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Prevalence and detection of depressive disorders in primary care

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Aim. To study the prevalence of depression in primary care, the detection of depressive disorders by primary care physicians, and the factors that influence detection.
Design. Cross-sectional, descriptive study.
Setting. Gavà II Primary Care Center, in Barcelona, Spain.
Participants. A total of 400 people between the ages of 18 and 65 years were chosen randomly from among those who attended appointments with their primary care physician.
Main measures. A sociodemographic questionnaire and the Beck Depression Inventory (BDI) screening test were administered, and the participant´s medical record was reviewed. In a subsample of 40 participants, the Mini-International Neuropsychiatric Interview (MINI) was also administered. The optimum cutoff score for the BDI was estimated with reference to the MINI results.
Results. A cutoff score of 20/21 for the BDI had a sensitivity of 86.7% and a specificity of 92%, when the MINI score was used as a reference. The adjusted prevalence of depressive disorder in our primary care setting was 20.2% overall, 8.1% in men, and 26.8% in women (odds ratio 4.15, $p < 0.01$). The physician detected depressive symptoms in 55.7% of all likely cases of depression. Persons who scored ≥ 21 on the BDI made more visits to their primary care physician, and had more stressful life events, than those who scored ≤ 20.
Conclusions. The prevalence of depression in our primary care setting is high. The disorder was underdiagnosed in as many as 44.3% of the persons likely to have depressive disorder (especially women, widows and widowers, retired persons, persons who had experienced stressful life events, and frequent users of primary care services).

Key words: Primary care. Depressive disorder. Prevalence. Life events.

PREVALENCIA Y DETECCIÓN DE LOS TRASTORNOS DEPRESIVOS EN ATENCIÓN PRIMARIA

Objetivo. Estudiar la prevalencia de depresión en atención primaria (AP) y la detección de los trastornos depresivos por el médico de AP, así como los factores que influyen en ella.
Diseño. Estudio transversal, descriptivo.
Emplazamiento. Centro de Asistencia Primaria Gavà II (Barcelona).
Participantes. Se seleccionaron de manera aleatoria 400 personas de 18-65 años que acudieron según cita previa a consulta con su médico de AP.
Mediciones principales. Se administró un cuestionario sociodemográfico, el test de cribado de depresión de Beck (BDI) y se revisaron los datos clínicos de su historia. Además a una submuestra de 40 personas se les pasó la entrevista diagnóstica MINI. Se estimó el punto de corte óptimo para el BDI respecto la MINI.
Resultados. Se seleccionó el punto de corte 20/21 de depresión del BDI, con sensibilidad del 86,7% y especificidad del 92%, utilizando como referencia el resultado de la entrevista MINI. La prevalencia corregida del trastorno depresivo en AP es de un 20,2%; un 8,1% en varones y el 26,8% en mujeres (*odds ratio* [OR] = 4,15; $p < 0,01$). El médico detecta sintomatología depresiva en un 55,7% de los probables casos de depresión. Las personas con BDI ≥ 21 visitan más a su médico de AP y han presentado más acontecimientos vitales estresantes que las que puntúan BDI ≤ 20.
Conclusiones. Existe una elevada prevalencia de depresión en AP. Permanece infradiagnosticado un 44,3% de las personas con probable trastorno depresivo (sobre todo mujeres, viudos, jubilados, los que han presentado acontecimientos vitales estresantes y los individuos más frecuentadores).

Palabras clave: Atención primaria. Trastornos depresivos. Prevalencia. Acontecimientos vitales.

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A commentary follow this article (pág. 336)

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Introduction

The prevalence of depressive disorders in primary care (PC) and the physicians' ability to detect them are controversial topics of considerable interest.[1] Recent years have seen the publication of many studies[2-11] that have addressed the issue in terms of primary and psychiatric care. However, certain questions remain to be examined, in view of the methodological limitations of some published studies[10,11].

