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RESEARCH PAPER

Self-reported chronic mental health problems and mental health service use in Spain

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Objectives: To determine the prevalence of self-reported chronic mental health problems (MHPs) and mental health service use and their determinants, among the Spanish population over 14 years of age.

Methods: Data from the 1999 Spanish Survey on Disabilities, Deficiencies, and State of Health were used. The survey is a cross-sectional study based on a multi-stage stratified sample of all the non-institutionalized Spanish population aged over 14 years ($n = 59,101$, 11% non-responders). Multivariate logistic regression analysis were used.

Results: 10.7% of the Spanish population suffer from an MHP. The highest prevalences were found in women, divorced/separated persons, those with a lower level of education and income, and those suffering from a chronic somatic problem. The number of days of daily activity lost was 2-fold greater among those with an MHP than among those with a chronic somatic problem. Greater use of mental health services was associated with loss of daily activity, having a higher level of education, invalidity or disability. The probability of MHP being referred from primary to mental healthcare is reduced if somatic comorbidity is present.

Conclusion: MHPs have a high prevalence and a significant repercussion on the patient's life. An inverse relationship was found between certain risk factors for MHPs and the use of services, which suggests inequality. Problems of accessibility are identified.

Keywords: Disability, Mental health, Mental health services, Prevalence, Risk factors utilization

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INTRODUCTION

Psychiatric morbidity is an important cause of disability¹ and is associated with the use of health services and costs for the community.² Mental disorders are often chronic.³⁻⁶ Twenty five percent of psychiatric disorders in the general population last for 1 year, and at any given moment account for 50% of all psychiatric disorders.⁷ These prolonged disorders may be associated with a greater disability and require more care than disorders that last for only a short time.⁸⁻¹⁰ Information on the sociodemographic and clinical correlates of chronic mental health problems (MHPs) in the general population is scarce¹¹ and this makes it difficult to identify vulnerability factors in the population. In addition, the information available on the use made of mental health services by persons with chronic MHPs is also scarce.¹¹ Given the limited availability of healthcare resources, health service use has followed a pattern of equity/accessibility in which the severity of the disorder and associated disability are the main factors determining use.^{12,13} The fact that there is a lack of studies on determinants of mental health service use makes it difficult to establish measures that promote equity in their use.¹⁴

The 1999 Spanish Survey on Disabilities, Deficiencies, and State of Health (SSDDSH) conducted by the National Statistics Institute^{15,16} considers a representative sample of all the Spanish population. The survey includes a measure of self-reported chronic MHPs and items relating to the use of psychiatric healthcare services. The objectives of this study are to determine the prevalence of self-reported chronic MHPs in the Spanish population over 14 years of age, and the sociodemographic and health determinants in the general population and in persons with self-reported chronic MHPs based on the SSDDSH.

METHODS

Data Source

The SSDDSH¹⁵ is a cross-sectional study based on a multi-stage stratified sample of all the non-institutionalized Spanish population. The first stage was composed of 3,000 constituencies and the second was composed of 79,244 family homes. In each home all residents were screened and one person was selected at random for the interview. The interview was carried out at home, face-to-face and by fully trained interviewers. The final home sample included 70,500 homes (11% rate of non-responders) and 69,555 persons (49% men, mean age 37 (SD = 22.22), 43.5% single, 48.1% married, 6.3% widow, and 2.0% separated/divorced). The structure of the final sample did not significantly differ from the structure of the general population.

The existence of an MHP was confirmed by the response to the following questions: 'Has your doctor told you that you are suffering from one or more of the problems or diseases listed below? Indicate whether or not you are suffering from any of the following problems or chronic diseases': nerve problems, depression, or difficulty in sleeping, bronchitis, asthma or emphysema, allergy, epilepsy, diabetes, arterial hypertension, heart disease, cholesterol, hepatic cirrhosis, arthrosis and rheumatic problems, stomach or duodenal ulcer, erosive gastritis, hernias, poor circulation, chronic anaemia, headache, migraines, and other frequent headaches, other diseases. The items were rated yes/no. The duration of problems was established by asking the age of onset.

