

# Do Persons Who Come to Our Health Center Know How Much Drinking is Bad for Their Health?

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**Objetivos.** *a)* Averiguar el conocimiento que tienen nuestros pacientes sobre el consumo excesivo de alcohol; *b)* comparar dicho conocimiento con el consumo habitual.

**Diseño.** Estudio descriptivo transversal, aleatorizado, mediante cuestionario, en el que se recogieron también los datos de consumo de las historias.

**Emplazamiento.** Atención primaria. Centro de Salud de Chantrea.

**Participantes.** Un total de 351 personas consultantes, mayores de 14 años.

**Mediciones.** Unidades de alcohol diarias que cada entrevistado considera límite perjudicial, y unidades de alcohol que figuran en sus historias como consumo habitual.

**Resultados.** Hay una buena percepción de los problemas asociados al consumo excesivo, especialmente entre las mujeres. En general, hay buen conocimiento sobre las cantidades de alcohol perjudiciales, incluyendo a los bebedores excesivos. Aunque en jóvenes la tendencia es elevar el límite por encima de lo recomendado, hemos encontrado en ellos un bajo consumo y un llamativo subregistro de éste. Al comparar el límite que cada persona establece como perjudicial y su consumo, se aprecia que, en general, se consume en relación a lo que se cree perjudicial, aunque el 10% de la muestra bebe por encima de los límites marcados por ellos mismos; el 80% de los bebedores de riesgo de la muestra están incluidos en este grupo.

**Conclusiones.** *a)* Parece necesario aumentar la información a los jóvenes sobre los límites perjudiciales; *b)* no detectamos bien el consumo de riesgo en jóvenes, por lo que es necesario preguntar sobre el consumo durante el fin de semana; *c)* los bebedores de riesgo conocen dónde están los límites del consumo perjudicial, pero consumen de forma incongruente con este conocimiento.

**Palabras clave:** Consumo de alcohol. Abuso de alcohol. Hábitos y creencias.

DO PEOPLE ATTENDING CLINICS AT OUR HEALTH CENTRE KNOW THE AMOUNT OF ALCOHOL CONSUMPTION THAT BECOMES DETRIMENTAL TO HEALTH?

**Objectives.** *a)* To evaluate our patients' knowledge of the effects of excess drinking; *b)* to compare this with their awareness of the effects of their day-to-day drinking habits.

**Design.** Descriptive, randomized, cross-sectional questionnaire-based study. Information on alcohol consumption was obtained from medical records.

**Setting.** Primary care center in Chantrea (Navarra province, northern Spain).

**Participants.** 351 persons older than 14 years who came to the health center.

**Outcome measures.** Number of units of alcohol consumed per day that participants considered harmful to health, and number of units consumed per day according to information in their medical record.

**Results.** Perception of problems associated with excess drinking was good, particularly among women. In general, the participants' awareness (including excess drinkers) of the amounts of alcohol that could damage their health was good. Although younger persons tended to identify as harmful to health limits that were above the recommended figures, we found that their consumption was low but was overrecorded. Comparison of the intakes that persons identified as harmful with the amounts of alcohol they actually consumed showed that the latter was generally related with the former, although in 10% of the participants, recorded intake was higher than the limit they identified as harmful. This group contained 80% of the drinkers in our sample who were considered at risk.

**Conclusions.** *a)* It appears necessary to increase the information given to young persons about harmful levels of alcohol intake; *b)* we found no clear evidence of risk drinking among younger persons; this will require questioning about their week-end drinking habits; *c)* risk drinkers know the limits of consumption that can damage their health, but their alcohol consumption is incongruent with this knowledge.

**Key words:** Alcohol consumption. Alcohol abuse. Habits and beliefs.

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A commentary follow this article (pág. 457)

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## Introduction

Alcohol is currently estimated to be responsible for a large number of potential years of life lost.<sup>1</sup> However, defining the limit of excessive alcohol consumption is complex, as the amount differs for each person. There is no «magic number» for the limit of alcohol that is hazardous.<sup>2</sup> The figures used now are variable but do not differ much in general terms. In our study we used the criteria of the Spanish Society of Family and Community Medicine (SSFCM, semFYC in Spanish) to diagnose risk drinking, because these criteria have been clearly defined.<sup>3</sup> Many studies have shown that drinking decreases after information and educational interventions are used:<sup>4-8</sup> when people know the limit for risk drinking, they drink less. As a measure aimed at primary prevention, health authorities should insist that information be made publicly available about hazardous levels of alcohol consumption. If heavy drinkers continue to consume large amounts of alcohol even when they know their intake is hazardous, brief interventions should emphasize other elements such as motivation, awareness and education as measures of secondary prevention. This raises the following question: Do people know how much alcohol can be hazardous to their health? Some studies have investigated drinking habits in populations of primary care users, and we have found studies from English-speaking countries that looked into the general public's perception of risk levels related with drinking.<sup>9</sup> However, we have found no studies that analyzed, in persons who use primary care services in our setting, their knowledge of the amounts of alcohol that can damage health and the negative effects of excess drinking.

