GENERAL PRACTICE NURSES’ KNOWLEDGE OF ALCOHOL USE AND MISUSE: A QUESTIONNAIRE SURVEY

LYNN OWENS¹, IAN T. GILMORE² and MUNIR PIRMOHAMED¹,²*

¹Department of Pharmacology and Therapeutics, The University of Liverpool, Medical Building, Ashton Street, Liverpool L69 3GE and ²The Royal Liverpool and Broadgreen University Hospital Trust, Prescot Street, Liverpool L7 8XP, UK

(Received 26 April 1999; in revised form 21 October 1999; accepted 15 November 1999)

Abstract — Nurses in general practice (termed practice nurses) are an under-utilized resource for the detection and management of patients with alcohol misuse. However, little is known about their knowledge and attitudes towards alcohol use and misuse. We therefore conducted a postal questionnaire survey of 132 practice nurses in Liverpool (UK). The results of our survey (response rate 77%) show that a knowledge and skills gap exists in the delivery of effective advice on alcohol-related issues. Indeed, our results suggest that only one in two women and one in three men are receiving correct advice on sensible limits of alcohol consumption, this despite the fact that alcohol histories are taken. Further training was requested by most nurses to develop their screening and health promotion roles, and to become involved in the management of patients with alcohol-related problems in primary care. We suggest practice nurses should be encouraged to become involved in screening for, and management of, alcohol-related problems. However, it is important to ensure that the nurses receive appropriate training and have adequate back-up facilities from doctors and other workers involved in the care of patients with alcohol-related problems.

INTRODUCTION

In the United Kingdom, a strategy document for the National Health Service (NHS) entitled Health of the Nation states that drinking less than 21 U/week for men, and less than 14 U/week for women, is unlikely to damage health (Department of Health, 1992). It has been estimated that one in four men and one in 12 women are drinking above these sensible limits (Paton, 1994). In an attempt to address the health and social problems caused by alcohol, the Health of the Nation document has set out targets for reduction in overall alcohol consumption, such that, by the year 2005, fewer than one in six men and one in 18 women should be drinking more than the sensible limits of alcohol (Department of Health, 1992).

For the second time this decade, the NHS is about to undergo major changes in its approach to health care provision by replacing the internal market with integrated care (Department of Health, 1997). The new system is designed to place emphasis on local health care needs and perceptions, and is therefore focused on primary prevention and the role of the primary care team. The proposal for new health improvement programmes, where primary care groups will take a lead in identifying the need for local services, evolved from a belief that General Practitioners (GPs) and nurses are the professionals best placed to advise on local health care needs. This is sensible given that 70% and 90% of a practice population will consult their GP over 12-month and 5-year periods, respectively (Wallace et al., 1988). Thus, general practice may provide an opportunity for screening for alcohol intake, delivering advice or interventions as appropriate, and providing treatment for alcohol-related problems.

There is some evidence suggesting that patients with alcohol-related problems do consult their general practice. For example, Wallace and Haines (1984) reported that 4% of patients surveyed had a problem with alcohol. A report by McMenamin (1997) suggests that these figures may be higher, with 13% of men and 2.5% of women having an alcohol-use disorder. A more recent questionnaire survey of practice nurses showed that an average of 3.1 patients/month with potential alcohol problems are seen in general practice (Deehan et al., 1998).

Health promotion is a key element of primary care (Atkin et al., 1993). This is carried out not only by the GP, but by the whole primary care team. An essential member of the team is the practice nurse. In recognition of this, there has been a massive increase in practice nurse numbers from less than 5000 in 1989 to over 10 000 in 1995 (Department of Health, 1999a). Given the potential for primary care to have a major role in the detection and treatment of alcohol misuse, it has been suggested that practice nurses may be an under-utilized resource for the management of such patients (Deehan et al., 1998). This is clearly appropriate given that practice nurses: (1) perceive themselves as specialists in health promotion (MacKereth, 1995); (2) are generally more accessible than the GP and have more time (Atkin and Lunt, 1996). Indeed, the first and often the only contact for individuals with potential alcohol-related problems may be the practice nurse-led clinics in general practice. Such clinics could be utilized to deliver advice on alcohol-related issues.

