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ORIGINAL RESEARCH

Psychotropic medication consumption in Spain: influence of gender and perception of health status

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ABSTRACT

Objective: This study aimed to identify the factors associated with psychotropic medication consumption in the Spanish adult population. **Methods:** Descriptive, cross-sectional study covering the Spanish adult population aged 16 years and over, using data drawn from the 2001 Spanish National Health Survey. A total of 21,067 interviews were analyzed. The independent variables were socio-demographic and health-related, and the dependent variable was total consumption of psychotropic medication. To estimate the effect of each of the independent variables on consumption of such medications, we also obtained the corresponding Odds Ratio (ORs) adjusted by means of a multivariate analysis, using a logistic regression model. **Results:** The prevalence of consumption was significantly higher in women than in men (11.5% vs. 5.0%; P <0.001). Multivariate analysis, based on logistic regression, showed an association between increased psychoactive drug intake and age. Anxiety, depressive and sleep disorders displayed a strong association with consumption of psychoactive drugs across the sexes, as did negative perception of health and medical visits. **Conclusions:** In Spain, the prevalence of psychoactive drug consumption is higher in women than in men, and increases with age and negative perception of health outcomes.

Key words

Drug prescription; Gender; Prevalence; Psychoactive drugs

RÉSUMÉ

Objectif: Le but de cette étude était d'identifier les facteurs de consommation de médicaments psychotropes dans une population espagnole adulte. **Méthodes:** Etude descriptive transversale couvrant la population espagnole adulte d'âge supérieur à 16 ans et utilisant les données de l'enquête sur la santé en Espagne de 2001. Un total de 21,067 données ont été analysées. Les variables indépendantes étaient socio-démographiques et relatives à l'état de santé et la variable dépendante était la consommation de médicaments psychotropes. Pour estimer l'impact de chacune des variables indépendantes sur la consommation de ces médicaments, nous avions déterminé les Odds Ratios (ORs) ajustés à l'aide d'une analyse multivariée utilisant un modèle de régression logistique. **Résultats:** La prévalence de consommation était significativement plus élevée chez les femmes que chez les hommes (11,5% vs 5,0%; P<0,001). L'analyse multivariée, basée sur une régression logistique, a montré une association entre une augmentation de la consommation de médicaments psychotropes et l'âge. L'anxiété, la dépression, les troubles du sommeil de même qu'une perception négative des visites chez le médecin étaient associées à la consommation de médicaments dans les 2 sexes. **Conclusions:** En Espagne, la consommation de médicaments psychotropes est plus élevée chez les femmes que chez les hommes et augmente avec l'âge et une perception négative de son état de santé.

Mots clés

Ordonnance; Genre; Prévalence; Médicaments psychotropes

RESUMEN

Objetivo: Identificar los factores asociados al consumo de medicamentos psicotrópicos en la población española adulta. **Métodos:** Este es un estudio descriptivo, transversal, en población española adulta mayor de 16 años, utilizando los datos obtenidos en la Encuesta Nacional de Salud de España. Un total de 21,067 entrevistas fueron analizadas. Las variables independientes fueron aspectos sociodemográficos y de salud, mientras que la variable dependiente fue el consumo total de medicamentos psicotrópicos. Para estimar el efecto de cada una de las variables independientes en el consumo total de medicamentos, obtuvimos las correspondientes razones de momio (Odds Ratio: OR) ajustados mediante un análisis de varianza, usando un modelo de regresión logística. **Resultados:** La prevalencia en el consumo de medicamentos fue mayor en las mujeres que en los hombres (11.5% vs. 5.0%; P <0.001). En el análisis multivariado, basado en una regresión logística, se observó una asociación entre un incremento en el consumo de medicamentos psicoactivos y la edad de los sujetos. Los trastornos de ansiedad, depresivos, y del sueño fueron los más fuertemente asociados al consumo de medicamentos psicoactivos en ambos sexos, al igual que una percepción negativa de la salud y visitas al médico. **Conclusiones:** En España, la prevalencia de consumo de medicamentos psicoactivos es mayor en mujeres que en hombres, e incrementa con la edad y la percepción negativa de la salud.

Palabras clave

Prescripción de medicamentos; Género; Prevalencia; Medicamentos psicoactivos

INTRODUCTION

In the last ten years, psychotropic drugs have become one of the most widely used pharmacological groups [1] [2] [3] [4] [5] [6] [7]. Although the therapeutic value of psychotropic drugs is well established, there is evidence to suggest that these drugs are being used in ways of which the health professions may be unaware [8] [9] [10] [11]. This pharmacologic group registers substantial levels of consumption without medical prescription, something that can have serious consequences on individual and collective health [12] [13].

