Knowledge, attitudes and management of alcohol problems in general practice in rural South Africa

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Abstract

Background: There has been increasing emphasis on the role of primary health care in the prevention and management of alcohol-related harm. The aim of this study was to determine attitudes to and management of alcohol problems in general practice in rural South Africa.

Methods: A total of 61 general practitioners (GPs) were interviewed with the aid of a structured questionnaire (response rate 50%) in two rural districts.

Results: The results indicate that 51% of the GPs felt that alcohol is an important issue in general practice. GPs were able to discriminate accurately between cases of problem drinking and alcohol dependence. GPs who reported high levels of alcohol-related education and training were more prepared to counsel problem drinkers, expressed more therapeutic commitment in their role and reported more appropriate management of these patients than did GPs with lower levels of Continuing Medical Education (CME) experience. Alcohol problems are recognised as an important problem in general practice, and improved training could increase the identification and management of alcohol problems in primary care. GPs rated the most critical barriers to alcohol interventions as competency training, role endorsement, not being adequately reimbursed, health policy not supporting prevention and their own alcohol problem.

Conclusion: Alcohol problems are recognised as an important problem in general practice, and improved training, adequate reimbursement and health policy support could increase the identification and management of alcohol problems in primary care.

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Introduction

Among a primary care out-patient sample of rural South Africans, 37.4% of men and 10.7% of women were found to be high-risk drinkers, and 3.1% were found to have probable alcohol dependence.[1] In a study of 18 to 24-year-old community health centre attendees in the Cape Town Metropole, it was found that 26.5% of males and 4.2% of females were hazardous alcohol users.[2]

In a nationally representative survey, hazardous or harmful drinking assessed with the AUDIT measure was 10% among adult men and 2% among adult women in 2005 (SABSSM II) and 17% were problem drinkers (assessed with the CAGE) in 1998 (DHS). Local surveys among adolescents, university students, clinic populations and mine employees all seem to generally indicate higher levels of risky drinking than in the national surveys. Alcohol production/per capita at eight litres is high, considering that there is an estimated additional three to four litres unrecorded production/consumption, and that high amounts are consumed by a small population, since most people in South Africa abstain from drinking.[3]

In South Africa, public primary health care is delivered mainly by nurse practitioners, while private primary care is delivered mainly by general practitioners (GPs) (or primary healthcare physicians). In a study among South African hospital physicians, the majority (91.2%) believed that health education was not a waste of time or effort and 90% felt that they should advise patients on their personal lifestyles. However, 43.3% believed that they would not have enough time to practice health education.[4]

There has been increasing emphasis on the role of primary health care in the prevention and management of alcohol-related harm.[5,6] However, despite evidence of the effectiveness and cost-effectiveness of brief interventions in primary health care, such interventions have yet to be integrated into routine clinical practice.[7,8,9] General practitioners find alcohol a difficult issue, and they frequently lack the skills and the confidence necessary to provide preventive advice or even to screen effectively. Thus, education and training, a supportive working environment, role security and the therapeutic commitment of primary healthcare providers could improve alcohol management, which is the subject of this study.[10] The study also examines diagnostic and management skills, including GPs' views on how much patients have to drink before advising them.

Methods

Sample and procedure

One hundred and twenty-two GPs were identified from a list of the South African Health Professions Council in two rural districts in Limpopo Province, South Africa. The GPs were approached by a trained research assistant in their practices in order to have the questionnaire self-administered. Two follow-up visits were made to facilitate questionnaire administration and collection. A total of 61 GPs (50%) responded to the questionnaire. Informed consent was obtained from each physician. The study was approved by the University of Limpopo Ethics Committee and the Provincial Department of Health and Welfare. The survey questionnaire took approximately 20 minutes to complete.

Measure

The questionnaire consisted of 32 questions, with a number of sub-items within each question. The questionnaire covered many aspects of preventive medicine. Alcohol-related questions were embedded non-sequentially within the questionnaire in order to avoid response-set bias.