Clearly, it is important to ensure that practice nurses are properly qualified and trained to develop their role in screening for alcohol misuse and possibly delivering brief intervention. However, whether practice nurses are willing to take on the role, and indeed whether they have the knowledge to take on such a role, is unclear. In this study, we have therefore undertaken a questionnaire survey of practice nurses in Liverpool (UK) to determine their level of baseline knowledge of alcohol use and misuse and their attitudes in becoming involved in management of patients with alcohol-related problems.

*Author to whom correspondence should be addressed.
METHODS

A list of all practice nurses in the Liverpool area was obtained from the Liverpool Family Health Service Association (FHSA). The questionnaire was developed based on a literature review and advice from the Liverpool Practice Nurse Forum. It was piloted in a random sample of 10 practice nurses after which minor alterations were made.

The questionnaire was designed to elicit the knowledge and views of the nurses in three areas. (1) Sensible levels of alcohol consumption: our calculations of nurse responses are based on the sensible limits defined by the Royal College of Physicians (1987) and the Health of the Nation document (Department of Health, 1992), and not on the later report on Sensible Drinking (Department of Health, 1995b); (2) current practice in dealing with patients who misuse alcohol; and (3) attitudes towards getting involved in further care of these patients in the community.

The questionnaire was mailed in August 1997, with a reminder being sent to non-responders in October 1997. Data were entered onto a Microsoft Access database for analysis. In view of the nature of the study, the results are presented as descriptive statistics.

RESULTS

Of the 132 practice nurses registered with the Liverpool FHSA, 80 returned the questionnaire (61%) after the first mailing, a further 21 nurses returned the questionnaire after the second mailing. This equates to a final response rate of 76.5%. It is important to note, however, that not all respondents answered every question, and thus response rates vary according to the question.

Nursing knowledge of alcohol-related matters

Most nurses (94%) felt that alcohol misuse was a common problem in the community. If it is assumed that one in 25 people in England are dependent on alcohol (Alcohol Concern, 1999), then nurses tended to overestimate the percentage of the population which they felt was alcohol-dependent (Fig. 1).

The nurses were asked what they understood to be a sensible weekly consumption of alcohol in both men and women. Of the 94 nurses (93%) who completed this question, 62 (66%) and 38 (40%) felt that sensible limits were greater than those defined by the Health of the Nation document for men and women (Department of Health, 1992), respectively. Seven nurses (7.4%) felt that the sensible limit for men was below 15 U/week, whereas six (6.4%) felt that the sensible limit for women was below 10 U/week.

Of the respondents (n = 99), 53 nurses (53.5%) believed that they had sufficient knowledge to give advice on sensible limits of alcohol consumption. However, 32 (65%) and 22 (45%) of these nurses had indicated incorrect sensible limits for men and women, respectively. Of the 42 nurses (42.4%) who felt that they did not have sufficient knowledge, 26 (66%) and 15 (38%) had indicated incorrect sensible limits for men and women, respectively. Perception that one had sufficient knowledge of sensible limits of alcohol consumption therefore did not correlate with correct responses on sensible limits. Interestingly, despite the apparent confidence in their knowledge of alcohol consumption, 92% of nurses would welcome training on giving advice to patients regarding alcohol consumption.

Of 100 respondents, 44% felt that they were aware of the alcohol services available in the community. Nevertheless, 96% of the nurses questioned would welcome further information and training with regard to alcohol services.

Current role of practice nurses

Nurses were asked what type of clinics they run and whether they take alcohol histories. Of the 100 respondents to this question, 87% said that they run well-man and well-woman clinics; almost all of these nurses (98%, n = 85) take an alcohol history in their clinics. Alcohol history was also taken by 87 of the 94 respondents (93%) in other clinics that they ran (Fig. 2).

