INTERVENTION BY AN ALCOHOL HEALTH WORKER IN AN ACCIDENT AND EMERGENCY DEPARTMENT

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Abstract — We have evaluated the effect of brief intervention by an alcohol health worker on alcohol consumption by 202 alcohol misusing patients. For 71 patients where questionnaires were successfully completed, 46 (65%) reported drinking less alcohol at 6 months as opposed to six (8.5%) who reported drinking more. The overall reduction was statistically significant ($P < 0.001$), with a mean reduction of 43%.

INTRODUCTION

Alcohol causes many health-related problems, particularly in urban areas. The Kensington and Chelsea and Westminster Health Agency is estimated to have over 50 000 (22.2%) people drinking in excess of recommended levels, including 12 000 (6.7%) considered to be dependent; this compares unfavourably with the average for the UK of 10% drinking hazardous with 4% dependent (Stimson and Hayden, 1993).

After an initial study of Accident and Emergency (A&E) patients (Green et al., 1993), a programme was funded to develop a new approach to the identification of, and intervention with, problem (hazardous and dependent) drinkers (Williams and Webb, 1992). This involved the employment of a nurse specialist in alcohol problems — an Alcohol Health Worker (AHW) — to counsel patients, to provide liaison with specialist agencies, and to support medical and nursing staff. It made use of a simple practical test — the 1-minute Paddington Alcohol Test (PAT) — devised to enable A&E staff to detect alcohol misusing patients (Smith et al., 1996).

Detection of underlying problems is not a new concept to hospital staff. Healthcare professionals are considered negligent if they fail to consider underlying diagnostic possibilities in their patients and make appropriate referrals where necessary. Problems with alcohol misuse should not be seen any differently. The potential medicolegal consequences of negligently failing to detect alcohol misuse, and therefore later consequent pathology, must be remembered (Touquet et al., 1998).

The benefits of brief intervention in treatment of people who are at the early or critical stage of their drinking (Paton, 1996a) have been well documented, both in hospital (Chick et al., 1985) and in general practice (Wallace et al., 1988) settings. This study therefore aimed to assess the extent to which opportunistic intervention within the A&E Department (i.e. initial detection with subsequent counselling) could be of benefit to both those drinking hazardously and dependent drinkers. It covers the same cohort of patients as previously reported (Smith et al., 1996) and is a direct extension of that work.

SUBJECTS AND METHODS

During a 1-year study period (1 September 1994–31 August 1995), 53,090 patients over the age of 16 years were seen at St Mary’s Hospital A&E Department. The use of the PAT (Appendix 1) identified 335 patients as having an alcohol problem. Of those, 202 were subsequently counselled by an AHW (Smith et al., 1996). Patients were referred to an AHW for a full alcohol assessment, having been detected by A&E doctors and nurses using the PAT. They were mostly

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counselling in the A&E Department or the attached observation ward. The assessment involved the taking of a full alcohol history, including duration of problem, average number of units drunk, evidence of withdrawal symptoms, and any previous treatment. Patients were asked to complete a Severity of Alcohol Dependence Questionnaire (SADQ) (Stockwell et al., 1983) to complement their own assessment of their drinking, and to give written consent to follow-up after 6 months.

The initial counselling session with an AHW took the form of FRAMES (Bien et al., 1993), which describes six elements. (1) Feedback — of personal risk or impairment. (2) Responsibility — for personal change. (3) Advice — to change. (4) Menu — of alternative treatment options. (5) Empathy — as a counselling style. (6) Self-efficacy — enhancement of client self-esteem, optimism.

Where appropriate the patient was referred onto the agency best suited to their needs as judged by an AHW jointly with the patient. Although this was usually to specialist alcohol services, other options included the psychiatric services, bereavement counselling, and general practitioners. Specialist alcohol agencies included a broad range of services from in-patient/home detoxification, one-to-one counselling, group programmes, to the direct provision of advice and information.

The role of the AHW was to act as a catalyst and to guide patients into seeking an appropriate agency for further treatment as required. Referral on for further treatment was dependent on the outcome of the assessment, previous treatment programmes and the patient’s own preferred treatment option.

The 6-month follow-up was by means of a self-completion questionnaire which was sent to all patients for whom there was a permanent address. Some information was obtained through the alcohol treatment agencies, which provided details of the patient’s attendance. Those for whom no information was available were followed up by telephone calls, home visits, and liaison with general practitioners.

RESULTS

The introduction of an AHW into the A&E Department facilitated direct access for both staff and patients to a dedicated counselling service. There was a threefold increase in referred patients definitely counselled by comparison with our initial study (Green et al., 1993) when no AHW was available in the Department. The increase was from 21% (22 out of 104) to 60% (202 out of 335).

Of the 202 patients who were counselled, direct follow-up contact at 6 months was made with 71 (35%) and for a further 37 (18%) information was obtained from agencies to which they had been referred (Table 1). Some follow-up information was therefore available for 108 patients (positive contact). By contrast, 94 (47%) were lost to follow-up (negative contact) for a variety of reasons as shown in Table 1.

