Original Article

A Study to Assess the Quality of Life Using Whoqol-Bref Among Patients with Bipolar Mood Disorder in A Tertiary Care Hospital in Assam

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ABSTRACT

Background: Bipolar Mood Disorder (BMD) is a chronic psychiatric condition associated with significant impairment in multiple life domains. Quality of Life (QoL) assessment provides an essential patient-centered understanding beyond traditional symptom evaluation. The above study was conducted to assess the quality of life of patients with BMD at baseline and after 12 weeks using the WHOQOL-BREF scale in a tertiary care hospital in Assam.

Methods: A prospective, cross-sectional, observational study was conducted over one year (March 2023–February 2024) in the Psychiatry Department of Silchar Medical College & Hospital, Assam. 70 patients with BMD meeting inclusion and exclusion criteria were enrolled for the study. WHOQOL-BREF scores were recorded at baseline and at the 12th week.

Results: Mean baseline domain scores were: Physical Health (14.52 ± 1.003), Psychological (14.15 ± 1.23), Social Relationships (8.05 ± 1.76), and Environment (14.38 ± 1.02); total score: 51.12 ± 2.81. At 12 weeks, scores improved: Physical Health (23.5 ± 3.02), Psychological (19.98 ± 2.15), Social Relationships (9.64 ± 1.79), Environment (28.07 ± 2.2); total score: 81.2 ± 4.53.

Conclusion: Significant improvement was observed across all WHOQOL-BREF domains at 12 weeks, indicating enhanced overall quality of life in patients with BMD following treatment and follow-up.

Keywords: Bipolar Mood Disorder, Quality of Life, WHOQOL-BREF, Psychiatry, Mental Health, India.

INTRODUCTION

Bipolar Mood Disorder (BMD) is a chronic, recurrent psychiatric illness characterized by episodes of mania, hypomania, and depression, leading to significant impairments in functioning and overall well-being. Early onset, high relapse rates, and long-term psychosocial burden are some of the factors that make it a major global public health challenge. According to the World Mental Health Survey Initiative, the lifetime prevalence of bipolar spectrum disorders is approximately 2.4%, highlighting its global relevance. [1]

Individuals with bipolar disorder experience substantial impairments across physical, psychological, and social domains, even during euthymic periods.[2-4] The disorder is frequently accompanied by comorbidities including metabolic syndrome, anxiety disorders, and substance use disorders, contributing to worsening prognosis and poor quality of life (QOL).[5,6] Moreover, the fluctuating nature of BMD contributes to persistent functional disability, social stigma, cognitive impairment, and occupational challenges.[7-9]

Health-related Quality of Life (HRQOL) has emerged as a vital outcome measure in psychiatric research. The World Health Organization Quality of Life-BREF (WHOQOL-BREF) is one of the most widely used, validated instruments for assessing QOL across cultures. [10] It evaluates QOL in four key domains—Physical Health, Psychological Health, Social

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Relationships, and Environment—using a 5-point Likert scoring system. Scores are transformed to a 0–100 scale, where scores <40 denote poor QOL, 41–60 indicate moderate QOL, and >60 reflect good QOL. [11]

Several studies have shown that bipolar disorder significantly reduces QOL, particularly during depressive episodes. Residual symptoms, medication side effects, social dysfunction, and poor insight are among the major contributors. [12-14] A recent longitudinal study by Khafif et al. demonstrated that even with clinical remission, many individuals with bipolar disorder continue to exhibit persistent QOL deficits across multiple domains. [14]

Despite the global burden of BMD, limited data exist regarding QOL outcomes in Northeast India. Cultural variations, differences in social support systems, stigma, and treatment accessibility can influence QOL in psychiatric patients. The above study aims to assess QOL in patients with Bipolar Mood Disorder using WHOQOL-BREF at baseline and after 12 weeks of treatment at a tertiary care hospital in Assam.

MATERIALS AND METHODOLOGY
Study Design
Observational, cross-sectional, prospective study.

Study setting:
The above study was conducted at the Psychiatry department (both OPD & IPD) of Silchar Medical College & Hospital, Silchar, Assam.

Study subjects: Subjects included patients attending Psychiatry department (both OPD & IPD) of Silchar Medical College and Hospital.

