Presentation of depression: Its relationship with stigma and sociodemographic variables in a tertiary care centre

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Abstract

Introduction: Symptomatology of any illness is not only the expression of a pathological process in an individual, but depends upon many factors, such as environment, socio- demographic and cultural back ground and the same thing is also applicable for depression. There are plenty of studies worldwide to support the fact that depressive patients predominantly present with somatic symptoms. Many authors pointed out the influence of culture behind this fact. But the very few highlighted an important explanatory feature of this process with substantial practical and clinical significance – that is, the role of stigma.

Aims and Objectives: To identify interrelation between chief presenting complains of depressive disorder with level of stigma associated, with reference to patient's socio economic and demographic back ground.

Materials and Methods: Sixty adult patients attending psychiatry OPD for first time with Major Depressive Disorder (MDD) has been selected. Semi structured proforma for socio-demographic and clinical variables, Hamilton depression rating scale, distress questionnaire and stigma scale from the selected portion of Eplanatory Model Interview Catalogue (EMIC) were used.

Results: Near about half of the patients reported pains or other somatic symptoms most frequently as the most troubling symptom whereas fewer than 20% patients reported sadness as most troubling. Somatic complaints were experienced as less stigmatizing compared to sadness; the difference in mean stigma scores were statistically significant. Stigma scores were positively correlated with depression severity. Family history of psychiatric illness was experienced as more stigmatizing along with unmarried status.

Conclusion: Majority of patients with major depression reported somatic complaints as most troubling which may hinder early recognition. As stigma is positively related with depression severity it may acts as barrier to help seeking. Socio-demographic variables are unrelated with presentation of depression.

Keywords: Presentation of depression, Stigma, Sociodemograhic Variables, Somatization.

Introduction

Depressive disorders are a major public health problem now. They occur frequently, and it is likely that their prevalence will grow in the years to come due to socio-demographic changes in most countries of the world that increase the numbers of people at high risk for depressive disorders, the longer life expectancy of people with chronic illness who often suffer from depressive disorders, iatrogenic depression, and the effects of certain forms of prolonged stress.[1]

Currently depressive disorder is a serious public health concern, particularly in view of the fact that recent years have seen the development of a variety of effective methods of treatment of depressive disorders. These new therapies are significant additions to the armamentarium of the psychiatrist, but what is more important are that general practitioners and other physicians can successfully apply many of them.[2]

It is therefore disturbing that a large proportion of people with depressive disorders do not get treatment. The general population is unaware of the frequency and ubiquity of the disorder and does not realize that effective treatment is possible. Therefore, many do not come forward seeking help from health care services, and unfortunately even those who utilize health care services are not always appropriately treated. It is estimated that in even in developed countries nearly half of those who have depressive disorders do not come forward asking for help from their doctors, and of those who do, half remain unrecognized as suffering from depressive disorders.[1]

Symptomatology of any illness is not only the expression of a pathological process in an individual, but depends upon many factors, such as environment, socio-demographic and cultural background and the same thing is also applicable for depression. A major reason for not recognizing depressive disorders is that they often present mainly as physical symptoms. In previous years, it was believed that somatic complaints characterized mainly patients from developing countries and those with little education. Today it is clear that this is not so and that somatic symptoms and complaints are frequent in all populations and in people with different degrees of education. [2]

Several cultural factors complicate the identification and treatment of depression. These include the experience and communication of social and emotional problems as aches, pains, and other somatic symptoms, illustrating a process known as somatization. Failure to recognize these somatic symptoms as a presentation of depression leads to missed diagnosis and opportunities for treatment. Because the relationship between somatic symptoms and emotional symptoms is not obvious, patients may reject the diagnosis and fail to comply with recommended treatment.[2]

The reasons for this trend are many. The stigma attached to mental illness makes patients reluctant to speak about their psychological problems.[2] Physicians are often reluctant to treat people with mental illness and therefore may be rather superficial in their exploration of the psychological state of their patients. Unless these physicians were given additional training during their service, they may not see much point in recognizing diseases for which they think there is no adequate treatment. [2]

So, interrelation between chief presenting complains of depressive disorder with level of stigma associated, with reference to patient's socio economic and demographic background is an important issue to identify depression.

