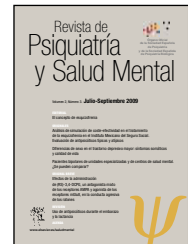


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## ORIGINAL

## Gender differences in major depressive disorder: somatic symptoms and quality of life

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### KEYWORDS

Major depression;  
Gender;  
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### Abstract

**Introduction:** Few findings in the literature have been as widely studied and consistently verified as the higher prevalence of depression among women. However, doubts remain on the distinguishing features of female depression. The available studies concur in the higher prevalence of somatizations among women and in the possibility that the impact of these symptoms on quality of life could be underestimated. In this study, all these aspects were analyzed in a sample of depressive patients.

**Material and methods:** We performed an epidemiologic, cross-sectional, non-intervention study. The final sample of 1164 patients with major depressive disorder (DSM-VI) (629 women and 535 men) was recruited in outpatient Mental Health Services in Spain. Assessments were performed using the Hamilton (HAM-D17), the Quality of Life for Depression Scale (QLDS) and the Patient Health Questionnaire 15-Item Somatic Symptom Severity Scale (PHQ-15) to measure somatic symptoms. Differences were analyzed by Chi-square and ANOVA or Student's t-test, depending on the variable.

**Results and conclusions:** Somatic symptoms were significantly more prevalent among women. A positive correlation was found between somatic symptoms and worse quality of life. Clinical variables measured by the Hamilton scale showed significant differences in some items but no strong conclusions could be drawn. These results suggest gender differences in depression, which should be replicated in other samples. Other risk or clinical factors could also be included.

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**PALABRAS CLAVE**

Depresión mayor;  
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Somatizaciones

**Diferencias de sexo en el trastorno depresivo mayor: síntomas somáticos y calidad de vida****Abstract**

*Introducción:* Existen pocos hallazgos tan estudiados y comprobados en la literatura como la mayor prevalencia de la depresión en las mujeres. Sin embargo, todavía son muchas las dudas acerca de las características propias y diferenciales de la depresión en la mujer. Se sabe que hay mayor frecuencia de síntomas somáticos en este grupo, pero parece subestimado el impacto que estos síntomas tienen en la calidad de vida de las pacientes. Estos aspectos se han estudiado en una muestra de enfermos depresivos.

*Material y métodos:* Se trata de un estudio epidemiológico de corte transversal no intervencionista. La muestra final es representativa y consta de 1.164 pacientes (629 mujeres y 535 varones) con el diagnóstico de trastorno depresivo mayor (DSM-IV) reclutados en centros de salud mental de España. Se aplican las escalas de Hamilton (HAM-D17), de calidad de vida para la depresión (QLDS) y PHQ-15 para síntomas somáticos. Se analizan las diferencias mediante la prueba de la  $\chi^2$  y ANOVA o test de la  $t$  de Student según el caso.

*Resultados y conclusiones:* Hay diferencias significativas en los síntomas somáticos de la depresión entre varones y mujeres, más frecuentes en ellas. Se observa una correlación positiva entre estos síntomas y un empeoramiento de la calidad de vida. En cuanto a las diferencias clínicas medidas con la escala de Hamilton, sólo ciertos ítems son significativos, sin que se pueda extraer conclusiones. Estos datos indican diferencias en la depresión según el sexo que se debe replicar y estudiar en otras muestras. Sería interesante asimismo estudiar otros aspectos clínicos o factores de riesgo relacionados.

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**Introduction**

One of the most consistent research findings on epidemiology of mood disorders is the higher prevalence of major depressive disorder or depressive symptoms in women than in men, in a 2:1<sup>1,2</sup> proportion, approximately. Hormonal factors are pointed out as some of the main causes for this difference, but there are also genetic, social, and psychological factors involved. Differences in prevalence of depression between men and women start in adolescence; they are maintained throughout the rest of their lives and are related to hormonal changes, typical of each female phase. Thus, clinical entities such as post-partum depression are the clearest example of the influence of these hormonal alterations. However, apart from biological depression associated with hormonal phases, typical of women such as post-partum or menopause, little is known of the inherent characteristics of female depression, apart from their prevalence and psychosocial impact. The current role adopted by women - with great stress in family, work, and society - is also studied as a risk factor for clinical depression. Available studies on clinical differences point at a larger prevalence of somatic symptoms and anxiety<sup>3,4</sup> or atypical symptoms.<sup>5-7</sup>

