POLICY AND PREVENTION

A Brief Report on Perceptions of Alcohol and Society among Scottish Medical Students

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Abstract — Aims: To assess perceptions on alcohol misuse and addiction among medical students prior to in-depth training in order to determine areas of the curriculum that need to be reshaped or focused on. Methods: A questionnaire assessment of first- and second-year medical students’ perceptions of alcohol misuse. Results: Students had some misconceptions about current alcohol misuse rates, including a perception that addiction is common among health professionals, that the under-25s had the fastest increasing rate of alcohol addiction and that British women had a more rapidly increasing rate of alcohol addiction than British men. Conclusion: Encouragingly, students overwhelmingly felt that alcohol addiction was something to which they could make a difference. It highlights that early education about alcohol misuse is important in terms of teaching students how to recognize hazardous and harmful drinkers and how to manage them.

INTRODUCTION

Alcohol misuse is commonplace in the UK, as in other countries throughout the world, and places a huge burden on both health services and society. It has previously been shown that alcohol-related health and social problems rise with increased consumption (Anderson, 1993). Despite this over 90% of the UK, adult population consume alcohol with 27% of men and 15% of women drinking excessively (ONS, 1998). At any one time in Scotland 250,000 people report symptoms of mild alcohol dependence and 16,000 report moderate to severe symptoms. Deaths in Scotland due to alcohol misuse have trebled between 1990 and 1999 and continue to rise (General Register Office 2002–1980 400 male deaths and 170 female deaths, 2002, 1400 male deaths and 520 female deaths). In 2003/4, more than 26,000 people were admitted to Scottish hospitals with an alcohol-related diagnosis and the number of people with alcoholic liver disease went up by 73% in men and 81% in women and of chronic liver disease by 92% and 100%, respectively (Muldhihall et al., 2005).

With alcohol misuse accelerating, it has become the province of a variety of public servants, ranging from health professionals to the police force and to political parties. In 2004, the UK Prime Ministers Strategy Unit identified a number of strategic areas to help combat the issue (Cabinet Office, 2004). They included health staff training to identify and manage alcohol misuse and the development of training modules to educate medical undergraduates and postgraduates.

AIMS

The aim of this study was to assess the perceptions and attitudes of medical students towards alcohol abuse to identify key areas that may provide assistance in the designing of training modules and a new alcohol abuse curriculum. The major alcohol teaching prior to this survey was performed in third year during the psychiatry block. First year was dedicated to anatomy, physiology and biochemistry and second year to the respiratory, cardiovascular and gastroenterology systems. Based on this information, students in the first and second year were targeted as being deemed less likely to be influenced by any of their training so far.

METHODS

First- and second-year medical students of the University of Dundee Medical School were asked to undertake a voluntary and anonymous in depth questionnaire. Dundee University Research Ethics Committee reviewed this study. Of a possible 200 medical students, 70 across the years volunteered to take part, a 35% response rate. Twenty-seven were students in their first year (39%) and 43 in their second year (61%), 34 of whom were male (49%) and 36 were female (51%). Questionnaires were administered prior to a new alcohol teaching session delivered in the second year (Steed et al., 2010), they were anonymous and no attempts were made to pursue non-responders. At least two of the authors were present during the administration of the questionnaire to the students over the course of 4 days in various groups and would verbally clarify any confusion regarding the phrasing of the questionnaire.

Questions were selected to facilitate background information on what the students thought they knew about alcohol addiction and how it relates to sex, age, the healthcare system and professionals and to establish how they felt about society’s responsibility for this issue. In anticipation of the difficulty that may be experienced in distinguishing between the terminology harmful and hazardous drinking prior to any specific alcohol addiction-related teaching students were asked to differentiate between moderate drinking and heavy drinking and rank a series of professional groups according to the question: Who do you think moderate alcohol consumption should be an issue primarily tackled by?

If the sample group had a Gaussian distribution then an unpaired t-test was used to assess for statistical significance.
and if it was a non-Gaussian distribution a Mann–Whitney $U$-test was used.

**RESULTS**

Questions were put to students to gauge their perceptions on the subject of alcohol addiction in healthcare, among the medical profession and in society; responses are shown in Table 1.

Students were asked which sex had the fastest increasing rate of alcohol addiction and all answered female, when the correct answer is the male sex, although in terms of the total UK adult population the gradual upward trend of increased, but not addictive, alcohol consumption is more perceptible in women. All correctly answered that men had the numerically biggest alcohol addiction problem [1.2 million, compared with 0.6 million (Cabinet Office, 2004)]. When asked which age group had the fastest increasing rate of addiction 63% responded under 25s and 37% responded 25–40. The response to the question which age group had the highest number of alcohol addicts are shown in Fig. 1, with actual number of dependent drinkers shown in Fig. 2.