Aims and Objectives

1. To enumerate most prominent (patient specified) symptoms of patients with major depressive disorder in an outpatient department of a tertiary care centre.
2. To assess if these presenting symptoms of depression differ when compared across different socio-demographic variables.
3. To assess if stigma score as measured by stigma scale is significantly different when compared across patients with different presenting symptoms of major depressive disorder.
4. To compare depression severity as measured by Hamilton Depression Rating Scale (HDRS) across patients with different presenting symptoms and its relation with stigma score.

Materials and Methods

This was a cross-sectional study conducted at the out patient department (OPD) of Department of Psychiatry, IPGMER & SSKM Hospital, Kolkata - 700020; a tertiary care hospital catering more than 250 patients per day. Sixty (60) cases of Major Depressive Disorder were taken using convenience sampling method.

Inclusion criteria

(a) Subjects aged between 18 years and 60 years (b) Consecutive subjects diagnosed as Major Depressive Episode according to DSM-IV-TR. (c) Subjects with reliable informants (d) Subjects who will be able to communicate properly (e) Subject who will give informed consent (f) Subjects who can understand and speak Bengali.

Exclusion criteria

(a) Subjects aged below 18 years and more than 60 years (b) All subjects with a past history of established manic, hypomanic or mixed episode (c) All subjects who had not been previously diagnosed as bipolar or had received any approved mood stabilizer (except when its use is documented as for augmentation of antidepressant) (d) Subjects who have been suffering from [i] Disorders usually first diagnosed in infancy, childhood and adolescence e.g. Mental retardation, ADHD, Conduct disorder etc. [ii] Delirium, Dementia, Amnesic and other Cognitive disorders [iii] Mental disorders due to a general medical condition [iv] Substance related disorders when that will be the dominating picture [v] Schizophrenia and other psychotic disorders [vi] Mood disorders other than major depressive disorders [vii] Patients who do not understand and cannot speak Bengali.

Tools used

1. Diagnostic and Statistical Manual of Mental Disorders Fourth Edition Text Revision (APA, 2000).[3]
2. Kuppuswamy's Socioeconomic Status Scale - Updated for 2007 (for urban population).[4] The original scale was designed by Kuppuswamy (1976). It takes into account education, occupation and income of the family to classify study groups in to upper, upper-middle, lower-middle, upper-lower & lower socioeconomic status. Due to the steady inflation and consequent fall in the value of the rupee, the income criteria in the scale lose their relevance, so it was modified taking into account the price index of April, 2007.
3. Pareek's Socio-economic Status Scale (for rural population):[5] Developed by Udai Pareek and G. Trivedi (1964) to examine the socio.-economic status for the rural or mixed population only. This scale has nine factors which assess the socio-economic status of the individual: Caste, Occupation, Education, Social participation, Land, House, Farm powers, Material possession and Family. The reliability of the scale was found to be very high (r = 0.93). The category obtained is upper class, upper middle class, middle class; lower middle class, lower class.
4. Semi-structured proforma for socio-demographic profile and clinical data sheet especially designed for the study includes socio-demographic variables (i.e. age, sex, marital status, family structure, residence, education and religion) and clinical variable (i.e. family history of psychiatric illness and diagnosis).
5. Hamilton Depression Rating Scale (HAM-D)[6] to assess severity of depression. It was developed in the early 1960s to monitor the severity of major depression, with a focus on somatic symptomatology. Version in most common use has 17 items which was used here. Items are scored from 0 to 2 or from 0 to 4, with total score ranging from 0 to 50. Scores 7 or less considered normal; 8 to 13, mild; 14 to 18, moderate; 19 to 22, severe; and 23 and above, very severe. Reliability is good to excellent, including internal consistency and interrater assessments. Validity appears good based on correlation with other depression symptom measures.
6. Distress questionnaire (Bengali version) and Stigma scale (Bengali version) from the selected portion of Explanatory Model Interview Catalogue (EMIC) developed by Chowdhury et al (2000)[7] to assess the most troubling patient-specified symptoms and stigma among the selected patients.

