

# A Symptom Profile Analysis of Depression in a Sample of Iranian Patients

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## Abstract

**Background:** In some cultures, including ours, direct explanation of inner psychic world is inhibited and stigmatized, therefore finding alternative modes of expression. The aim of this cross-sectional study was to assess the frequency of somatization in the depressed patients.

**Methods:** The present study comprised 500 patients referred to the outpatient clinic of Shiraz University of Medical Sciences, and diagnosed with major depressive disorders based on DSM-IV-TR. The presenting complaints of these patients were assessed through psychiatric interview. The presenting symptoms were divided into three main categories including mental symptoms, pain, and physical symptoms without pain. Statistical analysis (chi-square and logistic regression) were performed to determine the relationship between presenting symptoms and some demographic variables such as age, gender, marital status, educational level and cultural background (urban or rural).

**Results:** Physical symptoms other than pain, mental symptoms, and pain were found in 193 (38.6%), 186 (37.2%), and in 121 (24.2%) patients respectively. Pain and physical complaints were more common in patients with rural cultural background, lower education, women and the married individuals. Headache (15.2%), irritability (10.6%) and pain in different parts of the body (10.4%) were the most frequent chief complaints of the patients. Hypochondriasis, suicidal idea, crying, irritability and insomnia were significant symptoms associated with the complaint of somatization.

**Conclusion:** Somatic symptoms, especially pain, have a significant weight in the chief complaints of depressed patients. Physicians need to pay particular attention to this important issue in order to better understand these patients.

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**Keywords** • Depression • Somatic • Physical • Major depressive disorder

## Introduction

Depression is a very common mental health problem. It is estimated that depression will become the second most common cause of disability, next to heart disease in a few decades.<sup>1</sup> Major depression affects 1 in 20 people during their lifetime.<sup>1,2</sup>

In many cultures, especially in developing eastern countries, talking about emotions is prohibited and is considered a sign of

weakness. Somatic metaphors and complaints are usually expressed as substitutes for emotional discharge. Such variability in depression rates, as noted by Simon and his colleagues, may represent problems with definition and measurement rather than true differences in prevalence.<sup>3</sup> It seems that western measures are not reliable sources for the estimation of the prevalence of affective disorders in culturally divergent populations. As Kleinman noted, depression is not a universal psychiatric construct and the ways of understanding the body and the self are so different that this may lead to differences in psychopathology.<sup>4</sup>

Neurasthenia is a very common diagnosis in China, where depression is rarely diagnosed. Neurasthenia refers to a bodily state and for the Chinese it is easier to talk about somatic complaints rather than one's emotional status. The Chinese do tend to deny depression or express it somatically. One reason for this apparent disregard may be the stigma that is attached to psychiatric symptoms in Chinese culture, compared to the relative acceptance of physical complaints.<sup>5</sup>

The WHO collaborative study assessed 573 patients, and showed that feelings of guilt and self-reproach were commonest in Basle and Montreal and least in Tehran, where suicidal ideation was rare. In contrast, somatic symptoms were commonest in Tehran and least in Basle and Montreal.<sup>6</sup>

Psychiatric disorders are highly stigmatized in some cultures. In depressed Chinese American patients, researchers found that the most common presenting complaints were fatigue, insomnia, headache, cough and pain.<sup>7</sup>

In Chinese culture in which psychiatric symptoms are usually stigmatized, somatic symptoms are accepted more than direct presentation of emotional symptoms.<sup>7</sup> Patients exhibited less psychiatric symptoms when referred to a private physician, than those who were visited by a general primary care physician.<sup>8</sup>

Luis Caballero and his colleagues studied a population of Spanish patients with major depressive disorders. They observed that 93% of patients had at least one somatic symptom which was fully or partially attributed to depression. Additionally, 45% of patients had four to nine symptoms.<sup>9</sup>

Bhui revealed in his study that South Asians were more likely to visit their general practitioners (GPs), and exhibited somatic manifestations of mental distress more commonly than other groups. They were less likely to have a recognized mental disorder than white groups, and even with recognizable mental disorder, they were least likely to be referred to specialist care by GPs.<sup>10</sup>

