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FREQUENCY OF SOMATIC SYMPTOMS IN PATIENTS PRESENTING WITH MAJOR DEPRESSIVE DISORDER

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Abstract

Objective: *This study analyzes how frequently somatic symptoms occur among Major Depressive Disorder (MDD) patients with a focus on the relationship between symptom intensity and depression severity.*

Study Design: *Cross-sectional study*

Methodology: *This cross-sectional study was conducted at the psychiatry OPD, Dr. Ruth K.M. Pfau Civil Hospital, Karachi, over six months. A sample of 186 newly diagnosed MDD patients (aged 18–60 years) was selected via non-probability consecutive sampling. Data were collected using the Hamilton Depression Rating Scale (HAMD) and Patient Health Questionnaire-15. Frequencies were calculated, and the association between MDD severity and somatic symptoms was analyzed using the chi-square test ($p<0.05$).*

Result: *A total of 186 participants were included with 122 females (65.6%) at a mean age of 37.12 years. Among the participants, 89.2 percent were married and 39.8 percent were unable to read or write. A large proportion of psychiatric patients experienced severe fatigue and weakness as somatic problems according to assessment results. The severity of depression showed direct relationships with somatic complaints through assessments using HAMD-17 scores ($p < 0.005$). Examination of sampled subgroups through post-stratification methods demonstrated how gender distribution along with marital status and educational levels present meaningful associations. The high prevalence of suicidal thoughts among female participants along with their increased rate of concentration problems demonstrates why feminine-focused intervention is critically important.*

Conclusion: *Patients who had MDD demonstrated a direct relationship between depression intensity and physical symptoms where fatigue alongside weakness stood out as their primary somatic issues. Treatment outcomes will improve when interventions incorporate gender-sensitive approaches that simultaneously treat psychological needs alongside somatic manifestations.*

INTRODUCTION

Major Depressive Disorder (MDD) is among the leading clinical and public health issues in both high-income and low-to-middle-income countries. In terms of the burden of disease, the World Health Organization (WHO) predicts MDD will rank first by 2030 [1]. Depression is twice as common in women as compared to men. Recent stressful or traumatic events, marital status of being separated or divorced, previous history of MDD, and family history of MDD are also risk factors [2].

For most patients, depression presents with a subjective feeling of sadness and emptiness. They may also complain of losing interest in pleasurable activities and thoughts of guilt, low self-esteem, and hopelessness for most days for a minimum of two weeks. Other common symptoms include forgetfulness, inability to concentrate, sleep and appetite issues, and constant fatigue [2]. For more than half of patients with MDD (61.6%), the presenting symptoms are more focused on their bodily discomforts and pains; these are called somatic symptoms. Somatic complaints are most commonly associated with depression and anxiety disorder [3].

Somatic symptoms encompass a wide range of physical experiences including body pain, muscular tension, headache, trembling of hands, breathlessness, tachycardia, palpitations, and chronic fatigue. These may be a response to emotional distress or a result of disruption of the serotoninergic and noradrenergic neurotransmission pathways. However, the exact psychopathology remains unclear [4]. Most patients suffering from somatic symptoms due to underlying depression end up in medical specialties other than psychiatry which includes primary care most commonly and such as general medicine, cardiology, neurology, and rheumatology [5]. Understanding the diversity of presentation of MDD in terms of somatic complaints is essential for both psychiatrists and specialists from allied medical fields to timely and appropriately diagnose MDD and consult psychiatrists for a management plan [5].

In a Kashmiri sample of individuals with depression, 31.6% of people scored "medium" on Patient Health Questionnaire-15 (PHQ-15) for somatization and 42% scored "high" [3]. Headache (42%), abdominal distention (36%), and fatigue (24%) are among the most common somatic symptoms reported in the Pakistani population with depression [6]. When compared with anxiety, headache was significantly more common in people with depression (42% vs. 25%; p=0.017)) [6]. Other studies have proposed that the relationship between depression and headache may be bidirectional. The odds of having MDD in individuals with chronic headaches and high somatic severity increase by 25 times (OR: 25.1, 95% CI: 10.9 to 57.9) [7]. Most patients with general somatic symptoms present to medical or general hospitals and not particularly to psychiatric clinics. In a Chinese study with a sample from general hospitals, 15% of patients scoring moderate to high on PHQ-15 for somatization also scored mild to moderate depression as measured on another standard scale [8].