As part of the questionnaire, the GPs were asked to outline the extent of postgraduate education and training, continuing medical education

(CME) or clinical supervision relating to alcohol or alcohol-related problems they had ever received. For brevity, these three terms will be referred to as alcohol-related CME. The GPs' experience of alcohol-related CME was subsequently coded into low levels (zero to less than four hours) or high levels (four or more hours).[11]

The GPs' attitudes toward alcohol issues were measured by a series of questions that asked them to rate on a four-point scale (two positive and two negative items) the importance of moderate alcohol consumption to promoting good health, their preparedness to counsel patients concerning alcohol issues and their perceived effectiveness at reducing patients' alcohol consumption. Attitude scales were subsequently recoded into binary categories (e.g. important/not important, prepared/not prepared and effective/not effective).[11]

Regarding practice behaviour, the GPs reported how frequently they obtained information about alcohol either regularly (always/as indicated) or not (rarely/never). In addition, two further questions related this behaviour specifically to the preceding year:
1. "How many patients have you managed specifically for hazardous drinking or alcohol-related problems?" (GPs were grouped into those who managed seven or more patients in the preceding year and those who managed fewer (or none) than seven patients in the preceding year), and
2. "How many times have you taken or requested a blood test (e.g. blood alcohol, MCV, GGT) because of concern about alcohol consumption?"[11]

The GPs' diagnostic and management skills were assessed by means of responses to vignettes of two case histories used in the WHO brief intervention study. Case A was a patient who was drinking excessively, had evidence of some health problems but no physical dependence, and who should consider reducing consumption. Case B was a patient whose level of alcohol consumption and associated physical symptoms were suggestive of alcohol dependence and who should attempt to abstain from alcohol. The GPs rated the two cases on a 10-point scale (from 0 to 9) in terms of problem severity, importance of abstaining from alcohol and confidence in helping to alleviate problems.[11] Two open-ended questions were also asked:
1. "How many drinks should a male patient drink in a week to make you advise him to reduce his drinking?"
2. "How many drinks should a female patients drink in a week to make you advise her to reduce her drinking?" The GPs were asked to answer in terms of the South African standard drinks equivalent of 12 g of ethanol.[12]

A supportive work environment for intervening in alcohol problems was measured by four items (the availability of suitable screening materials, the availability of suitable counselling materials, the availability of training programmes for early intervention for alcohol, and if training in early intervention for alcohol was recognised for continuing medical education credits) (Cronbach alpha .73 for this sample). Responses to the four items were summed; the GPs were grouped as those with a supportive working environment (the top half of the total possible score) and those with a non-supportive working environment (the bottom half of the total possible score).[10]

Role security and therapeutic commitment were measured by responses to the short form (10 items) of the Alcohol and Alcohol Problems Perception Questionnaire.[13] Response options were from 7 (= strongly agree) to 1 (= strongly disagree). Role security measures role adequacy (e.g. I feel I can appropriately advise my patients about drinking and its effects) and role legitimacy (e.g. I feel I have the right to ask patients about their drinking when necessary). The therapeutic commitment measures motivation (e.g. pessimism is the most realistic attitude to take toward drinkers), task-specific self-esteem (e.g. all in all I am inclined to feel I am a failure with drinkers) and work satisfaction

(e.g. in general, it is rewarding to work with drinkers). Responses for role security (four items) and therapeutic commitment (six items) were summed; Cronbach alpha was .64 for the role security and .64 for the therapeutic commitment subscale for this sample. The GPs were grouped into those with higher role security and therapeutic commitment (a score higher than the median value for each scale) and those with lower role security and therapeutic commitment (a score including and lower than the median value for each scale).[10]

The questionnaire also asked respondents to indicate their levels of agreement with one list of 18 statements relating to disincentives for GPs' intervention in alcohol problems and another list of 11 statements relating to incentives to intervene. Agreement was indicated on a five-point scale ("very much", "quite a bit", "little", "not at all", "don't know").[14]

Data were analysed using SPSS version 12.0. Differences between groups in outcome measures were determined using Chi-square tests for categorical data, McNemar's test was used where these data had a repeated measure over time. The Kruskal Wallis tests were used for median rates, and a paired samples t-test was used for comparing mean levels of threshold drinking.

Results

Practice characteristics
The sample included 61 GPs (83.6% male and 16.4% female), with a mean (SD) age of 41 (10.9) years and a mean number of years in general or family practice of 9.4 (8.6) years; 45% practiced in a mixed urban/rural practice, 38% in a rural and 17% in an urban-based surgery. Most GPs (77%) worked in a solo practice and 23% in a group practice. Most (65%) worked six days, 31% worked seven days and 6% worked five days a week. More than half (54%) see on average more than 150 general practice patients, 21% see 101 to 150 patients a week and 24% see 100 and fewer patients a week.