All students felt alcohol addiction was a problem to which doctors could make a difference.

### Table 1. Questions to students on their perceptions of the problem of alcohol addiction in healthcare, among the medical profession and in society

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is alcohol a problem in healthcare?</td>
<td>88</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Is alcohol addiction a significant problem among medical students?</td>
<td>88</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Is alcohol addiction a significant problem among junior doctors?</td>
<td>54</td>
<td>9</td>
<td>37</td>
</tr>
<tr>
<td>Is alcohol addiction a significant problem among consultants?</td>
<td>63</td>
<td>0</td>
<td>37</td>
</tr>
<tr>
<td>Is alcohol addiction a significant problem among general practitioners?</td>
<td>50</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>Is alcohol addiction a problem among society?</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

![Fig. 1. Perceived age groups affected by alcohol addiction. A chart to indicate which age groups the medical students feel are most affected by alcohol addiction.](image1)

![Fig. 2. Actual values of age groups affected by alcohol addiction a chart to indicate the percentage age groups of UK residents with alcohol addiction, these figures represent 845,000 < 25, 1,100,000 25–40, 1,300,000 40–60, (Strategy Unit Alcohol Harm Reduction Project, 2006).](image2)

Students were asked to rank which, professional group should take responsibility for tackling the issue of moderate drinking and heavy drinking and results are shown in Figs 3 and 4. There was no statistical difference between the two groups for the rankings of national government ($P = 0.1$), or local government ($P = 0.09$), police ($P = 0.6$), General Practitioners (GPs) ($P = 0.5$), hospital doctor ($P = 0.2$) and psychiatry ($P = 0.06$). There was a statistical difference between the moderate and heavy group rankings for nurses ($P = 0.04$) and gastroenterologist/hepatologist ($P = 0.05$), perceiving that these two groups had more responsibility for dealing with heavy drinking than moderate drinking.

### DISCUSSION

The small number of participants and the nature of the sampling limit this study. The necessity of administering the questionnaire prior to a new teaching block on alcohol misuse meant it had to be done very early in the second
have often originated from countries where alcohol use is less prominent than it is in western countries or are studies only looking at alcohol use in the preceding 30 days and therefore not a real reflection of addiction. It is possible that the students’ belief reflects a lack of understanding about the definition of alcohol addiction.

Encouragingly all students felt that alcohol problems were something doctors could make a difference to and this should be taken advantage of during medical training, supporting the findings of O’Gara et al., where a London-based questionnaire of health professionals found that resources should be focused on teaching psychiatrists, nurses and medical and nursing students ‘the key issues of substance misuse and that this training should be clinically grounded to alleviate the perceived low levels of reported clinical training and resulting lack of confidence’ (O’Gara et al., 2005). The General Medical Council and the Government’s Alcohol Harm Reduction Strategy (Cabinet Office, 2004) have explicitly stated the need for undergraduate training, but a 1996 survey of 14 specialties in 23 medical schools with 78% response from deans and 68% from heads of psychiatry found the average time spent on substance abuse training was 6 h and while psychiatry had doubled its input since 1987 this was offset by a diminished input from other departments (Crome, 1999). Previous work has demonstrated that ‘Early Intervention’, designed to prevent the progression to abusive drinking levels, in the form of brief interventions, can lead to a 24% reduction in alcohol consumption (Freemantle et al., 1993; Cuipers, 2004).

Alcohol addiction is responsible for significant morbidity and mortality in western society today and as such remains a relevant topic in medical education. Projects are being published that highlight and formulate methods for changing and teaching alcohol addiction in the undergraduate medical curriculum, both at a local level (Steed et al., 2010) and at a national level (Ghodse, 2007), but research into what we should be teaching is also necessary. This is a small study, but the findings do lend some insight into the perceptions of medical students and may help guide further curriculum alterations. An understanding of the differences between harmful and hazardous drinking is essential to applying the brief interventions by medical professionals at the right time, but this study appears to highlight a more fundamental lack of understanding of addiction as well as the associated epidemiological data with it and this must be urgently addressed by medical schools. Regular review of current alcohol addiction curricula should be carried out, but medical schools also need to assess their students understanding and early targeted teaching is required to encourage a change in practice and hopefully improve the medical professions ability to have an impact on this growing problem.

Conflict of interest statement. None declared.

REFERENCES