Alcohol and Alcoholism

Preventing alcohol problems: a job for Canute?

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Journalists reflect tendencies that we all have when they polarise issues and try to force opposite sides into acrimonious and fruitless argument. In this way prevention enthusiasts are sometimes pitted against those who work treating established disorders, but often—and particularly with alcohol problems—the division is false. Prevention and treatment overlap: for instance, is encouraging those who are just beginning to develop problems from drinking to come forward for treatment tertiary prevention or early treatment? This policy has been called both, and it is both. Only a few people in Britain specialise in alcohol problems, and these specialists are adept at moving from prevention to treatment issues. Increasingly, those concerned with treatment use educational techniques associated with prevention, and prevention enthusiasts borrow techniques—for instance, self-monitoring—developed in treatment programmes.¹

Eclecticism is not just the best policy for responding to alcohol problems, it is the only policy. Alcohol cannot be banished from Britain: though to some people alcohol is the “devil in solution,” to most of us life without alcohol is unimaginable. Prohibition does not work, as has been shown not only in the United States but also in Finland and other countries, and while there is alcohol there will be associated damage, and treatment facilities will always be needed. Similarly, health education about alcohol cannot be abandoned on the grounds that it has produced no change in drinking behaviour: any political action to limit alcohol consumption will be unacceptable to the electorate unless an educational campaign has explained why such action is necessary.

If alcohol damage in Britain is to be reduced then treatment, education, and political measures will all be necessary. Nevertheless, when resources are limited—and they always are and always will be limited—then decisions must be made on priorities. This is why a careful consideration of the options is important. Various preventive strategies will be considered in this article, while the next article will examine treatment.

Education on alcohol

Preventive measures may be directed at individuals or they may work by manipulating the environment in which those individuals live. Health education aims at the individual, and in principle few people object to educating people about alcohol problems, whereas many object strongly to political intervention in price, advertising, or licensing. Some, however, worry about the morality of trying to change people's behaviour (they see a distinction between education and propaganda), while others are concerned about the effectiveness of health education.

Then some critics think that health educators may fail because they view their role in too restricted a way. Too often, these critics say, health educators have picked one problem—for example, smoking, alcohol, or obesity—and pushed hard at individuals, communities, and governments to produce “improvement.” But might there not be something tactically mistaken, even obscene, about preaching to a chronically unemployed man living in an inner-city slum about his smoking and drinking? Should not the health educators think more broadly and try to do something about his housing, his unemployment, or whatever? The usual challenge to this idea is that it is Utopian, but the proponents of such broad thinking have an answer. They say that although their approach might be labelled Utopian the more restrictive approach is as doomed as trying to eradicate cholera by asking people to improve their personal hygiene. Better, they say, to try to find ways of achieving what may at the moment look impossible than wasting time on what is bound to be hopeless.

Such thinking, however, is mostly for the future: when we look backwards the evidence is that so far health education about alcohol problems has not succeeded in reducing those problems. For instance, in 1976 the Scottish Health Education Unit mounted a national campaign on alcoholism. The campaign used television and press advertising, and its main aim was to encourage people with problems to come forward for treatment. An evaluation showed that: more people did come forward for treatment after the campaign; about three-quarters of the adult population were reached by it; those who had been exposed to the campaign did know a little more about alcoholism, but the general level of public knowledge had not significantly increased eight months after the campaign began; and patterns of alcohol consumption had not changed.² Repeated evaluations of the Health Education Council campaign in the north east of England have shown no change in drinking behaviour but some small change in attitudes towards drink and drunkenness.³

These disappointing results, which are similar to those of other countries, have led health educators to consider more closely what they are trying to achieve and how they can best achieve it. In retrospect, they were naive to expect or even hope for changes in behaviour after such short campaigns. Changes in behaviour are the end of a complicated process whereby first the subject (or victim?) receives and understands the message delivered by the educators; then if he believes the message his attitude may change; and eventually he may change his behaviour. But there are many hurdles at which the health educator may fall.

Firstly, he must reach his audience. The evaluation of the Scottish campaign showed that a high proportion of the population can be reached in a short time by using mass media, and the HEC experience confirms this. But what message should be delivered, and how can it be made intelligible? With anti-smoking education the message is “don't smoke,” but what should the message be for alcohol? The Royal College of Psychiatrists' report⁴ recommended that to prevent chronic physical damage people should not drink more than four pints

of beer, or four doubles of spirits, or one standard-sized bottle of wine a day. Even accepting these as reasonable figures (and some do not) it is a complicated message to transmit in an advertisement, and it is clearly inappropriate for the bulk of the population, who drink much less than that anyway. Also, the limits have been suggested by doctors and are designed to stop an individual developing dependence or cirrhosis of the liver, but social damage may result from consumption of much smaller amounts. Health educators may make a serious mistake if they emphasise the medical consequences of alcohol abuse at the expense of the social consequences. So should the message simply be drink less? That is a vague message and no use to the man who drinks eight pints a day and who feels he is doing well if he cuts down to six.

