

Do General Practitioners Diagnose and Treat Patients With Alcohol Use Problems?

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Abstract

Aim: To determine the primary health care working general practitioners' knowledge, attitude and behavior towards alcohol use disorders.

Method: In this descriptive and cross-sectional study 135 general practitioners (GPs) completed the questionnaire.

Results: Pre and post graduate education on alcohol use disorders is low (25.4 % and 11.7% respectively). Most of the GPs do not know the levels of risky alcohol use, screening tests, and biochemical markers. The mean knowledge score is 6.67 ± 1.70 . Most GPs think that alcohol use disorders are not an important issue in primary health care (57%), they do not have time to deal with patients' alcohol problems (74.1%), it is difficult to diagnose risky alcohol users without clear symptoms (91.1%), patients do not follow advice on alcohol use (85.2%), and physicians themselves are tolerant towards alcohol (71.1%). Half of the GPs reported that they find it difficult to talk about alcohol use with patients and think that patients may be angered by alcohol consumption questions. Mean attitude score is 4.44 ± 2.15 . Most of the GPs reported that they would ask questions about alcohol use to their patients (91.7%) and declare that the patients' problems were related to alcohol (90.2%). More than half of them reported that they would refer the patient to a specialist or an alcohol treatment center (58.5%). The mean behavior score is 5.96 ± 1.46 .

Conclusion: In our country it is clear that more education and support for GPs is needed due to their important role in intervention for alcohol use problems.

Key Words: Alcohol use disorders, primary health care, knowledge, attitude, behavior

INTRODUCTION

In terms of public health, the burden of diseases related with excessive alcohol consumption is significant (World Health Organization 2004). The most important factor for development of alcohol use problems is lack of knowledge on the risks of excessive alcohol use and limits of consumption (Bendtsen and Akerlind 1999). Screening of alcohol consumption in patients who apply for primary health care services gives an opportunity to educate patients about low risk consumption levels and risks of excessive use (Babor and Higgins-Biddle 2000).

Many controlled studies showed that excessive alco-

hol consumption decreased by a rate of about 20% with brief interventions in primary health services (Kaner et al. 1999). Brief interventions consist of motivational counseling and educational sessions about alcohol that take 5 to 20 minutes. Primary health care services have an increasingly important role in the prevention and reduction of alcohol related harm and in the management of patients with alcohol problems (Babor and Higgins-Biddle 2000; Anderson P. et al. 2003). Six systematic reviews of international studies and meta analysis support the use of brief interventions for alcohol problems in primary health care services (Hyman 2006). It was observed that general practitioners (GPs) in primary care

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are reluctant to examine alcohol consumption problems of patients and the implementation of brief interventions is insufficient (Anderson et al. 2004), with the reasons lack of time, lack of education, fear of how patients would respond to questions related to alcohol, perception of inability to consult, and the belief that “alcoholics” would not respond to interventions.

This study aims to identify the level of knowledge, attitude and behavior towards risky alcohol use, alcohol abuse and dependence of GPs who are working in primary health care services.

INSTRUMENTS AND METHODS

We aimed to include all 226 GPs who are working in 52 primary health services in the Konak Health District, İzmir, Turkey. Physicians were invited to an ‘education hour’ for a seminar entitled “Approaching Alcohol Use Disorders”. Seminars were arranged in the morning and afternoon for 2 days in order not to disrupt work and to ensure maximum attendance of GPs. A survey in order to identify their knowledge, approach and attitude towards alcohol consumption was applied to 135 GPs who came to the seminars (accession rate is % 59.7). Data was collected with the questionnaire, based on a survey used in a Phase III Grade 1 World Health Organization study about identification and treatment of alcohol use problems in primary health services (Anderson et al. 2003). The operability of the survey has been examined by preliminary application of the survey on 10 GPs who work outside of the study district. GPs were informed about the study and the survey, emphasizing volunteer participation in the study.

The survey consists of 55 open and closed ended questions structured in 5 sections: 1) general information on demographic characteristics, cigarette and alcohol use characteristics of physicians, and occupational information (13 questions); 2) knowledge questions about low risk alcohol use levels in males and females, screening scales, biochemical indicators and evaluation of cases (14 questions); 3) attitude towards intervention for alcohol problems (10 questions); 4) the fourth section concerns behavior towards patients with alcohol use problems (10 questions); 5) the fifth concerns confidence in identifying and managing alcohol use problems and factors that facilitate intervention (8 questions). The responses to knowledge, attitude and behavior questions were coded as “true or false (1-0 points)” and these scores were summed to obtain the total score for each area.

