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Original Research Article

# A Hospital-Based Assessment of the Relationship between Stigma and Sociodemographic Variable with Presentation of Depression

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**Abstract**

**Aim:** The aim of the present study was 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.

**Methods:** This was a cross-sectional study conducted at the out-patient department (OPD) of Department of Psychiatry, Patna Medical College & Hospital, Patna, Bihar for one year. Fifty (50) cases of Major Depressive Disorder were taken using convenience sampling method.

**Results:** Study population consists of 14 (28%) male and 36 (72%) females. Mean age were 36.15 ± 9.71. Among them 40 (80%) were married, 6 (12%) unmarried and 4 (8%) widows. Majority of them were Hindu 38 (76%) and 12 (24%) Muslim by religion. Regarding educational status, 9 (18%) were illiterate, 4 (08%) can read and write only, 9 (18%) upto primary levels, 12 (24%) completed secondary level, 06(12%) upto higher secondary level and 10 (20%) completed graduation. 10 (20.0%) complaint sadness, 24 (48%) pain and other somatic problems, 10 (20%) tension as most troubling and 6 (12%) 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 23 (46%) having less than 16. 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.

**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

Depression is a significant public health concern worldwide and has been ranked as one of the illnesses having the greatest burden for individuals, families, and society. [1,2] As well, depression is related to increased morbidity and mortality from medical conditions [3-5] and decreased quality of life [6,7] among many other negative consequences.

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. [8] 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. [9] 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. [8]

The influence of factors such as the level of schooling and marital status of the elderly individual on the onset of senile depression still causes disagreement in literature, [10] with some studies finding that people without a steady partner are at greater risk of depression than those living with a partner. [11] In addition to these factors, sleep disturbances such as Obstructive Sleep Apnea Syndrome (OSAS), Excessive Daytime Sleepiness (EDS) and insomnia seem to be related to depressive symptoms among the elderly. [12] However, there is no evidence of how deep these connections are, or to what extent they are dependent factors. 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. [8]

The aim of the present study was 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

This was a cross-sectional study conducted at the out-patient department (OPD) of Department of Psychiatry, Patna Medical

College & Hospital, Patna, Bihar, India for one year. Fifty (50) 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-5 (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 Hindi.

### 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 Hindi.

### Tools used

1. Diagnostic and Statistical Manual of Mental Disorders Fifth edition APA, 2013 [13].
2. Kuppuswamy's Socioeconomic Status Scale - Updated for 2007 (for urban population). [14] 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): [15] 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) [16] 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 (Hindi version) and Stigma scale (Hindi version) from the selected portion of Explanatory Model Interview Catalogue (EMIC) developed by Chowdhury et al (2000) [17] 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. [18]

## Methods

50 subjects; presenting for the first time to the outpatient clinic at the Department of Psychiatry, 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) (Chowdhury et al, 2000)[17] 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 version 22 (SPSS-22) 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 22 (SPSS-22). 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 Ethical Committee. Informed consent was taken from each patient participating in 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**

| Variables | | N (%) |
|---|---|---|
| Sex | Male | 14 (28%) |
| | Female | 36 (72%) |
| Marital status | Married | 40 (80%) |
| | Unmarried | 6 (12%) |
| | Widow | 4 (8%) |
| Religion | Hindu | 38 (76%) |
| | Muslim | 12 (24%) |
| Education | Illiterate | 9 (18%) |
| | Read and write | 4 (8%) |
| | Primary | 9 (18%) |
| | Secondary | 12 (24%) |
| | Higher secondary | 06 (12%) |
| | Graduate | 10 (20%) |
| Family structure | Joint | 26 (52%) |
| | Nuclear | 24 (48%) |
| Residence | Urban | 25 (50.0%) |
| | Rural | 25 (50.0%) |
| Socio-economic Status | Upper middle | 8 (16%) |
| | Lower middle | 15 (30%) |
| | Lower | 10 (20%) |
| | Poor | 17 (34%) |

Study population consists of, 14 (28%) male and 36 (72%) female. Mean age were 36.15 ± 9.71. Among them 40 (80%) were married, 6 (12%) unmarried and 4 (8%) widow. Majority of them were Hindu 38 (76%) and 12 (24%) Muslim by religion. Regarding educational status, 9 (18%) were illiterate, 4 (08%) can read and write only, 9 (18%) upto primary levels, 12 (24%) completed secondary level, 06(12%) upto higher secondary level and 10 (20%) completed graduation. 52% of them from joint family and 48% having nuclear family background. Equal numbers of patients were from rural and urban area. 16% were belongs to upper middle class, 30% lower middle class, 20% lower and 34% poor.