The prevalence of depression estimated for the population of users of PC services should be distinguished from the prevalence in the general population, which is thought to be approximately 6% per year and 15% throughout a person's lifetime.[12] The life-time prevalence for major depressive episode in industrialized countries has been estimated at 8%-12% in men and 20%-26% in women.[1-3] In all industrialized countries the incidence of mood disorders is on the rise, and these disorders are appearing at younger ages.[4] According to several epidemiological studies, the prevalence of major depression in PC is estimated at 5%-10%; subclinical depression may be present in a further 10%-30% of the population.[5-7]

Studies published to date on the prevalence of depression in PC have used two methods. Some have been based on screening tests such as the Beck Depression Inventory (BDI)[4,5,8], the Center for Epidemiologic Studies Depression Scale (CES-D)[6,9-11] and Zung's Self-Rating Depression Scale (SDS),[13,14] followed by structured diagnostic interviews such as the Structured Clinical Interview for DSM-III-R (SCID),[8-10,15] the Mini International Neuropsychiatric Interview (MINI) or the Schedules for Clinical Assessment in Neuropsychiatry (SCAN).[5] Two-phase studies require the participation of clinical staff in the second (interview) phase. The second approach has been to use a single diagnostic interview such as the Composite International Diagnostic Interview (CIDI).[16] The main problem with diagnostic interviews is that they require specialized staff and sufficient time to be administered correctly; these requirements make such instruments difficult to use in PC.[8,11,14,17,18]

A review of published studies suggests that PC physicians fail to detect depressive disorders, which remain undiagnosed in one-third to one-half of the cases.[8,9,14,15,19,20] In a number of studies we reviewed, different reasons were given to explain the evidence: firstly, the fact that patients are often suffering from a combination of complaints when they consult their physician, and thus present with multiple somatic symptoms which can also be considered diagnostic criteria for depressive disorders.[2] Secondly, the characteristics of depressed patients who visit their PC physician differ from those of patients who have been diagnosed and treated by a specialist. In the former, the disorder is less severe and has been present for longer,[8,9,17] whereas the latter patients are considered incident cases: their clinical manifestations are more florid, they are more promptly referred to mental health services, and they more accurately fulfil the criteria for a psychiatric diagnosis. Finally, some studies have noted that PC physicians are more likely to detect depression if they are familiar with the patient's previous history of psychiatric disorder.[9] If the PC physician's contact with the patient has been sporadic, the detection rate is lower.

The PC physician's ability to detect depressive disorder is of fundamental importance in preventing depression-related suicides, improving the patient's quality of life and reducing health care costs, as these patients are more frequent users of medical services and have significantly greater degrees of dysfunction than patients with chronic medical diseases.[1,4] The present study was designed to determine the prevalence of depression in PC with a two-phase approach, to investigate the possibility of underdiagnosis of depressive disorders by PC physicians, and to suggest which factors might influence underdiagnosis.

Material and methods

Design and setting

This cross-sectional, descriptive study was done in the Gavà II Basic Health Area, an urban area located 10 km from Barcelona with a population of 19 000.

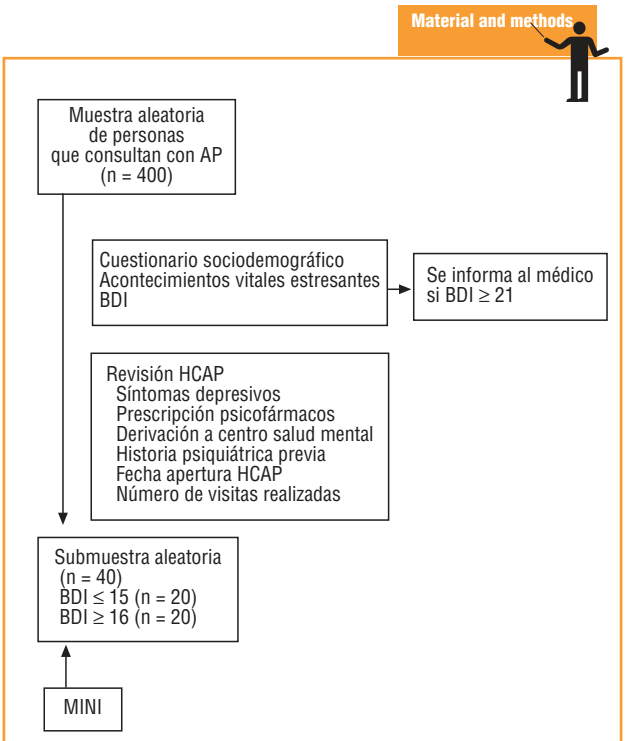
Subjects

A total of 400 persons between the ages of 18 and 65 years were chosen randomly from among those who consulted their PC physician at the health center. Eight PC physicians participated: 4 who saw patients in the morning shift, and 4 who saw patients in the afternoon shift. Persons with inadequate language abilities were excluded. Sample size was calculated for an expected prevalence of 20% with a 5% alpha error and 4% precision.