Methodology of Analysis

Due to the complex sample design, subjects in the sample were weighted to enable the number of subjects represented by each individual in the sample to be determined.¹⁷ The weightings were included in the databases provided by the National Statistics Institute. The estimations obtained in this way are unbiased and agree with those

obtained using methods that incorporate the design. However, the random error of the estimations should be considered only approximate and in general is less than the true one.^{18,19} The method chosen to use the weightings consisted in transforming them to the normalized form:

Normalized weighted sample unit $i = \omega_i = (n/N)\lambda_i$

Where

n = number of subjects in the sample

λ_i = original weighted unit i

N = Size of the population

$$\text{represented} = \sum_{i=1}^n \lambda_i$$

With these weights, a sample of the same size as that studied is reproduced. This avoids the problem of artificially reducing the random errors that would be estimated with the original weights, which would reproduce a sample of similar size to that of the population studied, that is, a very large sample size.

In this study the item 'nerves, depression or difficulty in sleeping' was used as the dependent variable, whereas the explanatory variables were: sex, age, marital status, level of education, number of people living in the home, economic activity, monthly income (in pesetas, €1 = 166 ptas.) and comorbidity with any of the self-reported chronic somatic problems mentioned above. In the analysis of the use of services, the number of working days in which daily activity was limited in the previous month and the duration of the MHP (in years) were also considered.

We defined the existence of a disability as any serious limitation with a lasting affect on daily activity (the patient has suffered and expects to suffer such disability for more than a year) caused by a deficiency.¹⁵ We also recorded the use of mental health services in the previous 14 days. The use of primary and specialist medical and nursing services, together with whether they were public or private, were considered.

The prevalences were calculated with their 95% confidence intervals. The descriptive results of quantitative variables are shown as means \pm standard deviation. The means were compared using the student t test. The raw and adjusted odds ratios and their 95% confidence intervals were calculated and taken as measures of association. The chi-squared test was used to confirm the association between qualitative variables. Multivariate logistic regression models were constructed, including the variables that had a statistically significant effect on the answer variable. The p -values are two sided. The SPSS v 13[®] program was used.

RESULTS

Prevalence and Characteristics of Self-reported Chronic MHPs

10.7% (95% CI 10.4–10.9) of the population over 14 years of age in Spain suffered from an MHP with a mean duration of 13.5 (standard deviation of 14.2) years. One point four percent suffered from an MHP, 42.9% from chronic somatic problems, 9.3% from both types of problems and 46.4% had no problems. Three and a half percent of the MHPs lasted for <1 year, 15.2% between 1 and 2 years, 37.9% between 2 and 10 years and 43.3% for 10 or more years.

It was found that those who suffered from an MHP lost more days of daily activity in the previous month than did the others [2.0 (5.4), v . 0.6 (2.8), $tS=17.5$, $p<0.001$]. About 11.9% of those with an MHP, 9.4% of those with chronic somatic problems, 20.2% of those with both types of problems, and 4.4% of those with no health problems lost a day of daily activity in the previous month ($\chi^2=1365.2$, $gl=3$, $p<0.001$). In addition, 28.7% (95% CI 27.6–29.9) of patients with an MHP and 8.3% (95% CI 8.1–8.5) of the others ($\chi^2=2509.9$, $gl=2$, $p<0.001$) had a disability.

Relationship between MHPs and Sociodemographic and Comorbidity Variables

Table 1 shows the estimations of prevalence of MHPs together with the raw odds ratios and adjusted odds ratios using multivariate logistic regression. A statistically significant association ($p < 0.05$) may be seen between MHPs and sex (higher prevalence in women), age (lower prevalence among the 15–24 year olds), marital status (higher prevalence among separated/divorced people, lower prevalence among married people), level of education (higher prevalence among those with a lower level of education) income (higher prevalence among those with a lower income), economic activity (higher prevalence among those with any activity than in those with a skilled job or students) and suffering from a chronic somatic problem. The level of statistical significance of the excluded variables was >0.20 in all cases.

