in each area by adopting the systemic random sampling technique. Out of a total population of 10000 (5000 each from urban i.e.

Urban Training Health Centre, Chowk Fowara, Amritsar city and rural i.e. village Gumtala Field Practice areas by selecting 200 houses from each area (considering a total average number of family members as five). The target population in urban area was 847 and in rural area it was 737. Three sets of proforma i.e. A, B and C were evolved. Study was carried out in the year 1995-1996.

The assessment of health status of regular alcohol user was done by conducting the general physical examination and systemic examination. The information and findings thus obtained were recorded in pre-structured and pre-tested proforma-C. The data thus obtained was analysed and valid conclusions were drawn.

Inclusion Criteria: The person consuming 200 ml or more of 40-60% concentration of alcohol daily, for four days or more in a week for the last five years or more and greater than 10 years of age, was considered as an alcoholic/ regular user and was included in the study.

The regular users were further classified into mild (30 ml -120 ml), moderate (120-200 ml) and heavy drinkers (200-320 ml and above). Secondly who has given his written consent to participate in the study [1].

Exclusion Criteria: The alcoholics who has not given written consent and was not fulfilling the criteria for regular alcohol user.

Statistical Methods: It is a Cross-sectional

Observation study based on the general physical examination of the participants, so the data regarding various diseases was collected and depicted in the tabulated form. Hence no statistical methods were employed.

Ethical Consideration and Permission: The ethical consideration and permission was obtained from the Institutional Ethical Committee

Results

Chronic alcoholism is a disease prevalent all over the world. The aim of this study was to find the proportion of involvement of different systems of the body by the regular use of the alcohol in this part of the country.

Table 1 depicts that out of total 107 regular alcohol users in urban and rural areas, 77 (72.12%) had one or the other disease in the past.

Majority of the alcoholics were suffering from common ailments of gastritis, 73 (68.22%), jaundice 26 (24.29%), loss of weight and appetite 64 (59.81%).

In the general physical examination of the alcoholics, it was observed that majority 98 (91.58%) of them were suffering from Mild, Moderate and severe anaemia. Malnutrition 64 (59.81%), weight loss 86 (80.37%), tremors 73 (68.22%), poor oro-dental and personal hygiene 100 (93.45%) and 42 (39.25%) respectively was observed in the total urban and rural population.

Table 2 shows that on examination of gastrointestinal system (GIS), majority of the regular users found to be suffering from different liver diseases i.e. Fatty liver 60 (56.08%), alcoholic hepatitis 25 (23.36%), alcoholic cirrhosis 10 (9.33%), oesophageal varicosity 7 (6.54%), chronic pancreatitis 5 (4.67%).

On examination of the cardiovascular system, Table 3 shows that mild hypertension (Grade I, B.P.140-180/90-105 mmHg) in 5 (4.67%), moderate (Grade II, B.P.180-210/105-120 mmHg) in 14 (13.08%) and severe (Grade III B.P.>210/>120 mmHg) in 23 (21.50%) was observed.

Table 4 shows that on examination of respiratory system, chronic bronchitis was observed in 16 (14.95%), asthma 14 (13.08%), Tuberculosis in 2 (1.87%) and recurrent chest infections in 32 (29.91%) of the alcoholics.

In Table 5, the assessment of central nervous system shows that 37 (34.58%) were suffering from loss of recent memory and 51 (47.68%) from insomnia which is a common feature of chronic alcoholism. Alcoholic dementia was observed in 60 (56.07%), Disturbance of memory and thought 29 (27.10%), impaired social and occupational functions 14 (13.08%), withdrawal stage behaviour 17 (15.89%).

Polyneuritis (Numbness, Tingling sensation, Pin pricks was found in 50 (46.72%), Swelling in legs, Fatigue tenderness in 14 (13.09%) and pain in Calf muscles wasting of muscles 14 (13.09%).

Table 6 shows that as per the assessment of the reproductive system, it was observed that 91 (83.05%) and 35 (32.71%) were suffering from decreased sexual desire and performance respectively. The alcohol has direct effect on the sexual activity and performance, due to consumption of large amount of concentrated alcohol for a prolonged period.