Forty participants (20 from the morning shift and 20 from the afternoon shift) were selected at random on each of 10 days. They were informed about the purposes of the study, and after the doctor had seen them they were asked to give their verbal consent to take part in the study. The data collection period lasted for 3 months, from November 1999 to January 2000.

Method

A sociodemographic questionnaire was administered to obtain information on the patient's contact details and stressful live events during the previous 6 months. We recorded the first 10 life events from the Paykel Scale of Life Events (death of a relative or friend, personal illness, accident involving self or significant person, pregnancy (own or significant person's), change in financial situation, change in job or home, divorce or separation, marriage, or job loss). Then the 21-item, self-administered version of the BDI screening test for depression was given (validated for the Spanish population by Conde, Esteban and Useros, 1976).[3,21-27] The medical records of all 400 participants were reviewed to record the number and type of antidepressant or anxiolytic drugs currently used, presence of psychiatric symptoms recorded by the PC physician during the preceding 30 days, referral to a mental health center, previous history of psychiatric illness, presence of underlying somatic disease, date of first annotation in the medical record, and total



BDI: Beck Depression Inventory, y MINI: Mini International Neuropsychiatric Interview.

General scheme of the study

Cross-sectional study of a random sample of persons who consulted their primary care physician for any reason

number of visits to the health center since the first visit. Within 1 week of the initial interview, 40 randomly chosen subjects were interviewed with the MINI[28] as a check for the validity of the BDI; 20 of these subjects scored ≤15 on the BDI, and 20 had scored ≥16.

On the basis of the results with the MINI, the cutoff score for the BDI was recalculated, and its specificity and sensitivity were computed for the sample we tested. This optimized cutoff was used to identify true positives, true negatives, false negatives and false positives. The PC physician was informed of those patients who scored above the optimized cutoff value on the BDI.

Statistical analysis

The data were analyzed with the SPSSWIN package (v. 6.1). Prevalences and confidence intervals were calculated with the information from the cross-sectional survey and the data on sensitivity and specificity of the BDI, as calculated in the light of the MINI results. The method used was that developed by Tenenbein,[29] which uses maximum likelihood estimates to calculate the confidence intervals. This method allowed us to group information from each of the two phases of the study. The Tenenbein method was also used to distinguish between prevalence stratified by sex. Because of the low number of cases per stratum when variables with several strata were analyzed, we used unadjusted prevalences for these comparisons. The confidence intervals for these prevalences were calculated with the exact method from the relevant tables, for n• P<10. In all other cases the data were transformed to a normal distribution to calculate confidence intervals.

Other statistical analyses included calculation of ROC curves, odds ratios (OR), chi-squared statistics, and comparison of the means (Student's t test and one-way analysis of variance).

Results

Table 1 shows the sensitivity, specificity and predictive values for different cutoff scores on the BDI calculated from the MINI scores as a reference. The best results were obtained with a cutoff score of 20/21. Persons who scored ≤20 were not considered cases; those who scored ≥21 were. Unadjusted prevalence of depressive disorder in our PC setting, as calculated with this cutoff score, was 15.5% (BDI≥21). When the cutoff score was corrected to take into account the predictive values for the MINI as calculated with the Tenenbein method, the prevalence was 20.2% with a 95% confidence interval of 11-29%.

Table 2 shows the prevalence of depressive disorder according to different sociodemographic variables. Depressive disorders were found to be more frequent in women than in men (OR, 4,15; P<.01).

