# **Originals**

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# Sociodemographic and psychopathological features of frequent attenders in Primary Care

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**Objective.** To determine the sociodemographic and clinical characteristics of frequent attenders and compare them with another group of routine attenders in three primary care centers.

Method. The sample is composed by 232 frequent attenders (defined by number of consultations in the last year of 12 or more) and 93 routine attenders. The instruments used are: a questionnaire for the evaluation of the sociodemographic and clinical characteristics and the 28-item Goldberg General Health Questionnaire (GHQ-28).

Results. The logistic regression shows that increase of age, low level of education, presence of chronic disease, psychiatric diagnosis and presence of psychopathological «minor» symptomatology establish significant differences in the group of frequent attenders in relation to the routine attenders group. There are no significant differences between men and women.

**Conclusion.** Frequent attenders present higher rates of physical, mental and social complaints. Age, some chronic conditions and psychopathology are the most important factors for frequent attendance.

#### Key words:

Frequent attenders. Primary Care. Health services utilization.

Actas Esp Psiquiatr 2009;37(6):320-325

# Características sociodemográficas y psicopatológicas del paciente hiperfrecuentador en atención primaria

Objetivo. Determinar las características sociodemográficas, clínicas y psicopatológicas de un grupo de pa-

cientes hiperfrecuentadores comparándolo con otro grupo de normofrecuentadores en tres centros de atención primaria.

Método. La muestra está compuesta por 232 hiperfrecuentadores (definidos por un número de consultas igual o superior a 12 en el último año) y 93 normofrecuentadores. Los instrumentos utilizados son: un cuestionario de elaboración propia para la evaluación de las características sociodemográficas y clínicas y el Cuestionario de Salud General de Goldberg en su versión de 28 ítems (GHQ-28).

Resultados. La regresión logística muestra que el aumento de edad, un nivel educativo bajo, la presencia de enfermedad crónica (diabetes e hipertensión), un diagnóstico psiquiátrico y presencia de sintomatología psicopatológica «menor» establecen diferencias significativas en el grupo de hiperfrecuentadores frente al grupo de normofrecuentadores. No existen diferencias significativas entre hombres y mujeres.

Conclusión. Los pacientes hiperfrecuentadores presentan altas tasas de quejas físicas, mentales y sociales. La edad, determinadas enfermedades crónicas y la psicopatología son los factores más importantes en relación a la hiperfrecuentación.

Palabras clave:

 $\label{thm:linear} \mbox{Hiperfrecuentadores. Atención primaria. Utilización de servicios.}$ 

## INTRODUCTION

The decision to come to the health care services of a community makes up one of the most important aspects in relationship to health care cost. One group of patients, often called frequent attenders, does not use these services rationally and this has a disproportioned repercussion on the health care costs. The numbers of frequent attenders published are uneven, based on the definition and country in which the study has been conducted. It is calculated that these patients use between 21% to 67% of the primary care (PC) resourses.<sup>1-3</sup> Approximately 15% of

This work has been financed by ISCIII (MD07/00279)

Correspondence: Margarida Gili Universitat de les Illes Balears Edifici Guillem Cifre Carretera de Valldemossa km 7,5 07071 Palma de Mallorca (Spain) E-mail: mgili@uib.es all the visits occur at the expense of 3% of those who come most often to their primary care center.<sup>4</sup>

There are many factors that affect frequent utilization and they seen to have a clear interaction. There are factors that are related with the individual, others with health care professionals and in the latter group, this tends to be related with the structure and functioning of the health care system.

