

ORIGINAL ARTICLE

Association of Somatic Symptoms with Depressive Disorder

MUHAMMAD ILYAS JAT¹, ANOOP KUMAR JUSEJA², CHOONI LAL³, AJAY KUMAR NANKANI⁴, JAWED AKBAR DARS⁵, NADEEM IQBAL⁶

¹Assistant Professor, Department of Psychiatry, Dow Medical College, Dow University of Health Sciences, Karachi.

²Assistant Professor, Department of Psychiatry, Chandka Medical College, Shaheed Mohtrama Banzeer Bhutto Medical University, Larkana.

³Associate Professor, Department of Psychiatry and Behavioral Sciences, Jinnah Postgraduate Medical Centre, Karachi.

⁴Consultant Psychiatrist, Sindh Government Children Hospital, North Nazimabad, Karachi.

⁵Assistant Professor, Department of Psychiatry and Behavioral Sciences, Jinnah Postgraduate Medical Centre, Karachi.

⁶Assistant Professor of Psychiatry, Karachi Medical and Dental College, Abbasi Shaheed Hospital, Karachi.

Corresponding author: Muhammad Ilyas Jat, Email: muhammad.ilyas@duhs.edu.pk, Cell: 03360209396

ABSTRACT

Objectives: To determine the association of somatic symptoms with Depressive disorder.

Study Design: Descriptive cross sectional study.

Study Setting and Duration: At department of medicine and allied OPD at Pir Syed Abdul Qadir Shah Jeelani Institute of Medical sciences, GAMBAT, Sindh, Pakistan, from 10th August 2019 to 31st January 2020.

Methodology: The sample size of the study was 140. All the patients of both gender between ages of 18 to 60 years, having depressive disorder as per ICD-10 (International classification of diseases version-10) criteria as mild, moderate and severe were enrolled. Somatic symptoms were assessed through somatic symptoms scale-8. The collected data was analyzed by Statistical Packages for Social Sciences (SPSS) version 22.0.

Results: Among 140 clients 131 (93.60%) were females with age range of 22 to 44 years. Among all majority were married, illiterate and were household by occupation. Amongst all mostly were having severe depressive disorder 62.9% followed by 34.3% moderate depression and 2.9% mild depression. The somatic symptoms as per somatic symptoms scale-8 were assessed in relation to depressive disorder and it was found that all the somatic symptoms were strongly associated with depressive disorder having p value less than 0.05.

Conclusion: From this study it is to be concluded that somatic symptoms are strongly associated with depression, consequently putting an adverse impact on over all outcome of disorder.

Keywords: Association, Depression, Somatic

INTRODUCTION

In the writings there are numerous terms used to portray somatic symptoms in depressive disorder: somatized, physical, real, somatoform, agonizing, psychosomatic, vegetative, restoratively unexplained, conceal, etc¹. Somatic symptoms are physical indications that reason inconvenience yet can't be sensibly clarified by regular prescription as far as physiological infection processes². Physical manifestations, for example, weakness, wooziness and torment, are common, frequently co-happening and can run in seriousness with disorders, for example, substantial side effect issue and practical substantial disorders (for example fibromyalgia) at the serious finish of the clinical range to self-constraining symptoms. These are particularly predominant in individuals who have psychological wellbeing issues, for example, depressive disorders³. Somatic symptoms, for example, chest pain, unsteadiness, exhaustion and stomach inconvenience are pervasive in patients with anxiety and depression⁴. Among these, agonizing physical symptoms are most frequent⁵, being liable for inability in 41% of patients with depression⁶. Also, the connection between ceaseless torment and gloom is all around recorded. While despondency is regular in patients with constant agony, torment is an incessant grumbling in patients with depression⁷ and its essence is related with more unfortunate personal satisfaction (QOL)⁸. Moreover, physical symptoms have been demonstrated to be related with in any event a two-overlay expanded danger of having a depression and additionally anxiety disorder⁹. The co-event of burdensome and tension issue with substantial manifestations is related with progressively practical

inability, higher medicinal consideration use, and greater expenses than the pathologies apart¹⁰.

Both for clinical and logical reasons, it is imperative to improve our comprehension of this affiliation. The research over this area in our setup is scarce so the findings of this study will contribute to develop appropriate plan and intervention to reduce problem and also can serve as base line for those who wish to conduct study on this area.