The ability of PC physicians to detect depressive disorders was analyzed by examining each of four categories: true positives (persons who scored above the BDI cutoff score and whose medical record contained an annotation by the PC physician of depressive disorder or a prescrip-

TABLE 1 **Sensitivity, specificity and predictive value of different cutoff scores in the Beck Depression Inventory**

BDI cutoff score	Sensitivity	Specificity	PPV[a]	NPV[b]
13/14	100%	64%	0.63	1
14/15	100%	68%	0.65	1
15/16	93.3%	68%	0.64	0.94
16/17	86.7%	72%	0.65	0.90
17/18	86.7%	80%	0.72	0.91
18/19	86.7%	84%	0.76	0.91
19/20	86.7%	88%	0.76	0.02
20/21	86.7%	92%	0.87	0.92
21/22	80%	92%	0.86	0.88
22/23	66.7%	92%	0.83	0.82
23/24	60%	92%	0.82	0.79
24/25	60%	92%	0.82	0.79
25/26	53.3%	96%	0.89	0.77

PPV indicates positive predictive value; NPV. negative predictive value.

TABLE 2 **Prevalence of depressive disorder in relation with sociodemographic characteristics**

	Number of cases with BDI score ≥21	Proportion of persons in each group with depression (95% CI)
Sex		
Men	10[b]	0.081 (0.03-0.13)[c]
Women	52	0.268 (0.14-0.40)
Marital status		
Unmarried	10 NS	0.14 (0.06-0.22)
Married/Partner	42	0.14 (0.10-0.18)
Separated/Divorced	4	0.20 (0.02-0.38)
Widow/Widower	6	0.38 (0.14-0.62)
Educational level		
Illiterate	10[a]	0.42 (0.22-0.62)
Primary	12	0.15 (0.07-0.23)
Primary completed	18	0.14 (0.08-0.22)
Secondary	11	0.15 (0.07-0.23)
Secondary completed	8	0.15 (0.05-0.25)
Higher University	3	0.09 (0-0.18)
Employment status		
Active, employed	18 NS	0.13 (0.07-0.19)
Active, unemployed	3	0.12 (0-0.24)
Student	1	0.05 (-0.05-0.15)
Housewife	19	0.14 (0.08-0.20)
Retired/Pensioners	7	0.21 (0.07-0.35)
Disabled	2	0.15 (-0.04-0.34)
Temporary leave	11	0.33 (0.17-0.49)
Type of employment		
Management>10 employees	0[a]	
Management<10 employees	4	0.18 (0.02-0.34)
Administration/Insurance/Commerce	6	0.11 (0.03-0.19)
Self-employed	3	0.13 (0-0.26)
Supervisor, manual labor	3	0.16 (0-0.32)
Specialized manual labor	9	0.12 (0.05-0.19)
Unspecialized manual labor	32	0.22 (0.08-0.36)
Monthly income		
<100 000 pesetas/month	12[b]	0.32 (0.17-0.47)
100 000-150 000 pesetas/month	16	0.22 (0.12-0.32)
150.000-200.000 pesetas/month	14	0.13 (0.07-0.19)
> 200.000 pesetas/month	18	0.10 (0.06-0.14)

[a]P<.05; [b]P<.005; [c]values corrected with Tenenbein's method; NS indicates not significant

tion for antidepressants or anxiolytics), true negatives (score below the BDI cutoff, no annotation of depressive disorder by the physician or prescription for antidepressants or anxiolytics), false negatives (score above the BDI cutoff, but medical record contained no annotation or prescription order), and false positives (scored below the BDI cutoff, but medical record contained annotation, prescription, or both). This analysis yielded 66.6% true negatives, 7% false negatives, 8.9% true positives and 17.5% false positives. False negative cases were more likely to be women (8.3%) than men (4.2%), as was also found for true positives (10.9% women vs. 4.2% men). Men were more likely than women to be true negatives (75.4% men vs 62.6% women) (*P*<.05). Among widows and widowers, 18.8% were found to be false negatives (*P*<.05); the corresponding figure for retired persons was 2.2% (*P*<0.05). There were no significant differences between strata classified by age or type of employment in the rates of any of the four categories for true or false positives or negatives.