Study period: One year from March, 2023 to February, 2024

Sample size: Samples were drawn from the patients attending both OPD & IPD of psychiatry department of Silchar Medical College and Hospital in Silchar, Assam, in accordance with the fulfilment of inclusion and exclusion criteria, after getting approval from the Institutional Ethics Committee (IEC) of Silchar Medical College & Hospital, Silchar, Assam .

Sample size is calculated by using Danial formula for sample size calculation:

$$N = \{Z^2 p(1-p)\}/d^2$$

Where:-
- N= Sample size
- Z= Statistics for a level of confidence (For the level of confidence of 95%, which is convention, Z Value is 1.96)
- p= expected prevalence is 3%
- d= precision (d is considered 0.04 to produce good precision and smaller error of estimate)

So, the sample size calculated to be

- N= 70 (patients with BPD was included serially for the study, after fulfilment of inclusion and exclusion criteria)

And equal number of (N=70) patients with BPD was included serially for the study, after fulfilment of inclusion and exclusion criteria.

Informed consent
Written voluntary informed consent was obtained from all study subjects after the study procedure was thoroughly explained to their satisfaction in both English and vernacular language The confidentiality, anonymity, and professional secrecy of all study subjects were maintained.

Ethical approval
Upon receiving approval and clearance from the IEC, the study was started (SMC/ 18.842)

Inclusion Criteria
Patients with bipolar mood disorder attending both O.P.D. & I.P.D. of Psychiatry Department, aged between 18 to 60 years, with normal blood hemogram, normal blood sugar, normal lipid profile, normal ECG and willing to provide informed consent for participation along with follow up on a regular basis.

Exclusion Criteria
Pregnant and lactating women, patients already receiving treatment for bipolar mood disorder and visiting the SMCH outpatient department for review. Patients with the epileptic disorder, mental retardation, presence of any cognitive impairment or suffering from any other major psychiatric illnesses (Schizophrenia, obsessive disorder), patient on

electroconvulsive therapy, those on chronic alcoholic and drug abuse, having a history of allergic or serious adverse reactions to the study medications, detected with malignancies, severe diseases of the vital organs, adrenal or pituitary glands, severe impairments of the liver or kidneys, and terminally ill individuals.

Patients using drugs that are known to prolong the QT interval on an electrocardiogram or who may interact in some other way with the study drugs.

Study procedure
Patients underwent a thorough history taking and the information was collected regarding their demographics profile, personal and family history, previous and present medical history and drug history. The data was collected in Case Record Form. A thorough clinical assessment was conducted to determine the course, intensity, and duration of the illness of the patients along with any underlying disease. Patients' quality of life was assessed using the WHOQOL-BREF scale at baseline and at the conclusion of the 12th week in several domains.

Domain	Facet	Question number in the WHOQOL-BREF
Global items	Overall quality of life	1
Physical health	General health	2
	Pain and discomfort	3
	Dependence on medicinal substances and medical aids	4
	Energy and fatigue	10
	Mobility	15
	Sleep and rest	16
	Activities of daily living	17
	Work Capacity	18
Psychological health	Positive feelings	5
	Spirituality, religion and personal beliefs	6
	Thinking, learning, memory and concentration	7
	Bodily image and appearance	11
	Self-esteem	19
	Negative feelings	26
Social relationships	Personal relationships	20
	Sexual activity	21
	Social support	22
Environmental Quality of life	Freedom, physical safety and security	8
	Physical environment (pollution/noise/traffic/climate)	9
	Financial resources	12
	Opportunities for acquiring new information and skills	13
	Participation in and opportunities for recreation/leisure activities	14
	Home environment	23
	Health and social care: Accessibility and quality	24
	Transport	25

Figure 1: WHOQOL BREF SCALE (Source: Vahedi S)

The WHOQOL is a self-reported quality of life (QOL) measure that was created by the World Health Organization, which is accessible in more than 40 languages. 4 domains are there. Every domain is assigned a 5-point Likert scale rating and a response scale score ranging from 1 to 5. A mean score of <40 implies low QOL, 41–60 suggests moderate QOL, and >60 indicates high QOL. The WHOQOL group is now doing cross-cultural validation for the WHOQOL. [13] Data was collected, entered into Microsoft Excel and analyzed using SPSS version 28.0.

