POLICY

Healthcare and Medical Graduates of 2009: Their Reactions to Four Key Proposals in the Scottish Government’s Strategy for Tackling Alcohol Misuse

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Abstract — Aims: This study compares the views of final year medical, and nursing and allied health professional (NAHP) students in relation to four governmental proposals impacting on the sale and purchase of alcohol. Methods: Against a background of political will to address alcohol abuse in Scotland and moves within the National Health Service promoting a shifting of professional roles, self-completed questionnaires were administered in spring 2009 through course websites and lectures to final year medical and NAHP students. Results: Questionnaires were returned by 406 NAHPs and 121 medical students. Over three quarters of all students agreed with the proposed change to reduce the drink driving limit to 50mg/100ml blood. Less support was evident for the raising of the minimum legal purchase age for off-sales (37%), the banning of below cost price promotions of alcohol (47%) and minimum retail pricing (37%). However, there were differences between the NAHP and medical students in the case of the final two proposals; over 60% of the medical students agreed they would have a positive impact. For NAHPs, figures were 41% and 31%, respectively. Conclusions: Support for four key proposals outlined by the Scottish Government to address alcohol misuse varied. Only the suggestion to lower the drink driving limit received backing overall and within students in these professions. Effectiveness of proposed restrictions on the price of alcohol was less well regarded except by medical students. Evident gaps in knowledge around health guidelines, and the finding that almost half of NAHPs disagreed that they had the appropriate knowledge to advise patients about responsible drinking advice and alcohol misuse problems, suggest a need for improved undergraduate education and continued professional development with respect to public health aspects of alcohol use.

INTRODUCTION

Current health statistics continue to highlight the associated costs of our Scottish drinking habits and, with some justification, they regularly feature in both the media and the political agenda. Levels of consumption of alcohol among Scots are the eighth highest in the world (Scottish Government, 2008a). The subsequent impact on the National Health Service (NHS) is estimated to be around £79,00 per head of population per annum (Scottish Government, 2008b). Indeed, alcohol has been linked with 11% of all emergency attendances in Scotland (Alcohol Statistics Scotland, 2009) and is the ‘underlying cause’ of 5.0% of deaths (ISD Scotland, 2009a).

In its response, the Scottish Government (2008c) have recently outlined key proposals including (i) the ending of the promotion and loss leading of alcoholic drinks in licensed premises, (ii) the introduction of minimum retail pricing and (iii) a raising [of] the minimum legal purchase age for off-sales to 21’. In addition, (iv) there is a commitment ‘to continue to call for a reduction in the drink drive limit from 80mg to 50mg per 100ml of blood’. The British Medical Association (BMA) has also been a major contributor to this debate. In Scotland, it has produced a list of recommendations which include a call that ‘Legislation should be introduced to set minimum price levels for the sale of alcoholic beverages based on alcohol content. At a UK level, taxation should be increased on alcohol products to complement a minimum pricing strategy (p. 6)’ (BMA Scotland, 2009). A minimum price of 50 pence (0.8 USD, 0.6 Euro) per UK unit of alcohol (8 g of pure ethanol) has been suggested by the Chief Medical Officer for England (Department of Health, 2009) in his annual report. Further support for minimum pricing is provided by a comprehensive review article published in The Lancet (Anderson et al. 2009). Within Scotland, a minimum price within the range 40–50 pence per unit is being considered.

It has been recognized that potentially hazardous drinking is not restricted to those individuals consuming conspicuously harmful amounts (e.g. the ‘sessional’ or ‘binge drinkers’), but is likely a characteristic of the drinking pattern of many adults across the age range. It may be necessary to modify the drinking of many if the desired and targeted improvement in health and health-related costs are to be achieved. Of direct relevance in this regard is evidence accumulating for the potential cost-effectiveness of brief interventions delivered by medical or public health practitioners (Kaner et al., 2009; NIAAA 2005). Impacting on this, and directly relevant, are recent NHS policy documents which have promoted the development of flexible and collaborative working patterns for health professionals (DoH, 2000 and 2001; Scottish Executive, 2002 and 2003a). Thus, the responsibility (and by implication the potential success) of administering interventions designed to address alcohol misuse may rest on the shoulders of a wider range of health professionals than has been traditionally the case.

In this time of change and overlapping of professional roles, we report here a subset of data from our study conducted in the spring of 2009 investigating the knowledge, views and perceptions of soon-to-graduate health professional and medical students in relation to alcohol brief interventions. Additionally, data relating directly to the views of these students to the four governmental proposals outlined above are described.

MATERIALS AND METHODS

Subjects

The study was conducted during the second semester of the academic year 2008–2009 at six Scottish Higher Educational
Institutions (HEIs) and invited participation by students due to graduate in July 2009.