Variables of the level of knowledge about alcohol use disorders

Low risk alcohol use level for men and women: GPs were asked “At what level of alcohol use (in a week) should a healthy adult men/women be advised to decrease drinking?” They wrote their answers as grams alcohol/week or standard drinks/week. Answers above 14 standard drinks for males and 7 standard drinks for females were accepted as correct.

The maximum level of low risk alcohol consumption at one time for men and women: GPs were asked “At what level of alcohol use at one time should a healthy adult men/women be advised to decrease drinking?” They wrote their answers as grams alcohol or standard drink. Answers above 4 standard drinks for men and 3 standard drinks for women were accepted as correct.

Screening tests: GPs were requested to write the screening tests to determine risky alcohol use. Those who reported one of the screening tests, such as CAGE, AUDIT, or MATT, were grouped as “knows” and those who did not report any such tests were grouped as “doesn’t know”

Biochemical markers: Biochemical markers of risky alcohol use [mean corpuscular volume (MCV), alanine aminotransferase (ALT), aspartate aminotransferase (AST), gama-glutamyltransferase (GGT), lipids] were questioned. Those GPs who mentioned one of these markers or indicated as liver function tests were grouped as “knows”.

Knowledge of GPs about alcohol use disorders was evaluated by a case scenario. The case of a patient who had high weekly alcohol consumption (36 standard drinks), was admitted to a health care center with a lower respiratory tract infection and hepatomegaly, high blood pressure and tremor were determined. Eight statements concerning the steps should be done according to brief intervention were answered “yes” or “no” (Table 1). Correct answers scored as 1. The total knowledge score ranges from 0 to 14.

Variables concerning attitudes towards alcohol use disorders

GPs’ level of agreement on 10 statements on attitudes towards alcohol use disorders was evaluated by a 4-point Likert scale. Answers were grouped as “agrees” or “doesn’t agree” during analysis. Agreement with statements was evaluated as negative (wrong) attitude. Correct answers were scored as 1. The total attitude score ranges from 0 to 10.

TABLE 1. GPs' Rate of Correct Answers to Knowledge Questions Related to Case Scenario

Case: Lower respiratory tract infection + 35 standard drink/week + Hepatosteatosi	%
Some questions need to be asked about alcohol usage in order to measure the probability of underlying alcohol problem	100.0
We should indicate that alcohol is related with the problems	92.5
Mr. R's alcohol consumption levels need to be recorded in his health form, but for the time being nothing should be said regarding his alcohol use*	84.6
Mr. R's alcohol consumption levels need to be recorded in his health form and he should be encouraged to try to reduce his alcohol consumption*	17.1
Mr. R's alcohol consumption levels need to be recorded in his health form and he should be advised to quit drinking completely	58.1
Liver enzymes should be requested	100.0
Mr R. has to be told to come back again in order to talk about his alcohol use	96.1
Mr R. has to be referred to a clinic/specialist about his drinking problem	24.6
I* Statements marked answer "no" was evaluated as one point, in other suggestions "yes" was evaluated as one point	

Behavioural variables concerning alcohol use disorders

Behaviour of GPs to patients was evaluated by case scenario. GPs were provided with the case of a patient who has a sleep disorder and heartburn and consumes 20-21 standard drinks per week. Eight suggestions within the brief intervention method were answered by GPs as "yes" or "no". Correct responses were scored as 1 and the total behavior score ranges from 0 to 8.

An additional two questions were asked to identify behavior of GPs. They questioned how many times in the last month GPs requested blood tests because of their concerns about a patient's alcohol consumption and how many patients with alcohol related problems they treated in the last month.

Physicians' sense of confidence about identification and treatment of alcohol use disorders and the motivating factors for early intervention

Physicians' sense of confidence about identification and treatment of alcohol use disorders was evaluated with 2 questions. They were asked to mark their answers on a scale from 1 to 5 (1 = "I am not confident" and 5 = "I am fully confident")

Motivating factors concerning early intervention (sensitivity of community towards alcohol issues, patients' questions about alcohol, and availability of screening tests, consulting materials, education and referral chain) were rated on a 4-point Likert scale (totally agree, agree, somehow agree, do not agree). They were coded as 3,2,1,0 in data evaluation. Means were calculated.