The PC physician had made annotations of psychiatric symptoms for 12.3% of the patients; of these, 38.3% scored above the BDI cutoff. Of all patients who scored ≥21 on the BDI, the PC physician had noted psychiatric symptoms in 30% (*P*<.0001) (Table 3). Of all subjects in the study, 15.6% had a previous history of psychiatric disorder; 23.6% were taking antidepressant or anxiolytic medication, and 4.7% had been referred to mental health services. Of the patients with no prior history of psychiatric disorder, the PC physician detected 18 of 323 cases, and of the 60 cases with a history of such disorders, 29 were detected (*P*<.0001). Of the subjects who were taking antidepressants or anxiolytics, 64.4% scored below the BDI cutoff; of those who scored above the cutoff, 46.7% were not taking such medication (*P*<.0001).

Persons who scored below the BDI cutoff consulted their PC physician a mean of 5.6 times per year (SD, 4.1), whereas patients with likely depressive disorder made a mean number of 8.9 visits per year (SD, 7.9) (*P*<.001). The usage rate by patients shown to be true negative cases was lower, with a mean of 5 visits per year (SD, 3.5), whereas this rate was higher in those found to be false negatives (10.7; SD, 2.1), false positives (7.6; SD, 5.2) or true positives (7.9; SD, 4.7) (*P*<.001).

The analysis of stressful life events showed that 55% of all participants had experienced at least one such event in the preceding 6 months. Of those with likely depressive disorder, 77% had experienced at least one stressful life event (OR, 3.2) in comparison to participants with no depressive disorder (*P*<.001) (95% CI, 66.4%-87.6%). Mean BDI score among persons who had experienced stressful life events was 12.7 (SD, 10.4), whereas mean score among those who had not had such events was 8.9 (SD, 8.2) (*P*<.0001). Unadjusted prevalence of depressive disorder in persons who had had a stressful life event in the preceding 6 months was 17.6% (95% CI, 12.6%-22.6%); the figure for persons who had not experienced such events was 7.8% (95% CI, 3.9%-11.7%). Participants who had experienced stressful life events scored higher on all items of the BDI (Table 4).

TABLE 3 **Information entered by the primary care physician in the medical record, according to BDI score. Values in parentheses are 95% confidence intervals**

	BDI≥21	BDI≤20	Significance
Depressive symptoms	30% (18.4-41.6%)	9% (5.9-12.1%)	p<.0001
Prescription for antidepressants or anxiolytics	53.3% (40.7-65.9%)	18% 13.8-22.2%)	p<.0001
Previous history of psychiatric disorder	36.7% (24.5-48.9%)	11.7% (8.5-14.9%)	p<.0001
Referral to mental health service	15% (6-24%)	2.8% (1-4.6%)	p<.0001

Discussion

The adjusted prevalence of depressive disorders in PC in the present study was 20.2%. Our findings showed that the PC physician correctly identified 55.7% of these patients.

The prevalence of depressive disorders we found is within the range of values other studies have reported. Klinkman et al[10] reported a prevalence of 22% with the CES-D; Carmin and Klocek[5] obtained a prevalence of 15.4% with a BDI cutoff score of 16/17, and Ferrer and Rodríguez,[2] in a study in Galicia (Northwestern Spain), obtained a prevalence of 11.2% with a BDI cutoff of 15/16. It should be recalled that in the present study, we evaluated a wide range of depressive disorders, and included in our sample of participants some cases of dysthymic disorder, as seen in the results with the MINI (66.67% major depression, 26.67% dysthymia, 6.67% major depression and dysthymia). Other studies, in contrast, centered exclusively on major depression.[7,17] The prevalence in our study is similar to that found by Klinkman et al[10] in a sample of patients in Michigan (USA), and higher than the prevalence in the study by Ferrer and Rodríguez.[2] The differences may be due to biological, environmental, cultural or age-related factors (for example, the sample in the study from Galicia included patients older than 15 years), or to the use of different cutoff scores.

The patient's sex is one of the main factors associated with depressive disorder.[1] In women we found that the prevalence was fourfold as high as in men (26.8% vs 8.1%; OR, 4.15); in other words, more than one-fourth of the women and approximately one in twelve men who visited their PC physician for any reason were depressed. These figures are higher than those given by Gater et al for the prevalence of depressive disorder in the PC setting in 15 countries, which was 12.5% for women and 7.1% for men (OR, 1.8).[14] The discrepancy should alert us to the need to improve the detection and treatment of cases, and thus decrease the utilization of health care services, improve the patient's social and familial situation and quality of life, and reduce the risk of self-injurious behavior.