On the other hand, some surveys showed no differences in psychological and somatic symptoms between Western and other countries.<sup>8,11</sup> In one study two thirds of depressed patients in primary care presented with somatic symptoms.<sup>12</sup> In another study, the complaints expressed by the patients as somatic entities, were actually depression symptoms in DSM-IV.<sup>13</sup> In a study of 504 patients in Tehran, researchers found a high rate of somatic symptoms in depressed patients.<sup>14</sup> Also, a similar study in Kerman on 246 depressed patients, with frequent symptoms, showed that 40% of case suffered from somatic symptoms.<sup>15</sup>

According to the above-mentioned studies and our clinical experience, it seems that depression as a disorder has a different picture in Eastern cultures compared to the one delineated by Western researchers. In regard to the more frequent expression of somatic symptoms in Eastern cultures, we assessed the probability of different presentations of depressive signs and symptoms in male and female patients and in cases with different cultural backgrounds and education. Such studies can lead to a better understanding of such disorders and more accurate diagnosis of depression in developing countries.

The definition and differentiation of psychiatric problems presented as somatic symptoms may prevent unnecessary interventions and expenses. Mental health professionals working in such cultural atmosphere have frequently witnessed improvement in patients on antidepressant medications. These patients often had histories of traveling far and wide in search for a solution to their suffering which eventually has ended in the psychiatrist office. In this study, we have tried to answer some questions about the relationship between cultural background, level of education, age, marital status and gender on the one hand, and presenting symptoms of depressed patients on the other.

## Patients and Methods

This cross-sectional descriptive study assessed the presenting symptoms of 500 patients with major depressive disorder referred to a psychiatric clinic affiliated with Shiraz University of medical sciences. Diagnosis of the disorder was made based on the DSM-IV-TR (Diagnostic and Statistical Manual of Mental Disorders-IV-Text Revision) criteria according to a face to face structured psychiatric interview based on the American Psychiatric Association criteria for the diagnosis of Major Depressive Disorder.<sup>2</sup> This is a standard tool for the diagnosis of such disorder in many countries including Iran and conducted by a bilingual psychiatrist with more

than 15 years of experience. This study is approved by Ethics Committee of Shiraz University of Medical Sciences. The criteria for recruiting the patients in the study included no history of current substance abuse or dependency, patient's symptoms could not be justified by a general medical condition or other psychiatric entities such as anxiety or somatoform disorders, receiving no active psychiatric treatment, not visited by a psychiatrist during 3 months before evaluation, and not taking any psychiatric medications during this time. DSM-IV classifies the signs and symptoms of depression into two groups of vegetative and mental conditions.<sup>2</sup> Since pain is assessed as a frequent vegetative symptom, it was considered as a separate entity and eventually categorized into three groups including mental symptoms, pain, and physical symptoms other than pain. Through psychiatric interview, we assessed the presenting complaints of these patients and considered such symptoms as guilt feeling, hypochondriac status, insomnia, and losses of appetite, weight, concentration, and interest, suicidal idea and attempt, hopelessness and crying. Also the patients were asked about their chief complaints which were categorized into mental symptoms with pain, and physical symptoms without pain, the duration of the illness, description of the emotional or somatic disorders by the patients, causes of illness expressed by the patients as family problems including interpersonal or intergenerational difficulties, living problems such as occupational or financial difficulties, losses incurred, marital conflicts, and romantic breakups, and the clinician who first visited the patient namely general practitioner, psychiatrist or other specialist. These variables were compared by proper statistical analysis (Chi-square) according to sex, age, marital status, cultural background (rural or urban) and education level. Logistic regression

analysis, backward method, was used to compare the association of different independent variables in patients with or without somatization as a symptom.

## Results

Table 1 shows the demographic characteristics of the patients. The range of age was between 15 to 81 years (Mean 36.92). 61.8% (309) of them were between 30 to 59 years old. Of 500 patients studied, 380 (76.0%) were females, 356 (71.2%) married, 246 (46.2%) had elementary school education, and 306 (61.2%) belonged to the urban cultural background.