As suggested by the above-cited evidence, the subset of depressed individuals living with the burden of somatic symptoms is high. Most times they present to non-psychiatric facilities and many times they are only symptomatically managed. Particularly in the context of Pakistan, the presentation varies according to socio-cultural background. Hence, robust local evidence must be generated to estimate the burden of somatic presentation in depression.

METHODOLOGY

The researcher conducted this cross-sectional study for six months at the Dr. Ruth K.M. Pfau Civil Hospital in Karachi at its Psychiatry Out-patient Department using an approved synopsis. The determination of 186 participants as the sample size occurred through calculations in OpenEpi version 3 based on identified somatic symptom prevalence of 61.6% in depression patients alongside a 95% confidence interval and 7% absolute precision. The research utilized non-probability consecutive sampling to select participants from 18 to 60 years old whose depression matched the DSM-5 diagnostic requirements of Major Depressive Disorder (MDD). Cognitive deficits that made assessments impossible were among the exclusion criteria with other restrictions being organic brain syndrome psychotic disorders substance use disorders and antidepressant use history. Data collection involved administering the DSM-5 criteria for MDD to eligible patients, followed by obtaining informed consent and

completing three clinician-rated tools: a socio-demographic profile, the Hamilton Depression Rating Scale (HAMD) for depression severity, and the Patient Health Questionnaire-15 (PHQ-15) for somatic symptoms. A clinical guidelines approach served as the basis for delivering psychological and pharmacological treatment to patients presenting with moderate to severe depression. We utilized SPSS version 22.0 for analysis and determined frequencies and percentages of both socio-demographic factors and clinical data. The primary outcome depended on somatic complaints frequency in patient profiles but HAMD and PHQ-15 tables showed scores for MDD along with somatic symptoms severity. The Chi-square analysis evaluated MDD severity in relation to somatic complaints during the study where statistical significance emerged at a p-value lower than 0.05. The analysis included stratified effect modifier assessments to examine how age, gender, education, and socioeconomic status together with marital status, occupation, and clinical background affected outcome measurements.

RESULTS

Out of 186 participants, 122 (65.6%) were female, and 64 (34.4%) were male, with a mean age of 37.12 years. Most patients 89.2% were married. 74 (39.8%) were illiterate, 29 (15.6%) had primary education, 65 (34.9%) had secondary education and only 18 (9.7%) had higher education. As shown below in table 1. Most of the females 50% were house makers and 29.2% had a job.

Table 1: Socio-Demographic and Clinical Characteristics of Participants (n=186)

Variable	category	Frequency (%)
Age groups	18-30 yrs.	56 (30.27%)
	31-45 yrs.	92 (49.3%)
	46-60 yrs.	38 (20.4%)
Gender	Males	64 (34.4%)
	Females	122 (65.6%)
Marital status	Single	20 (10.8%)
	Married	166 (89.2%)
	Divorced/widowed	----------
Educational level	None	74 (39.8%)
	Primary	29 (15.6%)
	Secondary	65 (34.9%)
	higher	18 (9.7%)

The patients presented with somatic complaints, with 15.6% experiencing moderate 15.6% experiencing severe and 49.5% experiencing very severe symptoms based on the Somatic Symptoms (PHQ-15) scale. According to the Depression Severity (HAMD) 17 scale 5.4% had moderate depression, 19.8% had severe depression and for 74.8% the condition is even more severe. As shown below in table 2.