Somatic symptoms are usually the motive for consultation in 20% of the patients at primary care. These symptoms imply a significant source of consultation and consumption

of health resources, and many times they “disguise” depression itself. A higher prevalence of somatic symptoms has usually been attributed to depression in women. Thus, Silverstein<sup>5</sup> went as far as stating that “pure” depression would be the same in men as in women, but that only “somatic depression” is more frequent in women. Various studies by different authors confirm higher somatization prevalence in women suffering depression than in men.<sup>6,7</sup> The impact that these somatic symptoms have on patients’ quality of life has not been sufficiently studied.

Explanations have been attempted for the relation between anxiety and depression with physical symptoms through different hypotheses, with anxiety being highlighted as a reaction to physical symptoms, the increase of arousal and special attention to small physical symptoms in anxious patients, a common factor to physical symptoms and anxiety, physiological aspects or personality aspects. Other psychological factors characteristic of women’s role, such as high emotional expressiveness or enhancement of feelings, and social or stress-related factors, have all been associated with differential traits of gender-related depression.

This study collects a numerous sample of subjects diagnosed with a major depressive episode. The hypothesis applied is that there are clinical differences between men and women (according to the Hamilton scale), with special attention to somatic symptoms (according to PHQ-15 scale). Secondly, the

aim is to study the impact of such somatic symptoms on the quality of life of patients, by the QLDS scale.

## Method

This is an epidemiologic, cross-section-no-interventionist study. 1,242 patients were recruited in 456 outpatient centres in Spain for an initial sample, whom after applying the inclusion-exclusion factors resulted in a total sample of 1,164 patients (54% women;  $n = 629$ ). The patients were voluntarily recruited by their reference psychiatrists in health centres all over Spain. The inclusion period was the year 2006. Inclusion criteria were as follows: to have been diagnosed with major depressive disorder according to DSM-IV criteria (APA, 1994) and with a score  $> 17$  on the Hamilton depression scale (HAM-D17).<sup>8-10</sup> Exclusion criteria included concomitant medical disease with pain or the following concomitant psychiatric disorders: schizophrenia and other psychotic disorders, alcohol or other substances dependence disorders, somatiform disorders, delirium, dementia, amnesic disorders, and other cognitive disorders. The project was carried out in compliance with Helsinki declaration and the protocol was approved by a competent ethical committee. All the patients signed an informed consent.

The following scales were used: HAM-D17<sup>8-10</sup>, QLDS<sup>11,12</sup> and PHQ-15<sup>13</sup>. QLDS is a self-applicable scale with 34 dichotomic items (yes/no, or true/false) that score either 0 or 1 and measure quality of life of patients undergoing depression. The total score over the scale varies from 0 to 34, the higher the score the better life quality.<sup>11,12</sup> PHQ-15 scale comprises 15 somatic symptoms in the Patient Health Questionnaire (PHQ), a self-applicable version of the diagnostic tool PRIME-MD<sup>14</sup> to select the most common mental disorders. Each one of the 15 somatic symptoms in the PHQ-15 scores between 0 ("not concerned") and 2 ("much concerned").<sup>13</sup>

Regarding the statistical analysis, differences between groups for qualitative variables were analysed by the  $\chi^2$  test (or the exact Fisher's test if necessary). Continuous variable comparisons were performed by the Student's *t*-test when these were normally distributed or by Mann-Whitney *U* when the parametric assumptions did not occur. Continuous variable comparisons between more than two groups were measured by ANOVA. When there were differences between different groups, post-hoc analysis was performed to determine which of the sub-populations set the difference. Correlations between the scales' total scores were analysed by Pearson correlation coefficient (PMCC).