Disease prevention and health promotion
The GPs estimated that the mean percentage of their clinical time specifically devoted to disease prevention was 16% (SD = 11.5), although this varied considerably, from 1% to as high as 40% of

Table I: GPs' rating of lifestyle behaviours as important or very important

Behaviour	%
1. Not smoking	100
2. Exercise regularly	100
3. Responsible use of prescription drugs	100
4. Not using illicit drugs	96.7
5. Reducing stress	93.4
6. Avoiding excess calories	90.2
7. Not drinking alcohol at all	90.2
8. Drinking alcohol moderately	62.3

Table II: Importance of alcohol health promotion

Importance of following behaviour in promoting health of average person				
	Very important	Important	Somewhat important	Unimportant
Drinking alcohol moderately	24.6	37.7	13.1	24.6
Not drinking alcohol at all	72.1	18.0	6.6	3.3
To which extent do you obtain information on				
	Always	As indicated	Occasionally	Rarely/ never
Drinking alcohol moderately	16.4	55.7	16.4	11.5
Not drinking alcohol at all	44.3	32.8	19.7	3.3

their time. Information on how GPs viewed the relative importance of different lifestyle behaviours is listed in Table I.

Alcohol-related behaviour was rated lowest, whereby not drinking alcohol at all was rated as more important than drinking alcohol moderately.

As part of a preventive check-up, most of the GPs (77%) would educate or advise patients about their lifestyle issues and health risks all or most of the time, while 23% would do so some of the time. If the patient did not ask about alcohol, 5% of the doctors would ask about alcohol rarely or never, 46% some times, 46% most of the time and 3% all the time.

Fifty-one per cent of the GPs felt that alcohol is an important issue in general practice, while 7.3% found alcohol to be a little important, 27.3% quite a bit and 14.5% very much unimportant in general practice. In promoting the health of an average person, 72% of the GPs felt it was very important to promote "not drinking alcohol at all" rather than drinking alcohol moderately (25%). The GPs would always obtain information about "not drinking alcohol at all" in 44% of the cases and, as indicated, obtain information about "drinking alcohol moderately" in 56% of the cases (see Table II).

Training and education
More than half of the GPs (57.6%) indicated that they had ever in total had none or less than four hours postgraduate training, continuing medical education or clinical supervision in alcohol-related problems, and 42.4% had four and more hours. Some doctors commented that not much time is spent in medical school on alcohol screening, but that postgraduate training like the MMed (Family Medicine) course deals with alcohol, its effects, screening and counselling a lot.

Attitudes
There was no significant relationship between experience of alcohol-related CME and views about the importance of moderation in alcohol consumption to promote good health (χ^2=.08, ns) and their effectiveness (current or potential) at reducing alcohol consumption in patients (χ^2=.60 or .14, ns). However, GPs who reported higher levels of alcohol-related CME were more prepared to counsel patients on reducing alcohol consumption (χ^2=3.92, p<.05) than GPs with low levels of alcohol-related CME.

Practice behaviour
One-fifth of the GPs (27.1%) reported that they had never managed patients specifically for their hazardous drinking or alcohol-related problems in the preceding year, one-third (33.9%) had managed one to six patients, and 39.9% had managed seven and more patients.

There was a significant association between the number of patients managed for alcohol problems in the preceding year and experience of alcohol-related CME (χ^2=6.23, p<.05).

There was also a significant association between the number of blood tests requested in the preceding year because of concern about alcohol and experience of alcohol-related CME (χ^2=13.87, p<.01). The median range of blood tests requested was 'never' in the past year for GPs with low levels of alcohol-related CME and '1–2 times' per year for GPs reporting high levels of alcohol-related CME.

Diagnostic and management skills
The GPs' responses to stated courses of action relating to Case A (excessive drinker) and Case B (dependent drinker) are shown in Table III. The GPs correctly identified that the drinking problem was considerably more severe in Case B than in Case A (z = 13.0, p <.05), they were more concerned that Case B should stop drinking alcohol (z = 24.42, p <.001)

and they were also more confident about being able to help alleviate Case B's drinking problem compared with Case A (z=22.19, p<.01).

The most frequent initial action recorded for Case A was to advise the patient to cut back on drinking (77%), whereas for Case B it was to advise on abstinence (80%). A higher proportion of GPs reported that, for Case A, they would ask the patient to return for discussion about alcohol, and for Case B, refer the patient to a specialist agency. For Case A (excessive drinker), GPs who reported higher levels of alcohol-related CME were more likely to ask further questions about alcohol (χ^2 = .33, p <.001) and other blood and liver enzyme tests (χ^2 = .14, p <.001). In comparison, GPs with low levels of alcohol-related CME were more likely to record consumption but take no more action (χ^2 = .29, p <.001).