The present work focuses on those related with the subject. In this sense, it could be stated that the studies conducted show that those who attend the PC health care centers excessively make up a heterogeneous group of patients. However, within this group, some common characteristics can be indicated: elevated age, being a woman or belonging to low social, educational and economic level. <sup>5-7</sup>

Regarding age, it can be stated that most of the studies clearly show that there is greater utilization of resources as age advances. <sup>5, 8-10</sup> However, this association is not linear as the greatest use of the PC services is concentrated in those over 65 years of age. <sup>11</sup> Although some works have indicated the possibility that this greater use is associated to retirement and the possibility of having more free time, when multivariate analyses have been performed, the only variables that have been shown to modulate the use have been morbidity and perception of health. <sup>12</sup>

In relationship to gender, and although many studies have indicated greater presence of women among the frequent attenders,<sup>5,13,14</sup> this difference is not so clear when the confounding factors such as age or educational and economic level are controlled.<sup>3</sup> The inverse relationship between socioeconomical level, educational level and work situation seems to be clearer in the different studies conducted in countries with a National Health system.<sup>3</sup>

If we consider aspects that are not purely sociodemographic, the clinical factors that have been associated to frequent attenders are the presence of chronic diseases, psychiatric disease and social problems.<sup>6,7,15,16</sup> In general, the data published indicate that more than 50% of the frequent attender patients have a physical disease and more than half have some type of psychological problem.<sup>13,17</sup> Elevated scores in anxiety, depression, and somatization characterize these patients in comparison with normal frequency attenders.<sup>18</sup>

A two-phase study was designed in order to know the prevalence of psychiatric disorders, especially somatization, and to evaluate the efficacy of a cognitive-behavioral intervention in these patients. The results presented in this article correspond to the first phase that tries to determine

the sociodemographic and clinical characteristics of these patients in our community.

#### **METHODOLOGY**

A descriptive study was designed in three primary care centers of Mallorca that were chosen based on the following criteria: computerization available for consultations, socioeconomic level of the basic health care zone covered (high, middle and low) and geographic setting (urban/rural).

The study sample is made up of 324 primary care patients, which included one group of frequent attender patients (N=232), defined as those who have consulted in any of these three health centers 12 times or more in the previous year, excluding nursing consultation, scheduled visits, urgent bureaucratic visits and on demand and home visits, and another control group of normal attender patients (N=92). Patients whose ages ranged from 18 to 65 years and who had signed an informed consent to participate were included.

The sample used to select the subject of both groups was a systematic stratified one randomized by health center. By means of a previous pilot study performed in different health care centers of Mallorca, it was estimated that the prevalence of frequent attenders was 20%, following the previously mentioned criterion of number of visits/year. The sample size needed for a 95.5% confidence interval was 232 patients.

The procedure followed was that of contacting the patients by telephone. After having obtained a positive response to their collaboration in the study, an appointment was made for the day and time to make the interview aimed at obtaining data on the relevant sociodemographic and clinical variables: age, gender, occupation, education level, family background of mental disorders, chronic diseases, mental disorders and current treatments.

The clinical histories of the patients enrolled in the study were reviewed to gather information regarding the clinical variables. They were then administered the General Health Questionnaire of Goldberg, in its 28-item version (GHQ-28). This questionnaire was used as a screening instrument for a second phase, after the study that is shown herein. In the present study, we have used the total score derived from the GHQ-28 and the four subscales (psychological induced somatic symptoms, anguish/anxiety, social dysfunction in daily activities and depression) to detect minor type psychiatric disorders and the cutoff 6/7 recommended by its authors to detect possible cases.