There is a higher prevalence of MHPs in women (14.5%; 95% CI 14.1–14.9) than in men (6.6%; 95% CI 6.4–6.9) and this is the case in all the categories of variables studied. By sex, the pattern of results observed is similar to that obtained in the sample, except in the following: being married (adjusted OR = 0.7, 95% CI 0.6–0.8) and studying (adjusted OR = 0.6, 95% CI 0.4–0.8) are protective factors in men but not in women; being over 64 years old (65–74 years adjusted OR = 2.0, 95% CI 1.6–2.6; >74 years, adjusted OR = 1.5, 95% CI 1.1–2.0), earning less than 65,000 pts (€391.6) a month (adjusted OR = 1.5, 95% CI 1.3–1.8), having a non-skilled job (adjusted OR = 1.4, 95% CI 1.2–1.7) and doing housework (adjusted OR = 1.2, 95% CI 1.1–1.4) are risk factors in women but not in men; whereas being unemployed for the first time (adjusted OR = 1.8, 95% CI 1.2–2.7) is a risk factor in men but not in women.

Use of Mental Health Services in the Previous 14 Days

The use of mental health services was financed by the national health system in 85.4% of the cases. Table 2 shows the estimated prevalences of the use made of mental health services by the sample and the association with sociodemographic and comorbidity variables. It was found that 0.4% (95% CI 0.2–0.4) of the sample used mental health services compared with 3.1% (95% CI 2.7–3.5) of those with an MHP. On the other hand, 0.4% of those with no MHP made use of mental health services (95% CI 0.4–0.5), and by sex, 0.3% (95% CI 0.2–0.4) of men and 0.5% (95% CI 0.4–0.6) of women.

There is a statistically significant association between mental health service use and the following: having an MHP, loss of days of daily activity, marital status (less use among married people), level of education (greater use among those with a higher level of education), economic activity (less use among people with unskilled jobs and greater among those with disabilities or invalidities) and suffering from a chronic somatic illness (less use among those with chronic somatic problems). The level of statistical significance of the excluded variables was >0.20 in all cases.

The results of the analysis of the use of services among people with an MHP (Table 3) shows a similar pattern to that obtained in the sample, except that there is no independent, statistically significant association between economic activity and use of services.

Table 4 shows the relationship between having an MHP, having a chronic somatic problem and the use of mental health services and primary and specialist medical and nursing services in the sample. In the case of MHPs, somatic comorbidity reduces the likelihood of using mental health services, while increasing that of using medical and nursing services.

TABLE 1. Prevalence, raw and adjusted odds ratios of self-reported chronic MHPs in the Spanish population over 14 years of age (n = 59101) OR = odds ratio, CI = Confidence Interval