METHODS AND MATERIALS

This was a descriptive, cross sectional study carried out at Department of Medicine and allied OPD at Pir Syed Abdul Qadir Shah Jeelani Institute of Medical sciences, GAMBAT, Kairpur mirs, Sindh, Pakistan, from 10th August 2019 to 31st January 2020. The sample size of the study was 140 calculated through standard sample size calculator. The sampling technique was convenient type. Permission was taken from Ethical Review Committee of the institute. Informed consent was taken prior to enrollment. The clients were assured for their confidentiality and their right to withdraw anytime even without mentioning any reason. All the patients of both gender between ages of 18 to 60 years, having depressive disorder as per ICD-10 as mild, moderate and severe were enrolled. Those clients who were having multiple medical co-morbidities such as Diabetes, Hypertension, and Malignancy were excluded from study. Somatic symptoms were assessed through somatic symptoms scale-8. The collected data was analyzed by Statistical Packages for Social Sciences (SPSS) version 22.0. Frequencies of variables were noted and association of somatic symptoms with depressive

disorder was carried out and chi square test was applied and p-value of less than 0.05 taken as significant.

RESULTS

Of the 140 participants 131 (93.60%) were females and 9 (6.40%) were males and most of the patient's age was between 22 to 44 years. Among all 119 (85%) were married, 11 (7.9%) were single, 6 (4.30%) were widows and 4 (2.90%) were separated/divorced. Majority of patients were Illiterate 39 (27.90%), 21 (15.00%) were literate up to deeni taleem while 32 (22.90%) were literate for primary and 11 (7.90%) were educated till middle and 19 (13.60%) were matriculated, 2 (1.40%) were intermediate and 13 (9.30%) were graduated while 3 (2.1%) were postgraduate. Among 140 patients, 125 (89.30%) were household, 5 (3.6%) were professional while 7 (5%) were shopkeeper and 3 (2.1%) were jobless as shown in table I. Majority of patients were having severe depressive disorder 62.9% followed by 34.3% moderate depression and 2.9% mild depression as shown in table II.

Table 1: Demographic Characteristics

Demographic Characteristics	n (%)
Marital status	
Single	11 (7.90)
Married	119 (89.60)
Widow	6 (4.60)
Separated/Divorced	4 (2.90)
Education status	
Illiterate	39 (27.90)
Deeni Taleem	21 (15.00)
Primary	32 (22.90)
Middle	11 (7.90)
Matric	19 (13.60)
Intermediate	02 (1.40)
Graduate	13 (9.30)
Postgraduate	03 (2.10%)
Occupation status	
Jobless	03 (2.10)
Household	125 (89.30)
Professional	05 (3.60)
Shopkeeper	07 (5.00)

Table 2: Depressive Disorder

Depressive Disorder	Frequency	Percent%
Mild	4	2.9
Moderate	48	34.3
Severe	88	62.9
Total	140	100.0

The frequencies of somatic symptoms as per Somatic Symptom Scale-8 are tabulated in table III in which symptoms are listed as not at all, a little bit, somewhat, quite a bit and very much. It has been noted that in every symptom, very much is found more among cases of severe depressive disorder. The stratification and association of somatic symptoms with depressive disorder is shown in table IV. Statistically all the somatic symptoms are

significantly associated with depressive disorder having p value less than 0.05.

Table 3: Symptoms on Somatic Symptoms Scale-8

Symptoms	Frequency	Percent%
Stomach/Bowel Problem		
Not at all	9	6.4
A little bit	11	7.9
Somewhat	34	24.3
Quite a bit	27	19.3
Very much	59	42.1
Back Pain		
Not at all	18	12.9
A little bit	9	6.4
Somewhat	13	9.3
Quite a bit	44	31.4
Very much	56	40.0
Pain in your arms, legs and joints		
Not at all	6	4.3
A little bit	3	2.1
Somewhat	25	17.9
Quite a bit	50	35.7
Very much	56	40.0
Headaches		
Not at all	11	7.9
A little bit	6	4.3
Somewhat	19	13.6
Quite a bit	22	15.7
Very much	82	58.6
Chest pain or shortness of breath		
Not at all	18	12.9
A little bit	10	7.1
Somewhat	45	32.1
Quite a bit	47	33.6
Very much	20	14.3
Dizziness		
Not at all	15	10.7
A little bit	16	11.4
Somewhat	39	27.9
Quite a bit	38	27.1
Very much	32	22.9
Feeling tired or having low energy		
Not at all	5	3.6
A little bit	13	9.3
Somewhat	17	12.1
Quite a bit	54	38.6
Very much	51	36.4
Trouble Sleeping		
Not at all	14	10.0
A little bit	10	7.1
Somewhat	18	12.9
Quite a bit	48	34.3
Very much	50	35.7
Total	140	100.0

Table 4: Association of somatic symptoms with depressive disorder

Depressive disorder	Stomach or Bowel problems						P-Value
	Not at all	A little bit	Somewhat	Quite a bit	Very much	Total	
Mild	0(0.0%)	0(0.0%)	0(0.0%)	3(75.0%)	1(25.0%)	4(100.0%)	0.000
Moderate	0(0.0%)	1(2.1%)	8(16.7%)	6(12.5%)	33(68.8%)	48(100.0%)	
Severe	9(10.2%)	10(11.4%)	26(29.5%)	18(20.5%)	25(28.4%)	88(100.0%)	

Depressive disorder	Back Pain						P-Value
	Not at all	A little bit	Somewhat	Quite a bit	Very much	Total	
Mild	0(0.0%)	0(0.0%)	0(0.0%)	3(75.0%)	1(25.0%)	4(100.0%)	
Moderate	0(0.0%)	2(4.2%)	2(4.2%)	14(29.2%)	30(62.5%)	48(100.0%)	
Severe	18(20.5%)	7(8.0%)	11(12.5%)	27(30.7%)	25(28.4%)	88(100.0%)	0.001
Depressive disorder	Pain in arms, legs and joints						P-Value
	Not at all	A little bit	Somewhat	Quite a bit	Very much	Total	
Mild	0(0.0%)	0(0.0%)	0(0.0%)	3(75.0%)	1(25.0%)	4(100.0%)	
Moderate	0(0.0%)	3(6.3%)	4(8.3%)	17(35.4%)	24(50.0%)	48(100.0%)	
Severe	6(6.8%)	0(0.0%)	21(23.9%)	30(34.1%)	31(35.2%)	88(100.0%)	0.022
Depressive disorder	Headaches						P-Value
	Not at all	A little bit	Somewhat	Quite a bit	Very much	Total	
Mild	0(0.0%)	0(0.0%)	3(75.0%)	0(0.0%)	1(25.0%)	4(100.0%)	
Moderate	2(4.2%)	3(6.3%)	4(8.3%)	14(29.2%)	25(52.1%)	48(100.0%)	
Severe	9(10.2%)	3(3.4%)	12(13.6%)	8(9.1%)	56(63.6%)	88(100.0%)	0.002
Depressive disorder	Chest pain or shortage of breath						P-Value
	Not at all	A little bit	Somewhat	Quite a bit	Very much	Total	
Mild	0(0.0%)	0(0.0%)	3(75.0%)	0(0.0%)	1(25.0%)	4(100.0%)	
Moderate	2(4.2%)	5(10.4%)	23(47.9%)	14(29.2%)	4(8.3%)	48(100.0%)	
Severe	16(18.2%)	5(5.7%)	19(21.6%)	33(37.5%)	15(17.0%)	88(100.0%)	0.012
Depressive disorder	Dizziness						P-Value
	Not at all	A little bit	Somewhat	Quite a bit	Very much	Total	
Mild	3(75.0%)	0(0.0%)	0(0.0%)	1(25.0%)	0(0.0%)	4(100.0%)	
Moderate	6(12.5%)	5(10.4%)	11(22.9%)	21(43.8%)	5(10.4%)	48(100.0%)	
Severe	6(6.8%)	11(12.5%)	28(31.8%)	16(18.2%)	27(30.7%)	88(100.0%)	0.000
Depressive disorder	Feeling tired or having low energy						P-Value
	Not at all	A little bit	Somewhat	Quite a bit	Very much	Total	
Mild	0(0.0%)	3(75.0%)	1(25.0%)	0(0.0%)	0(0.0%)	4(100.0%)	
Moderate	2(4.2%)	0(0.0%)	5(10.4%)	17(35.4%)	24(50.0%)	48(100.0%)	
Severe	3(3.4%)	10(11.4%)	11(12.5%)	37(42.0%)	27(30.7%)	88(100.0%)	0.000
Depressive disorder	Trouble sleeping						P-Value
	Not at all	A little bit	Somewhat	Quite a bit	Very much	Total	
Mild	0(0.0%)	4(100.0%)	0(0.0%)	0(0.0%)	0(0.0%)	4(100.0%)	
Moderate	0(0.0%)	0(0.0%)	6(12.5%)	13(27.1%)	29(60.4%)	48(100.0%)	
Severe	14(15.9%)	6(6.8%)	12(13.6%)	35(39.8%)	21(23.9%)	88(100.0%)	0.000

DISCUSSION

In current study we have seen the association of somatic symptoms with depressive disorder and the relationship between somatic complaints and depressive symptoms has been well studied¹¹. Adults having somatic type of pain or discomfort had increased risks of depression, anxiety and other mental disorders¹². We have found that there is a significant relationship between somatic complaints and depressive symptoms in our population. Similar results have been reported in other populations¹³. Silverstein investigated the higher prevalence of "somatic depression" in females and predicted that it had its onset during early adolescent years with predominantly bodily pains and aches¹⁴. This study has both strengths and limitations.

As far as anyone is concerned, this is the principal concentrate to look at autonomous relationship of somatic symptoms with depressive disorder. The significance of taking relationship of somatic symptoms especially with severe and moderate depression not as one of the center indications of depression have been shown unmistakably in this investigation. The equivalent have been accounted for in past research that would presumably not have changed our decision about the solid relationship of somatic symptoms with depressive disorder, since people with depression tend to report more serious physical manifestations than people without these disorders¹⁵.

Moreover, as the appraisal of substantial ailments included just physical sicknesses with a constant course, the impacts of intense substantial ailments (e.g., intense respiratory tract or gastrointestinal diseases) were not considered. All things considered, it is exceptionally far-fetched that the discovered relationship among depression and nervousness issue and physical indications depended on the nearness of physical illnesses, as oneself report of physical maladies has demonstrated to be accurate¹⁶, and the quantity of substantial manifestations announced in this examination was considerably higher than could be clarified by physical ailments alone. The discoveries of current examination are upheld by various past studies^{17,18,19}. In any case, these investigations have indicated blended outcomes in regards to the particularity of affiliations while our examination has concentrated on physical symptoms as somatic symptoms scale-8, though different examinations chiefly detailed comparative side effect checks over all particular burdensome and uneasiness disorders²⁰.

Like current study, a research conducted at Kerala²¹ has also strong association of somatic symptoms with depressive disorder but the difference was that the latter study was confined to only girls' population, whereas in our study majority of population was females with age range of 25 to 35 years.

The free relationship of explicit depression and anxiety with explicit kinds of physical manifestations have, as far as we could possibly know, so far not been portrayed in the writing. In our examination the somatic symptoms are emphatically connected with depression yet some ongoing exploration likewise recommend that Somatic symptoms in youth anticipate extreme grown-up psychological maladjustment and need early treatment and broadened follow-up paying little respect to co-happening depression²². Therefore, our outcomes can't be summed up to the all-inclusive community. Another restriction is that we dichotomized information on substantial side effects, and we just thought to be self-appraised physical side effects in the previous weeks.

CONCLUSION

From this study it is to be concluded that somatic symptoms are strongly associated with depression, consequently putting an adverse impact on overall outcome of disorder. There is dire need of understanding of these symptoms for planning effective treatment strategies.

REFERENCES

1. Tylee A, Gandhi P. The importance of somatic symptoms in depression in primary care. *Prim Care Companion J Clin Psychiatry*. 2005;7:167–176.
2. Li, WT, Fritzsche, K, Zhang, J. Difference analysis of service length of psychotherapy between patients with medically unexplained physical symptoms and other patients with mental disorders in a general hospital of Germany. *Chinese General Practice* 2016; 19: 3902–3906.
3. Bekhuis E, Boschloo L, Rosmalen JGM, Schoevers RA. Differential associations of specific depressive and anxiety disorders with somatic symptoms, *J. Psychosom. Res.* 2015;116–22.
4. Guo, L, Ding, F, Zhao, XS, et al. Recognition and treatment of psychological disorders with somatization symptoms in Cardiology. *World Latest Medicine Information (Electronic Version)* 2017; 17: 77–78.
5. Tylee A, Gandhi P. The importance of somatic symptoms in depression in primary care. *Prim Care Companion J Clin Psychiatry*. 2005;7(4):167–176.
6. Arnow BA, Hunkeler EM, Blasey CM. Comorbid depression, chronic pain, and disability in primary care. *Psychosom Med*. 2006;68:262–268.
7. Bair MJ, Robinson RL, Eckert GJ. Impact of pain on depression treatment response in primary care. *Psychosom Med*. 2004;66:17–22.
8. Husain M, Rush A, Trivedi M. Pain in depression: STAR*D study findings. *J Psychosom Res*. 2007;63:113–122.
9. Van BK, Lucassen P, Ravesteijn H, Olde HT, Bor H, Van WB, et al. Do unexplained symptoms predict anxiety or depression? Ten-year data from a practice-based research network. *Br J Gen Pract* 2011;61:316–25.
10. Barsky AJ, Orav EJ, Bates DW. Somatization increases medical utilization and costs independent of psychiatric and medical comorbidity. *Arch Gen Psychiatry* 2005;62:903–10.
11. Tylee A, Gandhi P. The importance of somatic symptoms in depression in primary care. *Prim Care Companion J Clin Psychiatry*. 2005;7(4):167–176.
12. Bohman H, Jonsson U, Päären A, von Knorring L, Olsson G, von Knorring A-L. Prognostic significance of functional somatic symptoms in adolescence: a 15-year community-based follow-up study of adolescents with depression compared with healthy peers. *BMC Psychiatry*. 2012; 12:90.
13. Larsson BS. Somatic complaints and their relationship to depressive symptoms in Swedish adolescents. *J Child Psychol Psychiatry*. 1991;32(5):821–32.
14. Silverstein B. Gender differences in the prevalence of somatic versus pure depression: a replication. *Am J Psychiatry*. 2002; 159:1051–1052.
15. K Kroenke, JL Jackson, J Chamberlin. Depressive and anxiety disorders in patients presenting with physical complaints: clinical predictors and outcome. *Am J Med*, 103 (1997), pp. 339–347
16. DM Kriegsman, BW Penninx, JT Van Eijk, AJ Boeke, DJ Deeg. Self-reports and general practitioner information on the presence of chronic diseases in community dwelling elderly. A study on the accuracy of patients' self-reports and on determinants of inaccuracy. *J Clin Epidemiol*, 49 (1996), pp. 1407–1417.
17. Jayaprakash R, Sharija S. UNARV: A district model for adolescent school mental health program in Kerala, India. *Indian J Soc Psychiatry* 2017; 33:233–9.
18. Ogorchukwu JM, Sekaran VC, Nair S, Ashok L. Mental Health Literacy Among Late Adolescents in South India: What They Know and What Attitudes Drive Them. *Indian J Psychol Med*. 2016;38(3):234–241.
19. A Garcia-Cebrian, P Gandhi, K Demyttenaere, R Peveler. The association of depression and painful physical symptoms—a review of the European literature. *Eur Psychiatry*, 21 (2006), pp. 379–388
20. K Kroenke, RL Spitzer, JB Williams, PO Monahan, B Lowe. Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. *Ann Intern Med*, 146 (2007), pp. 317–325
21. Aswathy R, Saleem TK, Varsha V. Somatic complaints and their relationship with depressive symptoms among adolescent girls: a descriptive study. *Kerala Journal of Psychiatry* 2018; 31(1): 10–17.
22. Bohman H, Låftman SB, Cleland N, Lundberg M, Päären A, Jonsson U. Somatic symptoms in adolescence as a predictor of severe mental illness in adulthood: a long-term community-based follow-up study. *Child Adolesc Psychiatry Ment Health*. 2018; 12:42.