

Alcohol-related Problems and Fitness to Drive among Spanish Drivers

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Abstract

This article analyses the patterns of alcohol consumption, the presence of alcohol-related problems, and the fitness to drive of 8043 Spanish drivers who reported to 25 Medical-Psychological Centres for the assessment of their fitness to drive. 60.3% drink alcohol, and 1.93% were diagnosed with an alcohol-related problem, although only 12.2% of these patients were considered unfit to drive and given a negative medical-psychological report.

Keywords

Alcohol; Alcoholism; Alcohol related problems; Driver; Fitness to drive.

Introduction

The relationship between alcohol and traffic accidents is well known and of special importance in Spain, where the levels of alcohol consumption and accidents occupy one of the top places within the sphere of the European Union. Thus, taking steps to reduce the incidence of alcohol-related accidents is a priority (1,2).

Within the sphere of the European Union, ANNEX III of Council Directive 91/439/EEC establishes the "Minimum standards of physical and mental fitness for driving a power-driven vehicle". In section 14 it is established (Table 1) that certain alcohol-related disorders do not allow the driving licence to be issued or renewed.

The different member countries have introduced legislation in accordance with this rule. In the case of Spain, the legislation states that, according to the criteria of DSM-IV, people with abuse, dependence and alcohol-induced disorders (dementia, delirium and psychotic disorders) are not fit to drive (1).

On the other hand, in our country all drivers and applicants, prior to obtaining and renewing driving licences, should go to a Medical-Psychological Centre for assessment of their fitness to drive. In such Centres there are a general practitioner, an ophthalmologist and a psychologist, and they are the ones who have to evaluate whether or not the driver has alcohol-related problems, and based on that judgement, issue the corresponding report on his/her fitness to drive, which is mandatory for obtaining or renewing driving licences. In

general, all drivers must renew their driving licence every 10 years, although after reaching a certain age the period is shorter (3).

Table 1: Council Directive 91/439/EEC. ANNEX III: Minimum standards of physical and mental fitness for driving a power-driven vehicle.

ALCOHOL

14. Alcohol consumption constitutes a major danger to road safety. In view of the scale of the problem, the medical profession must be very vigilant.

Group 1:

14.1. Driving licences shall not be issued to, or renewed for, applicants or drivers who are dependent on alcohol or unable to refrain from drinking and driving.

After a proven period of abstinence and subject to authorised medical opinion and regular medical check-ups, driving licences may be issued to, or renewed for, applicants or drivers who have in the past been dependent on alcohol.

Group 2:

14.2. The competent medical authority shall give due consideration to the additional risks and dangers involved in the driving of vehicles covered by the definition of this group.

As a result of the medical-psychological assessment, drivers are classified as: i) fit, ii) fit, with restrictions (for example, they must drive at a reduced speed or must report for a medical-psychological check-up at regular, more frequent intervals), iii) suspended (in cases where the driver is not granted the report certifying fitness for a specific period of time), and iv) unfit (permission to drive is denied for medical, psychological or ophthalmological reasons) (3).

In Spain, with a population of 39 million inhabitants and 17.2 million drivers, 1.5 million of the latter go each year to these Medical-Psychological Centres for assessment of their fitness to drive. These Medical-Psychological Centres are private, and there are approximately 2000 centres throughout Spain. However, there is no information about the final results of the medical-psychological exams, and in particular with what frequency alcohol-related problems are detected, nor what assessment the professionals who work there make in these cases (fit, unfit, etc).

This study has a three-fold aim: i) in the first place, to learn about alcohol-consumption patterns; ii) to characterise the frequency with which alcohol-related problems in drivers are detected; and iii) to learn if in the end drivers with alcohol-related problems are considered fit or unfit to drive. This research was done among drivers who report to the Medical-Psychological Centres to undergo psychophysical testing for the purpose of renewing or obtaining their driving licences.

Methods

The target population consisted of drivers who report to examination centres to undergo assessment by means of psychophysical tests for the purpose of obtaining a mandatory fitness report in order to obtain or renew their driving licence. 25 Medical-Psychological Centres nation-wide were involved, and a total of 10000 medical-psychological interviews were carried out. Of these, 8043 interviews were considered valid. The study (fieldwork) was carried out between February and June 1999.

Drivers who report to these centres undergo a medical, psychological and ophthalmological assessment, in order to detect different disorders in accordance with the current legislation in our country (3). In this study, all the professionals who work at the Centres that participated in the study used uniform diagnostic and information-gathering criteria.

The questionnaire used included items on sociodemographic data, and driving and alcohol-consumption patterns. The frequency of alcohol consumption in the week preceding the survey, as well as the kind and quantity of alcoholic drinks consumed during that week, were assessed. Alcohol drinkers were classified as follows: (i) “weekly drinkers”, those who usually drank at least once a week; and (ii) “daily drinkers”, those who usually consumed alcohol at least once a day.

The amounts of alcohol intake have been expressed in terms of absolute alcohol consumed per day, in accordance with the alcohol content of Spanish drinks and the volume of intake of each of the different drinks (4). Drinkers were classified, with regard to their drinking level, as low consumption/low risk (females: < 14 units/week; males: < 21 units/week); moderate consumption/intermediate risk (females: 15-35 units/week; males: 22-50 units/week); high consumption/high risk (females: > 35 units/week; males: > 50 units/week)(4).

An Audit test, clinical Audit, CAGE scale (in the validated Spanish version) and biological markers were included. DSM-IV criteria for alcohol abuse, dependence and alcohol-induced disorders were used to establish diagnoses. Finally, the final assessment of the examination (fit, unfit, etc.) was recorded.