Currently, psychoactive drugs can, as a whole, be considered as medications that are susceptible to abuse [14] [15]. This is complicated by the fact that, in Spain, antidepressants (N06A) [16] have consistently ranked as the third most consumed therapeutic subgroup in recent years [17] [18].

Considerable research and a number of studies have targeted the use of psychoactive drugs in the general population [1] [6] [7] [19] [20] [21] [22], in an effort to provide a representative profile of the consumer of these medications, by observing possible factors and characteristics, whether socio-demographic or health-related, that might be linked to the consumption of such substances.

Bearing in mind the considerable prevalence of depressive disorders in the community, some studies rank depression as the fourth most common and disabling disease worldwide [23]. Combined with the frequency of insomnia in the general population [24], consumption of anxiolytics, hypnotics and antidepressants runs parallel to such pathologies [25] [26]. Indeed, this is the reason why ascertaining the epidemiologic characteristics linked to the consumption of these substances and fostering their rational use is relevant.In this context, our study aimed to determine the prevalence of consumption, both prescribed and self-medicated, of psychotropic drugs in the Spanish population; and to identify the factors associated with such consumption in this population.

METHODS

We conducted a descriptive, cross-sectional epidemiologic study on the consumption of psychotropic medication by the Spanish population. We used individual secondary data collected by the Spanish National Health Survey (SNHS) in 2001 [27], from the Ministry of Health. This survey was carried out on a wide sample of the non-institutionalized Spanish population by direct interview at home. We used a multi-stage, stratified cluster sampling procedure, with proportional random selection of primary (towns and cities) and secondary sampling units (census sections), and selection of end units (individuals) by means of random routes and sex and age group.

The survey included data from 21,067 adults, and required weighting. Details on the methodology are described elsewhere [27]. Our study population was made up of a total of 21,067 subjects of both sexes aged 16 and over, resident in Spain.

The following dependent variables were analyzed as dichotomous variables ('yes' or 'no'): 'Overall consumption of psychoactive drugs' (defined as the answer to the question, 'What type of medication have you taken in the last two weeks?', referring to the intake of tranquilizers, sedatives, sleeping pills and/or antidepressants or stimulants); 'Consumption of psychoactive drugs due to medical prescription'

(where consumption was a consequence of medical prescription); and 'Consumption of psychoactive drugs due to self-medication' (defined as consumption of these medications without medical prescription [28]). As independent variables, we first analyzed a number of socio-demographic characteristics, chief among which were age, sex, marital status, educational level and occupational status ('employed', 'unemployed', and 'inactive' including housewives and pensioner).

In addition, we studied the following lifestyle and health-related variables: alcohol consumption in the two weeks immediately preceding the survey; smoking habit (both defined as dichotomous variables for analysis purposes); number of hours of sleep per day (categorized as 'less than seven' and 'seven or more' hours per day); physical activity ('intensive' several times a week, 'moderate' few times every month or "inactive'); body mass index (BMI); chronic disease of any type; anxiety, depressive or sleep disorder (defined as the cause that forced interviewees to restrict their principal activity in the preceding two weeks); self-assessment of health status (dichotomous variable recording interviewees' positive or negative perception of their health); and medical consultation in the preceding two weeks, defined as a dichotomous variable.

For the purpose of data analysis, we calculated the prevalence of total (defined as both prescribed and self-medicated) consumption of medicines for the year 2006 by the study population. For bivariate comparison of proportions Pearson's χ^2 method or Fisher's exact test was applied, with values of P <0.05 taken as significant. The association between the independent variables studied and medication use was calculated, using the odds ratio (OR) and its 95% confidence interval.All estimates were computed separately for men and women, in view of the fact that different sex-specific consumption patterns have been identified [3] [21].

To estimate the independent effect of each of these variables on consumption of such medications, we also obtained the corresponding OR adjusted by means of multivariate analysis, using logistic regression models. Estimates were generated by incorporating the sampling weights, using the "svy" (survey command) functions of STATA, which enabled the sampling design to be incorporated into all our statistical calculations (descriptive, chi-squared, logistic regression).