The Health Education Council has thought about this problem of what message to deliver in relation to its campaign in the north east and this year for the first time has included information on how much people should drink. The advice is "stick to your two or three pints (that's the same as drinking two or three double whiskies) two or three times a week." The message that two pints is the same as two double whiskies is also new for health education, and the HEC has been impressed by the response to these messages from the people of the north east. Whether their impression of a good response will be borne out by evaluation remains to be seen.

An alternative approach is to "fill the information gap" and make people aware of the dangers of alcohol. The Royal College of Psychiatrists recommended that health educators should, "attempt continuously to provide the knowledge needed to inform public debate so that acceptance may be won for the need for a broad range of preventive measures. The fact that alcohol is a drug should be made widely known, the meaning and implications of dependence, the nature and extent of disabilities, the dangers of harm done to others, and the causes of harmful drinking. In particular, the relationship between national per caput consumption and the extent of the country's drinking problems should be brought to public attention."⁴ That seems a formidable task and suggests that the college has overestimated both the interest and intelligence of the population and the power of health educators. Explaining the link between consumption and damage to the mass of the population seems a particularly tall order, but an important problem with such grand discussions is that there is no accompanying line of action. A man may be made anxious by alcohol problems but what is he to do? What does it mean to him in his daily life?

The problem of interpretation is another serious one for health educators: too often health education has consisted of middle-class messages (perhaps like the College of Psychiatrists' one) for working-class audiences. The messages delivered, even if well worked out by the campaigners, are often not understood by the audience. Pretesting messages may circumvent this problem. But even if the messages are understood they may not be believed because they conflict with traditional wisdom or because the target individual simultaneously receives contrary information—for instance, that rum means naked ladies and tropical beaches rather than shrivelled livers and broken homes. The final problem is that even if the subject's beliefs and attitudes change he may feel powerless to change his behaviour. Many working-class people feel that they have very little control over their own lives.

Advantages of individual education

Many of these problems of message, comprehension, and confusion about how to act can be overcome if the health education is delivered not by the mass media but by individuals—for example, doctors, nurses, or teachers. Individual educators can tailor the message to suit the subject, can check that he has understood, can deal with questions that arise, can allay associated anxiety, and can suggest an individual course of action. Many health educators, disappointed with the results of

mass media campaigns, have come to pin their hopes on individual efforts. The main problem with this, however, is logistic: where are all these individual educators to come from and how can they be trained? In two months a mass media campaign in Scotland reached about three-quarters of the population, but it would take years for the individual educator to reach the same audience. Again, eclecticism is the answer. The mass media can be used to start the debate and raise the questions, and the individual counsellors can capitalise on the concern created.

General practitioners, community nurses, teachers, and youth workers are the first people who come to mind to "spread the word." Evidence exists, however, that many of these workers are not themselves very clear about drink problems.⁵ Much of the alcohol education in schools seems to be of a low standard.⁶

Thus health educators have a tough job before them, and they must work with limited resources. About £5000m is spent annually on the National Health Service in Britain, and yet last year the HEC and the SHEG received between them only £6½m. (Another relevant figure is that about £100m is spent on alcohol advertising in Britain each year.) A further problem is that although health educators may be disillusioned with mass media campaigns their masters—the politicians—are fond of them: they like to be seen to be doing something, and individual educators tend to be invisible.

Considerations like these of the difficulties and limitations of education have led many individuals and committees to examine political measures for combating alcohol problems. Before these are considered, however, two things should be said in defence of health education: firstly, health education has only just started in response to alcohol problems and better results may be achieved in the future: and, secondly, political action will be possible only if the electorate is informed of the issues in the alcohol debate.

Political prevention

Most alcohol researchers, but not all, agree that if the price of alcohol is raised by taxation then consumption will fall and with it alcohol-associated damage. The convincing evidence for the close correlation between price, consumption, and damage was presented in the last article (3 October, p 895). There are, however, no recent examples of a government raising the real price of alcohol to reduce damage. To some extent it is an article of faith that such an increase would reduce damage.

Various problems present themselves when a policy of increased taxation is suggested. The first is that a myth persists that a policy encouraging consumption of beer relative to that of spirits and wine will lessen damage as beer is inherently less harmful. There is, however, no evidence to suggest that the same amount of alcohol taken as beer is less dangerous than that taken as wine or spirits and a great deal to suggest that it is just as dangerous⁷ (although the severity of hangover does, of course, vary with the beverage). The corollary to this message is that a logical policy would make all forms of alcohol as expensive as each other in terms of volume of pure alcohol. In Britain the tax on spirits and wine is much higher than that on beer.

