Mental Disorders Among Frequent Attenders in Primary Care

A Comparison With Routine Attenders

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Abstract: Frequent attenders account for a large proportion of primary care (PC) contacts, referrals, and prescriptions. Psychosocial and emotional distress is related to the high use of health services. Few studies have focused on the association between mental disorders assessed using structured interviews and frequent use of PC services.

The aim of this study was to determine the factors associated with frequent attendance at primary healthcare units, focusing specifically on mental disorders. A two-phase screening epidemiological study comparing frequent attenders and routine attenders in five primary health care units was designed. Three hundred eighteen frequent attenders and 203 patients who attended the same units on a routine basis were compared. Sociodemographic and clinical data were obtained from statistical records and medical charts. Patients with a total score equal or higher than 7 points on the General Health Questionnaire–28 (GHQ-28) were interviewed using the Schedules for Clinical Assessment in Neuropsychiatry. All the scores obtained on the GHQ were statistically different in the two populations. Frequency of mental disorders also differed significantly between both groups, with somatoform and affective disorders being the most prevalent ICD-10 categories among frequent attenders. The presence of depressive disorders and somatoform disorders is the most powerful predictive factor for frequent attendance. High comorbidity was found among frequent attenders with somatoform disorder. Frequent attendance at primary healthcare units is associated with depressive and somatoform disorders. Psychiatric comorbidity could be a confounder, particularly because affective and somatoform disorders often overlap in PC patients.

Key Words: Frequent attenders, primary care, mental disorders, healthcare utilization.

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Frequent attenders have been defined as patients who overuse healthcare services (Neal et al., 1998). The management of these patients entails important problems for primary care physicians (Kersnik et al., 2001; Savageu et al., 2006; Scaife et al., 2000), providers of specialized care (Hansen et al., 2001, 2002, 2005), and emergency services (Byrne et al., 2003; Saliou et al., 2005; Williams et al., 2001), and its impact on healthcare costs and planning of health services is high (Reid et al., 2002; Stewart and Odowd, 2002). Female sex, being of advanced age, having physical complaints, chronic conditions, unhealthy lifestyles in terms of diet and toxic habits, and the presence of mental disorders are some variables that have been associated with frequent attendance (Carney et al., 2001; Dowrick et al., 2000; Gill and Sharpe, 1999; Vested and Christensen, 2005). Several studies have found a link between frequent attendance and psychological factors such as emotional disturbances, psychological state, and symptoms of anxiety or depression (Egede, 2007; Robles et al., 2009).

Despite the high impact of frequent attendance on healthcare resources, as far as we know, few studies have specifically and systematically addressed psychiatric disorders among frequent attenders of primary care services using structured interviews (Table 1). Overall, an association between mental disorders and frequent use of health services has been established in these epidemiological studies (Baez et al., 1998; Karlsson et al., 1995; Katon et al., 1990; Lefevre et al., 1999).

Nonspecific somatic or psychological complaints are the most frequent clinical manifestation of mental disorders in the context of primary health care. However, most patients fail to perceive these symptoms as being derived from a psychiatric condition (Kroenke et al., 1994). According to several epidemiological studies, between 25% and 50% of primary care patients have a mental disorder (Munk-Jorgensen et al., 1997; Roca et al., 2009; Toft et al., 2005; Vázquez-Barquero et al., 1997). Somatization may mask the underlying emotional symptoms, making this psychiatric diagnosis even more difficult (Aragonés et al., 2005). Specific screening instruments are required to differentiate between somatic, depressive, and anxiety symptoms.

This two-phase study was designed to analyze the impact of different mental disorders on the use of healthcare services in a sample of primary care patients who are frequent attenders at medical facilities compared with routine attenders.

METHODS

Study Setting and Sample

This descriptive multicenter study was designed and performed in five public primary care centers in the island of Majorca, Spain, attending to 77,400 patients. Primary care settings were selected based on the socioeconomic level of the basic health area covered, classified into high, middle, or low level, and the geographic setting, divided into urban or rural. The center had to use a computerized data system to record information from patient visits.