In a pilot study (Chowdhury et al, 2001), the interrater reliability of the most troubling patient-specified symptom was good (kappa=.74), and for the section in which stigma items were extracted, interrater agreement was excellent

(kappa=.89). The 13 items included in the assessment of stigma, and the internal consistency, as indicated by Cronbach's alpha (.67), was sufficient to justify their use in a linearly combined unweighted scale. The items of the stigma scale had homogeneous variance; each item had a value from 0 to 3 with higher scores indicating more stigma, and the theoretical maximum scale score was 39. [8]

Methods

60 subjects; presenting for the first time to the outpatient clinic at the Department of Psychiatry, IPGME&R, Kolkata, West Bengal, were included as per inclusion criteria by purposive sampling. They were screened for any features that meet exclusion criteria listed before. Patients fulfilling any exclusion criteria, those patients were excluded.

The objectives of the study were explained to them and if they agreed, informed consent was taken. Then; a research interview was conducted using the specified tools for this study before any treatment was initiated.

Their age, sex, residence, marital status, family structure, family history of psychiatric illness, educational qualification, were noted using the semi-structured proforma designed for this study, and socio-economic status were determined using Kuppuswamy's Socioeconomic Status Scale-Updated for 2007 (for urban population) and Pareek's Socio-economic Status Scale (for rural population).

All subjects were rated with Hamilton depression rating scale to assess severity of their depression.

Selected portion of EMIC Questionnaire (Distress questionnaire & Stigma scale) Bengali version (Chowdhury et al, 2000) were used to assess the most troubling patient-specified symptoms with reference to four broad categories of symptoms (sadness, pain and other somatic, mental tension and others) and total perceived Stigma (illness experience) with reference to 13 items directly related to stigma, which had been derived previously in pilot study by Chowdhury et al (2000)[8] among the selected subjects.

All collected data were then tabulated and entered in a SPSS-13$^{(R)}$ spread sheet, analyzed and assessed properly with appropriate use of statistics.

Statistical analysis

The statistical analyses were done using Statistical Package for the Social Sciences, version 13 (SPSS-13). The socio-demographic and clinical variables (both continuous & discrete) were summarized in terms of frequency, percentage, mean & standard deviation as per applicability. To compare difference in terms of mean stigma and HDRS scores across different most prominent presenting complaints (patient specified) of study population; one way ANOVA was done. To measure the relationship among continuous clinical and socio-demographic variables; Pearson's correlation test and for discrete variables; spearman's correlation test were done. The relationship between depression and stigma scores were examined with simple linear regression and computation of Pearson's correlation coefficient. As the mean stigma score of the sample was 16.10; a median split of the data was done to make two groups (patients having stigma score ≥16, considered high and < 16, considered low). To measure the significance of difference among the groups; in terms of various socio-demographic variables, chi square for discrete variables & for continuous variables, t-test was applied.

Ethics

The protocol was submitted to and approved by the Ethics Committee of Institute of Postgraduate Medical Education & Research (IPGME&R), Kolkata. Informed consent was taken from each patient participating the study. Each patient's name was replaced by an abbreviation in the study database to ensure confidentiality.

Results

Table 1A: Showing socio-demographic variables (discrete) of patients with major depressive episode (N=60).

Variables		N (%)
Sex	Male	17 (28.3%)
	Female	43 (71.7%)
Marital status	Married	49 (81.7%)
	Unmarried	08 (13.3%)
	Widow	03 (05.0%)
Religion	Hindu	46 (76.7%)
	Muslim	14 (23.3%)
Education	Illiterate	11 (18.3%)
	Read and write	05 (08.3%)
	Primary	11 (18.3%)
	Secondary	14 (23.3%)
	Higher secondary	06 (10.0%)
	Graduate	13 (21.7%)
Family structure	Joint	31 (51.7%)
	Nuclear	29 (48.3%)
Residence	Urban	30 (50.0%)
	Rural	30 (50.0%)
Socio-economic Status	Upper middle	10 (16.7%)
	Lower middle	19 (31.7%)
	Lower	13 (21.7%)
	Poor	18 (30.0%)