Table 2 shows the treatment plan agreed with the 108 patients who were followed up. Overall,
Table 3. Initial Severity of Alcohol Dependence Questionnaire (SADQ) scores

<table>
<thead>
<tr>
<th>Response</th>
<th>Dependent drinkers (score &gt;30)</th>
<th>Hazardous drinkers (score 0-30)</th>
<th>No scores</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive contact</td>
<td>No. (%)</td>
<td>No. (%)</td>
<td>No. (%)</td>
<td>No. (%)</td>
</tr>
<tr>
<td>Clients who responded to first and second wave follow-up (n = 71)</td>
<td>29 (33)</td>
<td>29 (41)</td>
<td>13 (29)</td>
<td>61</td>
</tr>
<tr>
<td>Clients for whom there was agency follow-up information (n = 37)</td>
<td>19 (22)</td>
<td>12 (17)</td>
<td>6 (14)</td>
<td>41</td>
</tr>
<tr>
<td>Negative contact</td>
<td>No. (%)</td>
<td>No. (%)</td>
<td>No. (%)</td>
<td>No. (%)</td>
</tr>
<tr>
<td>Clients not followed-up (n = 94)</td>
<td>39 (45)</td>
<td>30 (42)</td>
<td>25 (57)</td>
<td>94</td>
</tr>
</tbody>
</table>

Total 87 71 44

Table 4. Reported change in level of drinking at 6 months (follow-up questionnaire)

<table>
<thead>
<tr>
<th>Level of drinking</th>
<th>Returned questionnaires (n = 71)</th>
<th>Per cent of total clients (n = 202)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>More alcohol</td>
<td>6</td>
<td>8.5</td>
</tr>
<tr>
<td>Less alcohol</td>
<td>46</td>
<td>64.9</td>
</tr>
<tr>
<td>Same amount</td>
<td>16</td>
<td>22.5</td>
</tr>
<tr>
<td>Questionnaire incomplete</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

88 (81%) received treatment either at the initial session or from a specialist alcohol service. A further 13 (12%) were referred on to other more general services. Only seven (6%) patients declined further help.

Table 3 shows that, of the 71 patients who responded to the follow-up questionnaire, 29 had scored as dependent on the SADQ carried out initially and 29 as hazardous drinkers. Thirteen scores were missing, because the client was unable or unwilling to complete this test. In addition, for those who were followed-up via the agencies, a further 19 scored as dependent drinkers and 12 scored as hazardous drinkers, with the remaining six having no scores. Those who could not be contacted were more likely to be dependent (39 compared with 29).

Details of the self-reported levels of drinking at 6-month follow-up from these 71 patients are presented in Table 4. Forty-six (65%) patients reported a reduction in alcohol intake at 6 months with six (8.5%) declaring an increase. Twenty-eight patients were not able to provide a figure for the number of units drunk, although they were able to record a change. For the 43 patients who provided figures of units drunk per day before and after intervention, there was a mean reduction of 43%, from a mean of 30 U/day initially (range 8–90 U) to a mean of 17 U/day (range 0–60 U), (P < 0.001).

Table 5 compares the reported change in drinking levels to severity of dependence for 58 patients who successfully completed the SADQ questionnaire. Of the hazardous drinkers 72% (21/29) reduced their intake, while 52% (15/29) of the dependent group reduced their intake.

DISCUSSION

Brief interventions are demonstrably effective. For example, two studies compared groups of patients who were counselled with control groups (Chick et al., 1985; Wallace et al., 1988). The first selected patients who had been admitted to hospital. The second study selected patients from general practitioners’ lists who were recruited by questionnaire. Both studies (using very different methodologies) showed significant reductions of alcohol intake at 1 year in the treatment groups compared with the controls. [Chick et al. (1985): 64 as against 48% for controls and Wallace et al. (1988): 44 and 25% for men and 48 and 29% for women].
Our report, the first from a UK A&E department, showed a positive effect in 65% of the 71 patients counselled and successfully followed-up at 6 months or 23% of the whole cohort of 202 patients. A control group was not included for comparison, because the AHW's employment contract was based on 'outcome funding' (Williams and Webb, 1992), which required a minimum of 200 patients to be counselled per year. In addition, the effectiveness of brief intervention has been previously demonstrated (Nuffield Institute for Health, 1993), and one of the aims of our work was to provide care for our patients in a clinical context as well as altering the frequently negative attitudes of A&E staff towards people who misuse alcohol (Lowenstein et al., 1990).

By not assessing a control (non-intervention) group, it is not possible to compare the A&E environment with that of the ward or general practice surgery as a suitable place to recruit patients who are misusing alcohol, for intervention. However, the PAT (Appendix 1) is applied to patients who have had to attend hospital A&E departments and is therefore similar to reports of those admitted to hospital (Chick et al., 1985), as opposed to those screened from general practitioners' lists (Wallace et al., 1988). The patients' actual presence in the A&E Department or in a hospital bed made them more accessible and may have made it more difficult for them to deny problem drinking. The PAT asks if the patient feels that their current attendance in the A&E Department relates to alcohol, identifying a possible relationship, which opens the way for an intervention. Motivation to change at times of crisis is heightened (Paton, 1996b).