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

| Variables | | N (%) |
|---|---|---|
| Most prominent Symptoms (Pattern of Distress) | Sadness | 10 (20.0%) |
| | Pain and other somatic | 24 (48%) |
| | Tension | 10 (20%) |
| | Others | 6 (12%) |
| Family history of psychiatric illness | Positive | 15 (30.0%) |
| | Negative | 35 (70.0%) |
| Stigma score | > 16 | 27 (54%) |
| | < 16 | 23 (46%) |

10 (20.0%) complaint sadness, 24 (48%) pain and other somatic problems, 10 (20%) tension as most troubling and 6 (12%) 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 23 (46%) having less than 16.

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

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

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

| 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, whereas 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, whereas 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**

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

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**

| 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).

**Table 5A: Showing difference in terms of socio-demographic variables (discrete) between patients with major depressive episode having stigma>16 (N=27) and stigma <16 (N=23)**

| Description | | Stigma>16 | Stigma<16 | $\chi^2$ | df | P |
|---|---|---|---|---|---|---|
| | | N (%) | N (%) | | | |
| Sex | Male | 07(25.92%) | 07(30.44%) | 0.375 | 1 | 0.540 |
| | Female | 20(74.08%) | 16(69.56%) | | | |
| Marital status | Married | 19(70.37%) | 21(91.30%) | | | |
| | Unmarried | 06(22.22%) | 01(4.34%) | | | |
| | Widow | 02(7.40%) | 01(4.34%) | - | - | 0.061 |
| Religion | Hindu | 23(85.18%) | 16(69.56%) | | | |
| | Muslim | 04(14.82%) | 07(30.44%) | 2.278 | 1 | 0.131 |
| Education | Illiterate | 02(7.40%) | 06(26.08%) | | | |
| | Read & write | 03(11.11%) | 02(08.69%) | | | |
| | Primary | 07(25.92%) | 03(13.04%) | | | |
| | Secondary | 07(25.92%) | 05(21.73%) | | | |
| | Higher secondary | 03(11.11%) | 02(08.69%) | 5.463 | - | 0.375 |
| | Graduate | 05(18.51%) | 05(21.73%) | | | |
| Family structure | Joint | 12(44.44%) | 13(56.52%) | | | |
| | Nuclear | 15(55.55%) | 10(43.48%) | 0.630 | 1 | 0.42 |
| Residence | Urban | 15(55.55%) | 11(47.82%) | | | |
| | Rural | 12(44.44%) | 12(52.17%) | 0.268 | 1 | 0.60 |
| SES | Upper middle | 07(25.92%) | 02(8.69%) | | | |
| | Lower middle | 10(37.03%) | 06(26.08%) | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Lower | 03(11.11%) | 06(26.08%) | 5.557 | - | 0.133 |
| | Poor | 07(25.92%) | 9(39.13%) | | | |

There were 07 (25.92%) males and 20 (74.08%) female in high stigma group with mean age 35.09±10.42 (SD) years whereas 07 (30.44%) males and 16 (69.56%) 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 ($\chi 2$=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).

**Table 5B: Showing difference in terms of clinical variables (discrete) between patients with major depressive episode having stigma >16 (n=27) and stigma <16 (N=23)**

| Description | | Stigma>16 | Stigma<16 | $\chi 2$ | Df | P |
|---|---|---|---|---|---|---|
| | | N (%) | N (%) | | | |
| Distress patterns | Sadness | 10(37.03%) | 00(00%) | - | - | <0.001 |
| | Pain & other somatic | 06(22.22%) | 18(78.26%) | | | |
| | Tension | 06(22.22%) | 04(17.39%) | | | |
| | Others | 05(18.51%) | 01(4.34%) | | | |
| F/H of psychiatric illness | Positive | 11(40.74%) | 4(17.39%) | 3.686 | 1 | <0.055 |
| | Negative | 16(59.25%) | 19(82.60%) | | | |

**Table 5C: Showing difference in terms of socio-demographic & clinical variables (continuous) between patients with major depressive episode having, stigma>16 (N=27) and stigma<16 (N=23)**

| 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** |

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

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. [8]

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' [19] 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. [20]

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), [21-23] few studies used patient's account of symptoms, symptom checklists and self-reported questionnaire specially prepared for, [24-26] 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 [27] few researchers tried to make depression specific stigma scale also. [28]

Though western-nonwestern discrimination regarding somatic presentation of depression does not exists today [9] 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. 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. [30] Supporting Raguram et al, [29] Patel [31] argued about the role of stigma in expressing psychological distress.

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 ($R2=0.24$). This finding was consistent with findings of Raguram and colleagues [29] ($r=0.47$, $R2=0.22$) and Cheng- Fang Yen and colleagues. [22]

So, it can be the explanation why depressed people somatize. According to Raghuram and Weiss [29] 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. [32] 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. [33]

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 other 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. 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.

## Conclusion

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. 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. Socio-demographic variables are unrelated with presentation of depression.

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