Additionally, normality and homoscedasticity assumptions necessary to use the parametric tests were checked.

Statistical significance threshold was set at  $p < 0.05$ . SPSS v13.0 statistical package was employed.

To determine sample size, it was estimated that less than 50% of depressed patients present with somatic symptoms, with a quotient of at least 1.5 in the women/men ration. Based on this estimation and with the object of detecting the relative risk with  $\alpha = 0.05$  and  $\beta = 0.99$ , using a bilateral contrast, a total sample of 1,368 depressive patients is

required, with 684 women and 684 men, estimating losses in up to 30%.

## Results

### Sample analysis: socio-demographic and clinical data

The sample consisted in 629 women and 535 men, with an age mean of 47.28 and 47.98 years, respectively. The most frequent marital status was married, or cohabitation (most frequent in women [68%] than in men [62.1%]). Depression occurrence in the sample was most frequent in the married group, followed by single, divorced, and then widow, whereas in men the decreasing order is married, single, separated, widower. The occupational situation was both in women and men in a decreasing order of occurrence: employed, housewife or unemployed in women, and pensioner or unemployed in men. Medical treatment factors and vital events in the last month were more significant in women, in the sample.

Basic physical health data, including basic clinical examination and the existence of any physical disease, were collected without specifying type. This item termed "health status" was altered in about 13% in each one of the samples in men and women. Of these 13%, the usual general physical examination was altered in about 25%. Regarding mental health in the sample, according to the inclusion criteria, all the patients were diagnosed with major depression disorder according to DSM-IV criteria. With respect to prior psychiatric diagnosis (sample antecedents that were recorded in case histories), the most frequent for both men and women were mood and personality disorders. Amongst men, 53.7% suffering other psychiatric diagnosis had also suffered from mood disorders, 27.8% anxiety disorders, and 20.4% personality disorders. In women, the most frequent diagnosis was anxiety disorders (47.7%), followed by mood disorders (35.2%), and personality disorders (15.9%).

The occurrence of somatic diseases was of 30% both in men and women, with no significant differences. However, women did comply with their treatment (40.3%) more frequently than men (32.5%). The stressing vital events in the month prior to the interview differed qualitatively, above all the family-related type in women (65%) and labour-related type in men (47.5%), which seems to be consistent with the traditional social roles. Statistically significant differences are shown in table 1.

Gender differences in clinical symptoms of depressive episodes (according to Hamilton scale).

No significant differences were observed between men and women, neither over HAM-D17 scale total scoring (mean score, 23.3 in women and 23.6 in men) nor over melancholy subscale score (11.7 in women and 11.8 in men) (with reference to items 1, 2, 7, 10 and 13 of HAM-D17).

Statistically significant differences were observed between men and women in certain items of HAM-D17 (table 2). Men showed significantly higher rates in items related to ideas of guilt ( $p < 0.05$ ), work and activities ( $p < 0.001$ ), agitation ( $p < 0.05$ ) and symptoms related to

**Table 1** Clinical and sociodemographic data in men and women sample

	Women (n = 629), N (%)	Men (n = 535), N (%)	p
Marital status	627	535	<0.010
Married/cohabitation	390 (62.2)	363 (67.9)	
Divorced/separated	81 (12.9)	61 (11.4)	
Single	112 (17.9)	96 (17.9)	
Widow/er	44 (7)	15 (2.8)	
Occupational situation	624	531	<0.001
Active	280 (44.9)	335 (63.1)	
Housewife/either gender	213 (34.1)	4 (0.8)	
Not active/student	43 (6.9)	56 (10.5)	
Pensioner	88 (14.1)	136 (25.6)	
Specific psychiatric diseases			
throughout life	90 (15.4)	55 a (11.3)	0.050
Mood disorders <sup>b</sup>	31 (34.4)	29 (52.7)	
Anxiety disorders	42 (46.7)	16 (29.1)	
Substance abuse	2 (2.2)	0	
Personality disorders	14 (15.6)	11 (20)	
Psychotic disorders	0	1 (1.8)	
Alimentary behaviour disorders	4 (4.4)	1 (1.8)	
Behavioural adaptive disorders	1 (1.1)	2 (3.6)	
Sleep disorders	0	1 (1.8)	
Current medical treatment women, n = 616; men, n= 520	248 (40.3)	169 (32.5)	<0.010
Stressing vital events in the last month, women, n = 627; men, n= 529	223 (35.6)	181 (34.2)	0.631
Familial	145 (65)	82 (45.3)	<0.001
Labour	62 (27.8)	86 (47.5)	<0.001