A second objection to a policy of increasing the price of alcohol is that it will drive people to produce their own illicit alcohol. Most who have considered the matter think that this would be a severe problem only if the price of alcohol was raised too much, too quickly. A third objection is that such a policy would be ruinous to those who are addicted to alcohol. This argument can be countered on both empirical and theoretical grounds. There is abundant evidence that when alcohol consumption drops death rates from cirrhosis drop quickly. At first this seems peculiar because cirrhosis takes a long time to develop. But it fits with the clinical experience that a patient with severe decompensated cirrhosis can draw back from the brink of death if he stops drinking. This presumably is what happens to explain the immediate fall in death rates from

cirrhosis when consumption falls. The theoretical objection to the idea that those addicted to alcohol will be particularly penalised by an increase in price is that, as explained in the first article of this series (26 September, p 835), alcoholics are not a race apart as was once thought, and even people who drink heavily can spontaneously reduce their drinking if conditions change.

A further objection is that the poor will be hit harder than the rich. But in many aspects of life "It's the rich what has the pleasure and the poor what gets the blame," and this is a criticism less of the health policy and more of a society that tolerates such a division in the first place. Moreover, as the policy is a benign one, intended to improve public health, the poor will benefit more, while the rich will still be able to drink themselves to death. But the alcohol researchers are not making the decision anyway—it is for Parliament to decide. And at the moment price increases to limit consumption are unacceptable to the electorate (table).⁸ The Government derives a great deal of revenue from alcohol, which it is unwilling to jeopardise, and the drink trade has a powerful lobby and friends in high places.

Public reaction to strategies for reducing damage caused by alcohol

Strategy	Percentage in favour	Percentage against
Tougher sentences for drinking and driving	87	13
Random breath tests	66	34
More Government advertising on the dangers of drink ..	63	37
Health warning on all cans and bottles of alcohol ..	55	45
Tougher licensing laws	50	50
Ban on advertising drink on television	46	54
Ban on alcohol sales in supermarkets	37	63
Total ban on advertising	29	70
Large increases in price of alcohol	26	74

Source: MORI *Sunday Times*.⁹

Alternatives to price increases

Any government that really wanted to control alcohol problems would make price maintenance the main plank in its platform, but other measures—some of them politically more acceptable—can help. One possibility is to decrease the availability of alcohol through licensing laws. McGuinness's econometric analysis suggested that if the number of outlets for alcohol in Britain were reduced then consumption would fall.⁹ Canadian researchers dispute this finding, and the paper by R E Popham *et al* contains an appealing analogy that suggests that the relationship is unlikely: "Probably no one would expect an increase in the number of television stores to increase the prevalence of television sets. Actually, if there are too few stores some customers simply will be inconvenienced, and if there are too many some stores will go out of business. We think the situation is about the same in the case of alcoholic beverage outlets (at least, within certain limits: the effect of total prohibition or extreme rarity are special cases). On the other hand, just as one would expect sales of television sets to be influenced by their cost, so also this would seem a likely, if not obvious, determinant in the case of alcoholic beverage consumption."¹⁰

Reducing the number of public houses, limiting opening hours, and raising the minimum age at which people can drink might conceivably reduce consumption, but the licensing trend in Britain is in the opposite direction at the moment and restrictive licensing laws seem unlikely. Now that the voting age is 18 no Government is likely to raise the age at which young people are allowed into public houses to drink. Nevertheless, various bodies—including the Royal College of Psychiatrists⁴ and the Government Central Policy Review Staff¹¹—have suggested that licensing laws should not be liberalised any further.

Another policy suggested is that alcohol advertising should be banned or further restricted. Over the last 20 years the anti-smoking lobby has concentrated much of its energy on cam-

paigning for advertising bans, and many imagine that a campaign to reduce the damage caused by alcohol would adopt a similar policy. As discussed in the last article, the possible effects of a ban are hard to predict, but McGuinness has suggested that it would lower consumption.⁸ The experimental bans in British Columbia¹² and Manitoba,¹³ both of which went off at half cock (see last article), did not, however, produce any fall in consumption. Similarly, little evidence is available to support the idea that the style of advertising has much effect on consumption.