Frequent attendance was defined as individuals who had consulted 12 times or more during the previous year, excluding nursing visits, emergency visits, visits for pregnancy, visits for bureaucratic purposes, and household visits. The prevalence of frequent attendance (based on the mentioned criterion of the number of visits per year) was established at 10% in previous studies performed in primary health care centers (Ferrari et al., 2008; Luciano et al., 2010; Smits et al., 2009). The number of subjects needed was estimated to be 271, with a confidence level of 90%, a standard error of 3%, and

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TABLE 1. Studies of Mental Disorders Among Frequent Attenders of Primary Care Services Using Structured Interviews

Study	Sample	Instrument	Type of Mental Disorder	Prevalence of Mental Disorders in FA, %
Katon et al. (1990)	*N* = 767	SCL-90-R DIS	Depression	23.5
			Somatization disorder	20.2
			Dysthymic disorder	16.8
			Anxiety disorder	21.8
			Any mental disorder	42.1
Karlsson et al. (1995)	*N* = 96 FA	SCL-25	Major depressive disorder	23.5
	N = 466 RA	PSE-9	Dysthymic disorder	16.8
			Generalized anxiety disorder	21.8
			Somatization disorder	20.2
			Any mental disorder	54
Báez et al. (1998)	*N* = 102 FA	SCAN	Neurotic and somatoform disorders F30–F39	33
	N = 100 RA		Mood (affective) disorders F40–F48	29
			Behavioral disorders with psychological dysfunctions F50–F59	27
			Any mental disorder	51
Lefevre et al. (1999)	*N* = 149 FA	PRIME-MD	Mood disorder	29
	N = 135 RA		Anxiety disorder	12
			Somatoform disorder	17
			Eating disorder	5
			Alcoholism	3
			Any mental disorder	37

FA indicates frequent attenders; PRIME-MD, primary care evaluation of mental disorders; PSE-9, present state examination-10; RA, routine attenders; SCAN, Schedules for Clinical Assessment in Neuropsychiatry; SCL-25, the symptom checklist-25; SCL-90-R, the symptom checklist-90-R; DIS, diagnostic interview schedule.

a frequent attendance of 10%. The sample size required for this study was estimated to be at least 318 patients, assuming a dropout rate of 15%.

From the computerized data system, two lists with 7,740 patients with 12 or more visits per year and 69,660 patients with less than 12 visits per year were obtained.

A stratified systematic sample was randomly selected from the mentioned lists (Fig. 1). Finally, 521 subjects were included. Of these patients, 318 were identified as frequent attenders. The control group was composed by 203 patients with a normal attendance record (less than 12 visits per year). Patients aged 18 to 65 years who signed the informed consent form were included into the study.

Instruments

Phase One

The General Health Questionnaire–28 (GHQ-28; Goldberg and Hillier, 1979) is frequently administered as a screening instrument and has shown high sensitivity and specificity. The 28-item version was validated in Spain by Lobo et al. (1986). It offers a global score and also provides information on four subscales: subscale A, somatic symptoms; subscale B, anxiety; subscale C, social dysfunction; and subscale D, depression. A total score of 7 or higher was set as the cutoff point for classifying cases as probably positive, to ensure the highest possible specificity, as recommended by the authors (Goldberg and Williams, 1988). In addition, clinical and sociodemographic data regarding age, sex, occupation, educational level, family history of mental disorders, chronic diseases, previous psychiatric diagnosis, current treatment, and previous monitoring in psychiatric care facilities were compiled from medical records.

Phase Two

Psychiatric assessment was carried out using the Schedules for Clinical Assessment in Neuropsychiatry (SCAN, Spanish version; Vázquez-Barquero et al., 1994; Wing et al., 1990), a semistructured psychiatric interview questionnaire administered by a trained clinician. Mental disorders were diagnosed by computer algorithm according to criteria set in the tenth edition of the International Classification of Diseases (ICD-10). Patients were considered to have a psychiatric disorder if they scored 5 or higher on the definition index.