Ninety-seven of the nurses (96%) routinely gave advice on sensible levels of alcohol consumption in their clinics. However, only 32 (34%) and 56 (60%) of the nurses gave advice to men and women, respectively, which was in keeping with the sensible limits specified in the Health of the Nation document (Department of Health, 1992). Thirteen (14%) of the nurses gave incorrect advice to both men and women.

![Fig. 1. The percentage of the population thought to be alcohol dependent by practice nurses.](image)

![Fig. 2. Clinics in which alcohol histories are taken by practice nurses. Data on histories taken in well-man and well-woman clinics are not included (see the text).](image)
Table 1. Referral patterns to alcohol services by 32 practice nurses

<table>
<thead>
<tr>
<th>Place of referral</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windsor Clinic (specialist alcohol treatment unit)</td>
<td>43.7</td>
</tr>
<tr>
<td>Alcoholics Anonymous (AA)</td>
<td>21.8</td>
</tr>
<tr>
<td>Merseyside and Cheshire Alcohol Service (MCAS)</td>
<td>3.1</td>
</tr>
<tr>
<td>MCAS and AA</td>
<td>9.3</td>
</tr>
<tr>
<td>Windsor Clinic, AA, and community psychiatric nurse</td>
<td>3.1</td>
</tr>
<tr>
<td>Did not specify</td>
<td>18.7</td>
</tr>
</tbody>
</table>

Table 2. Views of 97 practice nurses of the most appropriate care environment for patients withdrawing from alcohol

<table>
<thead>
<tr>
<th>Place of patient management</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care in the community</td>
<td>7.9</td>
</tr>
<tr>
<td>A general hospital only</td>
<td>0</td>
</tr>
<tr>
<td>A specialist unit only</td>
<td>47.5</td>
</tr>
<tr>
<td>Community and specialist unit</td>
<td>15.8</td>
</tr>
<tr>
<td>All choices</td>
<td>2.9</td>
</tr>
<tr>
<td>A general hospital and a specialist unit</td>
<td>0.9</td>
</tr>
<tr>
<td>Unsure</td>
<td>24.7</td>
</tr>
</tbody>
</table>

Only 32 (34%) of the nurses had ever referred to any alcohol services, mostly to the specialist alcohol detoxification unit, and less commonly to the voluntary services in the community (Table 1). Of the 62 respondents who had not referred to community services, nine reported that the referral to specialist alcohol services had been made by the GP.

Views regarding care participation

The nurses were asked, if patients with alcohol-related problems were cared for in the community, would they be happy to be involved in their care. The majority (n = 61; 62.8%) of respondents (n = 97) felt that they would be happy to be involved only if further training was provided, whereas 24 (24.7%) felt unhappy to extend their role. Most of the nurses believed that patients with alcohol withdrawal should be managed primarily in specialist units, rather than in the community or in a general hospital (Table 2). Of the 27 nurses (27%) who thought that alcohol withdrawal should be managed in the community, six (22%) were willing to be involved without further training, whereas 19 (70%) wanted further training and two did not know.

DISCUSSION

A recent nationwide survey suggested that practice nurses may be an unexplored and under-utilized resource in the identification and management of alcohol misuse (Deehan et al., 1998). The present survey shows that practice nurses are happy to give advice regarding sensible drinking and want to become involved in the care of patients with alcohol-related problems. However, many nurses are also lacking the knowledge to give appropriate advice. Clearly, a limitation of our survey is that only a small number of nurses from one health district were questioned. Therefore, the results should be viewed as preliminary, and similar surveys should be repeated elsewhere in the country. Nevertheless, our findings indicate that there is a need for training of practice nurses when advising patients about alcohol consumption and alcohol-related health benefits and ill health. The data are also consistent with those of other investigators (Hockey, 1978; Saunders et al., 1986; Farquhar and Bowling, 1990a,b; Cant et al., 1992), who have focused on different areas of health care.