Does this paucity of scientific evidence on the possible effects of an advertising ban mean that the anti-abuse lobby should play down the battle against advertising? Many would say yes, but other factors have to be considered. Firstly, the evidence is more scarce than weak: the subject is difficult to study and little good work has been done. Secondly, calling for a ban on advertising is probably tactically better than campaigning for price increases: the public has no strong feelings about advertising but is always concerned about its pocket. A campaign against advertising has a symbolic value and is a useful peg on which to hang other messages. Thirdly, any health education on alcohol tends at the moment to be eclipsed by alcohol advertising (figure). Thus experienced "campaigners" may pay more attention to advertising than the evidence seems to justify.

Contrasting messages on alcohol (supplied by Health Education Council).

Finally, policies can be devised that aim at reducing not consumption but damage. One such measure would be random breathalyser tests, and the Government "think tank" report suggested this.¹¹ Other measures designed to make roads safer for both the sober and the inebriated, such as the compulsory wearing of seat belts, also contribute to lessening alcohol-related damage.

This is the third in a series of articles on alcohol.

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Outside Europe

Non-traumatic paraplegia in northern Tanzania

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Abstract

A retrospective study of all 100 cases of non-traumatic (medical) paraplegia admitted to a large hospital in northern Tanzania over an eight-year period was undertaken; 15 of the patients were examined. Patients' ages ranged from 2 to 80 years (mean 31), and 67 were male. Seventy-one lived under 85 km (53 miles) from the hospital, and the average period from onset of symptoms of paraplegia to admission to the referral hospital was ten weeks. Tuberculosis was the most frequent cause of paraplegia (54%), followed by neoplasia (13%) and schistosomiasis (6%). No cases of nutritional myelopathy were diagnosed. In 12 cases a diagnosis could not be established. The average period spent in hospital was 11 weeks, and 35 patients made a good recovery and were ambulant at discharge.

Introduction

Paraplegia denotes loss of function of both legs as a result of disease or injury of the spinal cord, spinal roots, or peripheral nerves. Certain cerebral cortical lesions and myopathies can also result in paraplegia. There have been relatively few studies of non-traumatic paraplegia from developing and tropical countries.¹⁻⁶ Brief reports have come from Kenya,⁷ Uganda,⁸ and Tanzania,¹⁰ but this appears to be the first detailed study of non-traumatic paraplegia in East Africa.

Patients and methods

Kilimanjaro Christian Medical Centre (KCMC), with some 500 beds, is the principal referral hospital for northern Tanzania and serves about one million people. All 85 cases of non-traumatic (medical) paraplegia admitted from January 1972 to March 1979 were studied retrospectively, and I examined 15 patients admitted subsequently. All patients lived in Tanzania except for one man, who came from the Kenyan side of the border, 50 km (30 miles) from KCMC.

Only 14 patients had not been referred from peripheral hospitals. Information provided by referring hospitals was often sparse, but the KCMC case records were usually sufficiently informative to allow detailed analysis. Most patients were examined by a consultant within a few days of admission, and even when a precise diagnosis could not be offered, the structure affected and the level of the lesion were usually identified.

Most patients were initially treated in a well-equipped intensive care unit. Investigations carried out routinely included haemoglobin estimation, total and differential white cell count, erythrocyte sedimentation rate, sputum analysis, and chest radiography. Eighty-eight patients had spinal radiographs, 41 myelograms, and 62 lumbar punctures performed. Where applicable, biopsy of pleura or lymph nodes was performed. Biopsy specimens were also obtained in 22 patients who underwent surgical procedures on the spine. Mantoux and Venereal Disease Research Laboratory or Pandy's tests were available, and serum acid phosphatase concentrations could be measured. Schistosoma eggs were sought in urine, faeces, or rectal snips.

After discharge, few patients attended for review. Most returned to peripheral hospitals or to their villages, and no further information was recorded. It was impossible to try and ascertain the ultimate state of these subjects.

Results

Sixty-seven subjects were male, and 31 were Chaggas, the predominant Bantu group in northern Tanzania; others belonged to over 25 other tribal groups including Masai. Non-Negro patients included a Somali, an East African Indian, and an Arab. The age of patients ranged from 2 to 80 years (mean 31). Table I shows the age distribution of patients, with comparative figures for 47 traumatic cases admitted during the same period of study.

Most (95) patients came from rural areas, 71 living less than 85 km (53 miles) from KCMC. Eighteen were children or adolescents, but none attended school. Delay averaged eight weeks from onset of symptoms of paraplegia until initial admission to a hospital, and of

TABLE I—Age distribution of non-traumatic and traumatic paraplegics

Age (years)	Non-traumatic cases		Total	Traumatic cases
	Male	Female		
< 15	6	12	18 (18%)	3 (6.3%)
16-30	18	10	28 (28%)	24 (51%)
31-45	18	11	29 (29%)	16 (34%)
> 45	20	5	25 (25%)	4 (8.5%)

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