	Normal attenders	Frequent attenders	Significance
	N = 92	N = 232	
Sociodemographic variables			
Age	( )	()	
18 a 35 36 a 55	31 (45,6%) 50 (36%)	37 (54.4%) 89 (64%)	p < 0.001
+ de 55	11 (6.4%)	106 (90.6)	p < 0.001
Mean age (SD)	41.3 (11.9)	50.9 (12.8)	p < 0.001
	T1.5 (11.5)	30.3 (12.0)	p < 0.001
Gender Man	25 (24 20%)	70 (75 70%)	NS
Woman	25 (24.3%) 67 (30.3%)	78 (75.7%) 154 (69.7%)	INS
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Marital status			
Significant other	56 (25.5%)	164 (74.5%)	NS
No significant other	36 (34.6%)	68 (65.4%)	
Level of studies			
Low	12 (13.8%)	75 (86.2%)	0.004
Middle High	45 (28.3%) 35 (49.4%)	114 (71.7%) 43 (55.1%)	p = 0.004
3	,		
Work status			
Working Not working	68 (40.2%) 24 (15.5%)	101 (59.8%) 131 (84.5%)	p < 0.001
	24 (15.5%)	131 (64.5%)	ρ < 0.001
Chronic disease Yes	34 (16.7%)	169 (83.3%)	
No	58 (47.9%)	63 (52.1%)	p < 0.001
НВР			,
Yes	9 (9.8%)	83 (90.2%)	n + 0 001
No Diabetes	83 (35.8%)	149 (64.2%)	p < 0.001
Yes	3 (7.9%)	35 (92.1%)	
No Dyslipidemia	89 (31.1%)	197 (68.9%)	p = 0.003
Yes Yes	13 (18.3%)	58 (81.7%)	
No	79 (31.2%)	174 (68.8%)	NS
COPD Yes	2 (11.1%)	16 (88.9)	
No	90 (29.4%)	216 (70.2%)	NS
ASTHMA			
Yes No	4 (17.4%) 88 (29.2%)	19 (82.6%) 213 (70.8%)	NS
Mean Chronic Diseases (SD)*	1.15 (0.3)	1.88 (0.9)	p < 0.001
Previous Control Mental Health Unit	(	(	
Yes No	15 (14.6%) 77 (34.8%)	88 (85.4%) 144 (65.2%)	p < 0.001
	77 (34.0%)	144 (03.270)	
Previous psychiatric diagnosis	24 (10 00)	110 (02 20/)	
Yes No	24 (16.8%) 68 (37.6%)	119 (83.2%) 113 (62.4%)	p < 0.001

# Data analysis

The Chi square test and Student's T test for comparison of means was used to compare the qualitative variables. In those cases in which the normality suppositions were not fulfilled, the corresponding non-parametric tests were used. An analysis of the logistic regression was also made to evaluate the association of each one of the sociodemographic variables and of the factors associated to frequent attenders. Initially, each one of the variables was introduced into the regression model separately, obtaining the crude odds ratio (cOR) and its 95% Cl. Then all the factors or variables were introduced simultaneously to obtain the adjusted odds ratio (aOR) for these factors. In the case of the ordinal categories, the linear tendency was also calculated when appropriate. All the analyses were performed using the SPSS.14 statistical program for Windows.

#### **RESULTS**

Age, study level and work situation are sociodemographic variables that establish statistically significant differences between the group of frequent attender patients and normal attender group. Thus, older age, lower level of studies and not having work are aspects related with elevated utilization of the Primary Care health services (Table 1).

Regarding the clinical variables analyzed, the presence of chronic disease, specifically High Blood Pressure and Diabetes, previous control in the Mental Health Unit and the existence of a previous psychiatric diagnosis are variables that indicate statistically significant differences.

Finally, in relationship to the dimensions analyzed by the GHQ (Table 2), both the global score and somatization, anxiety, social dysfunction and depression establish significant differences between groups, the score being higher in all of the cases in the group of patients who are frequent attenders of the consultations studied.

In the logistic regression analysis (tabla 3), increase in age, lower study level, presence of chronic disease, existence of previous psychiatric diagnosis and score obtained on the GHQ are factors associated to frequent attenders. The best predictors of frequent attenders are age, probably *minor* psychiatric case and chronic disease, with odds ratios of 4.5, 3.3 and 3.1, respectively.

### **CONCLUSIONS**

This study confirms some of the conclusions reached in previous works that had analyzed the characteristics of patients known as frequent attenders. In this sense, a higher degree of visits to the primary care consultations was observed in the sectors of the elderly population, those with low education level and non-productive work (housewives, unemployed and retired). <sup>19</sup> In some aspects, the present study does not confirm the associated described by previous works. Thus, differences are not found between men and women and in relationship to marital status.