Tables 2 and 3 demonstrate the descriptive features of patients' chief complaints and symptoms of which headache (15.2%) was the most frequent complaint, followed by irritability (10.6%), pain in the other areas of the body (10.4%), depression (8.0%) and forgetfulness (7.2%). Among physical (organic) complaints, the gastrointestinal (7.0%) symptoms were more frequent than respiratory (3.4%) and cardiac symptoms (3.2%). In this context, pain and physical complaints were more common in persons with lower education ( $P < 0.001$ ), rural cultural background ( $P < 0.001$ ), women ( $P < 0.001$ ) and married patients ( $P = 0.007$ ). Individuals with higher education ( $P < 0.001$ ) and urban cultural background ( $P < 0.001$ ) were more likely to visit a psychiatrist. There was no significant difference in the referral to psychiatrist between age, sex and marital status.

Hypochondriac obsessions were more common in the married ( $P = 0.024$ ), elder ( $P < 0.001$ ) and lower educated people ( $P < 0.001$ ). Insomnia was more common in people with rural cultural background ( $P = 0.009$ ) and in individuals with lower education ( $P < 0.001$ ). Guilt feeling was more common in the older and younger people

**Table 1:** Demographic characteristics of the patients

Variables		Frequency (%)	Percent
Age	15-29	145	29.0
	30-59	309	61.8
	60 or more	46	9.2
Gender	Male	120	24.0
	Female	380	76.0
Marital Status	Married	356	71.2
	Single	93	18.6
	Widow	39	7.8
	Divorced	12	2.4
Place of Residency	Urban	306	61.2
	Rural	194	38.8
Education	Bachelor Science	56	11.2
	Diploma	118	23.6
	Elementary	246	46.2
	Illiterate	61	12.2
	Students	19	3.8

Chief complaint	Frequency (%)	Percent
Headache	76	15.2%
Irritability	53	10.6%
Pain	52	10.4%
Depression	40	8.0%
Forgetfulness	36	7.2%
GI problem	35	7.0%
Insomnia	27	5.4%
Lethargy	27	5.4%
Anxiety	26	5.2%
Dyspnea	17	3.4%
Heart problem	16	3.2%
Dizziness	15	3.0%
Tremor	15	3.0%
Loss of interest	14	2.8%
Social withdrawal	11	2.2%
Pseudo-seizure	10	2.0%
Loss of appetite	5	1.0%
Globus hystericus	4	0.8%
Intrusive thought	4	0.8%
Bruxism	3	0.6%
Cough	2	0.4%
Vaginal discharge	2	0.4%
Loss of libido	2	0.4%
Aphonia	1	0.2%
Crying	1	0.2%
Dysuria	1	0.2%
Flushing	1	0.2%
Hopelessness	1	0.2%
Sleep talking	1	0.2%
Tinnitus	1	0.2%
Weight loss	1	0.2%
Total	500	100.0%

compared to middle aged patients ( $P<0.001$ ). Also it was more frequent in people with urban cultural background ( $P=0.048$ ).

Loss of appetite was more prevalent among older and younger people compared to middle aged patients ( $P=0.017$ ) and in people with rural cultural background ( $P=0.003$ ). Loss of concentration was less frequent in the elders ( $P=0.006$ ). There was no significant difference in loss of interest between these five groups.

Suicidal ideation were present more frequently among married persons ( $P<0.001$ ), the lower age group ( $P<0.001$ ) and people with rural cultural background ( $P=0.027$ ). Suicidal attempt was more frequent in the lower age group ( $P=0.009$ ) and in the married ones ( $P=0.047$ ). Our study showed no difference in suicidal ideation and suicidal attempt between men and women.

There was no significant difference in weight loss between these five groups. People with lower education ( $P<0.001$ ) and with rural cultural background ( $P=0.001$ ) related their symptoms to physical rather than emotional problems. In response to the question about the "cause of

illness", people with rural cultural background used more "I do not know" answers ( $P=0.037$ ). Also, women pointed to marital problems and men to life difficulties as the main causes of their illness ( $P<0.001$ ). Despair prevailed among the singles ( $P=0.012$ ). Crying was more usual in women ( $P<0.001$ ).

