A Cross-Sectional Study of Internalized Stigma in Euthymic Patients of Bipolar Disorder across its Predominant Polarity

Abstract

Introduction: Patients with bipolar affective disorder (BPAD), when classified according to their predominant polarity (PP), tend to show differences in their clinical correlates. Patients with BPAD show significant internalized stigma. The current study was conducted to investigate the differences in internalized stigma between various PP in BPAD. Methods: Seventy-five euthymic patients with BPAD were recruited and classified into their PP using appropriate criteria (two-thirds predominance). They were compared on the scores of the Stigma Scale (SS), Rosenberg Self-Esteem Scale (RSES), Participation Scale, and World Health Organization Quality of Life-BREF version – Hindi (QOL-BREF). Results: No significant differences were observed among the various PP on the total scores of SS. Patients with manic PP (MPP) and indeterminate PP (IPP) showed more difficulty in disclosure compared to depressive PP (DPP). In MPP and DPP, years of completed education, self-esteem, participation, and QOL were correlated to discrimination, but no such trend could be observed for IPP. Conclusion: Internalized stigma in individual PP is different from the attributes that affect BPAD as a whole. Although the groups did not differ in terms of internalized stigma, patients with DPP faced higher difficulty and disclosure. Subtle trends emerged which should be kept in mind while forming antistigma measures. Small sample size, purposive sampling, and cross-sectional design were the major limitations of this study.

Keywords: Bipolar disorder, predominant polarity, quality of life, self-esteem, stigma

Introduction

Bipolar affective disorder (BPAD) is a chronic psychiatric illness with an episodic course characterized by manic/hypomanic episodes which may be associated with depressive episodes. The course of BPAD in various patients may vary manifold, and accordingly, the associated morbidity also varies. Evidence from the temperate countries point that significant period of the course is spent in the depressive phase which may be associated with suicidality and other medical comorbidities.[1] However, various studies conducted in the tropical regions showed that patients tended to spend a higher proportion of time in mania/hypomania with a higher chance of syndromal recovery but also having a high chance of comorbid substance use and relapse.[2]

Stigma is a negative feeling or attitude that arises from an individual or institution against certain discriminating traits. Internalized stigma is a personal experience of an individual about various attributes of an illness that can cause avoidance, maladaptive changes in behavior, and worsening of self-perception.[3] Various studies in the past have demonstrated that patients with BPAD face significant amount of stigma. Qualitative studies done on patients of BPAD showed that patients faced stigma at workplace and health-care sector that led to detrimental effects on education, sociooccupational, and interpersonal functioning.[4,5] These findings were also substantiated by quantitative studies from Turkey that showed that euthymic patients faced significant stigma causing low income, less education, and unemployment.[6] Comparative studies comparing the level of internalized stigma in BPAD with schizophrenia have demonstrated that patients with schizophrenia have a higher degree of stigma as compared to BPAD, although the level of stigma in BPAD is high.[7–10] A nationwide, multicentric study from India evaluating 707 patients of schizophrenia,
344 patients of BPAD, and 352 patients of unipolar depression (recurrent depressive disorder) showed that patients with affective disorders reported lesser stigma as compared to schizophrenia. Another comparative study from India showed that patients with BPAD reported more stigma than that faced by patients with anxiety disorders but less than that faced by patients with schizophrenia.[10]

Quantitative studies have also consistently demonstrated that internalized stigma has been associated with stunted education, poor social support, higher rate of hospitalization, poorer functioning, and poorer quality of life (QOL).[10-13]

Wolkenstein and Meyer[14] in their study tried to find out the difference in public perception toward mania and depression. In a vignette-based study describing attributes of mania and depression involving 380 participants, the authors found out that the participants tended to react to vignettes describing mania with fear and considered them unpredictable. However, the vignettes describing patients with depression were viewed with more empathy and pity by respondents.