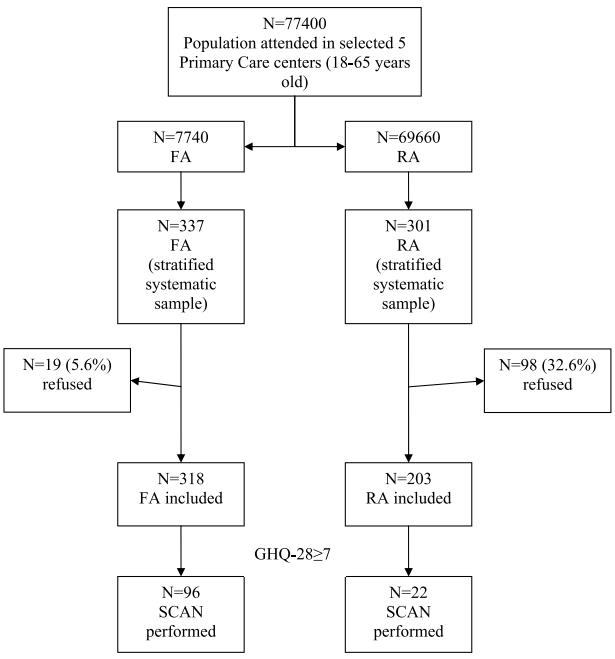

FIGURE 1. Flow chart of the sample selection. FA indicates frequent attender; RA, routine attender; GHQ-28, General Health Questionnaire–28; SCAN, Schedules for Clinical Assessment in Neuropsychiatry.

TABLE 2. Sociodemographic and Clinical Characteristics of FAs Compared With RAs

	FAs	RAs	Total
	n = 318 (61%)	*n* = 203 (39%)	*N* = 521
Mean age, yrs	53.27 (13.9)	46.7 (14.3)	50.72 (14.4)
Sex			
Man	32.4	37.9	34.5
Women	67.6	62.1	65.5
Level of education*			
No studies	10.4	2.5	7.3
Incomplete primary	20.4	6.9	15.2
Primary	47.8	51.5	49.2
Secondary	15.7	25.7	19.6
University	5.7	13.4	8.7
Marital status			
Single	14.2	18.2	15.7
Married/living with a partner	69.2	70.4	69.7
Separated/divorced	9.1	7.4	8.4
Widowed	7.5	3.9	6.1
Job status*			
Paid work	39.3	60.2	47.5
Unemployed	10.4	5.9	8.7
Home duties	16.7	14.9	15.9
Pensioner	28	13.9	22.5
Student	0.9	2.1	1.3
Disability leave	4.7	3	4
Living with couple			
Yes	70.8	71.3	71
No	29.2	28.7	29

*$p < 0.001$.
FA indicates frequent attenders; RA, routine attenders.

Procedure

First contact with patients was established by two members of the group via telephone. The study objectives were fully explained to the patients, and they were asked to participate. Once consent to participate was obtained, the date and time for the first interview at the Primary Care health center was settled. Patients who scored above the GHQ-28 cutoff point of 7 recommended by the authors for identifying possible cases were interviewed using the SCAN during the second phase.

Statistical Analysis

The chi-square analysis was used to compare qualitative variables, and the Student's *t*-test was used to compare means. The corresponding nonparametric tests were applied whenever the requirement of a normal distribution was not met. Logistic regression was also performed to estimate the association between the presence of certain mental disorders and frequent attendance. At first, all variables were introduced into the regression model separately, and crude odds ratios (cORs) were obtained along with their 95% confidence intervals. Subsequently, all factors or variables were introduced in the model simultaneously to obtain adjusted ORs (aORs) and to develop a final model based on the results that showed statistical significance. The SPSS 19 statistical package for Windows was used to perform all analyses.

RESULTS

Table 2 shows the sociodemographic characteristics of frequent attenders and control group patients. There were significant differences between the results for level of education and job status ($p < 0.000$). The group of FAs had a significantly lower level of education and a significant level of unemployment. Medical and psychopathological variables analyzed differed significantly among frequent attenders and routine attenders: 30.2% of all frequent attenders who scored 7 or higher on GHQ-28 were probable psychiatric cases, as opposed to 10.8% of routine attenders ($\chi^2 = 26.5$, $p < 0.000$). In addition, the differences observed in GHQ-28 subscales were significant in all cases: somatization ($t = -4.1$, $p < 0.000$), anxiety ($t = -4.4$, $p < 0.000$), social dysfunction ($t = -5.6$, $p < 0.000$), and depression ($t = -4.7$, $p < 0.000$). The same thing holds true for the overall score on the GHQ-28 ($t = -5.8$, $p < 0.000$; Table 3). The presence of a chronic nonpsychiatric condition, having previously attended a mental health unit, and having been previously diagnosed with a mental disorder also differed statistically between the two populations studied (Table 3; $p < 0.000$).