Table 1B: Showing clinical variables (discrete) of patients with major depressive episode (N=60)

Variables		N (%)
Most prominent Symptoms (Pattern of Distress)	Sadness	12 (20.0%)
	Pain and other somatic	29 (48.3%)
	Tension	12 (20.0%)
	Others	07 (11.7%)
Family history of psychiatric illness	Positive	18 (30.0%)
	Negative	42 (70.0%)
Stigma score	> 16	32 (53.3%)
	< 16	28 (46.7%)

Table 1 C: Showing Socio-demographic and clinical variables (continuous) of patients with major depressive episode (N=60)

Variables	Mean ± SD
Age	36.15 ± 9.71
HDRS score	20.20 ± 3.82
Total Stigma score	16.10 ± 4.68

Socio-demographic and clinical characteristics of patients with Major Depressive Episode in this study have been shown in table 1A, 1B, 1C. Study population consists of, 17(28.3%) male and 43(71.7%) female. Mean age were 36.15 ± 9.71. Among them 49(81.7%) were married, 08(13.3%) unmarried and 03(05.0%) widow. Majority of them were Hindu 46(76.7%) and 14 (23.3%) Muslim by religion. Regarding educational status, 11(18.3%) were illiterate, 05(08.3%) can read and write only, 11 (18.3%) upto primary levels, 14(23.3%) completed secondary level, 06(10.0%) upto higher secondary level and 13(21.7%) completed graduation. 51.7% of them from joint family and 48.3% having nuclear family background. Equal numbers of patients were from rural and urban area. 16.7% were belongs to upper middle class, 31.7% lower middle class, 21.7% lower and 30% poor.

30% of the study population having positive family history of psychiatric illness; 12(20.0%) complaint sadness, 29(48.3%) pain and other somatic problems, 12(20%) tension as most troubling and 7(11.7%) complaint other problems. Mean HDRS and stigma score were 20.20±3.82 and 16.10±4.68 respectively, 32(53.3%) having stigma score 16 or above and 28(46.7%) having less than 16.

Table 2: Showing group difference in total stigma and HDRS score among patients with major depressive episode, presenting with different pattern of distress (N=60)

Variables	Pattern of Distress						
	Sadness	Pain & other somatic	Tension	Others	df	F	p
HDRS score	24.08 ± 4.71	17.79 ± 1.31	21.25 ± 3.67	21.71 ± 2.69	3	14.54	<0.001**
Total Stigma score	21.25 ± 2.92	13.58 ± 3.72	16.00 ± 3.61	17.85 ± 4.87	3	12.68	<0.001**

Comparisons of mean HDRS and Stigma scores across different patterns of distress of the study population have been shown in this table. Mean HDRS Scores of patients complaint sadness was 24.08±4.71, among patients complained pain and other somatic symptoms it was only 17.79±1.31, where as among the complainer of tension it was 21.25 and for others 21.71. This difference in means is highly significant statistically (one way ANOVA; df 3, F=14.54, p <0.001). Mean stigma scores among those who complaint sadness was quite high 21.25±2.92, where as among somatic complainer it was lowest 13.58±3.72, 16.00±3.61 was among them who complained tension and 17.85±4.87 among others. This difference is also highly significant (one way ANOVA; df 3, F=12.68, p <0.001).

Table 3: Correlation of socio-demographic & clinical variables (continuous) with total stigma score in patients with major depressive episode (N=60)

Variables	Total Stigma score	
	r	p
Age	0.140	0.285
HDRS Score	0.490	<0.001**

** Correlation is significant at the 0.001 level (2-tailed)

The relations among the continuous Socio-demographic & Clinical Variables have been shown in this table. Relation between age and total stigma score is insignificant (r=0.14, p=0.285) where as there is a positive correlation exists between HDRS score and total stigma score (r=0.490) which is strongly significant at p<0.001 level.