Various quantitative studies have been able to demonstrate that internalized stigma is influenced by the number of manic episodes,[11] number of depressive episodes,[9] and severity of the affective symptoms in the episodes.[12]

Patients with BPAD have been also conceptualized in terms of their predominant polarity (PP). According to the definition, if two-thirds of the episodes in a patient of BPAD are of a particular polarity, the PP of that patient is the corresponding PP.[15] On the basis of this criteria, the patients can be classified as manic PP (MPP) (two-thirds of the episode are manic/hypomanic), depressive PP (DPP) (two-thirds of the episodes are depressive), or indeterminate PP (IPP) (when neither of the polarity has a two-third majority). Current evidence points to the fact that patients with DPP are associated with female gender,[16-18] suicidality,[15,16,19] and higher diagnostic latency,[16,20] whereas patients with MPP have been closely linked with substance use[15,21] and male gender.[22] It has been stressed that patients belonging to MPP can differ in terms of clinical and sociodemographic variables from patients belonging to DPP.[20] These differences may give us crucial clinical information that may enable us in customizing our treatment approaches for patients in terms of prophylaxis, treatment of comorbidity, and psychosocial interventions.

With this background, in the current study, we intended to (i) compare the level of internalized stigma in patients with BPAD across its PP and (ii) to find out the correlation of sociodemographic and clinical parameters, community participation, self-esteem, and QOL with internalized stigma across various PP in BPAD.

Methods

The current study was conducted at a tertiary teaching hospital in India using a cross-sectional design. Valid informed consent was obtained from the patients. Ethical clearance was obtained from the Institutional Ethics Committee. Seventy-five patients with the diagnosis of BPAD were recruited using a purposive sample from the psychiatry outpatient department. The patients recruited were euthymic as defined by the absence of clinically significant mood symptoms, current Young Mania Rating Scale score of <5, Hamilton Rating Scale for Depression score of <8,[22] and no change in maintenance medication by more than 50% or hospitalization in the past 2 months.[10] The patients recruited were in the age range of 18–65 years, devoid of any other psychiatric illness (except nicotine use disorder) as assessed by the Mini-International Neuropsychiatric Interview (MINI). The patients were assessed to have a score of more than 70 on the Social and Occupational Functioning Assessment Scale (SOFAS) signifying good sociooccupational functioning. Patients with inability to communicate effectively in Hindi, and those with chronic physical disease, pregnancy, or current psychiatric illness other than that specified for the group (as identified by MINI) were excluded. The determination of the PP was made using the criteria given by Colom et al.[15] (i.e., two-third predominance). Past studies have mentioned that internalized stigma in patients with BPAD is ubiquitous.[6,10] Thus, in an infinite population size, considering 5% margin of error, 95% confidence level, and a 95% response distribution of reporting internalized stigma in BPAD, the sample size calculated was 73.

The Stigma Scale (SS) developed by King et al.[23] was used to measure the internalized stigma. The scale is a validated instrument and has a three-factor structure providing subscores for discrimination, disclosure, and potential positive aspects. The Rosenberg Self-Esteem Scale (RSE)[24] was used to measure the self-esteem of the patients. It is a ten-item scale measuring items on a four-point Likert scale. The Participation Scale (PS)[25] is also an 18-item scale that measures community participation of the respondents. Higher score on this scale reflects greater difficulty of the respondents. All these scales were translated to Hindi following standard translation, back-translation procedure. The World Health Organization QOL Scale-BREF Version-Hindi (WHOQOL-BREF)[26] was used to determine the QOL of the patients. The 26-item abbreviated Hindi version of the WHOQOL developed by Saxena et al. (1988) was used. It has four dimensions – physical, psychological, social, and environmental health.

The patients were divided into three groups based on their PP. Sociodemographic and clinical variables were compared using the Chi-square tests (categorical variables) and one-way ANOVA. The nonparametric tests (Kruskal–Wallis test/Mann–Whitney U-test) were used when required. Correlation between the measure (s) of stigma and symptom severity, SOFAS, RSE, and WHOQOL-BREF was computed using the Spearman’s or Pearson’s
product-moment correlation based on the distribution of variables.