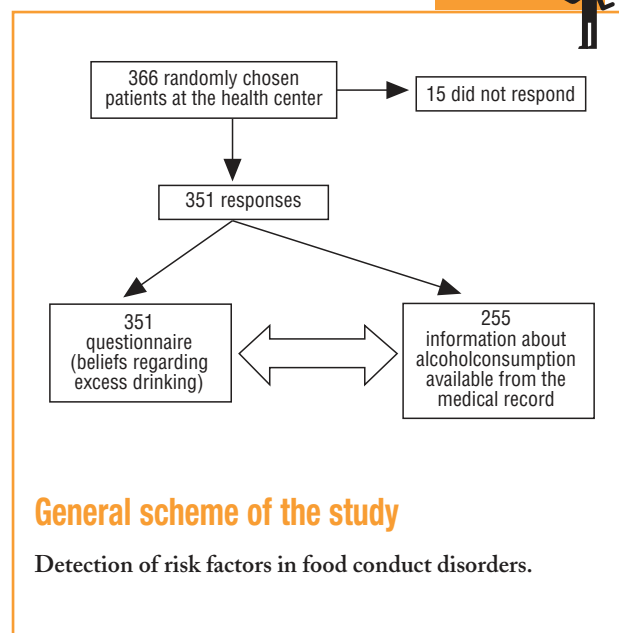
The aims of the present study were therefore:

1. To evaluate our patients' knowledge of established limits for excess drinking and the health problems this can lead to.
2. To determine whether knowledge of the effects of drinking was related with drinking habits as entered in the patient's medical record at the health center.

## Material and methods

The study population consisted of all adults who were seen at any of the 12 family medicine practices at the Chantrea Health Center in the city of Pamplona, Northern Spain. This center serves 18 700 inhabitants older than 14 years, and the predominant socioeconomic level in the area is medium to low. This was a descriptive, cross-sectional study based on data obtained with a self-administered questionnaire (Annex 1) completed by a random sample of the patients who came to the health center during the fourth trimester of 2000. Additional data for alcohol consumption were obtained from the participants' medical records. To ensure representativeness of the sample, we randomly select-

## Material and methods



ed 11 days during the trimester to recruit participants. This method has been shown in earlier studies to be suitable for random sampling of primary care patients.<sup>10</sup> Sample size was calculated with the formula

$$n = k(p)(1-p)/e^2$$

where  $k=1.96$ ;  $p=0.5$ , and  $e=0.05$ . The minimum sample was set at 366 persons, or 33 persons on each designated day. During 6 days participants were drawn from users in the waiting rooms for different practices (2 practices per day chosen randomly each day), and during 5 days participants were drawn from the waiting room for patients assigned to any of the 12 practices but who had come to the center without an appointment for that day. Two members of the research team distributed questionnaires and pens to patients in the waiting room, answered questions, and collected the completed questionnaires. Although no personal information was collected, patients were asked what time their appointment was scheduled so that they could be identified from the list of that day's patients and their medical record could be consulted to obtain information on their drinking habits.

A pilot study was carried out to identify possible problems with the questionnaire and participants' reactions. After the pilot study the item that inquired about health problems excess drinking can cause, initially designed as an open question, was re-drafted in the form of a closed question with 16 specific problems: those mentioned most often in the pilot study and a few additional problems not related with drinking, but that were added as a check for the correct completion of the instrument. (Some participants marked all 16 choices on this item.)

To ensure internal consistency we included two items that referred to liver diseases caused by excess drinking, in the item about specific problems caused by excess drinking and in the final item. When we analyzed the concordance between answers, these two items yielded a kappa index of 0.98.

The following variables were analyzed: age in years; sex (male or female); 16 specific health problems, some related with excess drinking, others not (Annex 1); the number of alcoholic drinks per day and per week that the participant considered the limit above which further drinking was hazardous to health; and drinking habit as noted in the clinical record (only for patients whose consumption was clearly recorded as a given amount of a specific alcoholic beverage, or grams of alcohol per day, even when the information was not recent).