For Case B (dependent drinker), GPs who reported higher levels of alcohol-related CME were more likely to ask further questions about alcohol (χ^2 = .23, p <.001), indicate that alcohol was related to the patient's problems (χ^2 = .04, p <.001), request other physiological tests (χ^2 = .34, p <.001), and more likely to refer to a specialist (χ^2 = .15, p <.05) than GPs who reported less alcohol-related CME.

Threshold drinking levels
The GPs were asked about a healthy adult man and woman and what they would consider the upper limit for alcohol consumption before advising him or her to cut down. Of the 61 respondents, 18 (29.5%) could not state any level at which they would advise male patients and 13 (21.3%) could not state any level for female patients. Among the rest, the mean (SD) level of alcohol consumption at which they would advise was 6.4 (6.9) standard drinks per week for male patients and 4.4 (4.5) standard drinks per week for female patients, which is significantly higher for male than for female patients (t = 4.25, p <.001). Considering the South African threshold values for heavy drinking (24 standard drinks for men and 16 standard drinks for women per week), only four (6.6%) GPs stated levels higher than the threshold values for heavy drinking regarding male patients and three (5.4%) stated higher levels regarding female patients. Conversely, 63.9% of the GPs stated levels lower than the threshold values for men and 73.3% stated lower levels for women.

Work environment and attitude to problem drinkers
Almost half (47.4%) of the GPs scored high on the perception that

they were working in a supportive environment, 31.1% felt secure in their role, and 45.9% felt therapeutically committed. For both types of case presentation (Case A: excessive drinker and Case B: dependent drinker), ratings of role legitimacy were highest and work satisfaction lowest. Three self-perception categories were rated higher for dependent than for hazardous drinkers and task-specific self-esteem had the largest difference (see Table IV).

A higher number of patients with alcohol problems managed by the GP was significantly related to therapeutic commitment (χ^2 = 10.80, p <001), while role security (χ^2=.06, ns) and supportive work environment (χ^2 = .86, ns) were not significantly related.

Barriers to intervention
The levels of the GPs' agreement with incentives and disincentives are listed in Table V.

Table V: GPs indicating agreement with disincentives and incentives to intervention for alcohol problems

Disincentives	
Doctors are not trained in counselling for reducing alcohol consumption	84.2
Government health policies in general do not support doctors who want to practice preventative medicine	73.7
Doctors themselves may have alcohol problems	73.7
Doctors believe that patients would resent being asked about their alcohol consumption	71.9
The government health scheme does not reimburse doctors for time spent on preventive medicine	69.1
Private health insurance does not reimburse patients for alcohol counselling by doctors in general practice	68.4
Doctors are just too busy dealing with the problems people present with	68.4
Doctors believe that alcohol counselling involves family and wider social effects, and is therefore too difficult	66.7
Doctors do not have a suitable screening device to identify problem drinkers who have no obvious symptoms of excess consumption	63.2
Doctors do not have suitable counselling materials available	61.4
Doctors themselves have a liberal attitude to alcohol	61.4
Doctors have a disease-model training and they don't think about prevention	50.9
Doctors feel awkward about asking questions about alcohol consumption because saying someone has an alcohol problem could be seen as accusing them of being an alcoholic	50.9
General practices are not organised to do preventive counselling	49.1
Doctors do not know how to identify problem drinkers who have no obvious symptoms of excess consumption	49.1
Alcohol is not an important issue in general practice	49.1
Doctors do not believe that patients would take their advice and change their behaviour	42.1
Doctors think that preventive health should be the patient's responsibility, not theirs	31.6
Incentives	
Public health education campaigns in general made society more concerned about alcohol	89.5
Patients requested health advice about alcohol consumption	89.5
Training in early intervention for alcohol was recognised for continuing medical education credits	87.7
Training programmes for early intervention for alcohol were available	80.7
Early intervention for alcohol was proven to be successful	78.9
Providing early intervention for alcohol was recognised for quality assurance credits	78.9
Support services were readily available to refer patients	78.9
Quick and easy screening questionnaires were available	73.7
Quick and easy counselling materials were available	73.7
Salary and working conditions were improved	**73.7**
Patients were willing to pay a fee for alcohol counselling	**54.4**

Table III: Reported actions relating to Case A (excessive drinker) and Case B (dependent drinker) (in percent)