**Results**

Of the 75 patients recruited, 37 had MPP, 21 had DPP, and 17 had IPP. Table 1 shows the comparison of sociodemographic and clinical variables among the three PP. It was seen that a significant difference was present in terms of age and total duration of illness among the three groups (DPP > MPP, IPP).

Table 2 shows the comparison of measures of internalized stigma between the groups. There were no significant differences in the total score, but the subscore on disclosure was significantly more for DPP as compared to MPP and IPP.

Table 3 shows the comparison of scores on RSE, PS, and WHOQOL-BREF. The three groups significantly differed in the scores of WHOQOL environment. A trend could be observed in the measures of RSE and WHOQOL social, although the differences did not achieve a statistical significance ($P < 0.05$) in the present study.

Table 4 demonstrates the finding of correlation studies between the parameters of internalized stigma and self-esteem, participation, and QOL for each of the three groups.

As the initial comparison showed that the three groups differed based on their age, age of onset, and total duration of illness, the effects of these potential confounders were examined by using the analysis of covariance (ANCOVA) to find the difference in the scores on the SS. It was found that the three groups showed no difference in the total score or any of the subscales of SS after adjusting for age, age of onset, and total duration of illness [Table 5].

**Table 1: Group comparison on sociodemographic and clinical variables between patients of bipolar affective disorder with manic, depressive, and indeterminate predominant polarity**

| Variables               | MPP ($n=37$) | DPP ($n=21$) | IPP ($n=17$) | $\chi^2$/ANOVA/Kruskal-Wallis (df); $P$ Post hoc pairwise comparison (Tukey’s test) |
|-------------------------|--------------|--------------|--------------|---------------------------------------------------------------------------------|
| **Sociodemographic variables** |              |              |              |                                                                                   |
| Age                     | 30.70 (10.36)| 38.67 (9.58) | 29.35 (8.58) | $F=5.674$ (2); 0.005                                                                 |
| Education (years)       | 14.54 (4.04) | 14.67 (3.86) | 14.41 (3.65) | $F=0.020$ (2); 0.980                                                                 |
| Gender                  |              |              |              |                                                                                   |
| Male                    | 23 (62.16)   | 18 (85.71)   | 13 (76.47)   | $\chi^2=3.904$ (2); 0.142                                                           |
| Female                  | 14 (37.84)   | 3 (14.29)    | 4 (23.53)    |                                                                                   |
| Marital status          |              |              |              |                                                                                   |
| Unmarried/divorced      | 17 (45.94)   | 4 (19.04)    | 9 (52.94)    | $\chi^2=5.573$ (2); 0.062                                                           |
| Married                 | 20 (54.06)   | 17 (80.96)   | 8 (47.06)    |                                                                                   |
| Monthly income$^a$ (Rupees) | 25.057 (27.22) | 24.267 (22.22) | 19.29 (10.45) | $F=0.378$ (2); 0.686                                                                 |
| Religion                |              |              |              |                                                                                   |
| Hindu                   | 34 (91.89)   | 19 (90.47)   | 14 (82.35)   | $\chi^2=1.152$ (2); 0.562                                                          |
| Islam                   | 3 (8.11)     | 2 (9.53)     | 3 (17.65)    |                                                                                   |
| **Clinical variables**  |              |              |              |                                                                                   |
| Age at onset (years)    | 21.89 (7.74) | 26.86 (8.30) | 22.71 (5.79) | $F=3.028$ (2); 0.055                                                                 |
| Total duration of illness (months) | 111.41 (75.79) | 144.57 (96.93) | 77.41 (71.31) | $F=3.218$ (2); 0.046                                                                 |
| Duration of treatment (months) | 108.43 (76.79) | 139.86 (98.55) | 76.53 (70.92) | $F=2.798$ (2); 0.068                                                                 |
| Compliance              |              |              |              |                                                                                   |
| Present                 | 18 (48.64)   | 7 (33.3)     | 7 (41.17)    | $\chi^2=1.305$ (2); 0.521                                                          |
| Absent                  | 19 (51.36)   | 14 (66.67)   | 10 (58.83)   |                                                                                   |
| SOFAS                   | 85.16 (4.96) | 84.00 (6.09) | 87.00 (3.57) | $F=1.671$ (2); 0.195                                                                 |

$^a$Kruskal-Wallis test. MPP=Manic predominant polarity, DPP=Depressive predominant polarity, IPP=Indeterminate predominant polarity, SOFAS=Social and Occupational Functioning Assessment Scale, SD=Standard deviation.