Descriptive analysis was conducted with SPSS for Windows 11.0 statistical package program. Mean and

standard deviation of knowledge, attitude and behavior scores were calculated. Continuous variables were compared with t-test and Mann Whitney U test. The correlation among variables was analyzed with Pearson Correlation Analysis. The significance level was accepted as $p < 0.05$.

RESULTS

The mean age of 135 GPs was 39 ± 5.8 ; 61.5 % of them were woman (83 women, 52 men). 35.6 % of the GPs were smokers, 11.9 % of GPs had quit smoking. The amount of daily tobacco use was 14.09 ± 10.25 (median = 11). The rate of alcohol use was 79.3 %; 40.7 % of them used alcohol once a month or less; 25.2% 2-4 times per month; 11.1% 2-3 times per week; 2.2 at least 4 times per week. The mean amount of daily alcohol consumption was 2.31 ± 3.0 standard drinks (median = 2.0). The maximum amount of alcohol consumption at one time within the last month was 3.23 ± 3.0 standard drinks (median = 2.0). The mean amount of consumption of 4.4 % of the practitioners (5 male, 1 female) exceeded the limit of low risk alcohol consumption (> 4 standard drinks for males, > 3 standard drinks for females). When we looked at the maximum amount of alcohol consumption at one time within the last month, we found that 17.0 % of participants (17 men, 6 women) exceeded the low risk consumption limit.

Participants worked as GPs for 13.9 ± 5.7 years on average. Pre and post graduate education on alcohol use levels were 25.4 % and 11.7 % respectively. GPs saw 5 to 200 patients (median = 50) in a regular day of work at a primary health care center and they reported that 0-30 % of their patients have alcohol use disorders. Most of the GPs reported that they gave advice to their patients

on smoking (94.1 %), eating habits (88.9 %) and exercise (80.0 %). They reported giving advice on alcohol use to a lower degree (44.8 %).

Knowledge levels of GPs on alcohol use disorders

Only 20 % of GPs have knowledge about the low risk alcohol use levels for men; 28.1 % of them have knowledge about it for women. None of the GPs know about the screening tests for detecting alcohol use problems. 25.2 % of GPs know biochemical markers for detecting alcohol use problems; 19 GPs know GGT, 2 GPs know cholesterol and triglyceride, and 1 GP knows MCV.

GPs' knowledge of alcohol use disorders was also evaluated with a case scenario (Table 1). All GPs know that they have to ask questions on alcohol use in the case of alcoholic fatty liver. 92.5 % of GPs reported that they would inform the patient that his or her problems were related to alcohol use. 58.1 % of GPs know that the patient had to quit drinking alcohol. 24.6 % of GPs correctly know that it is not necessary to refer the patient to a specialist at the first stage. The mean knowledge score is 6.67 ± 1.70 .

Attitude of GPs towards alcohol use disorders

The scores of attitude statements are presented in Table 2. The mean attitude score is 4.44 ± 2.15 .

Behaviour of GPs towards alcohol use disorders

Behaviour of GPs towards alcohol use disorders was questioned via alcohol use cases. In the case of alcohol abuse, 91.7 % of GPs would ask the patient questions about alcohol use; 90.2 % of them would inform the patient that his or her problem is related to alcohol use.

26.9 % of them would not say anything about alcohol use. 73.3 % of them would advise decreasing alcohol consumption; 31.1 % of them would advise alcohol cessation. 90.8 % of GPs would want to see the levels of liver enzymes of the patients. 84.4 % of them would ask patients to come to the center to talk about their alcohol use. 58.5 % would refer the patient to a specialist. The mean behaviour score is 5.96 ± 1.46 .

Gender and pre/post graduate education on alcohol use disorders is not related to knowledge, attitude and behaviour scores (Table 3). The mean knowledge score of GPs who drink alcohol (6.83) is significantly higher than the mean knowledge score of non-drinkers (6.04) ($p = 0.027$). There is no significant correlation between age of GPs and duration of work as a GP with knowledge (respectively, $p = 0.772$; $p = 0.638$), attitude ($p = 0.256$; $p = 0.167$), and behaviour scores ($p = 0.980$; $p = 0.464$).