<sup>a</sup>It is not known the type of psychiatric disease suffered by 4 women and 3 men who claimed to suffer from a psychiatric disease.

<sup>b</sup>100% of the patients comply with major depression criteria according to DSM-IV.

the genitalia ( $p<0.05$ ). Women showed significantly higher scores in symptoms related to somatic anxiety ( $p<0.01$ ) and general somatic symptoms ( $p<0.01$ ).

No statistically significant differences were found between men and women in any of the 34 items over the quality of life scale for depression, nor in the scale total score, calculated as the sum of all the scores of the 34 items (data not shown).

### Gender differences in prevalence of somatic symptoms (according to PHQ-15 scale)

Statistically significant differences were found between men and women in somatic symptoms measured using the PHQ-15 scale. Men scored higher only in the item on "pain or problems during sexual intercourse" ( $p<0.01$ ). However, the total score over the scale was significantly higher in women ( $p<0.001$ ) (table 3), as well as in the series of items related to gastrointestinal discomfort, pain, dizziness, and breathlessness. Women expressed to be significantly more concerned about "stomach-ache" ( $p<0.05$ ), "backache" ( $p<0.05$ ), "pain in arms, legs and joints" ( $p<0.05$ ), "headache" ( $p<0.001$ ), "dizziness" ( $p<0.05$ ), "breathlessness" ( $p<0.05$ ),

"constipation, intestinal movements or diarrhoea" ( $p<0.05$ ) y "nausea, gases or indigestion" ( $p<0.001$ ).

### Gender differences in prevalence of other psychiatric disorders

Significant differences were observed in psychiatric disorders present in both men and women at the moment of the interview. It is necessary to bear in mind the exclusion criterion in the analysis of results (disorders such as dementia and delirium, substance abuse and psychotic disorders) and the inclusion criterion of "diagnosis of major depressive episode according to DSM-IV".

Co-morbid psychiatric disorders were studied, apart from ordinary everyday life, at the moment of data collection, independently of mood disorder (inclusion criterion for major depressive disorder). Thus, and according to the expectations, the most frequent disorders were anxiety and personality disorders in both groups, being anxiety more frequent in women (47.7% anxiety disorders and 15.9% personality disorders) and personality disorders in men. Women presented with significantly higher rates of major co-morbid psychiatric disorders.