Table 2: Prevalence and Severity of Depression and Somatic Symptoms

Variable	category	Frequency (%)
Somatic Symptoms (PHQ-15)	Absent	9 (4.8%)
	Mild	27 (14.5%)
	Moderate	29 (15.6%)
	Severe	29 (15.6%)
	Very severe	92 (49.5%)
Depression Severity (HAMD)	Absent	-------
	Mild	------

	Moderate	10 (5.4%)
	Severe	37. (19.8%)
	Very severe	139 (74.8%)

Chi-square (.000, df = 17) = 17, p = 0.000, suggesting a significant association between MDD severity and somatic complaints. As shown below in table 3. Post-stratification of gender the chi-square test gives a value of 0.000 for both genders showing a significant relationship between MDD severity and somatic symptoms. PHQ-15 scores indicated a high prevalence of somatic symptoms in moderate and severe MDD groups. HAMD scores confirmed the severity of depression correlated with the intensity of somatic symptoms. This study demonstrates a statistically significant relationship between MDD severity and somatic complaints. Stratified analyses indicate that demographic and clinical variables such as gender, age, and marital status are important modifiers of this association.

Table 3: Chi-square Analysis

Variable	df	p-value
MDD Severity vs Somatic Complaints Severity	17	.000
MDD Severity and Somatic Complaints in Males	5	.000
MDD Severity and Somatic Complaints in Females	12	.000
MDD Severity and Somatic Complaints in married	15	.000
MDD Severity and Somatic Complaints in Single	1	.000
MDD Severity and Somatic Complaints in Illiterate	7	.000
MDD Severity and Somatic Complaints in Primary educates	2	.000
MDD Severity and Somatic Complaints in Secondary educates	5	.000
MDD Severity and Somatic Complaints in Higher Secondary Educates	1	.000

Figure 1 and 2 below shows that suicidal thoughts occur more in females and diminished ability to think, concentrate, or make decisions as compared to males.

Figure 1: recurrent thoughts of death, suicidal ideation, or attempts * gender

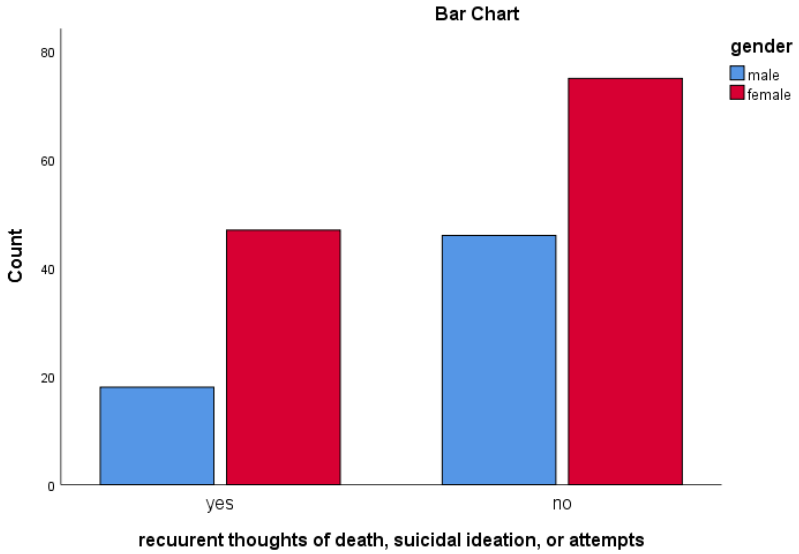
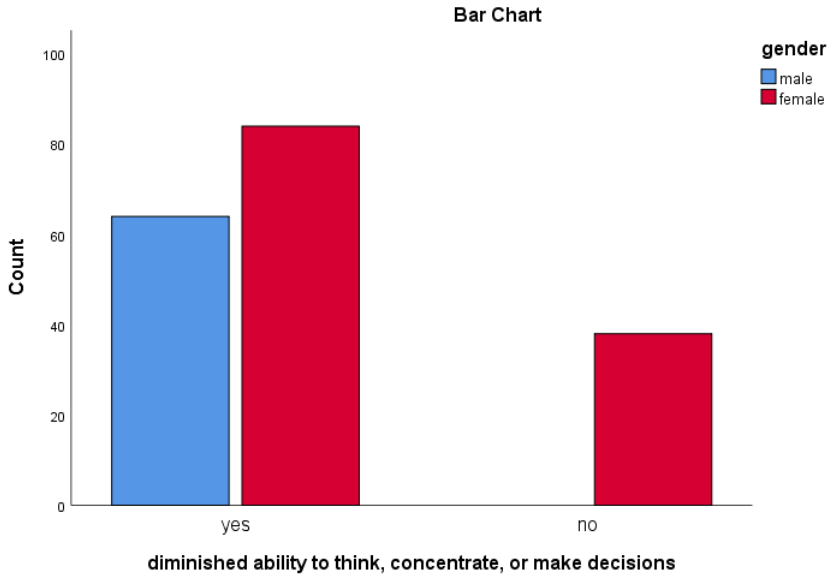