Most nurses routinely and appropriately take a history of alcohol intake, usually within well-woman and well-man clinics. However, fewer nurses took alcohol histories in other clinics, such as hypertension or diabetic clinics (Fig. 2). This may reflect a lack of understanding of the role of alcohol in diseases such as hypertension. For example, it is known that chronic ethanol consumption increases blood pressure (Yamada et al., 1991), while blood pressure decreases with abstinence and increases in relapsed patients (Saunders et al., 1981). Nurses should therefore be encouraged and trained to include questions regarding alcohol intake in any clinic that they run.

Our survey shows that most nurses routinely give advice on sensible levels of alcohol consumption. Superficially, this seems very encouraging. However, further analysis showed that a large proportion of the nurses questioned felt that levels for sensible consumption of alcohol were greater than those stated in the Health of the Nation document (Department of Health, 1992). In fact, only one in four nurses knew the ‘correct’ sensible limits for both men and women, whereas the other 75% had indicated incorrect values for men, women or both. If this is extrapolated to the advice being given to patients, then only one in two women and one in three men may be getting the correct advice in the Liverpool area. Clearly, this is unacceptable and needs to be remedied by appropriate training. However, it is important to note that our calculations are based on sensible limits as defined by the Royal College of Physicians (1987) and subsequently used in the Health of the Nation document (Department of Health, 1992). Our conclusions do not take into account the Government report on Sensible Drinking (Department of Health, 1995b, which set the benchmark for sensible drinking at higher levels — between 3 and 4 U/day for men (an increase of 33%) and between 2 and 3 U/day for women (an increase of 50%). If these new (daily) limits are taken to indicate the sensible limits, then less than 10% of nurses were giving incorrect advice. However, it is important to note that the advice given in the 1995 report (Department of Health, 1995b) has been criticized (Gaziano and Hennekens, 1995; Edwards, 1996). Indeed, the Royal Colleges have subsequently reaffirmed their view that there is no evidence to change sensible limits from 21 and 14 U/week for men and women, respectively (Royal Colleges of Physicians, Psychiatrists and General Practitioners, 1995). Clearly, it is possible that the conflicting advice from different bodies may have led to confusion in the practice nurses surveyed, and thus the range of answers that we obtained. Nevertheless, it underlines the fact that clear and appropriate training is required to overcome some of the incorrect advice which may be being given to patients.

Most nurses indicated that they would welcome further training on alcohol-related issues, including being involved in patient care in the community. The issue of training of practice nurses has been addressed (Atkin et al., 1993). A major problem to overcome is that the background and qualifications of practice nurses vary widely (MacKereth, 1995). Additionally, the role of practice nurses varies from running health promotion clinics to treatment of acute and chronic diseases...

DISCUSSION

A recent nationwide survey suggested that practice nurses may be an unexplored and under-utilized resource in the identification and management of alcohol misuse (Deehan et al., 1998). The present survey shows that practice nurses are happy to give advice regarding sensible drinking and want to become involved in the care of patients with alcohol-related problems. However, many nurses are also lacking the knowledge to give appropriate advice. Clearly, a limitation of our survey is that only a small number of nurses from one health district were questioned. Therefore, the results should be viewed as preliminary, and similar surveys should be repeated elsewhere in the country. Nevertheless, our findings indicate that there is a need for training of practice nurses when advising patients about alcohol consumption and alcohol-related health benefits and ill health. The data are also consistent with those of other investigators (Hockey, 1978; Saunders et al., 1986; Farquhar and Bowling, 1990a,b; Cant et al., 1992), who have focused on different areas of health care.

Most nurses routinely and appropriately take a history of alcohol intake, usually within well-woman and well-man clinics. However, fewer nurses took alcohol histories in other clinics, such as hypertension or diabetic clinics (Fig. 2). This may reflect a lack of understanding of the role of alcohol in diseases such as hypertension. For example, it is known that chronic ethanol consumption increases blood pressure (Yamada et al., 1991), while blood pressure decreases with abstinence and increases in relapsed patients (Saunders et al., 1981). Nurses should therefore be encouraged and trained to include questions regarding alcohol intake in any clinic that they run.