Analysis of the data was conducted at the Data Processing Centre at Valladolid University. Statistical analysis was by means of SAS software version 6.07 (SAS Institute). P-Values < 0.05 were considered to be significant differences.

Results

Table 2 shows alcohol use by Spanish drivers by gender and age range. In the week prior to the survey, 60.3% of those interviewed had consumed some type of alcoholic beverage (69.5% of males and 41.1% of females). 54.2% of those surveyed drink at a low level (60.8% of males and 40.5% of females), 5.7% drink at a moderate level (8.3% of males and 0.4% of females) and 0.3% drink at a high level (0.3% of males and 0.2% of females). Average daily alcohol intake among weekly drinkers was 15.97 grams of absolute alcohol (18 grams in the case of males and 8.83 grams in the case of females).

Of the 8043 drivers, 589 (7.3%) scored 8 or more points on the Audit test, and 113 (1.4%) scored 2 or more points on the CAGE test.

With regard to alcohol-related problems, 1.6% of those interviewed (2.2% of males and 0.3% of females) meet the diagnostic criteria for ‘Abuse,’ 0.2% meet the diagnostic criteria for ‘Dependence’ (0.2% of males and 0.04% of females) and 0.2% for alcohol-induced disorder (0.3% of males and 0.04% of females) (Table 3).

Of all the drivers interviewed, after the medical-psychological assessment, for 88.3% the result was ‘fit,’ for 10.3% ‘fit with restrictions,’ for 1.1% ‘suspended’ and for 0.3% ‘unfit.’

Of the 155 (1.9%) who demonstrated alcohol-related problems, only 19 (12.2%) were assessed as ‘unfit,’ ‘fit with restrictions’ or ‘suspended.’

Table 2: Alcohol use by Spanish Drivers in the week prior to the survey.

Age Range	Sample size	None	Alcohol intake		
			Low	Moderate	High
	n	%	%	%	%
MALES					
< 25	909	39.82	57.43	2.31	0.44
25-34	960	28.23	65.73	5.94	0.10
35-44	1002	25.45	64.27	9.88	0.40
45-54	1048	27.67	59.92	11.93	0.48
55-64	914	27.79	60.39	11.49	0.33
>65	602	37.71	54.82	7.31	0.17
Total	5435	30.52	60.85	8.30	0.33
FEMALES					
< 25	600	54.17	45.50	0.33	0.00
25-34	671	57.08	42.32	0.45	0.15
35-44	671	59.46	39.79	0.45	0.30
45-54	406	64.29	35.47	0.00	0.25
55-64	183	64.48	34.43	1.09	0.00
>65	77	66.23	32.47	0.00	1.30
Total	2608	54.17	45.50	0.33	0.00

Table 3: Prevalence of alcohol-related problems in motor vehicle operators

	N	Abuse (%)	Dependence (%)	Induced disorder (%)
TOTAL	8,043	1.58	0.16	0.19
SEX				
Male	5435	2.17	0.22	0.26
Female	2608	0.35	0.04	0.04
AGE RANGE				
<25	1509	0.46	0.20	0.07
25-34	1631	1.35	0.06	0.18
35-44	1673	2.09	0.12	0.12
45-54	1454	1.99	0.28	0.21
55-64	1097	2.19	0.27	0.36
>65	679	1.47	0.00	0.29

Discussion

60.27% of the drivers questioned had been regular alcohol consumers (drink at least once a week), with a daily alcohol intake of 15.97 grams. 1.58% were diagnosed with 'Alcohol Abuse,' 0.16% with 'Dependence' and 0.19% with Induced Disorder. However, only in 12.2% of these drivers (19 of 155) was the assessment of fitness to drive negative, and the result of the exam was 'unfit,' 'fit with restrictions,' or 'suspended.'

These data support in part the findings obtained in a preliminary study carried out on a sampling of drivers reporting to a medical-psychological centre, of whom 56.7% are regular drinkers (drinking at least once a week), but whose daily alcohol intake is considerably greater than 37.4 grams/day (2). Likewise, they also correspond with those obtained in a study carried out on a sampling of 1500 Spanish drivers in 1993, of whom 62.9% were regular drinkers, with an average alcohol intake of 46.9 grams/day (2). Although the present figures for alcohol consumption among Spanish drivers correspond to the range of those reported for the general population in Spain in a study conducted in the fall of 1997 (52.6% were regular drinkers with an alcohol intake of 32.9 grams/day) (4), the data obtained with respect to average alcohol intake, which are appreciably lower in this study, may be due in part to the fact that drivers tend to minimise their alcohol intake for fear of being declared unfit in the medical-psychological assessment.

Alcoholism (a term which includes the descriptions of abuse, dependence and alcohol-induced disorders) is frequent in Spain; however, there is great tolerance towards it, due, in part, to the fact that the consumption of alcohol is a social and cultural custom. Many Spaniards do not identify alcohol-related problems as such. Likewise, from the healthcare standpoint, one must keep in mind the added problem that has been called 'user's mentality,' because of which there has been a general reluctance to act in this area.

Unfortunately, information on the prevalence of alcoholism in drivers and in the general population in Spain is lacking; therefore, a comparison with other indicators is not possible. In the general population, some studies have been carried out to detect alcohol-related problems (5,6). On the other hand, the characterisation of alcohol-related problems in medical-psychological centres poses some difficulties, due to the legal implication of the assessment. An 'Unfit' evaluation on the report that the examination centre professionals issue in relation to the assessment of the psychophysical fitness of the driver means not being able to obtain or renew his/her driving licence.

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