## Discussion

In general, this study confirmed our initial assumption about a different profile of depressive symptoms in Iranians compared to the Western population. Our patients showed a high frequency of somatic symptoms, especially pain, as a manifestation of depression. Contrary to the common findings discussed in the Western literature, we could not find a difference between men and women in suicidal ideation and attempt. However, some of our findings are in accordance with the profile of depressive symptoms in Western countries. Because of the large number of the variables and to prevent confusion, the depressive symptoms are discussed as separate entities in the following sections.

**Table 3:** Description of Clinical Variables

Variables		Frequency (%)	Percent
Duration	Few weeks	20	4.0
	1-6 months	139	27.8
	6-12 months	72	14.4
	1-5 years	209	41.8
	More than 5 years	60	12.0
First Visit	GP	103	20.6
	Psychiatrist	163	32.6
	Other specialist	149	29.8
Questions asked about kind of illness	Don't know	85	17.0
	Emotional	302	60.4
	I do not know	124	24.8
Patient's report about cause of the illness	Somatic	74	14.8
	Familial problem	82	16.4
	I do not know	105	21.0
	Life problem	127	25.4
	Losses	81	16.2
	Marital conflict	84	16.8
	Romantic breakup	21	4.2
Chief Complaint	Mental	186	37.2
	Pain	121	24.2
	Physical	193	38.6
Clinical Symptoms	Depressed mood	473	95.2
	Crying	366	73.3
	Fatigue	374	77.1
	Guilt feeling	102	20.4
	Hopelessness	404	80.8
	Hypochondriasis	95	19.0
	Insomnia	315	63.1
	Irritability	392	78.4
	Loss of appetite	209	41.8
	Loss of concentration	318	63.6
	Loss of interest	256	51.3
	Suicidal attempt	55	11.0
	Suicidal idea	189	37.8
Weight loss	138	27.7	

**Table 4:** Factors associated with the chief complaint of somatization

Variables	P value	Odds ratio	95% confidence interval for odds ratio	
			Lower	Upper
Female	0.032	0.534	0.302	0.946
Hypochondriasis	0.005	3.165	1.404	7.137
Suicide	>0.001	0.415	0.259	0.667
Crying	0.040	1.791	1.027	3.122
Kind of illness (somatic)	>0.001	0.096	0.031	0.293
Marital status (married)	0.008	3.012	1.327	6.834
Irritability	0.027	1.866	1.074	3.242
Insomnia	0.004	2.012	1.256	3.223

### *Pain and Physical Symptoms*

This study showed the importance of "somatization" in a group of depressed patients who seemed to have no word for their emotions. This inability can be related to low education, cultural background, and gender. The answer

"I do not know" was more common in people with rural cultural backgrounds. It was the only way of expressing their inner emotional state. In the family, men have a dominant role and women often have no knowledge about their rights and their interests. Our finding also confirmed the



previous observation in that somatic symptoms played an important role in the manifestation of depressive disorder in Iranian patients.<sup>6,14,15</sup>

The importance of somatic symptoms in the depressed patients has also been shown in many studies especially those performed in Eastern countries.<sup>4,16-18</sup> Nieuwsma pointed out that Social stigma is the main factor to complain of somatic symptoms instead of depression.<sup>16</sup> Fear of stigmatization and reluctance to appear as psychiatric patients are important factor for expressing their emotional pain via somatic route. The pattern of somatization, as Kleinman noted in his study on Chinese patients, may be unfamiliar to Western clinicians and may further complicate the concept of depression.<sup>4</sup>

#### *Referral to Psychiatrist*

The general practitioners and other specialists are still primary physicians for persons with lower education and people with rural cultural background. This can be related to the unavailability of psychiatrists in rural areas. However, the factor of knowledge has to be considered as a contributory parameter for evaluating this condition. The study conducted by Bhui and colleagues revealed that South Asians are more likely to visit their general practitioners and less likely to have a recognized mental disorder than White groups, and even if this is recognized, they are least likely to be referred to a specialist by GPs.<sup>19</sup>

#### *Guilt Feeling*

Higher prevalence of guilt feeling in patients with urban cultural background is a finding comparable with the results of WHO collaborative study which showed the higher prevalence of this symptom in Western societies.<sup>6</sup> One study showed that guilt feelings could be found in patients with both Pakistani and Austrian cultures, regardless of age and sex. In fact, guilt feeling was associated with the severity of psychomotor retardation in depression.<sup>20</sup> In some patients, the somatic manifestations are a self-punishment strategy. Guilt feeling is suggested to be a behavioral marker of depression.<sup>21</sup> In Western countries, the idea of original sin rooted in the Christianity teachings plays a major role in the guilt feeling of depressed patients.