RESULTS

For study purposes, we used data on 21,024 subjects aged 16 years and over who answered the question referring to consumption of some type of medication in the two weeks immediately preceding the survey. They accounted for 99.8% of the total of 21,067 subjects covered by the 2001 SNHS.

An analysis of the characteristics of the study population showed that 51.5% (10,856) were women and 48.5% (10,211) men; 47.0% (9,910) were over 45 years of age (mean age 45.3 years; SD ± 18.8); the majority (58%) were married; the inactive population (pensioners and housewives) represented 48.5% (10,168) of the sample; 51.3% (10,761) reported having consumed alcohol and 34.2% (7,185) were smokers. It should be noted that 70.3% (14,767) of the Spanish population interviewed had a positive perception of their state of health. The 2001 SNHS data revealed that 51% (10,746) of subjects affirmatively reported having taken some type of medication. When this consumption was confined to psychotropic medication, we observed an intake prevalence of 8.2% (1,719), 7.6% of which was attributed to medical prescription and the remaining 0.6% (128) to self-medication. Extrapolating the data to the general Spanish population in 2001, this would mean that there were 2,812,488 persons consuming this type of drug; 209,420 of whom could be assumed to be on self-medication.

In terms of overall consumption of these drugs, women registered significantly higher (P <0.001) prevalence values than did men: 11.1% (1,206) for women versus 5.0% (513) for men; and it was again women who registered higher percentages of both prescribed (10.4%) (P <0.001) and self-medicated psychotropic agents (0.8%) (P <0.05).

The prevalence of consumption of psychoactive drugs, broken down by the socio-demographic characteristics of the population, together with the crude odds ratios and their corresponding 95% confidence intervals are shown in Table 1. Consumption of these medications increased significantly with age across the sexes, with women in all cases registering higher crude OR values than men, particularly in the over-75 age group. The multivariate analysis, which was performed using logistic regression, showed the independent effect of each of the study variables, duly adjusted for the remainder, on the overall consumption of psychoactive drugs in our sample. These estimates were made for both sexes (Table 2).

Table 1 Prevalence of consumption of psychoactive drugs in men and women, by various socio-demographic, life-style and health profile variables of the study population (SNHS 2001)

	OVERALL CONSUMPTION OF PSYCHOACTIVE DRUGS			
	Men		Women	
	% (N)	Crude OR (95% CI)	% (N)	Crude OR (95% CI)
Age (years)				
16-24	1.3 (22)	1.00	2.5 (39)	1.00
25-44	2.8 (112)	2.19 (1.38 - 3.47)	5.7 (223)	2.39 (1.69 - 3.38)
45-64	6.9 (186)	5.52 (3.53 - 8.62)	15.8 (452)	7.42 (5.31 - 10.36)
65-74	9.4 (107)	7.76 (4.87 - 12.36)	18.3 (287)	8.85 (6.28 - 12.46)
75 and over	12.1 (85)	10.33 (6.41 - 16.67)	22.5 (202)	11.48 (8.05 - 13.36)
Marital status				
Married	5.5 (325)	1.00	11.2 (702)	1.00
Single	3.2 (118)	0.57 (0.46 - 0.70)	5.0 (142)	0.42 (0.34 - 0.50)
Separated/Divorced	9.4 (27)	1.78 (1.18 - 2.69)	17.4 (71)	1.66 (1.27 - 2.17)
Widowed	12.8 (43)	2.52 (1.79 - 3.54)	22 (291)	2.23 (1.92 - 2.60)
Educational level				
University & higher education	3.6 (52)	1.00	5.7 (75)	1.00
High school	2.8 (62)	0.77 (0.53 - 1.12)	5.7 (106)	1.00 (0.74 - 1.36)
Junior school	5.2 (286)	1.49 (1.10 - 2.02)	11.4 (689)	2.14 (1.67 - 2.63)
No formal education	10.9 (112)	3.30 (2.35 - 4.64)	21.4 (336)	4.53 (3.49 - 5.90)
Occupational status				
Employed	2.6 (155)	1.00	6.7 (224)	1.00
Unemployed	6.4 (40)	2.54 (1.78 - 3.64)	7.0(60)	1.04 (0.77 - 1.40)
Inactive (housewives, retired)	8.8 (313)	3.62 (2.97 - 4.41)	13.8 (907)	2.20 (1.89 - 2.57)
Alcohol consumption				
Yes	3.6 (247)	1.00	7.1 (274)	1.00
No	8.1 (264)	2.37 (1.98 - 2.83)	13.4 (927)	2.01 (1.75 - 2.32)
Smoking habit				
Yes	4.9 (206)	1.00	8.3 (244)	1.00
No	5.2 (307)	1.07 (0.89 - 1.28)	12.2 (960)	1.52 (1.31 - 1.77)
Number of hours of sleep per day				
≥7	4.3 (349)	1.00	8.5 (698)	1.00
<7	7.5 (157)	1.78 (1.46 - 2.16)	19.7 (493)	2.64 (2.33 - 2.99)
Physical activity				
Intense	2.2 (44)	1.00	5.9 (62)	1.00
Moderate	4.8 (196)	3.11 (2.25 - 4.29)	9.3 (391)	2.46 (1.88 - 3.22)
Inactive	6.6 (273)	2.23 (1.60 - 3.10)	13.5 (741)	1.62 (1.23 - 2.14)
Body Mass Index				
< 25	4.0 (165)	1.00	6.9 (377)	1.00
25-29	5.3 (224)	1.36 (1.10 - 1.67)	14.2 (369)	2.24 (1.92 - 2.60)
30 or over	6.0 (68)	1.55 (1.16 - 2.08)	18.8 (227)	3.14 (2.62 - 3.75)
Presence of chronic disease				
No	3.1 (264)	1.00	7.3 (629)	1.00
Yes	15.0 (245)	5.50 (4.58 - 6.61)	25.8 (568)	4.39 (3.88-4.98)
Anxiety, depressive or sleep disorder				
No	3.6 (335)	1.00	8.2 (756)	1.00
Yes	74.4 (58)	77.08 (45.83- 129.64)	73.9 (139)	31.84 (22.80 - 44.46)
Medical consultation				
No	3.2 (261)	1.00	7.6 (596)	1.00
Yes	13.0 (252)	4.56 (3.80 - 5.46)	20.4 (610)	3.12 (2.76 - 3.52)
Self-assessment of health status				
Very good/Good	2.0 (158)	1.00	4.0 (280)	1.00
Fair/Poor/Very poor	14.4 (352)	8.04 (6.62 - 9.76)	24.4 (921)	7.75 (6.73 - 8.93)
TOTAL	5.0 (513)		11.1 (1206)	