Thirty GPs (23.7 %) requested medical blood analyses within the last month due to concerns about the alcohol consumption of their patients and. 32.5 % of GPs reported that they helped patients with alcohol problems within the last month.

The mean self-confidence of GPs concerning diagnosing alcohol use disorders is 2.6 ± 0.8 and the self-confidence level concerning treating alcohol use disorders is 1.8 ± 0.9 . GPs reported that society's sensitivity to the issue (1.96), patients' questions on alcohol use (2.12), the presence of easy and quick scanning tests and counseling materials for alcohol use disorders (2.06–2.15), education on alcohol problems (2.10) and the presence of referral links among practitioners and specialists (2.32) are motivating factors.

TABLE 2. GPs' rate of level of agreement towards attitude suggestions

	%
Alcohol usage is not an important issue in primary health services	57.0
I don't have time to deal with patients' alcohol problems	74.1
Maintaining health is not the doctor's responsibility; it is the patient's responsibility	59.3
Helping patients who have alcohol problems is a waste of time	12.6
It is not appropriate to ask questions to patients about their alcohol use because telling they have an alcohol problem can be perceived as accusing them of being an alcoholic	27.4
It is hard for me to talk about patients' alcohol use	47.4
It is hard to recognize risky drinkers who do not have distinct symptoms of excessive alcohol use	91.1
Patients don't follow recommendations about alcohol use and don't modify their behavior	85.2
Doctors display liberal attitudes towards alcohol	71.1
Asking questions to patients about their alcohol usage might make them angry	48.9

TABLE 3. Factors that effect knowledge, attitude and behavior scores

	n	Knowledge	p	Attitude	p	Behavior	p
Sex							
Male	83	6.45	0.057	4.57	0.408	5.96	0.993
Female	82	7.02		4.25		5.96	
Graduate Education							
Yes	34	6.97	0.260	4.39	0.802	6.35	0.079
No	100	6.59		4.49		5.84	
Post Graduate Education*							
Yes	21	6.76	0.921	4.19	0.507	6.24	0.217
No	113	6.66		4.51		5.93	
Alcohol Use*							
Drinkers	107	6.83	0.022	4.39	0.638	5.93	0.989
Non drinkers	28	6.04		4.64		5.97	

*Mann-Whitney U test was used.

DISCUSSION

Since screening and treatment of alcohol related problems is not integrated with primary health care services, the appropriateness of GPs' knowledge, attitude, skills and practices are frequently questioned. The present study is an updated study about physicians' knowledge, attitude and behavior, being the first study in Turkey in this area.

Most of the GPs do not know low risk alcohol use levels for men and women, screening tests or biochemical markers for alcohol problems. Lack of knowledge of risks related with alcohol consumption and drinking limits are the most important factors in the development alcohol related problems . Most of the drinkers who consume large amounts of alcohol cannot be diagnosed (Bendtsen and Akerlind 1999). However, alcohol problems are causes of preventable illnesses and injuries. Brief interventions may decrease alcohol consumption and the risk of alcohol related problems in non-addicted drinkers who consume more than the low risk alcohol levels (Fleming and Manwell 1999, Fleming et al. 2002, Hyman 2006).

The most important risk factor for alcohol dependence is chronic excessive drinking (Caetano et al. 1997, Caetano and Cunradi 2002). Many of the GPs did not provide information on the low risk alcohol use level, resulting from either lack of knowledge or their belief that this level cannot be determined. Both situations may prevent GPs from performing brief interventions (Aalto and Seppa 2001). Lack of education can be the cause of inadequate comprehension of diagnostic groups such as risky alcohol use, alcohol abuse and dependence (Roche et al.1997, Kaner et al. 1999, Bendtsen and Akerlind

1999, Aalto et al. 2001, Beich et al. 2002, Aalto et al. 2003). In addition to alcohol dependence, the diagnosis of risky use , and harmful use or abuse needs to be learned and used. Interventions for alcohol use problems would be different for different problem periods.