**Table 2** Significant differences between men and women over the 17-item-depression Hamilton scale

	Women, n (%)	Men, n (%)
Feeling of guilt (p < 0.05)		
None	55 (8.8)	71 (13.3)
Light	228 (36.6)	151 (28.4)
Moderate	252 (40.4)	224 (42.1)
Intense	79 (12.7)	80 (15)
Extreme	9 (1.4)	6 (1.1)
HAM mean score	1.61	1.62
Suicidal (p < 0.05)		
None	217 (35)	161 (30.2)
Light	229 (36.9)	203 (38.1)
Moderate	140 (22.6)	119 (22.3)
Intense	31 (5)	49 (9.2)
Extreme	3 (0.5)	1 (0.2)
HAM mean score	0.99	1.11
Work and activities (p < 0.001)		
None	5 (0.8)	6 (1.1)
Light	38 (6.1)	40 (7.5)
Moderate	278 (44.6)	185 (34.7)
Intense	224 (36)	186 (34.9)
Extreme	78 (12.5)	116 (21.8)
HAM mean score	2.53	2.68
Agitation (p < 0.05)		
None	316 (50.7)	250 (46.9)
Light	255 (40.9)	213 (40)
Intense	52 (8.3)	70 (13.1)
HAM mean score	0.57	0.66
Somatic anxiety (p < 0.01)		
None	13 (2.1)	27 (5.1)
Light	149 (23.9)	153 (28.7)
Moderate	331 (53.1)	266 (49.9)
Intense	120 (19.3)	80 (15)
Extreme	10 (1.6)	7 (1.3)
HAM mean score	1.94	1.78
General somatic symptoms (p < 0.01)		
None	17 (2.7)	31 (5.8)
Light	359 (57.6)	334 (62.8)
Intense	247 (39.6)	167 (31.4)
HAM mean score	1.36	1.25
Genitalia symptoms (p < 0.05)		
None	185 (29.7)	115 (21.6)
Weak	220 (35.4)	206 (38.7)
Acute	186 (29.9)	174 (32.7)
Disabling	31 (5)	37 (7)
HAM mean score	1.10	1.25
HAM-D 17 scale total score (women, n=623 men, n = 534, mean (IC del 95%); p = 0.206	23.3 (22.9-23.6)	23.6 (23.2-24)
Melancholy sub-scale score (items 1, 2, 7, 8, 10 and 13 HAM-D17) (women, n = 622; men, n = 530), mean (IC del 95%); p = 0.339	11.7 (11.5-11.9)	11.8 (11.6-12)

### Impact of somatic symptoms on patients' quality of life

A positive linear correlation was observed (Pearson correlation = 0.4;  $p < 0.001$ ) between the score over HAM-

D17 scale and somatic symptoms (PHQ-15 scale total score). Likewise, a positive linear correlation (Pearson correlation=0.4;  $p < 0.001$ ) between HAM-D17 score and QLDS was also observed. These results show that the higher the clinical severity, the higher the affection over the

**Table 3** Significant differences between men and women over the somatic symptoms PHQ15 scale

Item (intense concern)	Stomach ache	Backache	Pain in legs and joints	Headache	Dizziness	Breath- lessness	Nausea gases or indigestion	Constipation, diarrhoea	Pain during sexual intercourse
Female	12.7	22.5	25.7	34.6	12.6	26.8	18.0	15.9	12.7
Male	12.4	20.2	20.4	25.2	9.2	24.4	13.8	13.2	18.8
p	<0.05	<0.01	<0.05	<0.01	<0.05	<0.01	<0.05	<0.001	<0.001

somatic area, and as the clinical symptoms aggravate the patient's quality of life, deteriorates as well. Both ratios would be directly proportional.

A positive linear correlation was observed (Pearson correlation=0.3;  $p<0.001$ ) between somatic symptoms (PHQ-15 scale total score) and QLDS score. Thus, the higher the score of somatic symptoms, the more the patient's quality of life is affected.

Regarding the ratio between quality of life (QLDS) and specific somatic symptoms (items over the PHQ-15 scale), significant relations were observed between quality of life and level of concern/affection in certain items. All the differences pointed out as statistically significant were studied using the ANOVA test in different groups of patients (not concerned, little concerned, and highly concerned) with post-hoc tests to identify which group set the difference. Thus, statistically significant differences were observed in quality of life between groups, depending on the following somatic symptoms: "stomach ache" ( $p<0.001$ ), "pain in arms, legs and joints" ( $p<0.05$ ), "headache" ( $p<0.001$ ), "chest ache" ( $p<0.001$ ), "dizziness" ( $p<0.05$ ), "syncope and faints" ( $p<0.01$ ), "palpitation and tachycardia" ( $p<0.001$ ), "feeling of breathlessness" ( $p<0.001$ ), "pain or problems during sexual intercourse" ( $p<0.05$ ), "nausea, gases or indigestion" ( $p<0.001$ ), "feeling of tiredness or lack of energy" ( $p<0.001$ ) y "trouble sleeping" ( $p<0.001$ ).