Variable	Prevalence	95% CI	Raw OR*	95% CI	Adjusted OR*	95% CI
Sociodemographic						
Sex			*		*	
Male	6.6	6.4, 6.9	1.0		1.0	
Female	14.5	14.1, 14.9	2.4*	2.2, 2.5	2.1*	1.9, 2.2
Age group			*		*	
15-24	3.4	3.1, 3.8	1.0		1.0	
25-34	5.8	5.4, 6.3	1.7*	1.5, 2.0	1.4*	1.2, 1.6
35-44	8.9	8.3, 9.4	2.7*	2.4, 3.1	2.0*	1.7, 2.4
45-54	12.7	11.9, 13.4	4.1*	3.6, 4.6	2.2*	1.9, 2.7
55-64	17.4	16.5, 18.3	5.9*	5.2, 6.7	2.2*	1.8, 2.6
65-74	18.2	17.2, 19.1	6.2*	5.5, 7.0	1.7*	1.4, 2.1
75 and over	18.2	17.1, 19.3	6.2*	5.5, 7.1	1.4*	1.1, 1.7
Marital status			*		*	
Single	5.9	5.6, 6.2	1.0		1.0	
Married	11.6	11.3, 12.0	2.1*	2.0, 2.2	0.8*	0.7, 0.9
Widowed	22.2	21.0, 23.5	4.6*	4.2, 5.0	1.0	0.8, 1.1
Separated/Divorced	18.2	16.1, 20.2	3.5*	3.1, 4.1	1.5*	1.2, 1.7
Level of education			*		*	*
Illiterate	24.9	22.9, 26.8	7.2*	6.2, 8.4	2.3*	1.9, 2.7
No schooling	18.7	17.9, 19.6	5.0*	4.4, 5.7	2.0*	1.7, 2.3
Primary or equivalent	13.2	12.8, 13.7	3.3*	2.9, 3.7	1.8*	1.6, 2.1
Lower secondary	7.8	7.3, 8.3	1.8*	1.6, 2.1	1.7*	1.5, 2.0
Higher vocational training/higher secondary	5.6	5.2, 6.0	1.3*	1.1, 1.5	1.4*	1.2, 1.6
University or equivalent	4.4	3.9, 4.9	1.0		1.0	
Number of people in the household			*		**	
One	18.5	17.1, 19.9	2.0*	1.8, 2.2		
Two or more	10.2	10.0, 10.5	1.0			
Economic						
Economic activity			*		*	
Skilled job	5.7	5.4, 6.0	1.0		1.0	
Unskilled job	9.0	8.1, 10.0	1.7*	1.5, 1.9	1.3*	1.2, 1.5
Unemployed for 1st time	6.5	5.1, 8.0	1.2	0.9, 1.5	1.4*	1.0, 1.8
Unemployed	10.3	9.4, 11.2	1.9*	1.7, 2.1	1.4*	1.2, 1.6
Disabled	33.0	31.3, 34.8	8.2*	7.4, 9.0	3.4*	3.0, 3.8
Retired	14.6	13.8, 15.3	2.8*	2.6, 3.1	1.5*	1.3, 1.7
Housework	17.1	16.4, 17.9	3.4*	3.2, 3.7	1.4*	1.2, 1.5
Studying	2.9	2.5, 3.3	0.5*	0.4, 0.6	0.8	0.7, 1.0
Others	20.6	18.6, 22.6	4.3*	3.8, 4.9	1.5*	1.3, 1.8
Monthly income (Ptas.)			*		*	
Less than 65.000	18.8	17.6, 20.0	4.0*	3.5, 4.6	1.4*	1.2, 1.6
65.000-195.000	12.7	12.3, 13.1	2.5*	2.2, 2.8	1.3*	1.2, 1.5
195.000-325.000	8.0	7.5, 8.4	1.5*	1.3, 1.7	1.1	1.0, 1.3
Over 325.000	5.5	4.9, 6.0	1.0		1.0	
Comorbidity						
Chronic somatic disease			*		*	
Yes	17.8	17.4, 18.2	7.4*	6.8, 7.9	4.9*	4.5, 5.3
No	2.9	2.7, 3.0	1.0		1.0	

*Significant variable in the model (p < 0.05).

**Non-significant variable in the model.

TABLE 2. Prevalence, raw and adjusted odds ratios of mental health service use in the Spanish population over 14 years of age (n = 59101)