In our study, changes in levels of drinking were obtained from 68 patients, 46 (65%) of whom reported a reduction in drinking, with a significant mean reduction of 43% in the amount drunk. This is encouraging evidence that a positive approach to alcohol misuse can be rewarded with success. A&E staff are often unaware of this potential, which partially explains their negative attitude to this client group, because they judge wrongly that there is no worthwhile treatment for alcohol misuse.

The distribution of reduction in drinking behaviour between those who were dependent (52%) by comparison with those who were hazardous drinkers (72%) demonstrates the worth of intervention early in the natural history of alcohol misuse. It also suggests that significant benefit can be obtained among those who are dependent, the severest of whom are normally excluded from brief intervention [our initial study (Green et al., 1993) excluded patients already known to be problem drinkers]. The fact that 27 (13.3%) had no fixed address and 15 (7.4%) of the present series of patients had died at 6 months (Table 1) indicates that alcohol misusing patients are a testing and vulnerable population to work with. Further work in this area is needed where thiamine deficiency is always a possibility, but is often not considered (Thomson and Cook, 1997), with potentially very serious consequences for the patient.

The presence of an AHW five mornings a week in the A&E Department facilitates on-going education, encouragement, and feedback for all staff. Patients and staff feel relief that a positive way forward — referral to an AHW — is available on the next working day. These factors, together with demonstrated success in treating a major problem, lead us to conclude that every urban hospital should now employ an AHW, to be based in their A&E department. This service should be available to all hospital staff remembering that up to a quarter of all patients attending A&E departments are admitted to hospital.

### Table 5. Reported change in level of drinking for 58 dependent and hazardous drinkers at 6 months where Severity of Alcohol Dependence Questionnaire completed at start

<table>
<thead>
<tr>
<th>Drinking group</th>
<th>More</th>
<th>Less (%)</th>
<th>Same</th>
<th>Unable to specify</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent drinkers (n = 29)</td>
<td>3</td>
<td>15 (52%)</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Hazardous drinkers (n = 29)</td>
<td>2</td>
<td>21 (72%)</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>
Acknowledgements — We are grateful to Professor J. Henry, Dr A. Paton, Dr J. Fothergill, and Mr Simon G. T. Smith for their guidance in the preparation of this paper. We are also grateful to Mr Ivan M. House for statistical advice.

REFERENCES


The one minute 'PADDINGTON ALCOHOL TEST' (P.A.T.)

Please complete for ALL A&E PATIENTS where there is any INDICATION OF ALCOHOL MISUSE, e.g. ASSAULT, head esp. facial injury, fall, non-specific G.I. problem, "unwell", fit, blackout, collapse, insomnia, sweating, hypo/hyperglycaemia, palpitations, chest pain, gout, rashes, depression, overdose; note REPEAT attendance (perhaps with unexplained symptoms) + DELAYED attendance >4hrs (perhaps intoxicated at the time of 'incident').

Remember the Elderly presenting with: falls, confusion, incontinence and self-neglect.

DATE: PATIENT IDENTIFICATION STICKER:

1. 'Quite a number of people have times when they drink more than usual; what is the most you will drink in any one day? N.B. Please note if home or pub measures. Units (1 unit = 8 grams alcohol) relating to pub measures, are shown in brackets.

<table>
<thead>
<tr>
<th>TYPE OF DRINK</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer/lager/cider</td>
<td>___ Pints (2) ___ Cans (1.5) Units/day</td>
</tr>
<tr>
<td>Strong Beer/lager/cider</td>
<td>___ Pints (5) ___ Cans (4)</td>
</tr>
<tr>
<td>Wine</td>
<td>___Glasses (1.5) ___ Bottles (9)</td>
</tr>
<tr>
<td>Fortified Wine (Sherry, Martini)</td>
<td>___ Glasses (1) ___ Bottles (12)</td>
</tr>
<tr>
<td>Spirits (Gin, Whisky, Vodka)</td>
<td>___ Singles (1) ___ Doubles (2) ___ Bottles (30)</td>
</tr>
</tbody>
</table>

2. If this is more than 8 units/day for a man, or 6 units/day for a woman, does this happen:
   - Once a week or more? YES: PAT+ve (B Vit?)
   - Between once a month and once a week? YES: PAT+ve
   - Neither (i.e. once a month or less)? = PAT neg, (? trumped by 3)

3. 'Do you feel your current attendance in A&E is related to alcohol? YES(PAT+ve) / NO

   i.e. PAT +ve if > 8u male or 6u female > once a month, and / or YES to q. 3.

If PAT +ve: 'Would you like to see our Health Worker?' YES / NO

   If YES: give Alcohol Advice Card with appointment for next Review Clinic
   If NO:
   1. Give patient Alcohol Advice Card, patient may change mind later and return.
   2. Still complete PAT, place in notes for reinforcement if patient reattends
   3. Mark A&E notes, p.3, PAT 'POS', Referred AHW 'NO', to alert staff.

If to be admitted, note in AHW book & state ward if known

DOCTOR / NURSE SIGNATURE: NAME STAMP: