WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 5.045
Volume 4, Issue 4, 479-490. Research Article ISSN 2277– 7105

PREVALENCE AND ASSOCIATION OF SOMATIC SYMPTOMS IN PATIENTS WITH MAJOR DEPRESSIVE DISORDER: MAJOR CONCERN FOR CONSULTATION IN THE OUTPATIENT PSYCHIATRIC PRACTICE

Dr. Prashant Kumar Sharma*

MD Psychiatry, Department of Psychiatry, M.R.A. Medical College, Uttar Pradesh, India.

Article Received on
23 Jan 2015,

Revised on 18 Feb 2015,
Accepted on 14 March 2015

***Correspondence for Author**
Dr. Prashant Kumar Sharma
MD Psychiatry
Department of Psychiatry, M.R.A. Medical College, Uttar Pradesh, India.

ABSTRACT

Somatic symptoms account for over half of all primary care visits and are often medically unexplained as well as chronic or recurrent. Unexplained, persistent, or multiple somatic symptoms are frequently a marker for an underlying depressive disorder. Depression is often unrecognized and hence not treated due to occurrence of somatic symptoms. Proper identification of depression relevant somatic symptoms is important for accurate diagnosis of depression and development of treatment strategies. The presence of somatic symptoms may worsen patient's prognosis. When somatic and psychological symptoms coexist, treatment of both is necessary to optimize clinical outcomes. The objective of this study was to characterize the relationship between somatic symptoms and depression in patients diagnosed with major depressive disorder (MDD).

KEYWORDS: Somatic symptoms, major depressive disorder (MDD).

INTRODUCTION

Individuals with major depressive disorder (MDD) often present with a variety of somatic symptoms in addition to the common emotional symptoms. These symptoms comprise bodily sensations such as back pain, headache, bowel disturbances, dizziness, palpitations, fatigue, and numerous other somatic perturbations that an individual perceives as uncomfortable or worrisome. These chronic, painful symptoms are common in the community, but more so in individuals with MDD and these conditions worsen with age also. Although such symptoms are often called *physical* by physicians who care predominantly for medical disorders and

somatic by mental health professionals. Physical symptoms presenting in the clinic represent only the tip of the iceberg, since less than one fourth of symptomatic patients in the community come to the clinic for their symptoms. Besides the severity or duration of a symptom, specific concerns and expectations, as well as psychological factors, are important reasons patients seek health care for their somatic symptoms.[1,2,3] Also, these physical symptoms frequently lack a medical explanation even after a thorough evaluation. Increasingly, the coexistence of common mental disorders such as depression and anxiety in patients with persistent, unexplained, or multiple somatic symptoms has been appreciated.

Major depressive disorder (MDD) is a mental state characterized by feeling of sadness, despair low self-esteem and self reproach, loss of interest or pleasure in normaly enjoyable activities, psychomotor retardation, withdrawal from interpersonal contact, vegetative symptoms such as insomnia and anorexia. Patients with depression present with psychological and somatic symptoms both.[4] Classic psychological symptoms, such as low mood, loss of interest, poor concentration, are present in depressive patients alongwith somatic symptoms, such as changes in appetite and libido, lack of energy, non-painful somatic symptoms (e.g., dizziness, palpitations, dyspnoea), and painful somatic symptoms (e.g., headache, backache, musculoskeletal aches) and gastrointestinal disturbances.

Depressed patients who present with predominantly somatic symptoms are difficult to diagnose. Researchers[5] reported that primary care physicians misdiagnosed more than 50% of psychiatric patients who presented with somatic symptoms. In primary care, the depressed patient's tendency to attribute unexplained somatic symptoms to a normalizing non-pathologic cause, rather than a psychological cause, is a principal driver in misdiagnosis.[6-9] While time constraints during consultations are doubtlessly a contributing factor, somatic presentation and failure to observe and respond to these cues during the patient interview are among the major reasons for under-diagnosis. Indeed, depression is less likely to be recognized in patients who present with somatic symptoms than in patients who present with predominantly psychological symptoms.[10,11,12] Patients with depression are also acutely aware of time constraints during primary care consultations, a factor that can lead them to self-restrict the time spent explaining their symptoms.[13] Short consultation times, combined with “competing demand” between somatic and psychological symptoms and the fear of stigma attached to a depression diagnosis, interact to decrease the chance that the condition is even discussed.[14,15] If mentioned at all, patients frequently wait until toward the end of

primary care consultations to share psychological concerns.[16] This is a critical determinant in misdiagnosis.

Somatic symptoms increase the already marked burden and disability associated with depression. The increased burden of somatic symptoms in patients with depression leads to increased utilization of health care services and greater economic burden.[17-20] In the U.S. National Household Survey,[45] depressed patients suffering from general aches and pains made approximately 20% more visits to their health care providers each year than those without aches and pains. Interestingly, these patients were 20% less likely to see a mental health specialist than patients who did not report general aches and pains.

Patients with depression and somatic symptoms are harder to treat. Papakostas and colleagues.[21] showed that somatic symptoms were present in 95% of patients with treatment-resistant depression (N = 40) who had enrolled in a 6-week treatment study. Logistic regression analysis demonstrated that the number of somatic symptoms was a risk factor for further treatment resistance and tended to predict a poorer response to treatment. Indeed, the severity of somatic symptoms appears to be correlated to poor treatment response. Somatic symptoms make incomplete remission and considered as a risk factor for earlier relapse and more severe and chronic course of illness. The majority (70% to 90%) of patients with depression who present in primary care complain of somatic symptoms rather than volunteering psychological symptoms such as “I’m depressed”. Analyzing 1146 primary care patients with major depression from the WHO international study, Simon and colleagues found that two thirds of depressed patients presented exclusively with somatic complaints, and half reported multiple, unexplained somatic symptoms.[22] Thus, somatization is the modal way that depressed patients present in primary care, regardless of culture.

Aim of study

To characterize relationship between somatic symptoms and depression in patients diagnosed with major depressive disorder

MATERIALS & METHODS

This study was conducted between January and July 2012 in Outpatient Department (OPD) of Psychiatry, Guru Gobind Singh Government Hospital, M.P. Shah Medical College Jamnagar,Gujarat. Total 151 patients fulfilling DSM - IV TR diagnostic criteria for major depressive disorder were enrolled in cross-sectional, observational, single centre study.

Duration of illness of patients enrolled in the study was between 2 months to 36 months. Somatic symptoms were assessed using the Somatic Symptoms Inventory (SSI) scale and depressive symptoms were assessed using the Hamilton Depression Rating Scale. In the study sample we had excluded patients presenting with somatic symptoms associated with somatoform disorders like conversion disorder, somatization, hypochondriasis, chronic pain disorder; bipolar disorders, psychotic disorders, dementia, somatic symptoms associated with general medical condition or somatic symptoms of known etiology.

Methodology

The patients used SSI is a 26-item questionnaire, a self evaluation scale. Patients were instructed to give their spontaneous response to each items of questionnaire. Sufficient time was given and no hurry was made for that. Human body maps were used to locate painful symptoms to minimize discrepancy between patients evaluation of painful symptoms. A Gujarati version of this instrument was prepared using translation-retranslation method by the investigator for the study. In this inventory, the patients' degree of discomfort for each symptom is rated from 1 to 5 (degree of discomfort: 1 = absent; 2 = a little bit; 3 = moderate; 4 = quite a bit; 5 = a great deal). Patients' degree of somatic symptom discomfort were assessed on total SSI scores which was considered minimal (= ≤ 52) and moderate to high (= ≥ 52).

Statistical analysis

Graph Pad Prism 5.01 Version was used for statistical analysis in this study.

Somatic Symptoms Inventory- A Self Evaluation Scale

SSI Symptoms

1. Nausea and vomiting
2. Muscles soreness
3. Pains or cramps in your abdomen
4. Feeling faint or dizzy
5. Trouble with your vision
6. Muscles twitching or jumping
7. Feeling fatigued, weak, or tired all over
8. A fullness in your head or nose
9. Pain in your lower back
10. Constipation

11. Trouble catching your breath
12. Hot or cold spells
13. A ringing or buzzing in your ears
14. Pains in your heart or chest
15. Difficulty keeping your balance while walking
16. Indigestion, upset stomach, or acid stomach
17. The feeling that you are not in as good physical health as most of your friends
18. Numbness, tingling, or burning in parts of your body
19. Headache
20. A lump in your throat
21. Feeling weak in parts of your body
22. Not feeling well most of the time in the past few years
23. Heavy feelings in your arms or legs
24. Your heart pounding, turning over or missing a beat
25. Your hands and feet not feeling warm enough
26. The sense that your hearing is not as good as it used to be

RESULTS

Out of 151 patients studied, 54.5% patients were male and 45.5 % patients were female. The mean age of our study population was 39.27±10.16 years. The mean duration of illness was months 15.29 ± 11.05 months.

Prevalence

In present study, 83% of patients who were diagnosed with depression had identified a somatic symptom as the primary reason for their visit to our psychiatric OPD. Prevalence of somatic symptoms is shown in figure-1.

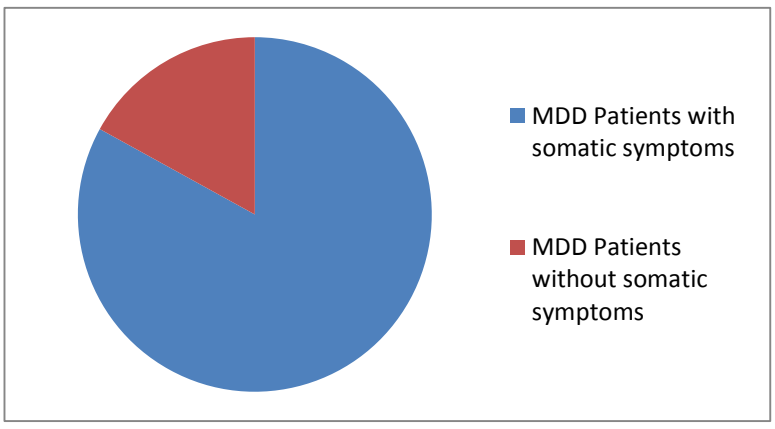

Figure 1: prevalence of somatic symptoms in MDD

Based on the data obtained from the SSI Questionnaire filled by the patients, it was evident that most of the patients of MDD had marked one or more somatic symptoms as “quite a bit” or “ a great deal” category, which was major reason for consulting about their illness. Among various symptoms ‘headache’, ‘feeling fatigue’, ‘chest discomfort’, ‘feeling faint’, ‘numbness and tingling in body parts’ and ‘GI complains’ were got special consideration by most of the patients.

Table-1 shows prevalence of different symptoms mentioned in SSI-scale among patients with MDD enrolled in study sample based on their self evaluation.

Table-1

PREVALENCE OF SOMATIC SYMPTOMS

SN.	SYMPTOMS	PREVALANCE (%)
1	Nausea and vomiting	46
2	Muscles soreness	27
3	Pains or cramps in your abdomen	33
4	Feeling faint or dizzy	66
5	Trouble with your vision	18
6	Muscles twitching or jumping	15
7	Feeling fatigued, weak, or tired all over	80
8	A fullness in your head or nose	55
9	Pain in your lower back	46
10	Constipation	22
11	Trouble catching your breath	19
12	Hot or cold spells	20
13	A ringing or buzzing in your ears	13
14	Pains in your heart or chest	60
15	Difficulty keeping your balance while walking	13
16	Indigestion, upset stomach, or acid stomach	62
17	The feeling that you are not in as good physical health as most of your friends	58
18	Numbness, tingling, or burning in parts of your body	55
19	Headaches	73
20	A lump in your throat	0
21	Feeling weak in parts of your body	53
22	Not feeling well most of the time in the past few years	59
23	Heavy feelings in your arms or legs	34
24	Your heart pounding, turning over or missing a beat	7
25	Your hands and feet not feeling warm enough	22
26	The sense that your hearing is not as good as it used to be	7

Discomfort assessment in part of somatic symptoms

Patients' degrees of somatic symptom discomfort were assessed on total SSI scores. Degree of discomfort was considered ‘minimal’ for total SSI score (= ≤ 52) and ‘moderate to high’ for total SSI score (= ≥ 52). Table-2 shows percentage of patients reporting particular somatic symptoms with 'moderate' levels or above’ severity.

Table-2

PERCENTAGE OF PATIENTS REPORTING SOMATIC SYMPTOMS WITH 'MODERATE' LEVELS OR ABOVE SEVERITY

SN.	SYMPTOM	PERCENTAGE
1	Nausea and vomiting	65
2	Muscles soreness	42
3	Pains or cramps in your abdomen	20
4	Feeling faint or dizzy	60
5	Trouble with your vision	5
6	Muscles twitching or jumping	7
7	Feeling fatigued, weak, or tired all over	83
8	A fullness in your head or nose	53
9	Pain in your lower back	37
10	Constipation	42
11	Trouble catching your breath	33
12	Hot or cold spells	33
13	A ringing or buzzing in your ears	50
14	Pains in your heart or chest	43
15	Difficulty keeping your balance while walking	50
16	Indigestion, upset stomach, or acid stomach	70
17	The feeling that you are not in as good physical health as most of your friends	56
18	Numbness, tingling, or burning in parts o your body	62
19	Headaches	70
20	A lump in your throat	0
21	Feeling weak in parts of your body	52
22	Not feeling well most of the time in the past few years	42
23	Heavy feelings in your arms or legs	33
24	Your heart pounding, turning over or missing a beat	53
25	Your hands and feet not feeling warm enough	66
26	The sense that your hearing is not as good as it used to be	12

Based on the above data obtained, most prevalent somatic symptoms in patients of MDD in our study sample were shown in figure-2. “Feeling fatigue”, “headache”, “dizziness”, “acid stomach” and “chest pain” were top five symptoms that bothered more to the patients than the other ones.

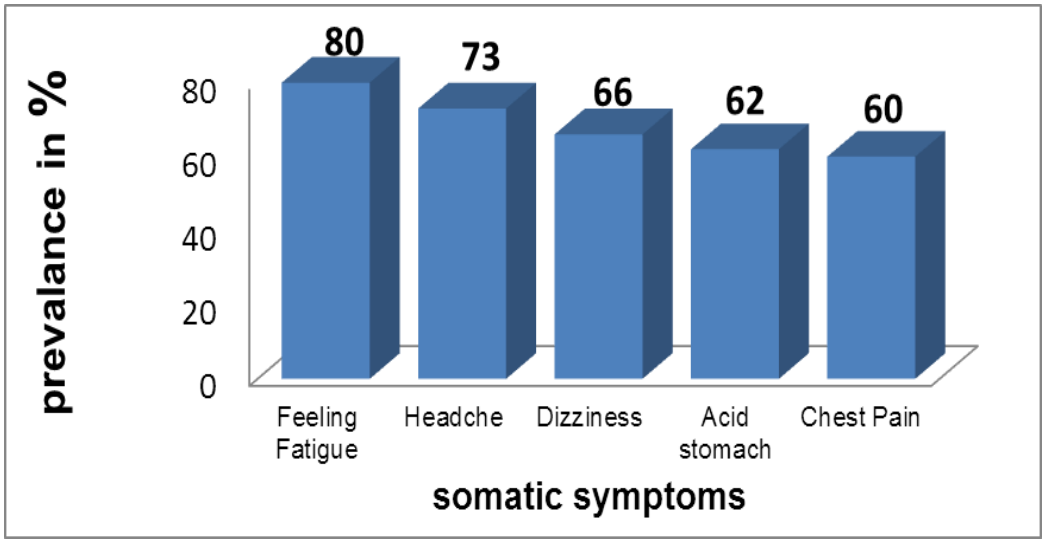

Figure 2: most prevalent somatic symptoms in patients of MDD

Table-3

Prevalence of somatic symptoms in patients with major depressive disorder: comparison between different studies

SN.	STUDY	PREVELANCE (%) OF SOMATIC SYMPTOMS IN MDD
1	Our study	83%
2	Community study by WHO	69%
3	European Survey (Depress II)	66%
4	Retrospective study in Canada	76%
5	U.S. study	63%

DISCUSSION

Depression is highly prevalent worldwide. The Global Burden of Disease Study predicted major depression to become the second leading cause of disability until 2020.Research shows that 20% of patients in primary care present with clinically significant depressive symptoms. Patients with depression present with a combination of psychological and somatic symptoms. In primary care, somatic symptoms often dominate the clinical picture. Approximately two thirds of patients with depression in primary care present with somatic symptoms.

The aim of the study was to characterize relationship between somatic symptoms and depression in patients diagnosed with major depressive disorder. In our study, 83% patients meeting criteria for MDD had identified a somatic symptom as the primary reason for their consultation to their primary care physician and later on to our OPD.

Table-3 represents a comparative look between present study and different other studies conducted on prevalence of somatic symptoms in patients with major depressive disorder.

Present study shows that somatic symptoms are highly prevalent in patients with MDD. Prevalence of somatic symptoms in present study was 83% which was more than the other studies conducted earlier. Although this difference may be due to small sample size of present study and geographical variation with other study samples, but it is clearly evident that somatic symptoms are much more common in patients with MDD that become propelling reason for initial consultation with a health care provider.

In similar way, findings in present study about prevalence of particular somatic symptoms are also in agreement with the other studies. In our study, the most common somatic symptom reported by patients with MDD was 'feeling fatigued, weak, or tired all over' in 80% of the patients, among them 83% of patients reporting 'moderate' levels or above severity. In similar study conducted by Vaccarino et al it was 78% and in Chakraborty et al study it was 82%.

This was followed by 'headache'' in 73% of patients, with 70% of them reporting 'moderate level or above' severity. In similar study conducted by Vaccarino et al 'Headache' was reported by 43% patients. While in Michele Fornaro et al study it was 38.5%.

This was followed by 'dizziness' in 66% of the patients, with 60% of them 'moderate levels or above' severity while in Michele Fornaro et al study it was 20%.

These results demonstrate a high prevalence and association of somatic symptoms in patients with MDD that could be potentially useful in the assessment of depression and in the evaluation of treatment strategies. Somatic symptoms of depression are common, but their frequency varies among individuals. Depression is often unrecognised and not treated due to the occurrence of somatic symptoms which are able to mask depression. Thus, somatic symptoms increase the already marked burden and disability associated with depression. A larger sample is required for further studies to get better results.

Limitations

Several limitations like 'small sample size', 'short duration of study' and 'single centre based study' exist in the present study which are not representing actual somatic symptoms scenario occurring in all depressed patients. Multivariate analysis was also not done which could affect the results.

CONCLUSION

When depression is present, somatic complaints often dominate the clinical picture, impeding the discussion of psychological complaints and thus masking the depression diagnosis. Failure to recognize somatic symptoms as components of depressive illness is associated with significant health care expenditure. Such studies raise awareness of somatic symptoms in depression which help to improve the recognition of depression.A holistic approach to recognition is clearly necessary, and primary care physicians need to have a high index of suspicion for depression when faced with medically unexplained somatic symptoms. Educational initiatives that raise awareness of the full spectrum of symptoms in depression, as well as aiming to improve attitudes and consulting skills in primary care, should be of benefit.

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