Lack of knowledge of screening tests is an important finding. Studies indicate that doctors do not screen their patients for alcohol use problems and hence most of the cases cannot be diagnosed or receive wrong diagnoses (Cape et al. 2006). Kaner and friends (1999) indicated that in England GPs do not ask questions about alcohol use to their patients and for this reason they cannot diagnose 98 % of excessive alcohol users who applied to primary health care services. In the last 20-30 years great effort has been made to develop screening tests in order to identify people who have "risky alcohol use" (Babor et al. 2001). Patients who apply to primary health care services create opportunities for early intervention. Screening alcohol consumption in these applications creates opportunities to educate patients about low risk consumption levels and risks of excessive alcohol use. However, this opportunity is missed because of GPs' lack of knowledge of screening tests, risky alcohol use levels and biochemical markers for early diagnosis.

GPs generally reported correct answers to knowledge questions with scenarios. The correct answer ratio was low for biochemical markers of risky alcohol use. However, all the GPs knew that liver enzymes should be requested for the patient in the case scenario. This showed that recall factor is effective and continuous medical education which is oriented towards recall is important in rehearsing existing knowledge.

Knowledge levels of physicians on alcohol use prob-

lems is low. One of four physicians declared that they had received training before graduation and approximately one in ten reported that they had received training after graduation. Those who received training before graduation reported receiving approximately 2 hours of training. There are problems with pre and post graduate education on alcohol use in our country, and existing education about alcohol use is limited to lectures without practice. In most of the studies an approach which combines didactic presentations (lectures, reading materials) and interactive learning opportunities (simulated patients, small group discussions, individual audit, computerized reminders) is recommended (El Guebaly et al. 2000). The USA medical education includes an average of 36 hours of training over 4 years, four elective courses and attendance to 4-5 treatment programs. These programs aim to improve attitude and knowledge in the first years. In Australia, medical education includes 46 hours of programs and 3 elective rotations. It has been emphasized that a didactic approach can be more cost-effective in the first years and in the following years an interactive approach can be more suitable. In a study that took place in England it has been specified that after graduation 34 % of 430 GPs had 4-10 hours and 31 % of them had under 4 hours of continuous medical education or clinic supervision in the area of alcohol related problems. 10 % of them had no education about alcohol after their graduation (Kaner et al. 1999). When we evaluate only the hours of education it is clear that education in our country is insufficient. It was observed that GPs who claim that they have treated more patients have longer education times (Kaner et al. 2001, Anderson et al. 2003). Education has to be provided to GPs in order to increase their awareness of alcohol problems. While education and studies aimed at screening and intervention for alcohol use problems have been on the agendas of most developed and developing countries for over 20 years with the efforts of the World Health Organization, there is a lack of interest in this issue in our country.

The other reason for GPs' inadequacy in intervention for alcohol usage problems is their negative attitude towards people who have alcohol use problems (Cape et al. 2006). Most of the practitioners reported that alcohol use problems are not important in primary health services and they do not have enough time to deal with their patients' alcohol problems. There is a common opinion that patients do not implement suggestions related with alcohol use and that they do not change their behavior. It is thought that these opinions are related to inadequate screening and interventions for alcohol use problems. In

order to provide screening and brief interventions for alcohol use problems, these attitudes have to be changed. Lack of time (Kaner et al. 1999; Babor and Higgins-Biddle 2000; Beich et al. 2002) and opinions that patients do not change their behavior are accepted as major factors in the prevention of screening and interventions for alcohol problems.

Many studies have emphasized the importance of positive attitudes of health workers in asking questions about alcohol use (Bendtsen and Akerlind 1999, Kaariainen et al. 2001, Roche and Freeman 2004, Cape et al. 2006). As a positive attitude most GPs do not think that helping patients who have alcohol problems is a waste of time. Only % 12.6 of them think that it is impossible to help patients who have alcohol problems. This "therapeutic nihilism" related alcohol problems has been defined in literature as one of the obstacles to interventions for alcohol problems (Roche and Freeman 2004). Most of the study group agrees that asking questions to patients about their alcohol consumption is appropriate, but nearly half of them said that patients would be angered by these questions. This can arise from stigmatization of alcohol problems (Heather 1997). Studies have identified that patients expect to be asked about their alcohol consumption by doctors (Kaariainen et al. 2001). Positive attitudes of patients about this issue is an important subject that has to be emphasized in education in order to increase health workers' examination of alcohol related problems

