Epidemiological study of the prevalence of depressive disorders in primary health care in Morocco

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ABSTRACT

Objective: To determine the prevalence and the impact of depressive disorders in primary health care and its associated factors. **Methodology:** It's a cross-sectional study with 351 participants selected from Moroccan primary care facilities, aged above 18 years without chronic somatic or psychiatric disease. The participants answered a questionnaire that included demographic characteristics, the Mini International Neuropsychiatric Interview for major depressive episode (MDE), dysthymic disorder and the Global Assessment of Functioning (GAF). Statistical analysis was performed by the SPSS 13.0 software. **Results:** The prevalence of depressive disorders in the sample was 13.7%, that of MDE was 9.1%, while dysthymic disorder was 4.3%, the rate of recurrent depressive episodes was 38.2% (6% of participants), and the prevalence of depression over a lifetime was 17.7%. The percentage of depression was higher among women than men ($P = 0.01$). 6.3% of depressed patients have already attempted to suicide. Analysis of GAF scores showed an average of 76.2 ± 24, a lower score was significantly found among patients with current MDE ($P = 0.001$), dysthymic subjects ($P = 0.001$) and those who suffer from recurrent MDE ($P = 0.001$). Depressive disorders in univariate analysis were associated with: Female gender $P = 0.01$ odds ratio (OR) 2.1 (1.09–4.3), unemployment $P = 0.02$ OR 0.4 (0.2–0.9), and childbearing age $P = 0.004$ OR 3.5 (1.5–8). Adjusted OR has not demonstrated a significant association. **Conclusion:** The high prevalence of depressive disorders, suicide risk, and the alteration of the quality of life among primary health care patients in Morocco suggest the importance of identifying and treating this population.

Key words: Associated factors, depressive disorders, Morocco, prevalence, primary health care

Introduction

Depressive disorders are within the most prevalent mental disease worldwide.[1,2] According to an epidemiological study of affective disorders in the USA, the prevalence of major depressive disorder for a lifetime was 16.2%,[3] while in Morocco, a national survey conducted in 2005 showed a prevalence of 26.5% in the general population.[4]

We know that 40–50% of depressed patients are detected in primary health care, and 20% receive adequate treatment.[5] Early diagnosis can improve well-being of patients, ensure a better antidepressant response and reduce the risk of recurrence and suicide.[6,7]

The objective of the study is to determine the prevalence and the impact life of depressive disorders in primary health care and its associated factors.

Methodology

Study sample and procedure

This is a cross-sectional study over 2 years from 2012 to 2014, on a sample of Moroccan consultants in primary health care in two cities.

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The sample size was calculated using the following formula:

$$N = 1{,}96^2 \, p. \, (1-p)/\text{margin of error}^2$$

With:
- p: The expected proportion of subjects presented a depression
- Margin error: Between $0{,}03^2$ and 0.05^2

The patients must be aged 18 years old or more. We excluded subjects who were treated for a psychiatric disorder and/or chronic and disabling physical illness such as diabetes, endocrine disorders, neurological disorders, cancer, and others. We also excluded the subjects who refused to participate in the study, and those who have not given their verbal consent.

Data collection was carried out by psychiatrist and physicians who received psychiatric training for the Mini International Neuropsychiatric Interview (MINI). It was conducted using a standardized questionnaire with two parts.

The first part assesses the demographic characteristics of consultants; the socioeconomic level of the participants; and physiological status of women. To determine the socioeconomic level of the participants, we used the scale "The Problems Meeting Basic Needs," which include five items specifying, in the last 30 days, if the participants met with serious problems regarding basic specified encompassing food, transportation, finance, shelter, and clothing.[8] Among women, we specified the childbearing status.

The second part used the MINI, to assess major depressive episode (MDE) (current and anterior), depressive episode with melancholic features, dysthymic disorder, and suicide risk. The MINI has been translated and validated in Moroccan dialect;[9] the validity study demonstrated a satisfactory quantitative assessment of the value of kappa >0.8. We assessed also the quality of life by "Global Assessment of Functioning" (GAF) which is a numerical scale (from 0 to 100) used to evaluate the psychological, social and professional performances of an individual. The research communities affirmed that the reliability of the scale GAF is good specifically when it is used in patients with a mood disorder.[10]

The time spent to evaluate each participant by the questionnaire was 30 min.

Statistical analysis
Statistical analysis was performed by The Statistical Package for the Social Sciences (SPSS) version 13.0 software provided by the laboratory of Biostatistics, faculty of medicine Rabat. A descriptive analysis of the different parameters was made. Quantitative variables were described as a means ± standard deviation and categorical variables were expressed as percentages. A search for factors associated with depressive disorders was made using the Chi-square test or Student's *t*-test. Then logistic regression was used to take into account possible confounding factor. A $P < 0.05$ was considered significant.

Results

The sample was composed of 351 patients, 211 (60%) of women and 140 (40%) of men. About 181 (85.5%) women were in reproductive age. A significant age difference was observed ($P = 0.0001$) between men (40 ± 16.7) and women, (36.5 ± 12) [Table 1].