Variable	Prevalence	95% CI	Raw OR*	95% CI	Adjusted OR*	95% CI
Sociodemographic						
Sex						
Male	0.3	0.2, 0.4	1.0			
Female	0.5	0.4, 0.6	1.8*	1.4, 2.3		
Age group						
15-24	0.4	0.2, 0.5	2.0	1.0, 4.4		
25-34	0.5	0.3, 0.6	2.8*	1.3, 5.8		
35-44	0.4	0.3, 0.5	2.3*	1.1, 4.9		
45-54	0.6	0.4, 0.7	3.4*	1.6, 7.1		
55-64	0.4	0.3, 0.6	2.6*	1.2, 5.7		
65-74	0.3	0.2, 0.4	1.8	0.8, 4.1		
75 and over	0.2	0.1, 0.3	1.0			
Marital status						
Single	0.5	0.4, 0.6	1.0		1.0	
Married	0.3	0.3, 0.4	0.7*	0.5, 0.9	0.4*	0.3, 0.7
Widowed	0.3	0.2, 0.5	0.7	0.4, 1.2	0.6	0.3, 1.3
Separated/Divorced	1.4	0.8, 1.0	2.7*	1.6, 4.4	1.0	0.5, 1.8
Level of education						
Illiterate	0.5	0.2, 0.8	1.7	0.8, 3.6	0.7	0.3, 2.1
No schooling	0.3	0.2, 0.5	1.1	0.6, 2.0	0.5	0.2, 1.0
Primary or equivalent	0.4	0.3, 0.4	1.2	0.7, 2.0	0.7	0.4, 1.3
Lower secondary	0.5	0.4, 0.7	1.7*	1.1, 2.9	1.5	0.8, 2.7
Higher vocational training/Higher secondary	0.5	0.4, 0.6	1.6*	1.0, 2.7	1.4	0.8, 2.6
University or equivalent	0.3	0.2, 0.4	1.0		1.0	
Number of people in the household						
One	0.5	0.3, 0.8	1.2	0.7, 2.0		
Two or more	0.4	0.4, 0.5	1.0			
Economic						
Economic activity						
Skilled job	0.3	0.3, 0.4	1.0		1.0	
Unskilled job	0.2	0.1, 0.4	0.7	0.4, 1.5	0.3*	0.1, 0.8
Unemployed for 1st time	0.6	0.1, 1.0	1.6	0.7, 3.8	1.0	0.4, 2.4
Unemployed	0.6	0.4, 0.9	1.9*	1.2, 3.0	1.1	0.7, 1.8
Disabled	1.4	1.0, 1.9	4.4*	2.9, 6.4	1.9*	1.1, 3.5
Retired	0.3	0.1, 0.4	0.8	0.5, 1.3	0.7	0.4, 1.3
Housework	0.4	0.3, 0.5	1.3	0.9, 1.9	1.0	0.6, 1.6
Studying	0.4	0.2, 0.6	1.2	0.8, 1.9	1.0	0.6, 1.7
Others	0.4	0.1, 0.7	1.2	0.5, 2.7	0.7	0.2, 2.2
Monthly income (Ptas.)						
Less than 65.000	0.5	0.3, 0.7	1.3	0.7, 2.5		
65.000-195.000	0.5	0.4, 0.5	1.4	0.9, 2.1		
195.000-325.000	0.4	0.3, 0.5	1.1	0.7, 1.8		
Over 325.000	0.4	0.2, 0.5	1.0			
Comorbidity						
Chronic somatic disease						
Yes	0.5	0.5, 0.6	2.1*	1.6, 2.7	0.6*	0.4, 0.9
No	0.3	0.2, 0.3	1.0		1.0	
Mental disease						
Yes	3.1	2.7, 3.6	37.7*	27.2, 52.1	53.1*	35.8, 78.6
No	0.1	0.1, 0.1	1.0		1.0	
Working days lost						
Yes	2.0	1.6, 2.4	8.3*	6.2, 11.0	4.0*	2.9, 5.4
No	0.2	0.2, 0.3	1.0			

*Significant variable in the model ($p < 0.05$).