Although participants were asked about their employment status and whether they customarily drove a motor vehicle, and although the frequency of drinking was obtained from the medical record, these variables were not taken into account as the preliminary analysis showed that they were strongly influenced by age and sex. To compare the limit of risk identified by each person with the recommended standard limits, we used the SS-FCM recommendations:<sup>3</sup> 280 g/week in men and 168 g/week in nonpregnant women, or the daily equivalents (4 units/day for men, 2.4 units/day for women). To keep the questionnaire as simple as possible, we did not include an item on the complementary criterion «drinking 50 g in 24 h at least once per month.» To convert the amounts of alcoholic beverages into grams of alcohol we used the following equivalents: 1 standard drink unit (SU)=two 100-mL glasses of beer=one 100-mL glass of wine=1/2 glass of distilled spirits, mixed drinks or whisky (25 mL). A standard unit was considered 10 g de alcohol, the value that was easiest to convert accurately for alcoholic drinks consumed in our setting.<sup>11,12</sup>

All data were entered in a database built with Access. Statistical analyses were done with the Epi-Info and Epi-Table programs. Analysis of variance (ANOVA) and Student's *t* test were used for comparisons of mean values, and the chi-squared test was used to compare qualitative variables.

## Results

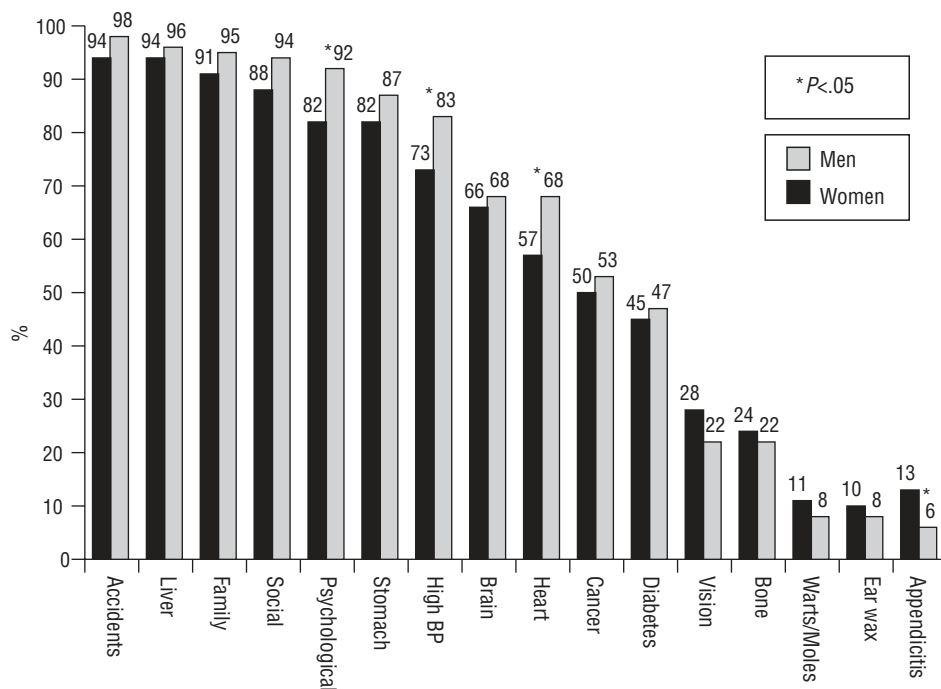
Fifteen persons did not complete the questionnaire for various reasons: lack of time, incapacitating acute illness or lack of interest in the study. Of the 351 persons who responded, we were able to locate the health center's clinical records for 318. No medical record could be found for 2 patients, and 31 others were not assigned to our center (and therefore their medical records were presumably held elsewhere). Clear information about drinking habits was available in 255 of the 318 records. In 21 records the information was unclear, and no information on drinking habits was entered in 42 records. Of the medical records that contained imprecise or no information about drinking habits (63 in all), 68% were for persons aged 15 to 34 years. Of the 351 persons who completed the questionnaire, 39.9% were men and 60.1% were women. Mean age was 49.8 years (SD 18.4 years), and did not differ significantly between men and women.