Earlier studies suggested that the PC physician often misses depressive disorders, which go undiagnosed in between one-third and one-half of the cases.[4,8-10,14,17] In the present study we considered detection by the PC physician to have been successful when the physician had made at least one annotation of depressive symptoms in the patient's medical record, or when the patient was taking antidepressants or anxiolytics. The rate of detection was 55.7%; this implies that 44.3% of the cases were missed; a figure similar to that in other studies.

Factors related with a lower rate of detection by PC physicians were patient's sex (women), marital status (widow or widower) and employment status (retired). These persons should therefore receive greater attention in PC situations to avoid a possible missed diagnosis, initiate treatment when necessary, improve the patient's quality of life and reduce health care costs.

TABLE 4 **Mean score (standard deviation) on each item of the BDI according to the presence or absence of stressful life events (SLE)**

BDI Item	SLE	No SLE	Significance
1. Mood	0.82 (1.1)	0.50 (0.8)	p
2. Pessimism	0.59 (0.9)	0.44 (0.8)	NS
3. Sense of failure	0.57 (0.9)	0.31 (0.8)	p
4. Dissatisfaction	0.80 (0.9)	0.55 (0.7)	p
5. Guilt	0.35 (0.6)	0.20 (0.5)	p
6. Punishment	0.61 (1.0)	0.33 (0.7)	p
7. Self-dislike	0.38 (0.7)	0.23 (0.5)	p
8. Self accusations	0.55 (0.7)	0.42 (0.7)	NS
9. Suicidal ideas	0.28 (0.6)	0.09 (0.3)	p
10. Episode of crying	0.65 (0.9)	0.49 (0.9)	NS
11. Irritability	0.88 (0.9)	0.76 (0.9)	NS
12. Social withdrawal	0.36 (0.6)	0.19 (0.5)	p
13. Indecisiveness	0.46 (0.8)	0.29 (0.7)	p
14. Change in body image	0.60 (0.9)	0.44 (0.8)	NS
15. Work difficulty	0.78 (0.9)	0.60 (0.8)	p
16. Insomnia	1.13 (1.0)	0.98 (0.9)	NS
17. Fatigability	0.84 (0.8)	0.72 (0.7)	NS
18. Loss of appetite	0.34 (0.6)	0.24 (0.5)	NS
19. Weight loss	0.43 (0.8)	0.18 (0.6)	p
20. Somatic preoccupation	0.59 (0.8)	0.49 (0.7)	NS
21. Loss of libido	0.77 (1.0)	0.69 (0.9)	NS

$p < 0.05$. $p < 0.001$. NS: indicates not significant.

Discussion
Key points

What is known about the subject

- Studies have shown that despite the high prevalence of depressive disorders in primary care (10%-30%), more than half of the cases go undetected.
- Identifying the features of persons in whom depression is less often detected will help increase detection rates and thus treatment success.

What this study contributes

- The prevalence of depressive disorders in our primary care setting was 20.2%.
- Depression goes undetected in 44.3% of those in whom the disorder was likely to occur.
- Detection was lowest in widows and widowers, retired persons, health service overusers and women.

We also noted a marked tendency for more women than men to be classified as false positives (annotation of depressive symptoms or prescription for antidepressants or anxiolytics in the medical record, BDI score below the 20/21 point cutoff) and true positives (annotation of depressive symptoms or prescription for antidepressants or anxiolytics in the medical record, BDI score above the 20/21 point cutoff). Men, on the other hand, tended more often to be classified as true negatives (no annotation of depressive symptoms or prescription for antidepressants or anxiolytics, BDI score below the 20/21 point cutoff). This pattern may be related with cultural factors, as women openly express their feelings more readily than men, and the physician might interpret certain negative emotions as symptoms of depression.