Differences were found in the ICD-10 diagnostic categories detected by the SCAN. The greatest differences were found in depressive disorders (cOR = 4.3; CI, 2.2–8.4), dysthymia (cOR = 3.2; CI, 1.6–6.4), and somatoform disorders (cOR = 5.9; CI, 2.6–13.1). In this latter category, somatization disorder among patients who were frequent attenders does not seem to be statistically significant, but somatoform vegetative dysfunction does seem to be (OR = 3.4; CI, 1.3–8.7). Somatoform vegetative dysfunction is another diagnosis within the same group, included as undifferentiated somatoform disorder in *DSM-IV-TR*. Despite these, after calculating aORs using the backward stepwise method, somatoform disorder and depressive disorder were the only diagnostic categories that continued to be a predictive factor for frequent attendance in the final model (Table 4, aOR = 3.4; CI, 1.3–8.7 and aOR = 2.3; CI, 1–5).

High comorbidity was found among patients with somatoform disorders, with 69.2% of them also having a diagnosis of another disorder within the same group. Of all frequent attenders with the somatoform disorder, 77.4% also had an affective disorder, 30.6%

TABLE 3. Frequent Attendance, GHQ-28 (Total and Subscales) Scores, and Clinical Variables

	Frequent Attenders, %	Routine Attenders, %	Significance Level
GHQ-28 overall score	5.80	2.96	$p < 0.001$
Somatization	1.74	1.07	$p < 0.050$
Anxiety	1.87	1.09	$p < 0.010$
Social dysfunction	1.31	0.54	$p < 0.010$
Depression	0.88	0.26	$p < 0.050$
Chronic nonpsychiatric condition			
Yes	77	46.8	$p < 0.000$
No	23	53.2	
Previously seen at mental health unit			
Yes	35.8	10.8	$p < 0.000$
No	64.2	89.2	
Previous psychiatric diagnosis			
Yes	47.5	15.8	$p < 0.000$
No	52.5	84.2	

GHQ-28 indicates General Health Questionnaire–28.

TABLE 4. SCAN ICD-10 Psychiatric Diagnoses in FAs and RAs

ICD-10 Diagnostic Category	FA (%)	RA (%)	Crude OR (95% CI)	*p*	Adjusted OR (95% CI)	*p*
Anxiety disorder (F.41)	6.6	3	2.3 (0.9–5.8)	0.067	0.5 (0.2–1.9)	0.364
Dissociative disorder (F.44)	4.1	0.5	8.6 (1.1–66.6)	0.013	3.8 (0.4–33.1)	0.224
Somatoform disorder (F.45)	17.3	3.4	5.9 (2.6–13.1)	<0.000	3.4 (1.3–8.7)	0.011
Other neurotic disorders (F.48)	9.1	1.5	6.7 (2–22.3)	<0.000	2.0 (0.5–8.4)	0.325
Depressive disorder (F.32, F.33, F.34)	19.8	5.4	4.3 (2.2–8.4)	<0.000	2.3 (1.0–5.0)	0.042
Sleep disorder (F.51)	17.3	4.9	4 (2–8.1)	<0.000	1.5 (0.6–3.8)	0.399
Any mental disorder	26.7	8.4	3.9 (2.3–6.9)	<0.000	—	—

FA indicates frequent attender; RA, routine attender; OR, odds ratio; SCAN, Schedules for Clinical Assessment in Neuropsychiatry.

had an anxiety disorder, and 12.9% had a dissociative disorder. However, for neurasthenia this figure was 40.3%, and for sleep disorders, it was 64.5%.

DISCUSSION

Summary of Main Findings

The main finding of the study was that, among mental disorders, depressive and somatoform disorders are the most powerful factor that explains frequent attendance in primary care. This was determined through multivariate analyses having high sensitivity and good power of fit. Using logistic regression, three ICD-10 mental disorder diagnostic groups remained independently associated with frequent attendance: affective disorders, somatoform disorders, and other neurotic disorders (neurasthenia, an ICD-10 neurotic disorder without direct correspondence in *DSM-IV-TR*). After controlling for other variables, no association was found with neurasthenia. Only depressive disorders and somatoform disorders emerged as predictive factors for frequent attendance. This study supports the results of previous epidemiological research showing that chronic or recurrent somatization leads to increased use of healthcare services (Gucht and Fischler, 2002) and also supports the results of studies showing an association between frequent attendance and depressive disorders (Dowrick et al., 2000).