In addition, statistically significant differences were observed between general somatic symptoms over the Hamilton scale (item 13 of HAM-D 17 scale) and five of the items over quality of life QLDS scale. Thus, in the items related to sense and control over one's own life: "feel my life is being wasted" ( $p<0.05$ ), "feel as if I could not control my life" ( $p<0.05$ ) y "feel my life makes no sense" ( $p<0.001$ ), difficulty to socialise and tendency toward isolation "just want time to go by" ( $p<0.05$ ) and "find it hard to step out of my place" ( $p<0.001$ ).

## Discussion

The main finding of this study was that women with major depressive disorder showed higher rate of somatic symptoms than men. In addition to this, this higher prevalence of somatic symptoms turned into a larger alteration in the quality of life. Thus, women showed a

total score significantly higher to men over the somatic-symptom PHQ 15 scale and were notably more concerned than men in 8 out of the 15 items of the PHQ 15 scale. These results corroborate data in the literature that point at a higher frequency of somatic symptoms in women suffering depression.<sup>15-19</sup> However, these findings should be interpreted with caution, since the scales used to measure somatic symptoms, the definition of "somatic depression" and inclusion/exclusion criteria vary in different studies.

Diverse hypotheses have been proposed to account for the association between anxiety, depression, and physical symptoms.<sup>19</sup> The first hypothesis maintains that anxiety and depression might occur as a reaction to physical symptoms. The second hypothesis postulates that anxiety or depression symptoms could cause a generalised increase in a tendency to experience, interpret, or express minor physical symptoms. Thirdly, there could be a common factor that would cause physical symptoms and, independently, anxiety or depression symptoms. A fourth hypothesis is that the physical symptoms experienced by these patients are specifically related to physiological aspects of anxiety or depression disorders, i.e. fatigue or sleepiness in depressive disorders, or palpitation and perspiration in anxiety disorders. Finally, characteristics of personality may manifest by a tendency to express any type of physical symptom.<sup>20,21</sup> Most studies on this issue have observed that it is the number of physical symptoms (and not the specific type of symptoms) what is associated to the existence of psychiatric disorders,<sup>20</sup> a fact that would support the second hypothesis. However, none of these hypotheses explains the difference observed in the prevalence of somatic symptoms between men and women. It has been remarked<sup>18</sup> that the prevalence of depression with somatic symptoms in women is due to psychosocial factors, possibly related to the traditional role of the female gender.<sup>5,18</sup> Other psychological aspects in women would be the higher rate of emotional expressiveness and feeling enhancement, which would play an important role in differential characteristics of depression according to gender. Finally, it is important to keep in mind the theories about differences in perception of pain, according to which women would have a lower threshold than men.

Other important finding is the impact of somatic symptoms over quality of life. A positive linear correlation

was observed between QLDS score and somatic symptoms, that is, the more somatic symptoms, the worse the quality of life. In addition, significant relations were established between quality of life and level of concern/affection in 12 of the somatic symptoms collected by PHQ-15 scale. General somatic symptoms (item 13 of HAM-D17 scale) and 5 items in QLDS were associated with each other bearing statistical significance as well. The negative effect of somatic symptoms over quality of life in depressed patients is constantly repeated in most of the studies on this issue.<sup>22,23</sup>

Additionally, according to the literature available, more symptoms of anxiety in women than in men are shown in this sample.

With relation to depressive-episode clinical characteristics, over the HAM-D17 scale men presented significantly higher rates in the items “feeling of guilt”, “suicidal”, “work and activities”, “agitation”, and “genitalia symptoms”; whereas women showed significantly higher rates in “somatic anxiety” and “general somatic symptoms”. These findings agree in part with the data in the literature about women with depression informing of anxiety symptoms and somatization more frequently than men.<sup>3,24</sup> However, no significant differences were observed in symptoms related to alterations in sleep or weight gain, that are usually more frequent in women.<sup>25,26</sup> More affection in men in the item “work and activities” agrees with the theory of gender roles, according to which it is expected for men and women to act differently by their distinct roles’ mandate, which means socially accepted behaviour for each gender. The male gender has been characterised by being independent, not emotional and with high confidence in themselves, as opposed to the female gender being passive, warm, caring, emotional, and dependent.<sup>26</sup> Given that expressing depressive symptoms is incompatible with the role of the male gender, men would express their depression less emotionally and more socially accepted, i.e. through alterations in the social and occupational area.<sup>25</sup>