* The percentages calculated excluding missing/blanks for each independent variable analyzed

Table 2 Association between overall consumption of psychoactive drugs in men and women and socio-demographic, lifestyle and health profile variables.

	MEN		WOMEN	
	Adjusted OR	95% CI	Adjusted OR	95% CI
AGE				
16-24	1.00		1.00	
25-44	2.69	1.44 - 5.04	1.89	1.18 - 3.03
45-64	4.80	2.51 - 9.17	4.00	2.45 - 6.52
65-74	3.34	1.65 - 6.78	3.47	2.06 - 5.84
75 and over	4.35	2.10 - 9.02	3.99	2.26 - 7.05
MARITAL STATUS	NS			
Married			1.00	
Single			1.23	0.90 - 1.67
Separated/Divorced			1.52	1.01 - 2.30
Widowed			1.47	1.13 - 1.92
OCCUPATIONAL STATUS				
Employed	1.00		NS	
Unemployed	2.00	1.21 - 3.28		
Inactive	2.66	1.87 - 3.77		
ALCOHOL CONSUMPTION				
Yes	1.00		1.00	
No	1.70	1.32 - 2.18	1.37	1.12 - 1.69
SMOKING HABIT				
Yes	1.00		1.00	
No	1.42	1.08 - 1.86	1.37	1.08 - 1.74
NUMBER OF HOURS OF SLEEP PER DAY	NS			
≥ 7			1.00	
< 7			1.30	1.07 - 1.58
BODY MASS INDEX	NS			
< 25			1.00	
25-29			1.36	1.10 - 1.68
30 or over			1.17	0.90 - 1.53
PRESENCE OF CHRONIC DISEASE				
No	1.00		1.00	
Yes	1.60	1.31 - 1.97	1.60	1.31 - 1.97
ANXIETY, DEPRESSIVE OR SLEEP DISORDER				
No	1.00		1.00	
Yes	15.85	8.51 - 29.51	10.39	6.67 - 16.18
SELF-ASSESSMENT OF HEALTH STATUS				
Very good/Good	1.00		1.00	
Fair/Poor/Very poor	2.75	2.06 - 3.66	3.94	3.19 - 4.86
MEDICAL CONSULTATION				
No	1.00		1.00	
Yes	2.27	1.75 - 2.93	1.80	1.49 - 2.17

Odds ratio adjusted by all the variables included in the table
NS: Not statistically significant association

Upon analyzing the results for men, we observed that there was statistically significant association across all age categories (with this association being stronger for the 45-64 (adjusted OR: 4.80) than for the 16-24 age group) and that occupational situations, such as unemployment and inactivity (adjusted OR: 2.00 and adjusted OR: 2.66, respectively), were associated with a level of psychoactive drug consumption that was double that of economically active subjects.