The medical students were matriculated at three Scottish medical schools. A link to the electronic copy of the questionnaire was posted on course web sites, and the students were invited to participate.

The remaining participants, future nurses and allied health professionals (NAHPs; dieticians, nurses, occupational therapists, pharmacists, physiotherapists, podiatrists, radiographers, speech and language therapists), were recruited to the study from three Scottish HEIs. At these institutions, a paper form of the questionnaire was administered and completed at lectures. No advance warning of the study was given. (At two classes, involving dieticians and one class of radiographers, timetable restrictions did not allow this form of sampling, and in these cases the questionnaire was administered electronically by e-mailing the survey link to all relevant students.)

Favourable ethical opinion was obtained from each HEI.

Methods

Questionnaire. The questionnaire contained three sections. The first section, A, sought basic demographic data: gender, age, undergraduate year, degree specialization and drinker/non-drinker classification. (Non-drinkers were defined as drinking no more than ‘2 glasses of wine, 1–2 pints of beer per year’.)

Section B explored knowledge relating to current UK responsible drinking guidelines for daily consumption (DoH, 1995). Accurate recall was taken as an answer of 3, 3–4 or 4 UK units for men and 2, 2–3 or 3 units for women. Those who had indicated that they were drinkers were asked to name their preferred drink, the usual volume consumed and to estimate its unit content. From this information, and using manufacturer’s product data if required, the unit content was calculated. The estimate provided by the student was then categorized as ‘underestimate’, ‘overestimate’ or ‘accurate’. (For wine, an alcohol by volume of 12% was assumed.) Non-drinkers, instead, answered a general question relating to the units contained in a typical glass of wine.

Section C was influenced by the questionnaire developed by Happell and Taylor (2001) to explore nurse’s attitudes to clients with drug and alcohol problems and contained 14 statements to which participants were required to respond according to a six-point Likert scale ranging from ‘strongly disagree’ to ‘strongly agree’. The first 10 statements related to professional role and attitude, and the final four to proposals emerging from the Scottish Government’s Discussion paper (Scottish Government, 2008c). It is the responses to the latter four questions that form the basis of this report.

RESULTS

In total, 527 students completed the questionnaire: 406 NAHPs and 121 medical students.

Response rates

For those students who approached directly at the end of lectures, response rates varied from 64% to 100%, while for those recruited electronically, response rates were lower: medical students (17.5%), dieticians (39%) and one of two radiographer classes recruited (11%).

Age

The mean age of the sample was 24.07 years (95% CI 23.64–24.51, range=20–48 years). (Nine respondents did not indicate their age.) There was no significant difference between the ages of the drinkers (N=467, mean=24.0, SD=5.11 years) and the non-drinkers (N=60, mean=24.68, SD=4.55 years; Student t-test, P=0.36). However, medical students were younger (mean=23.5, SD=2.9 years) than NAHPs (mean=24.3, SD=5.5 years; t (382)=2.06, P=0.04).

Gender distribution

Overall, 82.2% of the sample were female (two students did not respond to this question). For medical students, 70.2% were female and NAHPs 85.7%. There was a significant difference in the gender distribution between the two groups (chi square (continuity correction) $\chi^2=15.187, df=1, P<0.0005$).

Drinker status

Among all students, 11.4% were non-drinkers (15.7% of medical students, 10.1% of NAHPs). Medical students were just as likely to be non-drinkers as the NAHPs (chi square (continuity correction) $\chi^2=2.37, df=1, P=0.123$).

Accuracy of recall of UK responsible drinking guidelines (all sample) and preferred drink unit content (drinkers only)

A greater percentage of medical students than NAHPs were able to accurately recall UK daily guidelines for alcohol consumption for males, for females and also to estimate the unit content of their preferred drink. The percentage of NAHPs responding ‘do not know’ to questions relating to male/female guidelines or to the unit content of their preferred drink was greater than that of medical students (see Table 1).

In response to the statement ‘I feel I have the appropriate knowledge to advise my patients about responsible drinking advice and the problems associated with alcohol misuse’, almost all (98%; N=118, one non-response) of medical students

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Accurate estimate of own drink unit content (amongst drinkers)</th>
<th>Responded ‘don’t know’</th>
<th>Accurate recall male guidelines</th>
<th>Accurate recall female guidelines</th>
<th>Responded ‘don’t know’ when asked to quote male guidelines</th>
<th>Responded ‘don’t know’ when asked to quote female guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical students</td>
<td>121</td>
<td>64.7% (N=66)</td>
<td>2.9% (N=3)</td>
<td>86.0% (N=104)</td>
<td>89% (N=108)</td>
<td>0.8% (N=1)</td>
<td>0.8% (N=1)</td>
</tr>
<tr>
<td>All NAHPs</td>
<td>406</td>
<td>53.4% (N=195)</td>
<td>14.2% (N=52)</td>
<td>59.4% (N=241)</td>
<td>67.7% (N=275)</td>
<td>14.0% (N=57)</td>
<td>12.1% (N=49)</td>
</tr>
</tbody>
</table>

Table 1. Summary of responses to questions relating to UK responsible drinking guidelines from medical students, nursing and allied health professionals.
Fig. 1. Responses to the statement ‘Alcohol-related harm in Scotland will be reduced by banning promotions that sell alcohol at below cost price’.