Initial action: Record consumption and			Eta
Take no further action	14.8	10.2	.48
Advise patient to cut back	77.0	44.1	.34***
Advise patient to abstain	47.5	79.7	.04***
Further actions			
Continue to establish if alcohol is the problem	93.4	83.1	.24
Indicate alcohol is related to problems	90.2	88.5	.30
Other blood and liver enzyme tests	88.5	89.5	.39
Ask patient to return for discussion about alcohol	88.5	66.1	.29**
Refer on to outside/specialist agency for help	39.0	79.7	.03***

***p<.001, **p<.01, *p<.05

Table IV: Mean ratings of GPs on the shortened Alcohol and Alcohol Problems Perception Questionnaire

	Hazardous or harmful use	Dependent or severe problem
Role adequacy	5.54	5.54
Role legitimacy	5.79	5.90
Motivation	4.52	4.66
Task specific self-esteem	4.86	5.11
Work satisfaction	4.06	3.95

In terms of disincentives to intervene, there was more than 68% agreement regarding not trained, government health policy, own alcohol problem, resentment of patients, no reimbursement from government and private insurance. In terms of incentives to intervene, all but four statements (public and patient awareness, CME accreditation and availability of training programmes) received above 70% endorsement.

Discussion

The findings show that one-fifth of the GPs reported that they had never managed patients specifically for their hazardous drinking or alcohol-related problems, while 40% had managed seven and more patients in the preceding year. In other words, 60% managed six or less patients for alcohol problems a year. This is quite low, but seems to be similar to a study among GPs in New Zealand, where 80% managed less than 13 patients per year.[14]

The GPs estimated that the mean per cent of their clinical time specifically devoted to disease prevention was 16% (SD = 11.5), which is lower than in a study among GPs in New Zealand (21%).[14] Almost two-thirds (58%) of the respondents in this study reported receiving no or less than four hours of alcohol-related postgraduate education or training, which is comparable with other studies.[11]

The GPs showed adequate diagnostic and management skills for alcohol problems (were able to discriminate accurately between cases of problem drinking and alcohol dependence), which is similar to what was found in the WHO Collaborative study.[11] On how much a patient has to drink to be advised by GPs and compared with the recommended South African threshold values for heavy drinking, the GPs generally rated relatively low mean levels of alcohol consumption (6.4 for men and 4.4 for women) at which they would advise, which is only 25–30% of the South African threshold values for heavy drinking (24 standard drinks for men and 16 standard drinks for women per week). In a Finnish study among GPs, these doctors also proposed lower (about two-thirds) threshold values for heavy drinking in comparison to the Finnish threshold values.[12]

GPs who reported high levels of alcohol-related education and training managed more patients with alcohol issues and requested more blood tests in the preceding year because of concern about alcohol than other GPs, which is the same as found by Kaner et al.[11]

The perceptions of GPs would suggest, in line with other studies, that education and training and therapeutic commitment need to be provided for effective alcohol intervention in primary care.[10] Unlike other studies, this study did not find any effect of supportive work environment and role security in relation to increased alcohol management in primary care.[10]

This study found that 47% of the GPs scored high on the perception that they were working in a supportive environment and 46% felt therapeutically committed, which is higher than in the WHO collaborative study (27.1% for supportive work environment and 27.1% for therapeutic commitment), and 31% felt secure in their role, which is much lower than in the WHO collaborative study (83.9%).[10]

When asked to rate barriers to alcohol interventions, besides issues regarding competency training, GPs identified factors relating to role endorsement as most critical. Respondents placed emphasis on barriers to intervention such as not being adequately reimbursed, health policy not supporting prevention and their own alcohol problems.

This study has its limitations. The measures were self-reported, which may have made them prone to socially desirable responding, e.g. by reporting more positive attitudes towards working with drinkers

or stating a higher number of patients managed for alcohol-related problems. Further, a low response rate of 50% was achieved and one can assume that non-responders to the survey may differ in characteristics to those who responded. There thus is a need for caution in interpreting the results.

In conclusion, the GPs managed a low number of patients with alcohol problems, showed adequate diagnostic and management skills for alcohol problems, and the GPs who reported managing a higher number of patients with alcohol problems stated that they had received more education on alcohol and expressed more therapeutic commitment in their role. GPs who reported high levels of alcohol-related education and training were more prepared to counsel problem drinkers and reported more appropriate management of these patients than did GPs with lower levels of CME experience. The GPs rated barriers to alcohol interventions, with competency training, role endorsement, not being adequately reimbursed, health policy not supporting prevention and their own alcohol problems being the most critical. These findings seem to provide helpful groundwork for advocating for changes in policy, re-imbursement and education in order to enhance the effectiveness of the GP population as a whole in screening for and intervening in relation to alcohol problems.

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