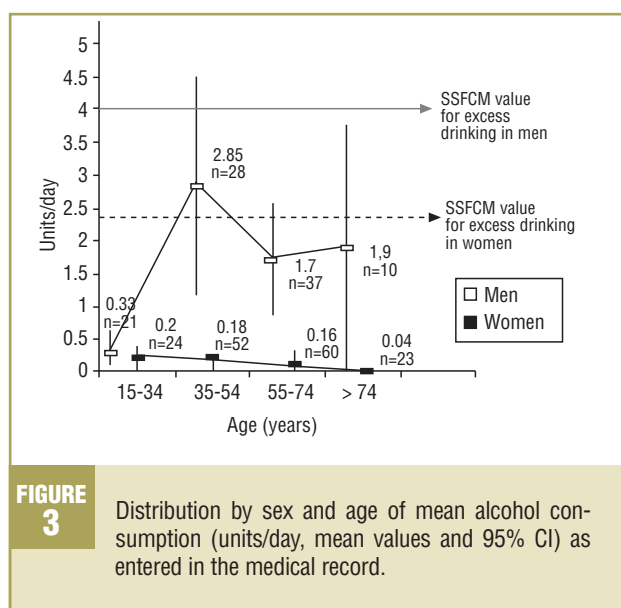
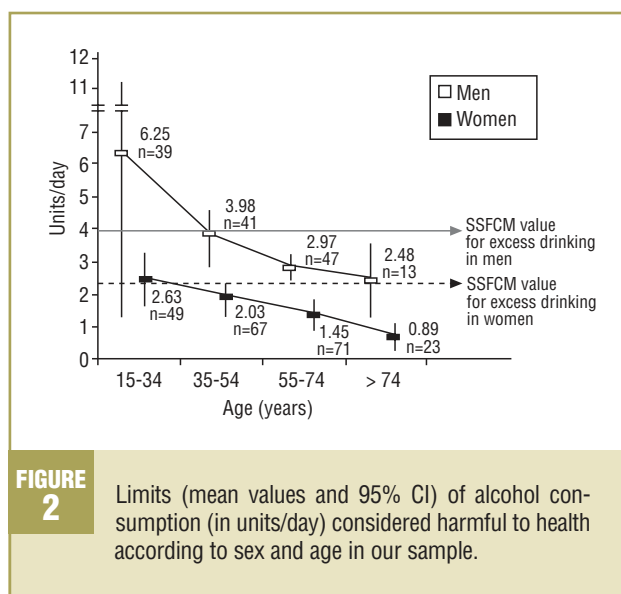
### Knowledge of problems caused by excess drinking

Figure 1 shows the proportion of responses for each type of disease on the item «Please make a cross in the box next to each type of problem you believe excess drinking can cause.» Almost all participants (98%) identified at least one problem as clearly related with excess drinking. However, 32% of the participants also marked specific problems known not to be related with drinking. This group did not differ from the rest of the sample with regard to

**FIGURE 1**

Percentages of male and female patients who indicated each type of problem as caused by excess drinking.





sex or alcohol consumption, but their mean age was significantly higher (60.6; SD, 16.1 years, vs 44.7, SD, 17.2 years;  $P < .001$ ).

#### *Opinion on the limits of alcohol consumption that are hazardous to health (LAHH)*

Figure 2 illustrates the results for men and women in different age groups.

#### *Concordance for the limit of hazardous drinking between daily and weekly amounts*

To check whether participants' knowledge of the daily limit of drinking that is hazardous to health matched their

knowledge of the weekly limit, we analyzed the concordance between the two values by calculating the kappa index. The resulting value was 0.69. We considered two groups for daily and weekly alcohol consumption: persons who indicated a LAHH equal to or below the value recommended by the SSFCM, and persons who indicated a LAHH higher than the SSFCM value. The values given for weekly consumption were found to be consistent with the limits for daily consumption.

#### *Description of alcohol consumption in our sample (Figure 3)*

Mean alcohol consumption for the 255 participants who completed the questionnaire and whose medical record provided precise information on drinking habits was 0.76 units/day (SD, 2.01 units/day).

#### *Profile of excess or risk drinkers*

We found 14 persons (14/255=5.4%) who apparently drank in excess. The 13 men represented 14% of all men in the sample, and the 1 women in this group represented 1% of all women in the sample. Mean age was 55 years (95% CI, 29-81 years). These 14 participants did not differ from the rest of the sample in mean age or in LAHH (mean LAHH in the group of 13 men was 3.73 units/day; SD, 2.24 units/day). Regarding problems related with excess drinking, risk drinkers' responses were similar to those of the rest of the sample, except for the significantly lower percentages of the former who indicated a connection between drinking and accidents (85%), liver disease (78%), family problems (71%) and heart disease (35%).

#### *Comparison of alcohol consumption according to degree of awareness*

We compared 2 groups defined by the difference between the LAHH and the standard limits:

- LAHH lower than or equal to the SSFCM value (aware): 269/351 (76%).
- LAHH greater than the SSFCM value (unaware): 82/351 (24%).

The drinking patterns for these two groups are contrasted in Table 1.

#### *Personal congruence*

We compared individuals' actual alcohol consumption (according to information from the medical record) with individual LAHH as indicated on the questionnaire. Ten percent of the participants (26/255) drank more than what they considered their LAHH; the drinking pattern in these individuals was considered incongruent in the present study. Most individuals (229/255, 90%) drank the same amount or less than their LAHH; these persons were considered congruent. The characteristics and alcohol consumption in each group are shown in table 2. In



the group of incongruent drinkers, men were clearly in the majority. These individuals drank more than members of the congruent group regardless of sex, and most excess drinkers were members of the incongruent group. The responses provided by these participants to the item regarding specific problems caused by excess drinking were similar to those given by participants in the congruent group.