In relation to lifestyle, it should be stressed that non-consumption of alcohol and tobacco acted as a risk factor for psychotropic drug consumption, with a statistically significant association in evidence (adjusted OR: 1.70). Similarly, male non-smokers registered a statistically significant association with intake of such medications (adjusted OR: 1.42).

In the case of health profiles, presence of chronic disease, medical consultation and a negative perception of health were all significantly associated with higher consumption of psychoactive drugs. Men who reported anxiety, depression, or difficulty in initiating and maintaining sleep, registered an intake that was 15.85-fold higher than that of men who did not suffer these symptoms.

When adjustment was made for the different study variables in the female population, we likewise observed a statistically significant association with the consumption of psychoactive drugs across all age categories, with a stronger association (adjusted OR: 4.00) again being registered for the 45-64 versus the 16-24 age group. Unlike men, however, marital status proved to be significantly associated with consumption among widowed, separated and divorced versus married women.

Alcohol consumption and smoking habit registered an identical pattern of association to that observed for men. Women who reported not consuming alcohol had a 1.37-fold higher likelihood of being consumers of these medications than did drinkers and female non-smokers showed a significant association with the consumption of psychoactive drugs. Special mention should be made of the statistically significant association that appeared in women between the dependent variable and overweight status (a BMI of 25-29), as compared to the under-25 BMI category.

As in the case of men, health-profile analysis showed that the presence of chronic disease, medical consultation and negative perception of health were all significantly associated with higher consumption of psychoactive drugs. Similarly, the variable that registered the highest values of association among women was (once again) the presence of anxiety, depression or difficulty in initiating and maintaining sleep (adjusted OR: 10.39).

DISCUSSION

Reliance on national health surveys from different countries has become a valid and widely used tool for ascertaining patterns of medical drug use in the general population [1] [29]. In Spain, the series of National Health Surveys issued have been used to study a number of health-related aspects, including use of medications by Spanish people [30] [31] [32].

Reduction in the consumption of psychoactive drugs is something that already appeared as goal number 17 in the WHO 'Health for All in 2000' Program directed to the public and health authorities of all states members [33].

In 2001, psychotropic drug consumption prevalence in Spain was 8.2%, a figure appreciably lower than that reported by the recently published European Study of the Epidemiology of Mental Disorders (ESEMeD). According to ESEMeD, 12.3% of the European population had consumed some type of psychoactive drug in the preceding twelve months [7]: though the ESEMeD has a different methodology, we consider it valid as a reference. In contrast, the study undertaken by Nielsen et al. in Denmark reported values of 5.6% [19], while the general population studies conducted in the United Kingdom by Ohayon et al. reported lower figures [6] [22]. Similarly, the latest data furnished by the American National Health and Nutrition Examination Survey indicate that 5.5% of the adult US population had received some psychoactive drug prescribed in the preceding month [1].

However, when we focused our analysis exclusively on the results recorded by earlier national-survey-based Spanish population studies that had addressed psychotropic drug consumption, we observed that intake has gradually decreased since 1993 [21] [34].

Gender appears to be a common denominator in the results of studies on psychoactive drug consumption. Our study determined the prevalence of consumption to be higher in women than in men, a finding in line with other reports [1] [3] [6] [7] [14].

The fact that women experience greater exposure to psychotropic drug consumption than do men has

been well documented [35] [36], with some studies even analyzing the extent to which these types of substances may be abused by the female population [15] [30]. This higher intake may possibly be due to a greater readiness among women to acknowledge and express their symptoms, and thus seek medical care more often [4] [8] [41].

Consumption of psychoactive drugs was found to rise with age in both sexes, with higher prevalence figures for women, corroborating the trend already reported by other researchers [1] [4] [5] [38]. In our study, this increase in psychotropic consumption with age is maintained when different socio-demographic and health-profile factors are taken into consideration, as indeed was the case with the United Kingdom data reported by Ohayon et al. [22].