Fig. 2. Responses to the statement ‘The introduction of minimal retail pricing i.e. a minimum price for one unit of alcohol will reduce consumption’.
Fig. 3. Responses to the statement ‘The proposal to raise the minimum legal purchase age for off-sales purchases to 21 years will reduce the negative impact of alcohol on communities’.

Fig. 4. Responses to the statement ‘It will be beneficial to reduce the drink drive limit from 80mg to 50mg per 100ml of blood’.
agreed, while just over one half (52%; N=211, five non-responses) of NAHPs did so.

Responses to the proposal emerging from the Scottish Government’s Discussion paper (Scottish Government, 2008c) 1. ‘Alcohol-related harm in Scotland will be reduced by banning promotions that sell alcohol at below cost price’. Overall, just under half (47%, N=245) of all respondents agreed with this statement. (There were six non-responses.) However, this pattern of responses was not evident when the professions were examined individually. In three professional groups, the number of those agreeing exceeded those disagreeing: Dietetics (57%, N=4), Pharmacy (51%, N=42) and Medicine (66%, N=80; see Fig.1). Taken as a whole, 41% of NAHPs (N=165) agreed with the statement.

In addition, differences were also evident between genders while 45% of all females agreed; a greater percentage, 57% of males, did so.

Among medical students, this difference of opinion between the genders was less evident; 66.7% of males (N=24) and 65.9% of females (N=56) agreed with the statement, unlike the NAHPs where 50.9% of males (N=28) and only 39.6% of females (N=136) agreed.

2. ‘The introduction of minimum retail pricing i.e. a minimum price for one unit of alcohol will reduce consumption’. Medical students regarded this proposal more positively (60.3% agreeing; N=73) than NAHPs (30.8% agreeing; N=123). Overall, a greater percentage of males (47.3%, N=43) agreed with the proposal than females (35.7%, N=153; see Fig. 2).

3. ‘The proposal to raise the minimum legal purchase age for off-sales purchases to 21 years will reduce the negative impact of alcohol on communities’. More unanimity among the professions was evident here: only 37.5% (N=194, nine non-responses) of all students agreed with this statement (see Fig. 3). Among medical students, the figure was 44.2% (N=53) and among NAHPs 35.2% (N=140). The only profession where the majority agreed was Dietetics, but numbers are too small to be certain of this view. In the optional comment box included at the end of the questionnaire, there was some evidence of confusion between the terms ‘off’ and ‘on’ sales of alcohol, i.e. that this proposal related to ‘all’ purchases of alcohol. Overall, 35.7% of females (N=153) and 44.4% (N=40) of males agreed with this proposal.

4. ‘It will be beneficial to reduce the drink drive limit from 80mg to 50mg per 100ml of blood’. Taken as a whole, more than three quarters (76.7%, N=399; seven non-responses) of students agreed with this proposal. Individually, all professions mirrored this pattern, except Dietetics where 85.7% (N=6) disagreed (see Fig. 4). Among females, 78.4% (N=337) agreed with this proposal, and among males 68.9% (N=62).

Several respondents added comments to support their response, and some suggested a lowering to 0mg of alcohol per 100ml of blood would be appropriate.

**DISCUSSION**

There has been considerable discussion within Scotland around the increasing impact of the abuse of alcohol on NHS resources. It is of interest to record the views of gradu-
It could also be argued that, since the sample is 82% female, the opinions collected display a gender bias. There is indeed evidence of a gender split in some responses. However, according to ISD Scotland NHS workforce statistics (2009b), 90% of allied healthcare professions are female. Within medicine too there is evidence of a gender bias; e.g. in 2002–2003, in all UK medical schools, female students outnumbered males, with the percentage of women exceeding 65% (BMA, 2004). Thus, the gender bias of this sample is more typical of the current NHS professional workforce.