Table 4: Correlation of Socio-demographic and clinical variables (discrete) with distress patterns in patients with major depressive episode (n=60)

Variables	Distress patterns	
	P	P
Sex	0.093	0.481
Marital status	0.025	0.849
Religion	0.054	0.684
Education	0.118	0.368
Family structure	0.151	0.250
Residence	0.076	0.562

Socio-economic status (SES)	0.138	0.292
Family h/o psychiatric illness	0.175	0.182

The relations among the discrete socio-demographic & clinical variables have been shown in this table. There are no statistically significant relation exists between distress patterns and sex (ρ=0.093, P=0.481)**,** marital status (ρ=0.025, P=0.849), religion (ρ=0.054, P=0.684), education (ρ=0.118, P=0.368), family structure (ρ=0.151, P=0.250), residence (ρ=0.076, P=0.562), SES (ρ=0.138, P=0.292), family history of psychiatric illness (ρ=0.175, P=0.182).

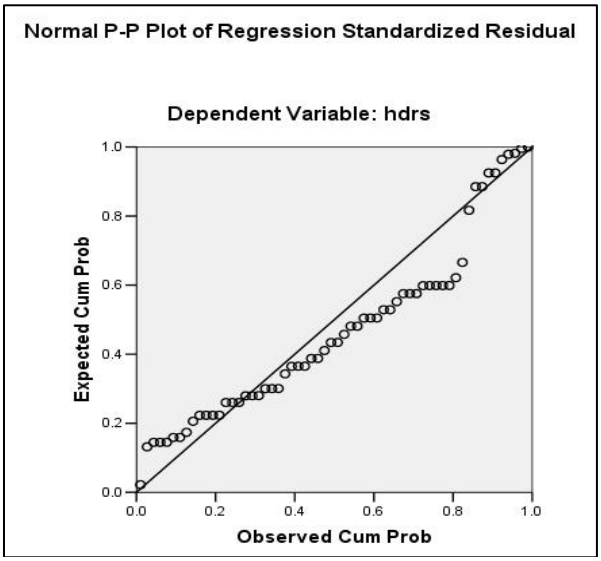

Fig. 1: Regression plot showing relationship of stigma with depression severity (HDRS score) in patients with major depressive episode (N=60). (R^2=0.24, r=0.49).

Table 6A: Showing difference in terms of socio-demographic variables (discrete) between patients with major depressive episode having stigma>16 (N=32) and stigma<16 (N=28).

Description		**Stigma>16**	**Stigma<16**	χ^2	**df**	**P**
		N (%)	**N (%)**			
Sex	Male	08(25.0%)	09(32.1%)	0.375	1	0.540
	Female	24(75.0%)	19(67.8%)			
Marital status	Married	23(71.8%)	26(92.8%)			
	Unmarried	07(21.8%)	01(03.0%)			
	Widow	02(06.0%)	01(03.0%)	-	-	0.061
Religion	Hindu	27(84.3%)	19(67.8%)			
	Muslim	05(15.6%)	09(32.1%)	2.278	1	0.131
Education	Illiterate	03(09.0%)	08(28.5%)			
	Read & write	03(09%)	02(07.0%)			
	Primary	08(25.0%)	03(10.7%)			
	Secondary	08(25.0%)	06(21.4%)			
	Higher secondary	04(12.5%)	02(07.0%)			
	Graduate	06(18.7%)	07(25.0%)	5.463	-	0.375
Family structure	Joint	15(46.8%)	16(57.1%)			
	Nuclear	17(53.1%)	12(42.8%)	0.630	1	0.42
Residence	Urban	17(53.1%)	13(46.4%)			
	Rural	15(46.8%)	15(53.5%)	0.268	1	0.60
SES	Upper middle	08(25.0%)	02(07.0%)			
	Lower middle	12(37.5%)	08(28.5%)			
	Lower	04(12.5%)	08(28.5%)			
	Poor	08(25.0%)	10(35.7%)	5.557	-	0.133