A noteworthy finding was the high frequency of depressive disorder in our sample: persons who scored above the BDI cutoff visited their PC physician 58.9% more often than did those who scored below the cutoff. The greater use of health care services by patients with depressive disorder has been described in earlier studies.[1,14]

Of the patients on antidepressant medication, 64.4% scored below the BDI cutoff point. This might reflect good compliance with pharmacological treatment leading to improvements in symptoms and lower scores on the BDI, or it might reflect unnecessary use of antidepressant or anxiolytic medication in some patients. Because of the cross-sectional design of the present study, we cannot say which of these two hypotheses is the more likely. The same explanation applies for the 28.3% of the participants who had a previous history of psychiatric symptoms but who did not score above the BDI cutoff: at the time of the interview for this study they might have had no clinically active manifestations.

Any evaluation of our findings should take into account the fact that the data were obtained in two phases. Except for prevalence calculations, all persons who scored above the BDI cutoff were considered cases for the purposes of our analyses. Although the BDI is not a diagnostic instrument, the data we used to validate the BDI scores against the scores obtained on the MINI—a diagnostic interview used as the reference instrument—are in good agreement for positive predictive value, negative predictive value, sensitivity and specificity. We used a BDI cutoff score calculated specifically for our population, rather than using reference values as other studies have done.[4,5,7] In the subsample of 40 patients who completed the MINI, we found 12.5% false negatives (BDI score below the cutoff but diagnosed as depressed with the MINI) and 5% false positives (BDI score above the 20/21 cutoff, but no diagnosis of depression with the MINI). Of the patients for whom the MIDI indicated a diagnosis of depression, 46.2% had some annotation of previous psychiatric problems in their medical record. Of those for whom the MIDI was not diagnostic of depression, 20% were taking antidepressants or anxiolytics, whereas of those who were diagnosed with the MINI as having depression, 39.4% were not on antidepressant medication.

In our analysis of the PC physician's detection of depression we considered annotation in the medical record of psychiatric symptoms or prescription of antidepressants or anxiolytics, as evidence of such detection. This might have led to errors of interpretation, as there might have been cases of depression that were correctly identified by the PC physician but not entered in the medical record for some reason, eg, short duration of the visit, different reason for consulting, or a chronic history of depressive symptoms noted in the chart more than 1 month before the visit included in the present study. Thus we were dependent on the quality of the medical record, and some patients may have been receiving treatment with antidepressants or anxiolytics although this was not noted in the chart. In their study, Klinkman et al[10,11] asked physicians about the presence of depressive disorder and its severity, and concluded that physicians distinguished between persons with and without depression on the basis of their prior knowledge of the patient's psychiatric history and familiarity with the patient. In other words, the more often they had seen the patient, the more likely they were to correctly detect depression.

Another limitation of the present study is the fact that we used a prevalent sample, ie, a sample that included persons with depressive disorder, who consulted their physician more frequently. Our sample did not contain patients

whose depression had already been correctly detected and diagnosed, and who therefore no longer consulted their PC physician. Nor did our sample include patients who no longer used PC services because they had already been referred to mental health services.

Our study confirms the high prevalence of depressive disorders in PC services in our setting; PC physician should therefore be on the alert for these disorders. The patients in whom depression is most often overlooked, and who therefore deserve particular attention, are women, widows and widowers, retired persons, persons who have experienced stressful life events in the preceding months, and those who consult their PC physician more frequently than average. Once the disorder has been diagnosed, treatment should be started promptly to lower costs and reduce the risk of suicide, and increase the patient's quality of life.

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COMMENTARY

Detecting depression: a first step toward more effective treatment

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Key points

- Patients with depressive disorders are frequent in primary care, but primary care physicians often fail to diagnose their illness correctly. This may be due to causes related with the physicians' training or motivation, but it may also be related with characteristics of the patients or with the infrastructure and availability of resources within the health care system.
- It is important to distinguish between major depression and other mood disorders, and to plan treatment which will best help the patient.
- Pharmacological treatment may be useful, but it not indispensable for all mood disorders. Certain nonpharmacological treatments have been shown to be useful, especially in primary care. Efforts should be devoted to ensuring that primary care physicians have at their disposal the means to provide such treatments.

Depression is one of the most frequent of all mental disorders. Its basic repercussions on health are evident: it leads to considerable disability and suffering in those affected, is associated with a high percentage of suicides (15%-20% of all cases of major depression, according to some estimates[1]), and generates considerable social and health care costs.