The lesser prevalence of guilt feeling in the middle aged group can be related to the social activity and the functionality of these people compared to the elders and younger people.

#### *Hypochondriac Ideation*

According to the DSM-IV, hypochondriasis is a disorder with relatively similar prevalence in

men and women.<sup>2</sup> Accordingly, in this study we could not find a significant difference between men and women in hypochondriac ideations. Hypochondriasis is an obsession about death and it can be an explanation for the higher prevalence of this symptom in the elderly. Similarity of the prevalence of hypochondriac ideations in rural and urban areas may indicate that this symptom is less affected by the cultural backgrounds of patients than somatization.

#### *Insomnia*

As a vegetative symptom, insomnia is also more frequent in the lower educated people and in rural areas and is associated with somatic symptoms. Logistic regression analysis also showed the interplay of insomnia and somatic symptoms (table 4). Whether this is representative of sleep disturbance due to somatic problems or vice versa remains to be clarified.

#### *Loss of Appetite*

Like insomnia, this can be affected by somatic symptoms, especially gastrointestinal manifestations. However, because of the similarity of weight loss in the rural and urban areas, this symptom can be a subjective feeling rather than a true anorexia leading to weight loss.

#### *Loss of Concentration*

This condition has frequently been reported by younger patients who may be more concerned about their memory problems than older people. However, the elders deny their defects in memory and do not complain about it.

#### *Suicidal Ideation and Attempt*

According to the DSM-IV, suicidal ideation is more frequent in women and suicidal attempt is more prevalent in men.<sup>2</sup> However, our study showed no difference in suicidal ideation and attempt between men and women.

Suicidal idea was more frequent among rural inhabitants, but no difference in suicidal attempt was found between them and urban population. Perhaps this may be related to the hesitation of rural people in expressing their emotions.

Our findings of higher prevalence of suicidal attempt and ideation in married patients is in contrast with those of other studies.<sup>2</sup> Also, our study showed that both suicidal ideation and attempt are more frequent in the younger age group. This findings is in conflict with some studies that consider the old age as a risk factor for suicidal attempt.<sup>2</sup> This difference can be related to the supportive care giving received by the older members of the family in Eastern countries like Iran.

Logistic regression analysis showed the interplay between suicidal ideation and somatic symptoms, but not between suicidal attempt and hopelessness with somatic symptoms. This finding illustrates that real suicidal intent is a factor independent of somatization.

#### Hopelessness

The higher prevalence of despair in singles is suggestive of the seriousness of the problem in this group.

Although a cause and effect relationship cannot be derived from a cross-sectional study, the symptoms of hypochondriasis, suicidal idea, crying, irritability and insomnia were significantly associated with the complaint of somatization (table 4). One possible explanation is that somatic problems of patients disrupt their sleep and increase their vulnerability to environmental and emotional stimuli. This in turn, can aggravate the patients' affective stability presented by more crying, irritability or thoughts of death. On the other hand, sleeping disorders may also lead to somatic complaints.

Considering the covariant variables in the regression analysis, only gender was associated with the complaint of somatization in patients with major depressive disorder. However, neither of the educational level and patients' age are associated with the complaint of somatization. These results indicated that somatization as a complaint in the patients with major depressive disorder is independent from age and educational level. One explanation could be that somatization as a complaint in Iranian culture is commonly expressed in both higher and lower educated class.

#### Conclusion

This is a preliminary study to delineate the depressive symptoms in Iranian population. The principal finding of this study is that somatic symptoms especially headache and pain in other areas of the body have a significant weight in the chief complaints of depressed patients. Therapists need to pay attention to the various ways of presentation of this disorder in different cultures in order to understand the symptoms of patients with depression. Hence, more extensive studies in other areas of the country are required to obtain a more reliable profile of depression symptoms in Iranian population.

**Conflict of interest:** None declared

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