Table 6B: Showing difference in terms of clinical variables (discrete) between patients with major depressive episode having stigma >16 (n=32) and stigma <16 (N=28)

Description		Stigma>16	Stigma<16	χ^2	Df	P
		N (%)	N (%)			
Distress patterns	Sadness	12(37.5%)	00(00%)	-	-	<0.001**
	Pain & other somatic	07(21.8%)	22(78.5%)			
	Tension	07(21.8%)	05(17.8%)			
	Others	06(18.7%)	01(03.5%)			
F/H of psychiatric illness	Positive	13(40.6%)	5(17.8%)	3.686	1	<0.055*
	Negative	19(59.3%)	23(82.1%)			

Table 6C: Showing difference in terms of socio-demographic & clinical variables (continuous) between patients with major depressive episode having, stigma>16 (N=32) and stigma<16 (N=28).

Variables	Stigma >16	Stigma <16	F/'t'	df	P
	Mean ± SD	Mean ± SD			
Age	35.09 ± 10.42	37.35 ± 8.87	3.566	58	0.373
HDRS Scores	22.00 ± 4.35	18.14 ± 1.40	4.482	58	<0.001**

The comparative picture of socio-demographic and clinical variables among patients having stigma score >16 (high) and <16 (low) have been shown in the table 6A, 6B and 6C.

There were 08 (25.0%) males and 24 (75.0%) female in high stigma group with mean age 35.09±10.42 (SD) years whereas 09 (32.1%) males and 19 (67.8%) females in low stigma group with mean age 37.35±8.87 (SD) years. Thus the two groups were comparable with respect to age (F=3.566; p=0.373) and sex (χ^2=0.375; p=0.54). There was no significance difference between the groups with respect to marital status (p=0.061) but there was a trend towards significance. The groups were also comparable with respect to religion (p=0.131), education (p=0.375), family structure (p=0.427), residence (0.603), socio-economic status (p=0.131). Within high stigma group there were 23(71.8%) married, 7(21.8%) unmarried, 2(06%) widow among them 27(84.3%) Hindu and 5(15.6%) Muslim, 17(53.1%) were from urban along with and 15(46.8%) from rural background along with 15(46.8%) having joint family structure and 17(53.1%) having nuclear family. Within low stigma group there were 26(92.8%) married, 01(03.0%) unmarried, 01(03.0%) widow among them 19(67.8%) Hindu and 09(32.1%) Muslim, 13(46.4%) were from urban along with and 15(53.5%) from rural background along with 16(57.1%) having joint family structure and 12(42.8%) having nuclear one.

There were statistically significant differences between groups with respect to distress patterns (p<0.001), family history of psychiatric illness (p<0.05) and HDRS scores (p<0.001).

Discussion

Discussion of methodology

It is an established fact that there is a role of somatization in many parts of the world, where it often accounts for 'common presenting features of depression'[9] and today it is clear that somatic symptoms and complaints are frequent in all populations suffering from depression and in people with different degrees of education.[10]

There are many studies focusing importance of somatic symptoms in recognition of depression but no consensus over the instrument to use. Most of the studies used rating scales mostly patient rated (like CES-D, SSI, SRQ etc),[11-13] few studies used patient's account of symptoms, symptom checklists and self reported questionnaire specially prepared for,[14-16] which may lack psychometric property and may also ignored patient's experiences of distress; which ultimately turn him / her towards help seeking.

Same thing happened in case of measurement of stigma. Derived from many socio- anthropological theories as well as addressing different dimensions of stigma related to mental illness as a whole (like public / personal, felt or self, perceived, stigma associated with treatment and many more) scales were developed with reference of local ethno cultural context and used to measure stigma.[17] few researchers tried to make depression specific stigma scale also.[18]

Keeping clinico-epidemiological utility in mind, with reference to cultural perspective, locally adapted Bengali version[7] of the EMIC (internally consistent with Cronbach's alpha of .67, consisting of 13 items and depending upon subjective response rating was done; 0=no, 1=uncertain, 2=possibly, 3=yes, one item (no.2) contains reverse rating); which employed the framework of cultural epidemiology to examine illness-related experience, meaning and behavior, was used to examine pattern of distress (Interrater reliability was good; kappa=.74) and measure stigma (interrater agreement was excellent, kappa=.89) among selected patients in this present study in which an effort was made to find out relation between most distressing symptomatic presentation of major depressive episode; diagnosed clinically as per DSM-IV TR criteria, with stigma along with severity of depression measured by HDR Scale (17 item scale was used in contrast to few studies[19,8] where 24 items was used without any extra benefit).