We observed that consumption frequencies tended to rise from age 45 years onwards [3], with high figures being reached at the age of 75 years or older, a finding in line with data on psychoactive drug consumption among the elderly reported by Preville et al. in a study based on Québec Health Survey data [39].

This circumstance is particularly relevant in view of the high consumption of medications in the elderly population [40], among whom hypnotics and anxiolytics are regularly used at very high intake prevalence [1] [6] [41], often for long periods of time, and not always as prescribed [9]. This can lead to chronic and improper use of psychotropic drugs, a serious public health problem in this Spain [7]. Evidence indicates a similar situation exists in Canada, where 35% of the elderly population was observed to be taking such medication for approximately 206 days per year [42].

It should be pointed out that some widely used medical drugs, such as benzodiazepines [43] [44], pose the risk of dependence that is necessarily entailed in uninterrupted consumption, as well as additional risk factors, including an influence on cognitive deterioration in elderly patients [45].

Other factors such as marital status or occupational situation were previously reported to affect the use of psychotropic drugs. However, these factors did not appear to play a relevant role in the Spanish population.

The interactions between consumption of psychoactive drugs and substances such as alcohol are well known. Unlike other studies that report a positive association between alcohol consumption and psychotropic drug use [41], our results show that consumers of these medications are not drinkers, a finding that is in line with the ESEMeD project [7], and could either be construed as a proper appreciation of the risk involved in the joint use of these substances or a reduced need for psychoactive drugs among consumers of alcohol.

There also appears to be a connection amongst smokers with the appearance of episodes of anxiety and depression [46] [47]. Consumption of psychoactive drugs is reported to be more frequent among smokers, with tobacco acting as a risk factor [22]. In our study, however, no such association was found [5] [41]; non-smokers registered a higher consumption of psychoactive drugs.

Depressive episodes, possibly related to chronic health problems or aging, may be associated with consumption of psychotropic drugs [4] [5] [44]. Depression is unquestionably a major public health issue, and has been highlighted recently by the European Outcome of Depression International Network (ODIN) Study [48] and the Global Burden of Depressive Disorders in the Year 2000 sponsored by the World Health Organization (WHO) [49].

In agreement with other studies, our results indicate a clear association between consumption of psychotropic drugs and suffering from mental-health-related episodes such as anxiety, depression, or difficulty in initiating and maintaining sleep [4] [5] [6] [8] [24] [32].

Indeed, it is these variables that were observed to display the highest magnitude of association for psychoactive drug consumption; obviously these are situations where the consumption of psychotropic drugs is indicated by a physician. Data from the Epidemiologic Catchment Area (ECA) study have already indicated that approximately 31% of adults with depression did not receive treatment [50]. Despite under-diagnosis of depression in Spain [25], we determined that consumption of these medications was associated with medical visits, a fact that has been described in a number of studies [4] [6] [21] [34].

Thought should therefore be given to the proper prescription of psychotropic medications in our population, by stressing the need for appropriate continuous education, which would then be reflected in standard medical practice [51], as well as fluid physician-patient communication. Based on our results, it is clear that consumers of psychoactive drugs perceive their health negatively [4] [5] [44]. This poor perception is potentially influenced by the negative connotations conveyed in the word ‘depression’ [52].

With respect to study limitations, a possible drawback to health surveys stems from their reliance on self-report data. This may lead to the prevalence of psychotropic drug consumption being underestimated. Another possible limitation of the Spanish National Health Surveys lies in the fact that, rather than identifying specific active pharmaceutical ingredients, they instead identify groups of medicines for specific diseases or disorders. Finally, we did not analyze the missing values for each independent variable; a non-response to a specific question might be related to the consumption of psychotropic drugs.

CONCLUSION

The consumption of psychotropic medications in Spain is still very considerable, with women registering the highest consumption prevalence and the greatest number of associated risk factors. It is especially relevant to emphasize the fact that psychoactive drug consumption by both men and women tends to increase with age and a negative perception of health.

AUTHORS' PARTICIPATION

P C-G and R J-G conceived of the study, drafted the manuscript, and supervised all aspect of its implementation; V H-B analyzed the information; A Lde A, P O-M and A GdeM contributed drafting the manuscript. All authors helped to conceptualize ideas, interpret findings, and reviewed the manuscript.

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CONFLICT OF INTERESTS/DISCLAIMERS

P C-G is member of the Editorial Board of the journal. There is no other conflict of interests to declare.

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