Discussion

It may be concluded that alcohol is one of the beverage which is commonly used and socially accepted. It has an effect on almost every organ of the body, affecting, an individual's physical and mental health and also his socio-economic status.

No female used alcohol or any other drug in both urban and rural area, as taking of alcohol and other intoxicants by women is a taboo. Hence female population has been excluded from the assessment of the health status. 10 regular alcohol users (7 in urban and 3 in rural) were not fulfilling the criteria for chronic alcoholics. They were consuming <200 ml for a period of <5 years.

The ill effects of alcohol on various organs of the body may be due to use of mostly concentrated home-made and country made liquor in rural area and country made or IMFL in urban area. The second factor was that people do not take much food along with alcohol and also due to prolonged use of alcohol.

The poor intake of food leads to anaemia and weight loss along with loss of appetite. Low economic status also creates economic problems for purchase of nutritious food for himself and family. Therefore due to these leading factors, the chronic alcoholics were suffering from one or the other morbidity pattern and majority of them were suffering from

Different types of liver diseases i.e. fatty liver, alcoholic hepatitis and alcoholic cirrhosis.

This indicates that a large number of regular alcohol users in both the urban and rural areas were suffering from health problems in the past and even they were continuing to drink. In a study gastritis and dyspepsia was found in 70% of cases [4].

Anaemia was found in 90% of cases in this part of country (Amritsar; Punjab). Hillman (1964) Loss of weight was observed in 63% of cases. The difference between this study with that of Western countries is due to the fact that there is a very less quantity of food intake along with concentrated alcohol consumption in this part of the country [4] [5].

With the withdrawal of alcohol majority of them were suffering from tremors, 43 (40.18%), craving and insomnia 21 (19.63%) and morning headache, shakes, irrelevant speech, palpitation and dyspnoea by 9 (8.41%). Tremors were also observed in 56% of alcoholics [4].

In two different studies the Liver enlargement regardless of the type of alcoholic liver disease was present in 82% of alcoholics in one of the study and it was 80% in the study conducted by another author [4] [6]. In this part of the country hypertension was observed in 16% of alcoholics whereas in western studies it was found as 18% [4] [7].

In western studies, chronic bronchitis and TB was observed in 4 (54% and 1.73% respectively). Where as in this part of the country TB was found in 5% of alcoholics.

The incidence of tuberculosis in rural population in this part of the country is due to the fact that they consume less food leading to malnutrition and decrease in the level of immunity causing various chest infections and TB. In urban area, the incidence of chest infections is also high due to the same reasons [3] [4].

In one of the western studies neuropathy was found in 10% of alcoholics whereas in this part of the country, the neuropathy was found in 26% of alcoholics and in another study in a western country it was found as 21% respectively.

The high incidence of neuropathy in this study might be due to increased prevalence and free availability of alcohol which is very concentrated. The second factor might be poor intake of nutritious food with

Less quantity.

Kumar (2002) in a study observed that the clients often feel guilt, shame, embarrassment, depression (47%), anxiety (55%) and feel isolated as a result of drug misuse and many (35%) had frequent thoughts of suicide [2] [4] [7][8] [13].

In a study conducted to examine the association between partner alcohol problems and selected physical and mental health outcomes, it was found that physical health measures included poor health, mental health i.e. mood and anxiety disorders.

Alcohol problems were more likely to experience victimization, injury, mood disorders, anxiety disorders and being in fair or poor health than women whose partners did not have alcohol problems [9].

In an epidemiological survey conducted to estimate the pattern of alcohol and other substance dependence in rural and slum population of Chandigarh, 6.88% individuals fulfilled dependence criteria of ICD-10. Alcohol was the primary substance of dependence for majority of urban slum and rural areas.

Majority of them reported having health related complications (85.71%) due to drug dependence. The psycho-social as well as the economic problems can produce an environment of chaos and misery. Families of the alcoholics have been described as experiencing increasing stress, anxiety, loneliness, depressive episodes, guilt and suicide tendencies.