The Global Burden of Disease report for 2000[2] noted that unipolar depressive disorders represent an extraordinarily large contribution to the burden of disease in society, and are the most frequent cause of years of life lived with disability (YLD). These disorders account for 11.9% of all YLD in the population of persons 15 to 44 years old (9.7% in men, 14.0% in women). However, of even greater concern is the fact that their frequency is expected to rise in the next 20 years, especially in developed countries. However, there have been repeated indications that current health systems underdiagnose depressive disorders. Approximately 50% of all patients with depression are not identified in primary care settings.

The article in this issue by Gabarrón Hortal et al documents underdiagnosis and identifies the characteristics of persons in whom depressive disorder is most likely to be overlooked: women, widows and widowers, retired persons, those with recent antecedents of stressful life events, and frequent users of health care services.

The study found a diagnosis of depression in 20.2% of all persons in the sample; the much higher frequency in women (26.8%) than in men (8.1%) was noteworthy. Perhaps the high prevalence of depression, which was somewhat greater than that reported in other Spanish studies of primary care users,[3,4] was the result of the inclusion of cases of dysthymic disorder, as the authors themselves note.

Despite the high prevalence of this disorder, most expert group recommendations find no reasonable motives to use systematic screening or structured interviews in the entire population of users. However, they do recommend that special attention be given to subpopulations with risk factors for depression, which would include frequent users, persons who have suffered stressful life events, and widows or widowers. The high prevalence in women also makes this group worthy of particular attention.

The first step to improve the current situation regarding this important health problem is to correctly detect cases, and the article by Gabarrón et al is devoted to this part of the process. Once the disorder is detected, the next relevant question that needs to be raised is how to best treat these cases. If one of every four women and one of every 12 men is assumed to be suffering from depression (as suggested by the findings of Gabarrón et al), an appropriate treatment strategy that makes rational use of available resources should be developed both for general primary care and mental health primary care. Recalling that such resources are limited, it may not be possible to provide optimum treatment for many of the cases detected.

The second question that arises is what to use to treat patients with depression. In recent years many clinical practice guidelines and expert group recommendations have been published—many of them evidence-based[5]—to pro-

vide practitioners with technical tools to improve the treatment of patients with depression. Technical aids are necessary, but not sufficient. Antidepressant medication has been shown effective, and recent years have seen the appearance of drugs with fewer side effects, which are easier for primary care physicians to use. Most studies have found these newer drugs, regardless of which family of pharmacological substance they belong to, are effective in 50%-60% of the cases, in comparison to the 30%-40% rates for placebos. But other strategies such as problem-solving therapy and group therapy are available too, and the health care system should reflect upon the need for these approaches, which, if used appropriately, can be effective for certain patients.

Before the type of therapy is chosen—for use alone or with a complementary approach—the disorder must be accurately categorized. Dysthymia is not the same as major depression, nor should so-called minor depression always be treated with drugs. The therapeutic strategies available for each type of disorder are different. One thing, however, seems clear: antidepressants should be accompanied by appropriate follow-up care within the framework of an overall therapeutic project which should include psychological support treatment, to the extent that this is possible within the time constraints that primary care physicians work under. If an epidemic is approaching—as the data now in hand suggest—the option of exclusively pharmacological treatment might turn a large portion of the population (as large as that now represented by habitual users of antihypertensives or lipid-lowering drugs) into habitual consumers of antidepressants. Other nonpharmacological strategies, such as problem-solving therapy, have been shown to be effective in 70% of all cases of depression in primary care if managed by appropriately trained professionals, and may improve the situation in the future. However, this approach to treatment requires additional training and spending more time with the patient.

Meanwhile, with the means currently within our reach, primary care professionals will need to content themselves with improving their skills and diagnostic precision to distinguish between patients who, on the basis of their particular characteristics, can be treated by a family physician, and those who, because their disease is more severe, should be referred to a mental health center or who are at risk of suicide. A good patient relationship between health care providers and the patient, the judicious use of antidepressants when indicated, and appropriate follow-up may, represent a step forward and may offer incentives to exploring new avenues of treatment for these patients.

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