

AN EPIDEMIOLOGICAL STUDY OF ALCOHOLISM*

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SUMMARY

The study was aimed to assess the prevalence of alcoholism in Madras City. A locality in North Madras was chosen and the houses were selected at random. The family members in these houses were assessed using the Michigan Alcoholism Screening test. 222 persons were thus studied. 16.67 of the males were found to be suffering from alcoholism.

Epidemiological aspect of alcohol abuse has received considerable attention during the recent year. Most of the works relate to different groups of the population such as college students (Varma and Dang, 1979; Dube et al., 1977), medical students (Sethi and Manchanda, 1977, Ponnudurai et al., 1982), Junior doctors (Choudhary et al., 1980; Ponnudurai et al., 1984), non student youth labourers (Gupta et al., 1987).

Some workers have also studied alcohol abuse in general population (Lal and Singh, 1967; Deb and Jindal, 1974; Sethi et al., 1987). Many studies have assessed the prevalence rate of drug abuse which includes alcohol also. Thus, Elnagar et al. (197) reported a prevalence rate of 13 per 1000 in the state of West Bengal, while Nandi et al. (1975) gave a figure of 0.9 per 1000 of the total population for the same state. Similarly in Uttar Pradesh, Dube and Handa (1971) from Agra reported 22.8 per 1000 as suffering from the problem of drug abuse while Thacore (1972) from Lucknow gave a figure of 13.55 per 1000. However, in all these studies delineation of the different drugs have also been made and among them alcohol was by far the commonest

substance abused, accounting for 69-90% of the subjects investigated.

The instruments used in most of the studies have been self innovated proformas and in some, already constructed questionnaires. There has been also considerable inconsistency in the criteria adopted for the identification of the abusers and the patterns of abuse.

Keeping in view of these methodological variations and consequent inconsistent result, the present study was undertaken in order to assess the prevalence of alcoholism in a group of general population in the city of Madras by using a standard instrument.

Material and Method :

A residential area i.e. the North Madras was chosen for this study. The locality had a population of 2334 and 262 houses. The average number of persons in each house was estimated to be about nine. Those below 15 years were excluded from the study. Since it was desired to have a sample size of atleast 200 subjects, using the enumeration register of the Public Health Dept., every fifth house in that locality was elected. Fifty two houses were thus chosen. But seven of the

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houses which were found locked had to be skipped and their occupants numbering 34 who were out of station could not be interviewed. Hence, only 45 houses and their occupants were finally undertaken for the investigation. All the family members in these selected houses were interviewed. If more than one family was living in a house than they were also included in this study.

The Michigan Alcoholism Screening Test which was translated in Tamil was used. Wherever, some of the occupants of the house have gone out on some work, the history about them was obtained from the other responsible members of the family who were present in the house at the time of the study. Thus, the history of 16 subjects (M-12, F-4) had to be obtained from their family members only. In such instances, the questions were modified to elicit the relevant information from them. 222 persons were thus assessed for alcoholism. Among them 120 were males. Their occupation and income were also noted.

The authors were helped by the staff of the Public Health Dept. who were already familiar with the locality and the people, and also by the students of the Stanley Medical College. All the subjects were cooperative and none refused the interview. Individuals who scored 5 and above only, on MAST, were considered to be suffering from alcoholism. Further, only the current users were considered for the diagnosis of alcoholism.

Results and Discussion

Going by the Michigan Alcoholism Screening Test 16.67% of the males in our sample were found to be suffering from alcoholism. Those who were in the age group of 45-54 formed the majority (57.14%) (See Table). None of the females in our study was found to have abused alcohol.

TABLE
Frequency of alcoholism among males

Age group	No. of persons studied	Persons having alcoholism	%
15-24	43	3	6.98
25-34	30	4	13.33
35-44	14	3	21.43
45-54	14	8	57.14
>55	11	0	—
Not known	8	2	25.00
Total	120	20	16.67

As regards the diagnosis of alcoholism there are several criteria and definitions. These are Michigan Alcoholism Screening Test (MAST) (Selzer, 1971), Diagnostic and Statistical Manual, 3rd Edition (DSM III) (APA, 1980), Research Diagnostic Criteria (RDC) (Spitzer et al., 1978) and ICD-9 (WHO, 1977). Patient diagnosed to have 'alcoholism' also, but failure to fulfill other criteria could also be a possibility.

The numerous reports of the use of MAST in diverse populations and the generally encouraging reviews of its utility as an alcoholism detection technique suggests that MAST is an efficient and economical screening device and has withstood the test of time (Knox, 1976; 1978; Miller, 1976; Landeen et al., 1977; Zung, 1980; Paton and Saunders, 1989). Our experience is also in this direction. Even as the evaluation with MAST was done by one author, wherever history of alcohol abuse was encountered, further cross validation was done by another author also by evaluating the detailed history and psychiatric profile of these individuals. Thus, the chances of omi-

ssion or overinclusion was avoided. Though a score of 4 could suggest the presence of alcoholism, to ensure perfect validity as recommended by Selzer (1971), scores of 5 and above only were considered. The prevalence rate of 16.67% could have been due to various factors including the void in the prohibition policy and easy availability of liquor.

Some have studied the population using the criteria of indulgence in a drug with a frequency of at least once a month. Adopting this criteria Sethi and Trivedi (1979) found 82.5% alcohol abuse in a rural population. When the same criteria was applied to study its prevalence among the internees 22.67% of them were found to be alcohol abusers (Ponnudurai *et al.*, 1984). Gupta *et al.* (1937) by using the WHO questionnaire (Smart *et al.*, 1980) assessed the non student youth labour. Current users of alcohol who had used daily or weekly in the previous month, in their study formed 27.6% and heavy users, (i.e. use on daily basis) 3.8%.

In the present study, since it was desired to assess the prevalence of the problem drinkers in the community, MAST was applied. Two of the alcoholics (10%) had been arrested by the police for creating law & order problem.

Though the authors came across a few heroin addicts and cannabis abusers, keeping in view of the aim and objective of this they were considered as alcoholics only when they had scored adequately on MAST.

Majority of sufferers (50%) were in the lower income group (upto Rs.1000/- p.m.). Sizable proportion of them were in the cadre of last grade Govt. service and unskilled labourers (25% & 20%).

The application of MAST in this epidemiological study has yielded the desired results. Although alcoholism has been identified in 16.67% of males in our population, the figure could be even much

higher if all patterns of alcohol abuses are taken into consideration.

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