## Discussion

This study was based on results obtained with a self-administered questionnaire. The results may have been biased by misunderstanding some of the items; possible bias was reduced by having the researchers present to answer participants' questions. This measure favored correct completion of the instrument and led to a high response rate (96%). To check the reliability of the instrument we included two versions of the same question, and found concordance between the responses to be high ( $\kappa=0.98$ ). Also of note was the high proportion of medical records that correctly noted the patient's alcohol consumption (80%), although we caution that we considered this information as it appeared without taking into account whether it was up to date. This is a potential limitation to the validity of our conclusions.

### *Awareness of problems that alcohol can cause*

Practically all participants (98%) believed that excess drinking could cause at least one of the problems listed in the questionnaire. Women in general were more aware of the effects of excess drinking. Certain health problems were noted to be related with excess drinking by more than 70% of the participants, whereas other problems such as cerebral and heart disease and cancer were related with drinking by only slightly more than half of them. We also found that 32% of the participants indicated a relationship between excess drinking and diseases that in fact are unrelated to alcohol intake. Mean age in this group was higher than in the rest of the sample, which may indicate that older persons tend to attribute more problems to excess drinking than are actually the case.

In general, awareness of the limits of alcohol consumption that could be hazardous to health was good: 76% of the participants placed their personal LAHH at or below the SSFCM value. However, men below the age of 35 years were found to be less aware of the limits of hazardous drinking than the rest of the sample. Table 2 shows that younger persons who drank more (mean 1.28 units/day) were less well informed than participants who drank less (mean 0.63 units/day). These findings should serve as a stimulus for preventive efforts based on health education, with emphasis on information about harmful limits and recommendations to drink less. These efforts should be aimed at all users of the health center, but especially at younger men. The questionnaire did not inquire about

heavier drinking on certain days, such as on weekends. This information might have been useful to analyze younger persons' beliefs regarding alcohol use.

Although the aim of this study was not to analyze drinking behavior, we note that alcohol consumption was significantly lower in persons aged 15 to 34 years than in the rest of the sample. In school-aged persons, most drinking is known to take place on specific days of the

**TABLE 1** Characteristics of participants who were aware and unaware of the limits of drinking identified by the Spanish Society of Family and Community Medicine (SSFCM) as hazardous to health

	Sex (n and %)	Age (mean and SD)	Mean alcohol intake units/day	% excess drinkers
Aware (LAHH≤SSFCM) N=269	Women: 167 (62%) Men: 102 (38%)	51.8 years (SD, 18.1)	0.63 units/day (SD, 1.93) N=204	4.4% (9/204)
Unaware (LAHH>SSFCM) N=82	Women: 44 (54%) Men: 38 (46%)	44 years (SD, 17)	1.28 units/day (SD, 2.25) n=51	9.8% (5/51)
	$P=.2$	$P=.001$	$P=.04$	$P=.2$

LAHH indicates maximum amount of alcohol per day above which the effects of drinking were considered hazardous to health

**TABLE 2** Characteristics of patients whose actual alcohol intake was congruent or incongruent with their self-reported LAHH

	Age (mean and SD)	Sex distribution (n and %)	Mean intake by sex units/day (SD)		% excess drinkers
			Women	Men	
Congruent (intake≤LAHH) N=229	53 years (SD, 17.9)	Women: 151 (66%) Men: 78 (34%)	0.12 units/day (SD, 0.59) N=151	0.76 units/day (SD, 1.23) N=78	1.3% (3/229)
Incongruent (intake>LAHH) N=26	54 years (SD, 16)	Women: 8 (31%) Men: 18 (69%)	0.86 units/day (SD, 0.5) N=8	6.08 units/day (SD, 4.19) N=18	42% (11/26)
	$P=.7$	$P=.0001$	$P=.0001$	$P=.0001$	$P=.0001$

LAHH indicates amount of alcohol per day above which participants considered the effects of drinking were considered hazardous to health.

Discussion  
Key points**What is known about the subject**

- Alcohol is harmful to health beyond a certain limit.
- The problems associated most often with excess drinking are accidents, liver disease, and social and family problems.
- Preventive activities by primary care teams include counseling about drinking habits.

**What this study contributes**

- In the population of health center users we studied, the amounts of alcohol identified as potentially harmful to their health were lower than the figures set by the Spanish Society of Family and Community Medicine.
- Older persons who came to the health center tended to attribute more problems to excess drinking than are actually the case.
- Younger persons who came to the health center were less knowledgeable of the established limits of drinking that can be hazardous to their health.