With respect to co-morbid psychiatric disorder rates in men and women, it is difficult to interpret the results from the present study, as one of the exclusion criteria was to present certain concomitant psychiatric disorders (schizophrenia and other psychotic disorders, substance or alcohol dependence, somatomorphic disorders, delirium, dementia, amnesic disorders, or other cognitive disorders). Data from most of the studies show that depressed women present with a higher co-morbid psychiatric rate than men.<sup>27</sup> Anxiety co-morbid disorders (especially panic and phobias) and alimentary behaviour are more frequent in women, whereas men suffer higher co-morbidity rates of alcoholism and other substance abuse disorders.<sup>27-31</sup>

Regarding characteristics of women with major depression, it was observed that in the married group less somatic symptoms were present, which would open new avenues to research into the influence of sociodemographic variables, such as marital status, occupation, and age in women suffering from depression.

With respect to somatic symptoms frequency, those more prevalent in women were stomach ache,

backache, arthralgia, headache, dizziness, breathlessness, gastrointestinal alterations, and dyspepsia. In men, sex-related symptoms. These results show that the higher the clinical severity, the higher the affection over the somatic area, and as the clinical symptoms aggravate, the patient’s quality of life deteriorates. Both ratios would be directly proportional.

Statistical coincidence between general somatic symptoms over the Hamilton scale (item 13 of HAM-D 17 scale) and 5 items at QLDS refer to items related to sense and control of one’s own life and tendency toward isolation. These symptoms, however, could be more related to alterations typical of major depression that affect negative perception of oneself, sadness, low self-esteem and pessimism: “feel my life is being wasted” ( $p<0.05$ ), and “feel as if I could not control my life” ( $p<0.05$ ) and “my life does not make sense” ( $p<0.001$ ), difficult to socialise, and tendency to isolation: “just want time to go by” ( $p<0.05$ ) and “find it hard to step out from my place” ( $p<0.001$ ).

The progress made with these and other aspects related to depression in women are set to be applied in clinical practice. Most patients treated for episodes of major depressive disorder do not reach remission but continue to suffer from residual symptoms. Residual symptoms are usually of the physical type and include fatigue, sleep alterations, changes in appetite, and pain.<sup>32</sup> Patients with residual symptoms present poorer evolution<sup>33</sup> and run higher risk of relapse into depressive episodes.<sup>34</sup> It has been observed that improvement in physical symptoms correlates with reduction of depressive symptoms.<sup>35,36</sup> These data underline the need to develop new improved methods to treat depression to achieve total remission without residual symptoms.<sup>32</sup> Longitudinal studies are necessary to evaluate effectiveness of anti-depressive treatments in reducing somatic and depressive symptoms. Existing differences between men and women in clinical characteristics and in the course of depression, somatic symptoms and co-morbid psychiatric disorders should be considered by clinicians, both in the evolution of depressive episodes as in the election of treatment.<sup>3</sup>

The somatisation phenomenon associated or not with depressive and other psychiatric disorders, is still not well explained and, despite the approaches toward studying it, there are still large unexplored territories in this field, such as its relation, aside from gender, to age, stress exposure, types of personality, interpersonal relation patterns, vital events, etc.

## Limitations

Apart from the limitations inherent in a descriptive study, it is worth to note that no other clinical characteristics of depressive episodes were evaluated (except those measured by Hamilton scale) that in the literature have been associated with the female gender, such as atypical symptoms (hypersomnia, hyperphagia, weight gain, desire to eat carbohydrates),<sup>23</sup> and psychomotor retardation<sup>3</sup> or appetite changes.<sup>19</sup> Furthermore, being this a cross-section



study, differences between men and women in the course of depression could not be analysed. No clinical scales were used to diagnose co-morbid psychiatric disorders and participation of numerous clinicians using evaluating instruments may reduce reliability in the results obtained.

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