Contributing further to the impact of drug abuse on the family, psychological problems can have profound effect on the vulnerability of the family [10]. Kley et al (1975) observed loss of sexual activity and performance in 40 to 77% of male alcoholics [11].

Conclusion

There is an urgent need for to conduct further in-depth community based research in a larger sample and for a longer period jointly by the specialists from the medical profession, social sciences, and enforcement agencies to have a real picture of alcohol consumption and its effects on health and socio-economic consequences affecting the individual, family and community. This will help in developing a comprehensive programme to tackle the alcohol menace which is destroying the social fabric of the family, society and nation leading to

Great loss of productivity and overall development.

Table-1: General Physical Examination of Regular Alcohol Users

	Urban (N=41)		Rural (N=66)		Combined (N=107)	
	No.	% age	No.	% age	No.	% age
Anaemia (Mild, Moderate, Severe)	37	90.24	61	92.43	98	92.58
Malnutrition	22	43.65	42	63.63	64	59.81
Weight Loss	30	73.17	56	84.85	86	80.37
Tremors	25	60.97	48	72.72	73	68.22
Poor Orodonatal Hygiene	37	90.24	63	95.45	100	93.45
Personal Hygiene	13	31.71	29	43.93	42	39.25

Table-2: Showing Pattern of Ailments in GIT in Chronic Alcohol Users

	Urban (N=41)		Rural (N=66)		Combined (N=107)	
	No.	% age	No.	% age	No.	% age
Oesophageal Varicosity	4	9.76	3	4.55	7	6.54
Fatty Liver	21	51.22	39	59.10	60	56.08
Alcoholic Hepatitis	9	21.95	16	24.24	25	23.36
Alcoholic Cirrhosis	4	9.76	6	9.10	10	9.35
Pancreatitis	3	7.31	2	3.01	5	4.67

Table-3: Showing Hypertension (CVS Problem).

Age in Years	Hypertension	Urban (N=41)		Rural (N=66)		Combined (N=107)	
		No.	% age	No.	% age	No.	% age
10-20	Normotensive 110-140/ 60-90 mmHg	24	58.54	41	62.12	65	60.75
20-30	Mild (Grade I) 140-180/ 90-105 mmHG	2	4.88	3	4.35	5	4.67
30-40	Moderate (Grade II) 180-210/ 105-120 mmHG	5	12.19	9	13.64	14	13.08
40-50 and above	Severe (Grade III) >210/ <120 mm HG	10	25.39	13	19.69	23	21.50
		17	41.46	25	37.88	42	39.25

NB: Classification of hypertension is according to WHO (1966) criteria.

Table-4: Showing Pattern of Morbidity of Respiratory System in Regular Users.

Morbidity	Urban (N=41)		Rural (N=66)		Combined (N=107)	
	No.	% age	No.	% age	No.	% age
Chronic bronchitis	3	7.32	13	19.69	16	14.95
Asthma	5	12.19	9	13.64	14	13.08
TB	-	-	2	3.03	2	1.87
	8	19.51	24	36.36	32	29.91

Recurrent Chest Infection	14	34.15	18	27.28	32	29.91
No ailment	19	36.34	24	36.36	43	40.19

Table-5: Showing Morbidity of Polyneuritis in Central Nervous System.

Morbidity	Urban (N=41)		Rural (N=66)		Combined (N=107)	
	No.	% age	No.	% age	No.	% age
Numbness tingling sensation Pin Pricks	19	46.34	31	46.96	50	46.72
Swelling in legs fatigue, tenderness pain in calf muscle	5	12.19	9	13.64	14	13.09
Wasting of muscles feeling coldness	8	19.52	6	9.09	14	13.09
Total	32	78.05	46	69.69	78	72.89

Table-6: Showing Morbidity in Reproductive Systems.

Morbidity	Urban (N=41)		Rural (N=66)		Combined (N=107)	
	No.	% age	No.	% age	No.	% age
Decreased sexual desire	32	78.05	59	89.39	91	85.04
Decreased Sexual Performance (Impotency)	10	24.39	25	37.88	35	32.71
Delayed ejaculation	11	26.82	19	28.79	30	28.04

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