week. These persons are also known to be largely unaware of the effects of alcohol.<sup>13</sup> A study in Navarra found that approximately 30% of all young persons drank very little, and that 60% drank only on weekends.<sup>14</sup> Although mean daily consumption in young people is lower than at other ages, this drinking pattern is associated with a high level of risk, especially of being involved in traffic accidents. In this connection it is important to recall that drinking habits were infrequently noted in the medical records of younger persons who participated in our study (68% of the 63 records that contained imprecise or no information on drinking habits were for persons between 15 and 35 years of age). Health centers should be encouraged to record drinking patterns and note the actual amounts of alcohol consumed, especially for young persons, and to update this information every 2 years in accordance with the recommendations of the PAPPs (Preventive and Health Promotion Activities Program)<sup>15</sup> in quantitative terms. Drinking 50 g or more of alcohol in 24 h at least once a month is also considered a type of risk drinking. We identified 5.4% of the participants in our sample as excess drinkers: 14% of the men and 1% of the women. This figure was slightly lower than expected,<sup>11,15</sup> as earlier studies reported excess drinking in 15%-20% of the men and 2%-5% of the women. The profile of excess drinkers was that of a man older than 30 years who was aware of the problems caused by excess drinking, but

who underestimated the effects of alcohol on certain health problems.

Regarding the congruence between beliefs and actual drinking, participants in our study generally drank in accordance with their self-reported LAHH. However, 10% of these individuals drank more than what they themselves considered to be an excessive amount of alcohol. Most of these participants were men, and most of the problem drinkers (80%) formed part of this group. The mean LAHH stated by problem drinkers was lower than the SS-FCM figure. Due regard must be given to the limitations imposed by the fact that the information about drinking recorded in the medical record may not have been up to date. However, our findings indicate that excess drinkers are aware of the limit beyond which drinking can be hazardous to their health. In addition, these participants seemed to underestimate the effects of excess drinking on certain diseases. The usefulness, for this group, of additional information on the limits of drinking that can be hazardous to health seems debatable, as these persons drink more than the amounts they themselves consider harmful, although they are unaware of this. It is important to make excess drinkers aware of this incongruence, although blame-laying should be avoided.

In addition, providing information about the consequences of excess drinking would seem useful, particularly with regard to the risk of accidents, family problems, heart disease and liver disease. When necessary, messages about the effects of drinking on the latter can be reinforced with the results of laboratory tests.

Because most excess drinkers in the present study were members of the group of incongruent drinkers, future studies should investigate whether persons with incongruent drinking behavior but who are not excess drinkers are at greater risk than congruent drinkers for becoming problem drinkers. If incongruent drinking is a marker of risk or constitutes a stage that precedes excess drinking, measures could be designed to prevent the progression to risk drinking—an important primary care intervention. Additional studies will be needed to shed light on this issue.

**Conclusions**

1. There is good general awareness, especially among women, of the limits of alcohol that can be hazardous to health, and of the consequences of excess drinking. However, gaps in the participants' knowledge were found regarding the associations between excess drinking and cerebral and heart disease and cancer.

2. Younger men tended to state a LAHH higher than the recommended limit. Because the low level of consumption in this group may be the result of underrecording of drinking habits in younger persons, we emphasize the

need to question them about both their usual drinking patterns and their sporadic drinking episodes, and to inform them of the limits and consequences of excess drinking.

3. Excess drinkers in our sample stated a daily LAHH that was lower than the value set by the SSFCM. Hence excess drinking does not appear to be related with lack of information about amounts of alcohol that can be hazardous to health. Other educational measures such as awareness-raising are therefore necessary.

## References

1. Plan nacional sobre drogas. El profesional de atención primaria de salud ante los problemas derivados del consumo de alcohol. Madrid: Ministerio de Justicia e Interior, 1994.
2. Santos JM, Lapetra J. Alcohol: beneficio o riesgo. ¿A partir de cuánto? FMC 1995;2:220-4.
3. Grupo de trabajo de Alcohol de la SemFYC. Recomendaciones SemFYC nº. 10. Alcohol. Barcelona: EDIDE, 2000.
4. Kishchuk N, Peters C, Towers AM, Sylvestre M, Bourgault C, Richard L. Formative and effectiveness evaluation of a worksite program promoting healthy alcohol consumption. Am J Health Promot 1994;8:353-62.
5. Baer JS, Marlatt GA, Kivlahan DR, Formme K, Larimer ME, Williams E. An experimental test of three methods of alcohol risk reduction with young adults. J Consult Clin Psychol 1992;60:974-9.
6. Kivlahan DR, Marlatt GA, Formme K, Coppel DB, Williams E. Secondary prevention with college drinkers: evaluation of an alcohol skills training program. J Consult Clin Psychol 1990; 58:805-10.
7. Wallace P, Cutler S, Haines A. Randomised controlled trial of general practitioner intervention in patients with excessive alcohol consumption. BMJ 1988;297:663-8.
8. Edwards G, Anderson P, Babor TF, Casswell S, Ferrence R, Giesbrecht N, et al. Alcohol Policy and the public good. Oxford: Oxford University Press, 1994.
9. Hall W, Flaherty B, Homel P. The public perception of the risks and benefits of alcohol consumption. Australian J Public Health 1992;16:38-42.
10. López A, Esnaola S, Guinea J, Gómez MC. Limitaciones del muestreo en estudios de atención primaria: comparación de cuatro diseños muestrales. Gac Sanit 1992;6:19-24.
11. Gual A, Colom J. Alcohol, consejo médico y promoción de la salud desde la atención primaria. Jano 1998;1241:40-6.
12. Rodríguez-Martos A, Gual A, Llopis J. La «unidad de bebida estándar» como registro simplificado del consumo de bebidas alcohólicas y su determinación en España. Med Clín (Barc) 1999; 112:446-50.
13. López J, Antolín N, Barceló M, Pérez, Ballesteros A, García A. Consumo de alcohol en los escolares de un área de salud. Hábitos y creencias. Aten Primaria 2001;27:159-65.
14. Encuesta de salud 2000. Departamento de Salud del Gobierno de Navarra.
15. Grupos de expertos del PAPPS. Recomendaciones sobre el estilo de vida. Abuso de alcohol. Disponible en: [www.papps.org/prevencción/Estilo-Vida/p86.htm](http://www.papps.org/prevencción/Estilo-Vida/p86.htm)