**Table 2: Comparison of measures on Stigma Scale in patients of bipolar affective disorder with manic, depressive, and indeterminate predominant polarity**

| SS                  | MPP ($n=37$) | DPP ($n=21$) | IPP ($n=17$) | ANOVA ($F$) Significance | Post hoc pair-wise comparison (Tukey’s test) |
|---------------------|--------------|--------------|--------------|--------------------------|--------------------------------------------|
| SS-discrimination   | 1.63 (0.63)  | 1.49 (0.42)  | 1.66 (0.65)  | $F=0.481$ (2); 0.620     | -                                          |
| SS-disclosure       | 1.88 (0.63)  | 1.56 (0.22)  | 2.02 (0.51)  | $F=3.586$ (2); 0.033*     | I, III > II                                |
| SS-potential        | 1.79 (0.44)  | 1.77 (0.43)  | 1.95 (0.76)  | $F=0.681$ (2); 0.509      | -                                          |
| positive aspects    |              |              |              |                          |                                            |
| SS-total score      | 1.75 (0.47)  | 1.59 (0.31)  | 1.84 (0.41)  | $F=2.129$ (2); 0.126      | -                                          |

*P<0.05. MPP=Manic predominant polarity, DPP=Depressive predominant polarity, IPP=Indeterminate predominant polarity, SS=Stigma Scale.
Table 3: Comparison of measures on self-esteem, participation, and quality of life in patients of bipolar affective disorder with manic, depressive, and indeterminate predominant polarity

|                          | MPP (n=37) | DPP (n=21) | IPP (n=17) | ANOVA (F) Significance | Post hoc pair-wise comparison (Tukey’s test) |
|--------------------------|------------|------------|------------|-----------------------|--------------------------------------------|
| Rosenberg self-esteem scale | 18.76 (3.37) | 21.33 (5.84) | 18.53 (4.47) | \(F=2.715\) (2); 0.073 | -                                           |
| Participation scale\(\ast\) | 17.32 (14.68) | 11.95 (13.56) | 11.65 (10.00) | \(F=1.573\) (2); 0.215 | -                                           |
| WHOQOL-physical | 13.96 (2.31) | 13.08 (2.19) | 13.37 (1.55) | \(F=1.228\) (2); 0.299 | -                                           |
| WHOQOL-psychological | 13.85 (2.65) | 14.41 (3.15) | 13.72 (2.53) | \(F=0.363\) (2); 0.697 | -                                           |
| WHOQOL-social | 14.88 (2.67) | 14.79 (2.94) | 12.62 (4.83) | \(F=2.909\) (2); 0.061 | -                                           |
| WHOQOL-environment | 14.51 (2.76) | 13.31 (1.93) | 12.82 (1.59) | \(F=3.702\) (2); 0.030* | I, II > III                                |

\(\ast\)Kruskal-Wallis test; \(\ast\)\(\ast\)P < 0.05. MPP=Manic predominant polarity, DPP=Depressive predominant polarity, IPP=Indeterminate predominant polarity, WHOQOL=World Health Organization Quality of Life