Previous studies have also demonstrated the relationship between frequent attenders and the presence of chronic diseases. In our case, the most prevalent chronic diseases in the population study were studied and the results show that only high Blood Pressure and Diabetes establish a significant relationship with a greater number of visits to the primary care centers. Although at first it can be supposed that this significance would be related with the age variable, since both problems are related with aging, more complex statistical analyses performed by other authors have clearly shown that frequent attender patients have a greater degree of chronic diseases, with independence of age and work and socioeconomic level. 10,20

The existence of a previous psychiatric diagnosis and high likelihood of being a psychiatric case in the four dimensions evaluated by the GHQ-28 also make up variables

Table 2	Means and significance of the factors and total score of the GHQ					
		Normal attenders N = 92 X (DT)	Frequent attenders  N = 232 X (DT)	Significance		
Somatization Anxiety Social dysfunctio Depression Total score GHO	n	1.05 (1.5) 0.99 (1.5) 0.39 (0.8) 0.23 (0.5) 2.66 (3.6)	1.69 (1.9) 1.82 (2.1) 1.33 (1.6) 0.85 (1.7) 5.68 (6.1)	p = 0.005 p = 0.001 p < 0.001 p = 0.001 p < 0.001		

Table 3 Multivariate analysis of the factors related with frequent attenders								
Sociodemographic variables	Wald	р	OR	95% CI				
Age								
18 a 35			1					
36 a 55	1,942	0,163	1,540	0,83-2,82				
+ de 55	8,814	0,003	4,559	1,67-12,4				
Gender								
Man			1					
Woman	1,125	0,289	1,383	0,75-2,52				
Marital status								
Significant other No significant other	0.205	0,613	1 1,173	0.02.2.17				
No significant other	0,265	0,613	1,173	0,63-2,17				
Level of studies								
Low			1					
Middle	1,12	0,289	1,399	0,75-2,6				
High	3,91	0,048	2,375	1,07-5,55				
Work status								
Working			1					
Not working	3,44	0,063	1,85	0,96-3,54				
	-,	.,	,	.,				
Chronic disease								
No			1					
Yes	12,9	< 0,001	3,17	1,69-5,96				
Previous control MHU								
No			1					
Yes	2,16	0,142	1,88	0,81-4,36				
Previous psychiatric diagnosis								
No V	7.04	0.005	1	1.20, 0.24				
Yes	7,94	0,005	2,96	1,39-6,31				
GHQ score								
≤ 6 (probable psychiatric case)			1					
> 7(probable non-psychiatric case)	7,55	0,006	3,31	1,4-7,74				

that are clearly associated to greater attendance in primary care visits. These results are also consistent with those found in the literature reviewed.<sup>6</sup>

In this study, a relatively large sample of frequent visitors has been compared with normal attenders, using a cross-sectional design to establish associations, an aspect that makes up one of the strong points of this study. However, this type of study does not make it possible to establish causal relationships. Subsequent longitudinal studies will make it possible to reach this type of conclusion.

The variables analyzed in this study were chosen from previously published studies. However, one of the limita-

tions is that they do not include other independent variables which, as pointed out by some works, may be involved. Perception of health, hypochondria or personality traits<sup>6,21</sup> are examples of variables that are not contemplated in this study and that may condition a lower explanatory capacity of the analysis performed.

The most important conclusion of the study is that the frequent attender patients have high rates of physical, mental and social complaints. The variables that have been shown to be most important in relationship to this phenomenon are age, certain chronic diseases and psychopathology. Furthermore, there are no significant differences between men and women.

A better understanding of the factors involved in frequent attenders, however, will help us understand and manage better care and intervention strategies, with clear repercussions on a lower health care cost.

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