## COMMENTARY

# Can Nonhazardous Limits of Drinking Be Defined?

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Drinking alcoholic beverages is widely permitted and tolerated in Spain. In industrialized countries, drink-related disorders have become an important health problem, and this in turn has generated a number of different areas of research, as well as increasing interest in the search for effective lines of action.

On a social level there is also interest in identifying health issues related with drinking—both its benefits and its drawbacks. Despite the widespread assumption that moderate drinking can have beneficial health effects, especially for the cardiovascular system,<sup>1,2</sup> knowledge and awareness of the health risks of alcohol abuse are also increasing. This is consistent with reports of declining alcohol con-

## Key points

- Studies of the public's knowledge of nonhazardous limits of drinking and the damage this can cause can help to increase the efficacy of brief counseling.
- It is important to increase and improve quality and update practices for recording alcohol consumption in primary care services.

sumption in Spain (both in excess and day-to-day drinking) and decreasing rates of alcohol intoxication. Meanwhile moderate or light drinking appears to be on the increase.<sup>3</sup>

The perceived risk associated with drinking is lower in men, younger persons and risk drinkers.<sup>3</sup> This is also consistent with the results of the study by Teruel et al<sup>4</sup> of primary care center users, published in this issue of *ATENCIÓN PRIMARIA*. In general, the dangers of daily drinking appear to be greater and this type of drinking is seen as less desirable than weekend drinking, a behavior that the general public often tends to view with less concern.<sup>3</sup>

Studies that investigate the public's knowledge of harmful levels of alcohol consumption and the damage excess drinking can have on health are of interest to determine which preventive measures are most likely to work in primary care.

In addition, drinking habits (type, frequency and amount of alcohol consumed) have frequently been found to be underestimated or inaccurately noted in medical records, a fact that may be related with the still widespread acceptance (even among health professionals) of drinking as part of our culture and way of life. In this connection the findings of Teruel et al indicate that alcohol consumption is recorded more frequently in medical records at their center than in other parts of Spain, although the data may be incomplete or not up to date.<sup>5</sup> The importance of correctly entering information about drinking in the patient's chart at primary care centers cannot be overemphasized, as this will help care providers to evaluate the extent of the problem in Spain and identify risk groups in need of specific interventions.

Members of the public appear to be aware of the limits for daily drinking, but downplay the risk of occasional abuse. They know excess alcohol is harmful, but their knowledge is partial and superficial. Perhaps lines of action should be directed toward defining the limits more clearly and communicating the real risks.

Unlike smoking and the use of other toxic substances, the problem with drinking may be that the message that we transmit regarding alcohol is not clear enough. On one hand there is a constant stream of contradictory information regarding the benefits of moderate drinking, whereas health professionals do not actively promote abstinence but instead recommend reducing alcohol consumption. This leaves the door open to subjective interpretation, self-deception and rationalization.

However, this may also be a result of health professionals' lack of a clear idea of what lines of action to use. Many studies have found larger numbers of excess drinkers in

populations in which larger amounts of alcohol are habitually consumed.<sup>6</sup> Other studies, in contrast, report moderate drinking to be more beneficial than abstinence with regard to cardiovascular disease.<sup>1,2</sup> As health professionals, where should we focus our attention? Is it right to recommend abstinence when moderate drinkers may benefit from drinking? Nevertheless, if we recommend only that drinking be reduced, are we sending an unclear message about the importance of the problem and leaving the way open to subjectivity and rationalization? This issue is particularly important, as we know that for this type of problem the self-perceived threshold of risk is so low.