Figure 2: diminished ability to think, concentrate, or make decisions * gender



DISCUSSION

The research examined how Major Depressive Disorder severity affects somatic complaint frequency in patients. Studies previously reported that patients with more severe depressive symptoms present with additional somatic complaints [12, 13] as confirmed in this assessment. Additional analyses showed demographics and clinical variables like gender and age range education and personal economic well-being played important roles in modifying the results.

Among all somatic symptoms reported by patients fatigue being experienced as weakness or excessive tiredness throughout their body affected seventy-eight percent. The association between fatigue symptoms and depressive severity reached r = 0.50 which supports previous findings confirming fatigue as a primary somatic manifestation of depression [14, 15]. Similar to Kroenke et al.'s research patients reported feeling unwell compared to their peers and persistent headaches among common somatic symptoms [16].

According to Pearson's correlation analyses depression severity served as a strong indicator for the escalation of somatic complaints. Research findings endorse the proposition that somatic symptoms directly correspond to mood disturbance severity in patients diagnosed with major depressive disorder [17, 18]. The combination of fatigue together with poor physical health perception and weakness served as particularly reliable indicators to measure depressive severity [19]. This study used item response analysis to demonstrate that fatigue maintained strong discriminative properties throughout all levels of depressive severity while supporting previous findings reported by Jones et al. [20].

Demographic group assessment revealed unusual distribution patterns among patient characteristics. Male patients exhibited a stronger connection between MDD severity and somatic complaints compared to female patients in this study but previously reported research indicated greater somatic symptoms tend to affect women [21]. Culture-based factors seem to affect how symptoms manifest because men commonly report feelings of psychological distress through physical symptoms [22]. The relation between depressive severity and somatic complaints was stronger in patients within the younger age group (18–39 years) than among older patients. Researchers support that somatic symptoms tend to decrease during older age stages [23].

Social economic background together with education affected the relationship demonstrated between major depressive disorder and physical health complaints. Patients who came from lower socioeconomic groups alongside those who completed less education reported increased severity

of somatic symptoms. The results confirm previous research showing social and financial stress factors intensify physical symptoms of depression [24, 25]. A lack of healthcare options combined with high-stress levels serves as an explanation for this occurrence [26].

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LIMITATION OF STUDY

The research adds to existing knowledge by performing a complete assessment of MDD-related somatic symptoms while discovering vital elements that shape the correlation. Certain constraints should be noted for this research. The study design limitations include both a lack of ability to establish causal relationships and the potential restricted ability to generalize findings because of non-probability sampling methods. A recommendation exists to study the time-dependent relations between body complaints and depressive symptom intensity through upcoming longitudinal research methods.

CONCLUSION

Patients with MDD demonstrated high levels of somatic complaints and fatigue together with weakness emerged as the most commonly reported symptoms. Depression severity which the HAMD-17 measured showed a strong connection with the degree of somatic symptoms patients experienced. The demographic and clinical characteristics including gender along with marital status and educational level showed a significant impact on the relationship between MDD with somatic complaints. If we are to enhance treatment success we must create specific gender-oriented interventions which concurrently support psychological and somatic MDD patients.

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