Several reasons may account for the disparity in opinion between the two professional groups, medical students and NAHPs, in relation to two of the government’s proposals. Firstly, there is the possibility that different proportions of non-drinkers in each group may explain the findings, i.e. non-drinkers may have more definite views about the control of a substance they do not purchase. However, there were similar proportions of non-drinkers in the medical and NAHP groups. Alternatively, it could be argued that younger-aged drinkers would be particularly affected by three of the government’s proposals and, therefore, more likely to disagree with them. The medical students, although in the fifth year of their studies, actually had a significantly lower mean age than the NAHP (year 4) students (P=0.04). One other difference between the groups was in the levels of knowledge about alcohol and health guidelines. A greater percentage of medical students were able to accurately recall male and female health guidelines for alcohol consumption and the unit content of their own preferred alcoholic drink. Conversely, a greater percentage of NAHPs were likely to respond ‘don’t know’ when asked to recall the unit content of their own drink or male and female health guidelines. Additionally, almost twice as many medical students as NAHPs felt confident about their ability to advise patients about responsible drinking advice and associated alcohol problems.

Why the medical students appear more open to the idea that changing the cost and availability of alcohol will lower consumption is open to debate. Several recent studies have explored the opinions of members of the public to proposed modifications to UK alcohol policy. A telephone interview study (N=1003) conducted 7 years ago in Scotland (Scottish Executive, 2003b) reported that only 1% of the sample felt that the issue of public drunkenness would be controlled by the banning of ‘happy hours’ and drink promotions. However, when the responses to the question relating to the banning of promotions were explored further, a clear age-related divide was evident: younger participants, 16–24-year-olds, reported greater approval of this suggestion than the older participants. More recent evidence has emerged from three publications associated with the ‘Big Drink Debate’, an online and paper-based questionnaire study conducted in various regions of the UK. In Surrey (N=4033), a minority (42%) of respondents aged 16–65 years thought that special offers and discounts on drinks should be banned. For those aged >65 years, this figure increased to 72%; for those aged 25–34, the figure was 30% (Surrey’s bigdrinkdebate, 2009). The study (Ipsos MORI, 2009) conducted in the East of England (N=6869 online surveys) produced similar findings; 41% were in favour of banning special offers and discounts, while 41% agreed that price should be linked to the alcoholic content of a drink. Data from the northwest of England survey (over 27,000 participants) found that 81% of participants linked low prices and discounts to increased alcohol consumption (Cook et al., 2009). Interestingly, this value changed little across the age ranges (80% in the age range 18–24, 78% in the age range 65–74) but only 22% agreed that increasing the price of alcohol would reduce consumption (for the 18–24-year-olds, this figure was 29% and fell to 18% in the 65–74 age group). Two studies have reported the views of professional groups. The first from the Royal College of Physicians and the Royal College of Nursing (2009) reported that 73% of their sample of just over 200 physicians and nurses supported measures to raise the price of alcohol. A second study (Alcohol Concern, 2009) interviewed over 1000 teachers, nurses, doctors, police and public health consultants and found support (62% of participants) for minimum pricing and the banning of price promotions (77%). Direct contact with the health and social harms related to alcohol misuse is likely to influence opinion on the potential impact of proposed policy change.

Two further explanations for the difference in opinion between the medical students and the NAHPs can be considered. The first relates to the questionnaire. All medical students completed an electronic version of the questionnaire. Many within the cohort chose not to participate, presumably for a variety of reasons. It is possible that those who did participate had strong opinions about a subject which has intense media coverage at present. The potentially more moderate view of the majority has not been recorded. In contrast, most NAHP students were recruited within lectures using a paper form of the questionnaire; response rates were much higher and no advance warning of the study was given. The NAHP responses are more likely representative of this group.

Alternatively, the participating medical students may have been aware of the contribution of their professional body, the BMA, both within the UK and Scotland to the current debate and their evident support for the Scottish Government’s proposals. This knowledge may have had an influence on their responses.

In addition to the limitations placed on the findings by the poor response rate through use of an electronic recruiting method, it is also important to acknowledge that while the response rates obtained with the NAHP sample are generally high (apart from the two groups recruited electronically), it must be recognized that some NAHP professions are poorly represented, e.g. dieticians, and some not at all e.g. art therapists. Additionally, no information is available relating to the clinical experience gained by each group during their undergraduate years. The severe repercussions of alcoholic liver disease may not have been witnessed in the clinical setting by all groups.

CONCLUSION

Findings from this sample of new Scottish graduates entering the NHS workforce in 2009, where they will potentially deal with the repercussions of Scotland’s drinking culture, suggest that opinions vary around the potential benefit of four of the key proposals outlined by the Scottish Government to address alcohol misuse. Evident gaps in the knowledge of some students around health guidelines, and the finding that almost half of NAHPs disagreed that they had the appropriate knowledge to advise patients about responsible drinking and the problems associated with alcohol misuse, suggest that further attention should be given to the alcohol component of undergraduate education,
undergraduate inter-professional education and continued professional development.

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REFERENCES