It is known that patient-doctor communication is an important element of medical care (Akvardar et al. 2002a, Walsh et al. 2001). In preventive medicine, communication skills are important when discussing sensitive issues like alcohol use and life style. In historical context, many physicians avoid talking about alcohol use problems (Walsh et al. 2001). Alcohol problems are generally considered moral problems or life style problems and they have to be separated from the patient-doctor relationship. It is perceived that asking about alcohol use is more difficult than asking about smoking. GPs reported that they intervene less in alcohol problems than smoking problems. Interventions for drinkers who drink excessive amounts but do not yet experience any problems create many difficulties. Sensitivities for intervening to patients who consume risky or harmful levels of alcohol may explain the low rates of interventions.

Surprisingly, when we evaluate average knowledge, attitude and behavior scores related with alcohol use problems, behavior scores were the highest. It was ex-

pected that low levels of knowledge and negative attitudes would lead to incorrect implementation. It can be thought that GPs answered the scenario questions according to what they thought should be done rather than what they would actually do. In another question, less than half of the GPs reported that they talk about alcohol use problems and give suggestions. 32.5 % of GPs indicated that they helped at least one patient with his alcohol problems and 23.7 % of them requested blood tests from at least one patient because of their concerns about the patient's level of alcohol consumption. These findings may be interpreted as physicians knowing the correct procedures to implement regarding alcohol problems but not practice them. Unlike studies showing the effectiveness of brief interventions, our study showed that GPs are reluctant to intervene to alcohol problems and they do not implement interventions (Babor and Higgins-Biddle 2000, Kaariainen et al. 2001, Aalto et al. 2002). In a study that took place in Finland, where brief interventions are actively encouraged, it has been demonstrated that only 19 % of people who consume large amounts of alcohol receive suggestions in primary health care services (Aalto et al. 2002). It is known that only giving education to doctors is not enough to change practice. Nearly one in four GPs declared that they told patients they would not say anything about their alcohol use at that time and over half of them told patients that they would refer them to a specialist. All of these findings may be evaluated as missed opportunities for early interventions and lost chances to prevent negative results. Most patients who have been referred do not go to the referred specialists.

Most of the GPs intervene in smoking, eating or exercise behavior, but less than half of them intervene in alcohol use. This fact supported by the results of this study and many others thought to be related to lack of knowledge, reluctance, negative attitude and work load (Babor et al. 1994, Kaner et al. 1999, Babor and Higgins-Biddle 2000, Anderson et al. 2003, Anderson et al. 2004, Roche and Freeman 2004)

As shown in France (Josseran et al., 2005), GPs who are more liberal or tolerant and those who consume alcohol can be reluctant to intervene in alcohol use problems.

Alcohol use rates among the GPs are 79.3 %, which is very high compared to Turkey (%14.1-54.5) (Akvardar 2005). 4.4 % of attendant physicians' alcohol consumption levels exceed low risk alcohol usage levels. When we evaluate the maximum alcohol amount consumed at one time during the last month, risky use increases to %17.0. Education about alcohol use disorders is also important when physicians evaluate their own alcohol use levels. Medical school students and doctors are not immune to substance abuse (Akvardar et al. 2002b, Akvardar et al. 2004).

The study group's level of confidence in diagnosis is at medium-level, but the level of confidence in treatment is a little lower. It is thought that qualitative and quantitative insufficiency in pre and post graduate education plays a role in this lack of confidence. In a World Health Organization study that included seven countries, it was shown that physicians who have more education also have more feelings of confidence and intervene more than others (Anderson et al. 2003).

One limitation of this study is the sample size. Other methods of communication such as telephone and e-mail could have been used in order to increase participation rather than only sending letters. However, due to time and work load constraints and also in order to avoid negative feelings, other reminding methods was not used.

CONCLUSION

Alcohol use problems need to be studied as an important public health problem in primary health care services. Early diagnosis and performing necessary interventions may inhibit growth of this problem. Considering the important roles of GPs in intervening alcohol use problems, physicians need to be provided with the more education and support. Education which aims to change the level of knowledge, attitude and behavior towards alcohol use need to take place in the pre and post education periods. Medical schools need to take responsibility for giving detailed information on diagnosis of alcohol use problems and also provide an appropriate framework for prevention and early diagnosis of alcohol use disorders.

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