**Non-significant variable in the model.

TABLE 3. Prevalence, raw and adjusted odds ratios of mental health service use in persons with self-reported chronic MHPs (n = 6380)

Variable	Prevalence	95% CI	Raw OR*	95% CI	Adjusted OR*	95% CI
Sociodemographic						
Sex						
			**		**	
Male	3.5	2.7, 4.3	1.2	0.9, 1.6		
Female	2.9	2.4, 3.4	1.0			
Age group						
			*		**	
15-24	7.2	4.5, 9.8	11.9*	4.7, 30.2		
25-34	5.6	3.9, 7.4	9.3*	3.8, 23.0		
35-44	4.0	2.7, 5.3	6.5*	2.6, 16.0		
45-54	3.9	2.8, 5.1	6.4*	2.6, 15.8		
55-64	2.5	1.6, 3.3	3.9*	1.6, 9.8		
65-74	1.7	0.9, 2.4	2.6*	1.0, 6.7		
75 and over	0.6	0.1, 1.1	1.0			
Marital status						
			*		*	
Single	5.9	4.6, 7.2	1.0		1.0	
Married	2.4	1.9, 2.9	0.4*	0.3, 0.5	0.5*	0.3, 0.7
Widowed	1.4	0.7, 2.2	0.2*	0.1, 0.4	0.7	0.4, 1.3
Separated/Divorced	6.3	3.3, 9.3	1.1	0.6, 1.9	1.0	0.5, 1.9
Level of education						
			*		*	
Illiterate	1.5	0.4, 2.6	1.0		1.0	
No schooling	1.7	1.1, 2.4	1.2	0.5, 2.9	0.9	0.3, 2.7
Primary or equivalent	2.2	1.6, 2.8	1.6	0.7, 3.6	1.2	0.4, 3.6
Lower secondary	5.6	4.0, 7.2	4.2*	1.8, 9.5	2.9	1.0, 8.8
Higher vocational training/higher secondary	6.3	4.6, 8.1	4.7*	2.1, 10.8	2.6	0.8, 7.8
University or equivalent	5.8	3.2, 8.3	4.4*	1.8, 10.7	2.6	0.8, 8.3
Number of people in the household						
			**		**	
One	2.2	1.0, 3.4	1.0			
Two or more	3.2	2.7, 3.6	1.4	0.8, 2.5		
Economic						
Economic activity						
			*		**	
Skilled job	4.4	3.3, 5.6	1.0			
Unskilled job	2.4	0.8, 4.0	0.5	0.2, 1.1		
Unemployed for 1st time	4.2	0.0, 8.9	0.8	0.2, 2.9		
Unemployed	5.6	3.4, 7.8	1.3	0.8, 2.1		
Disabled	3.8	2.6, 5.1	0.9	0.6, 1.3		
Retired	1.5	0.8, 2.2	0.3*	0.2, 0.6		
Housework	2.1	1.4, 2.8	0.4*	0.3, 0.7		
Studying	9.5	5.1, 13.9	2.2*	1.2, 4.0		
Others	1.5	0.3, 2.8	0.4*	0.1, 0.9		
Monthly income (Ptas.)						
			*		**	
Less than 65.000	1.8	0.9, 2.8	1.0			
65.000-195.000	3.2	2.6, 3.7	1.8*	1.0, 3.1		
195.000-325.000	3.7	2.6, 4.8	2.1*	1.1, 3.9		
Over 325.000	4.9	2.6, 7.1	2.7*	1.3, 5.7		
Comorbidity						
Chronic somatic disease						
			*		*	
Yes	2.6	2.2, 3.1	1.0		1.0	
No	6.3	4.6, 7.9	2.5*	1.8, 3.4	1.9*	1.3, 2.8
Duration of MHP (in years)						
			*		**	
<1	4.8	3.2, 6.3	2.0*	1.0, 3.0		
1-2	5.2	3.4, 7.1	2.3*	1.5, 3.5		
2-5	3.5	2.5, 4.6	1.5*	1.0, 2.2		
5+	2.4	1.9, 2.9	1.0			
Working days lost						
			*		*	
Yes	7.7	6.0, 9.5	3.2*	2.3, 4.4	3.5*	2.5, 5.0
No	2.6	2.1, 3.1	1.0		1.0	

*Significant variable in the model ($p < 0.05$).