Our survey shows that most nurses routinely give advice on sensible levels of alcohol consumption. Superficially, this seems very encouraging. However, further analysis showed that a large proportion of the nurses questioned felt that levels for sensible consumption of alcohol were greater than those stated in the Health of the Nation document (Department of Health, 1992). In fact, only one in four nurses knew the ‘correct’ sensible limits for both men and women, whereas the other 75% had indicated incorrect values for men, women or both. If this is extrapolated to the advice being given to patients, then only one in two women and one in three men may be getting the correct advice in the Liverpool area. Clearly, this is unacceptable and needs to be remedied by appropriate training. However, it is important to note that our calculations are based on sensible limits as defined by the Royal College of Physicians (1987) and subsequently used in the Health of the Nation document (Department of Health, 1992). Our conclusions do not take into account the Government report on Sensible Drinking (Department of Health, 1995b), which set the benchmark for sensible drinking at higher levels — between 3 and 4 U/day for men (an increase of 33%) and between 2 and 3 U/day for women (an increase of 50%). If these new (daily) limits are taken to indicate the sensible limits, then less than 10% of nurses were giving incorrect advice. However, it is important to note that the advice given in the 1995 report (Department of Health, 1995b) has been criticized (Gaziano and Hennekens, 1995; Edwards, 1996). Indeed, the Royal Colleges have subsequently reaffirmed their view that there is no evidence to change sensible limits from 21 and 14 U/week for men and women, respectively (Royal Colleges of Physicians, Psychiatrists and General Practitioners, 1995). Clearly, it is possible that the conflicting advice from different bodies may have led to confusion in the practice nurses surveyed, and thus the range of answers that we obtained. Nevertheless, it underlines the fact that clear and appropriate training is required to overcome some of the incorrect advice which may be being given to patients.

Most nurses indicated that they would welcome further training on alcohol-related issues, including being involved in patient care in the community. The issue of training of practice nurses has been addressed (Atkin et al., 1993). A major problem to overcome is that the background and qualifications of practice nurses vary widely (MacKereth, 1995). Additionally, the role of practice nurses varies from running health promotion clinics to treatment of acute and chronic diseases...
(Mungall, 1992; Jewell and Turton, 1994; Marsh and Dawes, 1995). Although practice nurses perceive themselves as specialists in health promotion, they seem to have had little training in the area (Farquhar and Bowling, 1990a,b), including giving advice on alcohol consumption (MacKereth, 1995). In accordance with the latter report, our study shows that there is a need for training of practice nurses in alcohol-related problems. Such training should ideally be coordinated by nursing bodies. An added benefit of the training will be to increase the participation of practice nurses in the care of alcohol-dependent patients in the community, for example in home detoxification, which with appropriate resources is just as effective as hospital detoxification (Cooper, 1995; Fleeman, 1997).

In conclusion, our survey shows that practice nurses demonstrate a knowledge and skills gap in relation to advice given about alcohol consumption. Practice nurses are an under-utilized resource for the management of alcohol misuse in the community (Deehan et al., 1998), and their involvement needs to be encouraged. However, there is an urgent need for training, the degree of which will need to vary according to prior experience and qualifications of the practice nurse, and their current role in the practice. The minimum training and competence requirements for practice nurses must include (a) an ability to take a careful alcohol history [which is often not done by doctors (Kitchens, 1994; Roche and Richard, 1994; Volk et al., 1996)]; (b) a knowledge of sensible limits of drinking as defined by the Royal Colleges of Physicians, Psychiatrists and General Practitioners (1995); (c) the ability to administer simple screening tools, such as CAGE, to detect problem drinkers; and (d) an awareness of the services which are available in the community to which patients who are misusing alcohol can be referred.

Acknowledgements — The authors wish to thank the practice nurses who took part in the study. Funding from Liverpool Health Authority and NHS Executive North West is gratefully acknowledged.

REFERENCES