Table 4: Correlation measures

|                          | SS-discrimination | SS-disclosure | SS-potential positive aspects | SS-total score |
|--------------------------|-------------------|---------------|------------------------------|---------------|
| **a) Correlation of measures of self-stigma, clinical parameters, self-esteem, participation, and quality of life in patients of bipolar affective disorder with manic predominant polarity** |
| Age                      | -0.302            | -0.068        | -0.003                       | -0.219        |
| Education (years)        | -0.485**          | -0.362**      | 0.014                        | -0.467**      |
| Monthly income\(\ast\)  | -0.326*           | -0.119        | -0.059                       | -0.267        |
| Total duration of illness| 0.188             | 0.005         | -0.234                       | -0.157        |
| Duration of treatment    | -0.180            | 0.008         | -0.256                       | -0.149        |
| Rosenberg Self-Esteem Scale | -0.538**         | -0.267        | -0.185                       | -0.488**      |
| Participation scale\(\ast\) | 0.349*            | 0.099         | 0.129                        | 0.304         |
| WHOQOL-physical           | -0.389*           | -0.162        | -0.054                       | -0.325*       |
| WHOQOL-psychological      | -0.385*           | -0.159        | 0.237                        | -0.273        |
| WHOQOL-social             | -0.519**          | 0.121         | 0.032                        | -0.371*       |
| WHOQOL-environment        | -0.351*           | -0.123        | 0.052                        | -0.266        |
| **b) Correlation of measures of self-stigma, clinical parameters, self-esteem, participation, and quality of life in patients of bipolar affective disorder with depressive predominant polarity** |
| Age                      | -0.198            | -0.610**      | 0.147                        | -0.379        |
| Education (years)        | -0.446*           | -0.062        | -0.277                       | -0.378        |
| Monthly income\(\ast\)  | -0.367            | -0.093        | 0.050                        | -0.262        |
| Total duration of illness| 0.136             | -0.155        | -0.169                       | -0.030        |
| Duration of treatment    | 0.146             | -0.141        | 0.146                        | -0.010        |
| Rosenberg Self-Esteem Scale | -0.665**         | -0.287        | -0.125                       | -0.585        |
| Participation scale\(\ast\) | 0.448*            | 0.343         | 0.246                        | 0.501*        |
| WHOQOL-physical           | -0.670**          | -0.447**      | -0.281                       | -0.703*       |
| WHOQOL-psychological      | -0.593**          | -0.287        | -0.275                       | -0.578**      |
| WHOQOL-social             | -0.429            | -0.146        | -0.337                       | -0.423        |
| WHOQOL-environment        | -0.433*           | -0.223        | -0.354                       | -0.466*       |
| **c) Correlation of measures of self-stigma, clinical parameters, self-esteem, participation, and quality of life in patients of bipolar affective disorder with indeterminate predominant polarity** |
| Age                      | 0.287             | 0.005         | 0.311                        | 0.313         |
| Education (years)        | -0.307            | 0.054         | 0.008                        | -0.199        |
| Monthly income\(\ast\)  | 0.011             | 0.234         | 0.291                        | 0.205         |
| Total duration of illness| 0.235             | -0.057        | 0.345                        | 0.258         |
| Duration of treatment    | 0.244             | -0.046        | 0.350                        | 0.271         |
| Rosenberg Self-Esteem Scale | -0.658**         | 0.205         | 0.456                        | -0.429        |
| Participation scale\(\ast\) | 0.189             | -0.160        | -0.529*                      | 0.269         |
| WHOQOL-physical           | 0.370             | 0.217         | -0.221                       | 0.298         |
| WHOQOL-psychological      | -0.188            | -0.001        | 0.282                        | -0.048        |
| WHOQOL-social             | -0.163            | -0.050        | 0.079                        | -0.116        |
| WHOQOL-environment        | -0.301            | 0.308         | 0.099                        | -0.052        |

\(\ast\)P < 0.01; \(\ast\)\(\ast\)P < 0.05; \(\ast\)Spearman correlation. SS=Stigma Scale, WHOQOL=World Health Organization Quality of Life
Discussion

Our sample had more patients with MPP than any other PP. This finding lends support to the speculation that manic episodes are more prevalent in the Indian subcontinent as compared to the findings obtained in various European centers where DPP was the more common presentation.[2]

The comparison of the three groups revealed that the patients with DPP had a significantly higher age as compared to the other two groups. The patients with DPP also tended to have a significantly longer total duration of illness. This is in contrast to a number of other studies that showed that current age and total duration of illness did not vary across PP.[15,19,27] Conversely, many of the previous studies[6,11] found that female gender was significantly associated with the DPP. Our study failed to replicate this finding.