Within this context, studies of users' awareness of and attitudes regarding hazardous levels of drinking and the damage to health caused by excess drinking become increasingly relevant. The study by Teruel et al shows that up to 24% of the users at their health center (and often the younger users) are unaware of the limits of hazardous drinking, and that a large percentage of the population are still unclear about the potential consequences of this habit. The efficacy of brief counseling as a preventive measure that can be provided through primary care has been clearly established.<sup>7</sup> A profound awareness of our shortcomings and those of the population we serve is the way toward improving this type of intervention and making it more effective.

## References

1. Ogborne AC, Smart RG. Public opinion on the health benefits of moderate drinking: results from a Canadian National Population Health survey. *Addiction* 2001;96:641-9.
2. Hall W. Changes in the public perceptions of the health benefits of alcohol use, 1989 to 1994. *Aust N Z J Public Health* 1996;20:93-5.
3. Sánchez Pardo L. Consumo alcohólico en la población española. *Addicciones* 2002;14(Supl 1):79-97.
4. Teruel González FE, Martínez Arandigoyen A, Baleztena Gurrea J, Fuentes Goñi C, García de la Noceda MD. ¿Conocen las personas consultantes de nuestro centro de salud cuánto consumo de alcohol puede ser perjudicial para la salud? *Aten Primaria* 2003;32.
5. Brugulat P, Mercader M, Seculi E. La práctica de actividades preventivas en la atención primaria y los objetivos del Plan de Salud de Cataluña 1993-1995. *Aten Primaria* 1998;22:334-9.
6. Rodríguez-Artalejo F, De Andrés Manzano B, Guallar-Castillon P, Banegas Banegas JR, Del Rey Calero J. Association of moderate consumption of alcohol with rates of heavy drinking and abstinence in Spain. *Alcohol Clin Exp Res* 1999;23:1.502-6.
7. Fernández García JA, Ruiz Moral R, Pérula de Torres LA, Campos Sánchez L, Lora Cerezo N, Martínez de la Iglesia J. Efectividad del consejo médico a pacientes alcohólicos y bebedores excesivos atendidos en consultas de atención primaria. *Aten Primaria* 2003;31:146-55.



# ANNEX 1

## Questionnaire

Code

We would like your help with a study being carried out by hospital residents on people's knowledge of the risks of drinking. This questionnaire is about your knowledge, not about your drinking

Considering all the kinds of drinks pictured below, how many drinks in all do you think a **man/woman** your own age can drink **day after day** with no harmful health effects?  
Please indicate the number under each type of drink.

Glasses of beer					Glasses of wine (red or white)					Glasses of brandy, whisky, sloe brandy or mixed drinks
<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	<input type="text"/>	+	<input type="text"/>		<input type="text"/>	
N <input type="text"/>		N <input type="text"/>		N <input type="text"/>					N <input type="text"/>	

Considering all the kinds of drinks pictured below, how many drinks in all do you think a **man/woman** your own age can drink **in one week** with no harmful health effects? Please indicate the number under each type of drink.

Glasses of beer					Glasses of wine (red or white)					Glasses of brandy, whisky, sloe brandy or mixed drinks
<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	<input type="text"/>	+	<input type="text"/>		<input type="text"/>	
N <input type="text"/>		N <input type="text"/>		N <input type="text"/>					N <input type="text"/>	

Do you usually drive a motor vehicle? Please make a cross in the appropriate box. Yes ☐ No ☐

Please make a cross in the box next to each type of **problem** you believe excess drinking can cause.

- |  |   |   |  |
|--|---|---|--|
| <input type="checkbox"/> Ear wax plugs       | <input type="checkbox"/> Cerebral problems                    | <input type="checkbox"/> Accidents              | <input type="checkbox"/> Moles                   |
| <input type="checkbox"/> Needing glasses     | <input type="checkbox"/> Liver disease (cirrhosis, hepatitis) | <input type="checkbox"/> Bone disease           | <input type="checkbox"/> Appendicitis            |
| <input type="checkbox"/> High blood pressure | <input type="checkbox"/> Family problems                      | <input type="checkbox"/> Cancer                 | <input type="checkbox"/> Diabetes                |
| <input type="checkbox"/> Social problems     | <input type="checkbox"/> Heart disease                        | <input type="checkbox"/> Psychological problems | <input type="checkbox"/> Stomach problems        |
|  |   |   | <input type="checkbox"/> Others you can think of |

In the **last 12 months**, what was your usual **employment** status? Please make a cross in the appropriate box.

Employed <input type="checkbox"/>	Unemployed <input type="checkbox"/>	Retired <input type="checkbox"/>	Housewife <input type="checkbox"/>	Student <input type="checkbox"/>	Off work <input type="checkbox"/>	Other <input type="checkbox"/>
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How old are you?: \_\_\_\_\_ years

Do you believe drinking can cause liver problems? Yes ☐ No ☐ Don't know ☐  
Please mark the appropriate answer.

R.H.   
Fr.

**Thank-you for your help.**