ABC of Alcohol

A PATON
J F POTTER
J B SAUNDERS

NATURE OF THE PROBLEM

Estimates of the number of alcoholics are unsatisfactory because of lack of a suitable definition, difficulties of establishing danger levels of alcohol intake, and, above all, the formidable problems of carrying out surveys. One such survey of drinking habits, for example, uncovered less than half the known alcohol consumption. Variations in drinking patterns due to class, religion, and geographical regions are considerable.

The prevalence of alcoholism in a particular country has been related to the average alcohol intake per head: when consumption per head rises so does the number of alcohol-related problems. This is due to the shape of the distribution curve for alcohol consumption (Ledermann curve), which is continuous and skewed (log normal distribution), rather like that for blood pressure. As with the latter there is no sign of populations of "alcoholics" and "normal drinkers": a rise in overall consumption increases the number of heavy drinkers. While the Ledermann hypothesis has been disputed, it can provide an approximation of the number of people in a community drinking more than a given amount of alcohol.

For much of this century Britain has been one of the most abstemious countries in the developed world. A dramatic and continuing rise in a variety of alcohol-related problems has accompanied a steady increase in alcohol consumption per head in the past 20 years. Convictions for drunkenness currently exceed 130 000 a year, drink-driving offences total 70 000, and admissions for alcoholism to psychiatric hospitals 20 000. The number of psychiatric admissions for alcoholism has risen 25 times in as many years and now accounts for over 10% of the total. Alcoholism causes 10 000 premature deaths a year, including its contribution to accidents and suicides.

Socioeconomic influences

Important socioeconomic factors which lead to problem drinking are increasing unemployment, a competitive and stressful lifestyle, failure to adapt to a city environment, and depression. Increasing consumption has also been encouraged by a steady fall in the economic cost of alcohol; a higher proportion of earnings is being spent on it. Beer accounts for two-thirds of all alcohol drunk in Britain, but consumption has increased by only 45% since 1960. By contrast, drinking of wine and spirits has risen by 290% and 155% respectively, and the most striking increase has been among women.

The increase in the number of women drinkers is reflected in changes in the sex ratio of patients with alcohol-related problems. Ten years ago, for example, alcoholic cirrhosis was five times commoner in men than in women, but the male:female ratio has now fallen to 2:1. Nearly as many women as men now seek help from counselling services.

The average age at which teenagers start drinking in bars is 16 years; between 18-24 years 18% of men and 6% of women are regular heavy drinkers. Many of these subsequently reduce their intake, but physical disorders like cirrhosis may occur under the age of 30.

Occupational groups, such as business executives, members of the armed Forces and merchant navy, publicans, caterers, and hoteliers, are prone to drinking problems. The mortality rate from cirrhosis among doctors is over three times the national average. Young women in competitive careers and suburban housewives whose children have left home are also at risk.

Approximately 10% of the UK population are teetotal, while two-thirds of women and three-quarters of men drink regularly. The number of heavy drinkers (more than 80 g alcohol daily for men and more than 40 g daily for women) was estimated at two million during the 1970s, a figure which may now be out of date. About one-third of these are problem drinkers, and at least one in 10 are so *dependent on alcohol* that they suffer withdrawal symptoms when they stop drinking. For every problem drinker several members of the family suffer from the effects of his alcoholism. Relatively few alcoholics conform to the unemployed, dispossessed stereotype of the "skid row" alcoholic conspicuous in larger cities.

Some statistics

UK population	55m
Regular drinkers	36m
Heavy drinkers	2m
Problem drinkers	700 000
Addicted drinkers	200 000

A third of patients in hospital are found to be heavy drinkers; and a third of patients attending an accident and emergency department during the evening had blood alcohol concentrations above the present legal limit of driving. While it is well known that alcohol contributes to accidents, overdoses, head injuries, and admissions for drunkenness, its more subtle effect on admissions to hospital has hardly been explored.

Up to one in five healthy men attending health screening programmes are found to have biochemical evidence of heavy alcohol consumption, though they are a selected population coming mainly from the upper social classes.

A general practitioner with 1800-1900 adults on his list will have something like 100 heavy drinkers, 40 problem drinkers, and 10 who are addicted to alcohol. Surveys suggest that only 1 in 10 heavy drinkers is known to the practice.

Many doctors and health professionals still fail to recognise the heavy drinker and even the problem drinker. Greater awareness is urgently needed: (a) to allow intervention at a stage when something can still be done, and (b) to provide better statistics.

The costs of alcoholism to the national economy are difficult to calculate, but a recent estimate put them at £1000m a year, based on costs of health care and social support for problem drinkers and their families, premature retirement, and accidents at work and on the road. This did not take into account reduced industrial efficiency and the intangible social cost of broken marriages, wife and child battering, and unemployment.

Against this might be set the £4000m revenue from duty and exports and the fact that nearly three-quarters of a million people are employed in the drinks industry; in addition 90% of drinkers enjoy alcohol without experiencing harmful effects.

Even so alcoholism cannot be viewed solely in terms of monetary costs, and most people concerned with the treatment of alcoholics believe that we have reached a stage where the social disadvantages outweigh the economic benefits.

Dr A Paton, MD, FRCP, was formerly consultant physician, Dr J F Potter, BM, MRCP, is medical registrar, and Dr J B Saunders, MB, MRCP, was Sheldon clinical research fellow at Dudley Road Hospital, Birmingham.

The Ledermann curves were adapted, with permission, from an article by Dr J de Lint in *British Journal of Addiction* 1975;70:3-13 and the 3rd and 5th figures were reproduced by permission of the Office of Health Economics from *Alcohol: reducing the harm*, 1981.