**Non-significant variable in the model.

TABLE 4. Comorbidity and health service use in the Spanish population over 14 years of age

	Mental health service use (%)	Use of medical and nursing services (%)
Only MHP	6.5	17.0
Only another chronic somatic disease	0.1	20.3
MHP and another chronic somatic disease	2.6	28.0
Neither MHP nor chronic somatic disease	0.1	8.9

DISCUSSION

One in every 10 people suffers from a MHP, which is often very severe. Eighty percent of persons with MHPs lasts for over 2 years and 87% are associated with a chronic health problem. Thus, persons with MHPs generate a considerable disablement in daily life (more than three times the number of days of social activities lost in the previous month compared with the sample of persons without MHPs), a similar finding to that described by other authors.^{20,21} People with an MHP also have a greater disablement in daily life than those who suffer from a chronic somatic problem, as other authors have reported. Buist-Bouwman *et al.*²² found that mental disorders are associated with a similar or higher negative impact on daily functioning than arthritis and heart disease.

No similar studies have been done on the evaluation of the prevalence of chronic MHPs. Considering that the ESEMeD study²³ found a 12-month prevalence of mental disorders of 8.5% in Spain, the expected annual prevalence of chronic mental disorders could be 4%.⁷ Therefore, the higher prevalence found in our study could be explained by the fact that sub-diagnostic disorders were included. It is important to note that these sub-diagnostic problems, which are associated with a significant disablement and social cost,^{24,6} are not identified in epidemiological studies based on clinical diagnoses.

With regard to risk factors, the profile for the general population is similar to that

described in epidemiological studies on psychiatric disorders. A higher prevalence in women was also found in other studies,²³ including those that identified self-reported MHPs^{25,26} or chronic problems.^{27,11} Differences between men and women in exposure to life events,^{28–30} in social support,³¹ and in the roles they play are some of the factors that may explain this difference.

The risk is reduced in the younger age group, and this finding differs from that of the ESEMeD study for psychiatric disorders in general in Spain,²³ which reported that the morbidity decreased with age. This difference might be explained by the fact that our study focuses exclusively on chronic disorders.

As found in earlier epidemiological studies,^{11,21} the risk of an MHP is lower among married people and higher among those who are separated/divorced.

The risk of MHPs increases as the level of education and income decreases, which is a similar situation to that found in health problems,³² psychiatric disorders^{33–36} and in studies on self-reported MHPs,^{25,26} although the ESEMeD study²³ does not confirm this association. The relationship between a low-income, low-level of education, unskilled work and the existence of an MHP is consistent with the unequal distribution of life difficulties^{29,30} and psychosocial vulnerability factors in the population such as the sense of personal control.³⁷ Processes of social causation, social selection or a combination of both may explain the relationship between MHPs and social factors.²¹

Suffering from a chronic somatic problem is a factor independently associated with having an MHP, a finding that is consistent with the results of other studies.^{38–41} It has been reported that somatic problems may induce chronic mental problems,⁴² that there is an inverse relationship,^{43–45} and that there are risk factors common to both types of health problems.^{46,32}

Our study shows that men and women differ in some risk factors. On multivariate analysis, taking the 15–24 age group as the reference group, there is an increased risk in women, but not in men, over the age of 65. Factors other than the controlled ones may account for this difference. The decrease in risk among married people has been found to be statistically significant only in men. This supports the idea that marriage may be a protective factor for men but not for women.⁴⁷ In women, being a housewife and having an unskilled job are specific independent risk factors. This finding is in agreement with the increase in risk of emotional suffering that carrying out stressful roles or combining various non-compatible roles implies for women.⁴⁷

Three percent of persons with an MHP used mental health services in the previous 14 days. In this study, in both the global sample and those with an MHP, the main factors associated with mental health service use are the loss of working days and being disabled. Furthermore, less use of these services is associated with being married, when there is less risk of suffering from an MHP. However, less use of mental health services is associated with conditions of high risk of MHPs such as a lower level of education, chronic health problems, and being an unskilled worker. In the case of persons with MHP, less use of mental health services is associated with lower level of education and chronic health problem. These results, particularly those relating to the general population, reveal that there is a serious problem of lack of equity in the Spanish national health system.