The prevalence of cases detected by the GHQ-28 was higher among frequent attenders. Byrne et al. (2003) also found higher scores among frequent attenders than among controls in the GHQ-12 items, 75% *vs.* 40%, with statistically significant differences. The GHQ may be a useful instrument for initial screening of frequent attenders who may need to undergo a more thorough psychiatric assessment at a later date.

Comparison With Other Studies

When these data are compared with the results of four similar published studies (Table 1), much lower prevalences are noted in the present study: Karlsson et al. (1995) compared a sample of 96 frequent attenders with a control group composed of 466 patients who were routine attenders. The presence of mental disorders was significantly different among them: 54% *vs.* 20%, respectively. In their study, Baez et al. (1998) found that 51% of the cases had at least one mental disorder, as opposed to 28% of the control group. In Katon et al.'s (1990) study, 119 frequent attenders who had gotten high scores on the The Symptom Checklist-90-R (anxiety, depression, and somatization scales) were studied. The prevalence of mental disorders in this sample was 42.1%. Finally, Lefevre et al. (1999) found that mood disorders were more prevalent in high users (29%) than in normal users (10%).

The disparity between the data appears to point once again to methodological differences in these studies. The wide diversity of instruments used to diagnose mental disorders such as the Diagnostic Interview Schedule, SCAN, SCL-90-R, Primary Care Evaluation of Mental Disorders, and the differing methods applied in these studies (one *vs.* two phases, with versus without previous screening) make the obtained figures hardly comparable. The definition of FAs can be also a source of disparity. Different methods have been used to identify FAs. Majority of studies use a cutoff point for the number of visits or the upper 10% of consulting frequency. In the present study, having 12 or more visits was chosen as definition criteria. Despite variations in the required number of visits for the definition of frequent attendance ranging from 4 to 15 annual visits, the most widely used definition in general practice is between 10 and 13 consultations over a 12-month period (Ferrari et al., 2008; Heywood et al., 1998; Karlsson et al., 1995; Scaife et al., 2000).

Meaning of the Study and Its Implications

Multivariate analyses show that depressive disorders and somatoform disorders, not anxiety disorders, explain frequent attendance. These results need to be interpreted in light of two factors: psychiatric comorbidity, and the diagnostic criteria and classification used.

Comorbidity

Comorbidity is particularly clear in the case of somatoform and affective disorders. Depression has emerged as an important source of comorbidity in medical, psychiatric, and somatizing patients (Fava and Sonino, 2005; Gili et al., 2010, 2011; Menchetti et al., 2006). The association between functional symptoms and depressive disorders has been consistent (Henningsen et al., 2003). Our findings and recent literature indicate that the population of frequent attenders has not only a high prevalence of psychiatric illnesses but also frequent mental comorbidity (Löwe et al., 2008).

Psychiatric Classifications

Some authors have recently called for a new descriptive classification of somatoform disorders, in light of the overlap that tends to exist among them and with other psychiatric diagnoses included in current classifications. A category known as "functional somatic syndromes" has been alternatively proposed to keep patients with similar symptoms and clinical features from being diagnosed differently depending on the clinical model being used (Escobar et al., 2002; Gucht and Fischler, 2002; Kroenke, 2007; Rief and Rojas, 2007). The findings of this study support the proposed change in classification because they provide evidence that overlap and comorbidity are problematic, even when a structured psychiatric interview schedule such as SCAN is used.

Strengths and Limitations

A number of strengths and limitations of our study deserve discussion. Among the former, the relatively large sample size should

be highlighted. Another strength of the study is the use of SCAN—it is a complex instrument that calls for properly trained interviewers and that takes a long time to administer.

The current study has some limitations. Because there is no generally agreed-upon definition of "frequent attender" in the published literature, we have chosen a high number of visits (at least 12 visits per year), which may have influenced the findings. Furthermore, one must bear in mind the organization of health systems in those countries where the studies are carried out. Spain is a country that provides free primary health care to its entire population, and it is difficult to extrapolate these findings to health systems where users pay a fee for services. More studies are necessary for a complete understanding of the phenomenon of frequent attending. These should include environmental and healthcare variables that have also been related to the use of healthcare resources. Finally, healthcare utilization did not include psychiatric care or emergency services.

DISCLOSURE

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The authors declare no conflict of interest.

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