Regarding selection of study population many studies were population based (though many of them took sample via internet response),[10,14,20] but substantial number of studies were used purposive sampling at outpatient department of a health institute[19,7,12] which was followed in this present study with a more stringent inclusion and exclusion criteria to focus solely on unipolar depression presents at clinical setting excluding comorbid conditions which may confound the purpose of the study.

So, considering all the limitations of the previous studies this present study designed to incorporate both quantitative and qualitative aspect of illness experience including stigma and to relate that experience in recognition of clinical condition (major depression) and its severity; along with its impact over public health system. The impacts of socio-demographic variables over pattern of distress were also explored in a systematic way (using socio-economic status scale, Kuppuswamy's scale for urban people, Pareek's scale for rural people) which was not stressed in other studies of same kind,[8,19] to get a reflection of the socio-cultural influence over presenting style of depressive patients of West Bengal.

Discussion of Results

Socio-demographic and clinical characteristics

All 60 participants diagnosed having major depressive episode as per DSM-IV-TR criteria, 30% of them having positive family history of psychiatric illness. As per patient's identification of most troubling symptom; patterns of distress of study population was determined and broadly categorized as Sadness, Pain and other somatic complaints, Tension and others; it was noticed that almost half (48.3%) of the participant of this study complained pain and other somatic problems which is in concurrence with the previous studies conducted at local, national, international levels.[10,12,21] Only a few 20% complaint sadness, 20% tension and 11.7% identified other problems as most troubling. Mean HDRS and Stigma score of the total study population were 20 (SD=23.82) and 16.10 (SD=4.68) respectively. For statistical purpose data was given a median split considering mean and median of total stigma score (median=16) of the study population. 53.3% were found having stigma score 16 or above considered high and 46.7% having less than 16 considered low.

Though western-nonwestern discrimination regarding somatic presentation of depression does not exists today [2] yet controversies exists regarding the explanation of this phenomenon but there is consensus regarding importance of somatizing tendency of depressive patients in recognition of depression at earliest and its enormous impact over the nation's economy. One popular hypothesis is cultural influences the perception of illness and plays an important role in shaping up idioms of depression. For example Kleinman[22] pointed out that in many parts of Chinese society, the experience of depression is physical rather than psychological, many of whom find the diagnosis of depression morally unacceptable and experientially meaningless. Culture influences the experience of symptoms, the idioms used to report them, decisions about treatment, doctor–patient interactions, the likelihood of outcomes such as suicide, and the practices of professionals. But it is also evident that majority of patients who somatize used to reveal psychosocial aspects in response to careful probing. Only a few, < 20% is true somatizer.[23] Supporting Raguram et al,[19] Patel[24] argued about the role of stigma in expressing psychological distress.

Relationship between depression severity and stigma with respect to patterns of distress

From table 2 it is evident that patients complaining sadness having highest HDRS and stigma scores (24.08±4.71, 21.25±2.92) and somatic complainer having the lowest one (17.79±1.31, 13.58±3.72) in both cases the differences were highly significant statistically (one way ANOVA; df-3, F=14.54, for HDRS and df-3, F=12.68, for stigma) at $p<0.001$ level, one possible cause for this observation may be that, mild and moderate depression tends to present somatic complaint. On further analysis to find relationship between depression severity in terms of HDRS score and stigma, it is found that both of them highly related with each other, positive correlation exists between them ($r=0.49$, $p<0.001$), simple linear regression was done in search of further evidence of their relationship; and found that stigma score was positively correlated with depression score ($R^2=0.24$). This finding was consistent with findings of Raguram and colleagues[19] ($r=0.47$, $R^2=0.22$) and Cheng-Fang Yen and colleagues.[12]