The absence of an independent relationship between being a woman and mental health service use in the sample also suggests a lack of equity in the use of services, bearing in mind that being a woman is a risk factor for MHPs.

These results may be compatible with the ‘inverse care law’ proposed by Hart⁴⁸ and are consistent with the findings of the USA National Comorbidity Survey Replication⁴⁹ and National Health Interview Survey.⁴¹ In Spain, van Doorslaer *et al.*⁵⁰ found a positive relationship between the use of specialist health services and wealth. Since most mental health treatment is free and in Spain there is universal coverage, this finding may be explained by factors such as failure to make initial treatment contact⁴⁹ or an increase in treatment interruption⁵¹ among sociodemographic strata with a greater risk of MHPs. In both mechanisms the role played by GPs is important. It is necessary to improve the ability of family doctors to identify MHPs to increase the possibility of treatment and referral. It is well known that this ability is related to the way primary care is organized⁵² and how doctors are trained to conduct a clinical interview.⁵³ Although in countries with gate-keeping system, patients had more psycho-social requests and GPs made more psychological diagnoses,⁵⁴ Linden *et al.*⁵⁵ found that GPs acting as gatekeepers may reduce the likelihood of contact with other professionals. In Spain, GPs have this gatekeeper function and if they are not able to identify and/or refer MHPs – which means that women patients, those with a lower level of income or education, or those with chronic somatic problems are the worse affected – this could be a factor associated with the reduced access to mental health services^{56–59} or to the right treatment among such population groups.^{60,61} The relationship between having MHP, having a chronic somatic problem and use of mental health services and medical and nursing services found in this study indicates comorbidity decreases the use of mental health services by patients

with MHP, whereas the use of general health services increases. General practitioners and medical specialists should be aware that people with chronic diseases are in general more at risk of mental disorder. The existence of a somatic problem may conceal a MHP and thus decrease the likelihood of receiving the right treatment in mental health services.

Moreover, it is well known that the possibility of being referred from primary care is directly related to the availability of GPs and mental health services⁶², as well as to the quality of the specialist care.⁶³

This is not a survey on diagnostic prevalence, but a survey on chronic MHPs identified by self-report. The relationship between mental disorder diagnosis and MHP is not well known, but nevertheless there is some evidence pointing to a close relationship between them. Taylor *et al.*⁶⁴ compared self-reported mental health status and the prevalence of probable cases of mental disorder established by GHQ-28 and SF-12 and found kappa coefficients of 0.29 and 0.36, respectively, and San Jose-Llongueras *et al.*⁶⁵ estimated the concordance of self-reported mental health and the diagnosis registered in the files of family doctors and found a kappa of 0.51. Self-report may be seen as a cost-effective proxy for the diagnosis established by formal interviews. It can also be seen as complementary. The concept of health carries both an empirical dimension and a subjective dimension. This latter can only be captured by self-report.

In the interpretation of the results it is assumed that suffering from a MHP determines increased frequency of use of mental health services, however, it is known that frequent attenders have a greater tendency to report more problems and consider them to be more serious. This may inflate the relationship between illness and service use.

Despite the typical limitations of cross-sectional studies, the source of data used has been useful to make an approximation in the analysis of MHPs in Spain, bearing in mind

the lack of other sources of information available. Moreover, the survey does not collect data on institutionalized patients, among whom the prevalence of MHPs could be higher, such as in the case of the elderly.

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