The three groups, when compared for internalized stigma, did not vary significantly in the total scores on the SS. A previous study by Hayward et al.[28] also showed a similar trend where the measures of internalized stigma did not differ according to the affective episodes. However, in this study, the patients with DPP reported of significantly higher scores on disclosure subscale as compared to the other two groups. The three groups also did not significantly vary in the subscales of discrimination and potential positive aspects. Previous work by Wolkenstein and Meyer et al.[29] showed that people tended to have a more sympathetic outlook toward patients with depression. However, in spite of that our patients of DPP tended to face higher difficulty in disclosing facts about their illness. This could be due to the fact that patients with depression tended to have a lower self-esteem[30] which translated to their inability to disclose about the illness. This finding is further supported by a previous work done on patients of BPAD while in a depressive episode where they expressed about any disclosure regarding their illnesses, and they tended to hide the diagnosis altogether.[31] In this study, when the confounding factors (age, age of onset, and total duration of illness) were adjusted using the ANCOVA, the significant difference in the disclosure subgroup of SS disappeared. Thus, it can be said that the difficulty in disclosing about the illness in patients with DPP was actually due to having an early onset of illness and suffering from the illness for a longer duration of time as compared to other patients.

A comparison for self-esteem, participation, and QOL between the three groups did not show any major differences other than the subdomain of environment of WHOQOL-BREF. This meant that patients with IPP tended to have a poor QOL in terms of financial support, freedom, physical security, home environment, and transport. The scores of WHOQOL-BREF social subdomain also showed a poorer trend for patients with IPP as compared to the other two groups, though the result did not gain statistical significance ($P = 0.061$). This is an important finding and probably due to the fact that patients with IPP tended to be associated with the discriminatory attributes of both the mood states (i.e., depression and mania), which may have acted as a double blow.

Our results indicated that in patients with MPP measures of stigma were significantly correlated with education, self-esteem, and QOL. This is in line with previous studies conducted in patients on BPAD, which demonstrated a higher level of internalized stigma being associated with lower community participation, lower self-esteem, and lower scores on measures of QOL.[10,13] Our results showed that higher the education and higher the monthly income, less is the measure of discriminatory attribute of stigma reported. In patients with DPP also, a similar correlation between education and internalized stigma could be observed. This is particularly in line with the previous findings[8,11] done on patients with BPAD in general. In all the three groups, we found that the measures of self-esteem were inversely correlated to the discrimination in stigma. This shows that poor self-esteem may manifest as attributes which can lead to discrimination of the patients. In both the groups of patients with MPP and DPP, we found that higher the difficulty in community participation higher is the discrimination faced by the patient. Thus, these raise important aspects to target when planning for antistigma measures. In a previous study,[10] it has been demonstrated that patients with BPAD tended to show an inverse relationship between internalized stigma and QOL. The current study further supports the findings in both the groups of patients with MPP and DPP, but no such association could be made for patients with IPP.

The strengths of our study were the use of validated tools and stringent selection criteria. The major limitation of...
this study included small sample size, nonprobability method of sampling, and cross-sectional design. These limitations contribute to the fact that the results from this study may not be directly attributable to all clinical situations. Furthermore, this study did not make any distinction between BPAD Type I and Type II patients. This is an important limitation considering very different course of illness in patients in these two types. The future studies should be conducted with a higher sample size with a longitudinal design to assess the causal associations between probable predictors and internalized stigma.

**Conclusion**

The main findings of this study were as follows: (i) there was no significant difference in internalized stigma between patients with MPP, DPP, and IPP, though patients with MPP and IPP faced higher difficulty in disclosing about their illness than patients with DPP and (ii) in MPP and DPP, years of completed education, self-esteem, participation, and QOL were correlated to discrimination, but no such trend could be observed for IPP.

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**Conflicts of interest**

There are no conflicts of interest.

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