So, it can be the explanation why depressed people somatize. According to Raghuram and Weiss[19] through qualitative analysis of patients' narratives, we also demonstrated that patients viewed depressive, but not somatic, symptoms as socially disadvantageous. Somatic symptoms were considered to be less stigmatizing since they resembled illness experiences that most people could expect to have from time to time.[25] It is important to address the issue of stigma related personal and social context with reference to local cultural perspective to improve recognition of depression at earliest; even in milder form as it also causes significant distress along with loss of productivity and to prevent wastage of resources in search of organic cause. It is also relevant from clinical point of view as Angst et al reported that among people with depressive disorders, those who received antidepressant treatment had lower mortality rates than those who did not receive treatment, due in part to the lower suicide rates of those treated and in part to the lower mortality from cardiovascular and other physical disorders.[26]

Relationship between socio-demographic variables with patterns of distress

There are no statistically significant relation exists between distress patterns and sex ($\rho=0.093$, $P=0.481$), marital status ($\rho=0.025$, $P=0.849$), religion ($\rho=0.054$, $P=0.684$), education ($\rho=0.118$, $P=0.368$), family structure ($\rho=0.151$, $P=0.250$), residence ($\rho=0.076$, $P=0.562$), SES ($\rho=0.138$, $P=0.292$), family history of psychiatric illness ($\rho=0.175$, $P=0.182$).

So, patterns of distress in this study were comparable with each others, no relation (positive or negative) exists between socio-demographic variables and patterns of distress. Though small sample size, heterogeneity, unintended sampling error may influence the result. A population based approach is needed to clarify this issue in the future.

Comparison between socio-demographic and clinical variables with high (≥16) and low (<16) stigma group

No statistically significant difference exists in terms of mean age (p=0.373), sex (p=0.54), religion (p=0.131), education status (p=0.375), family structure (p=0.427), residence (p=0.605) and socio-economic status (0.133) between the groups having high (>16) and low (<16) stigma scores indicating towards the fact that the groups were comparable in above mentioned terms.

Though significant difference did not exist between the groups with respect to marital status (p=0.061) but that was close to the significance. More systematic research is needed in future to find relationship between marital status and stigma.

But there were significant difference when compared across family history of psychiatric illnesses (p<0.055), persons having positive family history of mental illnesses were experienced high stigma than patients did not have such history.

When the groups were compared in terms of mean HDRS scores and patterns of distresses, a strong statistically significant difference were noticed (p<0.001) that means patients having high depression severity and who complained sadness as their main distressing complaint experienced high stigma compared to patients with less severe depression and somatic complainers.

The above findings might have implications from public health perspective especially in early recognition of depression. Unmarried people and particularly persons having positive family history of psychiatric illnesses are the vulnerable groups who tend to feel stigmatized more regarding depression in particular. Special probing is needed to diagnose those having depressive illness.

Limitations

Our study has the following limitations inspite of our heartiest effort to make it flawless:

1. Small sample size which may not be representative of the populations of Bengal.
2. Purposive sampling.
3. Cross sectional assessment.
4. Referral bias inherent in the hospital based also relevant in our study.

Conclusions

1. Majority of patients with major depression endorsed somatic complaints as most troubling which may hinder early recognition. Despite fulfilling criteria for major depressive episode, near about half of the patients reported pains or other somatic symptoms most frequently as the most troubling symptom. If the professional medical and local experience were the same, we might expect all patients with a depressive episode to highlight sadness, but fewer than 20% patients we studied here reported sadness as most troubling.
2. As stigma is positively related with depression severity it may acts as barrier to help seeking. Somatic complaints were experienced as less stigmatizing compared to sadness; the difference in mean stigma scores were statistically significant.
3. Socio-demographic variables are unrelated with presentation of depression.
4. Issues related to marriage should be an important aspect of anti-stigma measure relevant to social context of Bengal.

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Conflict of interest

Nil

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