The prevalence of depressive disorders was 13.7%, MDE and dysthymia are more common among women than men ($P = 0.0001$, $P = 0.05$, respectively) [Table 2].

The melancholic features were found among 22, 6% of depressive patients and 6.3% of these patients have already attempted to suicide.

Table 1: Sociodemographic characteristics

Characteristics	*n* (%)
Age (years)	37.9±14 (36.5-39.5)*
Gender	
Man	140 (40)
Women	211 (60)
Profession	
With	120 (34.2)
Without	231 (65.8)
Marital status	
Lives alone	135 (38.5)
Couple	216 (61.5)
Level of education	
Unschooled	60 (17.1)
Schooled	291 (82.9)
Socioeconomic level	
Low	161 (45.9)
Medium	190 (54.1)

*Means±SD (CI). SD: Standard deviation, CI: Confidence interval

Table 2: Prevalence of depressive disorders

Disorder	*n* (%)
MDE	32 (9.1)
Dysthymia	15 (4.3)
Recurrent MDE	21 (6)
Depression over a lifetime	62 (17.7)

MDE: Major depressive episode

The prevalence of MDE in men who have attempted to suicide was 16.7% versus 2.8% among women without a statistically significant difference (*P* = 0, 2).

Results of the general GAF score showed an average of 76.25 ± 24, a lower score was found in patients with current MDE (*P* = 0.0001), dysthymic subjects (*P* = 0.0001) and those who suffered from recurrent MDE (*P* = 0.0001) [Table 3].

The univariate analysis reveals that the MDE was associated with the following variables: Female gender *P* = 0.01 odds ratio (OR) 2.1 (1.09–4.3), unemployment *P* = 0.02 OR 0.4 (0.2–0.9), and child-bearing age *P* = 0.004 OR 3.5 (1.5–8), whereas this association was not significant according to multivariate analysis [Table 4].

Discussion

Depressive disorders have a negative influence on the quality of life of patients and their professional competence.[11,12] This disease also is known by its suicide risk. Indeed, 16% of depressed patients died by suicide.[13,14]

In clinical practice, the first contact with these patients will be at the primary care.[15] However, identifying patients with depressive symptoms can be difficult for the primary care physicians due to the diversity of depressive spectrum.[16,17]

Our study showed that depressive disorders are common in primary care, and depressed patients have a disrupted social and professional functioning.

Table 3: Quality of life

	GAF scale
Patients without depressive disorders	90±0*
Patients with depressive disorders	75.9±24 (68.8-83)
MDE	65.8±22 (57.6-74)
Dysthymia	97.4±6 (93-100)
Recurrent MDE	56±21 (46.3-65.6)

*Means±SD (CI). MDE: Major depressive episode, SD: Standard deviation, GAF: Global Assessment of Functioning

Table 4: Regression logistic

	OR (95% CI)	
	Major depressive episode	
	Univariate	**Multivariate**
Age	1.01 (0.9-1.03)	2.6 (0.9-7.8)
Gender	2.1 (1.09-4.3)	1.3 (0.5-3)
Profession	0.4 (0.2-0.9)	0.5 (0.2-1.3)
Level of education	1.7 (0.8-3.6)	1.5 (0.6-3.3)
Physiological status	3.5 (1.5-8)	2.6 (0.9-7.8)

OR: Odds ratio, CI: Confidence interval

According to our results, 13.7% of patients in primary care meet the criteria of Diagnostic and Statistical Manual of Mental Disorders IV of depressive disorders. This prevalence is lower than that found in other studies where the prevalence was between 22.6% and 30.3%.[18-20]

In the present study, 9.1% of patients had an MDE, a prevalence lower than that some previous studies,[1,21] but much higher than others conducted in the general population.[3,22-24] Such disparity can be explained by the difference in methodological assessment of depressive disorders.

In addition, 4.3% subjects screened had a dysthymia, a rate similar to that found in Spanish study.[25]

Analysis of data confirmed the high rate of prevalence of lifetime of depression (17.7%) this seems closer to the results of two American studies.[22,26]

A gender difference in the prevalence of depressive disorders was observed *P* = 0.01 OR 2.1 (1.09–4.3). In fact, women have a higher rate of MDE and dysthymia compared to men; which consistent with the literature.[27]

Our finding indicated that the GAF score was statistically significant lower among patients with depressive disorders, specifically patients with MDE and recurrent MDE. In a cross-sectional study evaluated the quality of life among 360 depressed patients;[28] they found that the score is altered in all its physical and mental dimensions. A second study,[29] carried out in China revealed that < 3% of depressed outpatients are satisfied with their health. Other studies and meta-analysis showed that depressive disorders are an important determinant of disability and quality of life in patients.[30,31]

On multivariate analysis, we did not find a significant association this can be explained by the sample size, which was relatively smaller than that of other studies. Although it has been demonstrated that MDE was associated with female gender, substance use, unmarried status, and being unemployed.[23,32]

Conclusion

The prevalence of depressive disorders, suicide risk, and the alteration of the quality of life among primary health care patients in Morocco, suggest the importance of identifying and treating this population, which implies the physician awareness of those disorders.

Conflicts of interest

There are no conflicts of interest.

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