RESULT
Table 1: Quality of life of patients in different domains of WHOQOL-BREF (Baseline)

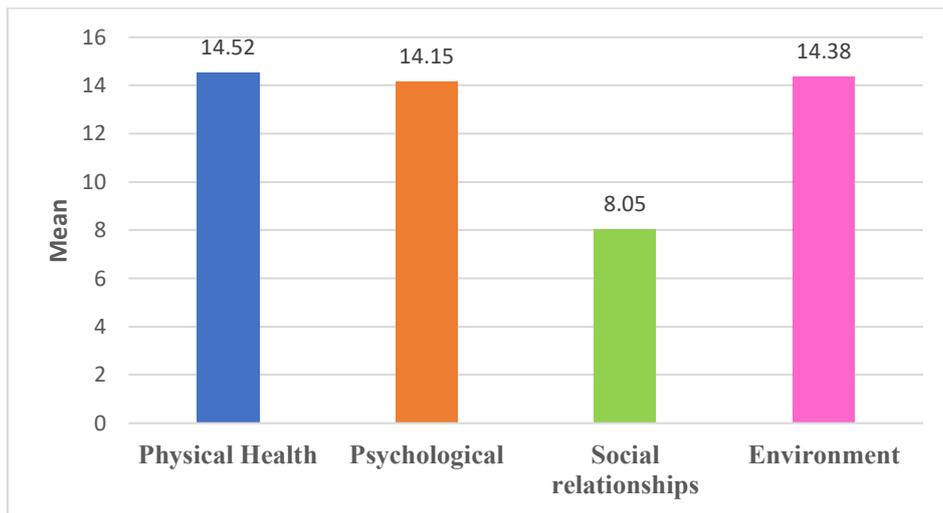| Domains	Mean Scores
Physical Health	14.52 (± 1.003)
Psychological	14.15 (± 1.23)
Social relationships	8.05 (± 1.76)
Environment	14.38 (± 1.02)
Total	51.12 (± 2.81)

Fig. 2: Quality of life of patients in different domains of WHOQOL-BREF (baseline)

On assessing QOL of patients in different domains of WHOQOL-BREF at baseline, the mean score for physical health was 14.52 (± 1.003), mean score for psychological domain was 14.15 (± 1.23), mean score for social relationships was 8.05 (± 1.76), mean score for environment domain was 14.38 (± 1.02). The total WHOQOL-BREF (Baseline) was 51.12 (± 2.81).

Table 2: Quality of life of patients in different domains of WHOQOL-BREF (12th week)

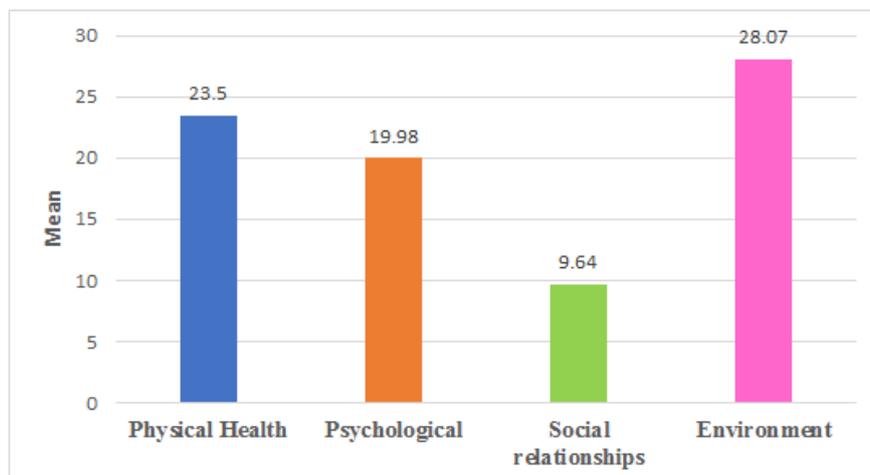| Domains	Mean Scores
Physical Health	23.5 (± 3.02)
Psychological	19.98 (±2.15)
Social relationships	9.64 (± 1.79)
Environment	28.07 (± 2.2)
Total	81.2 (± 4.53)

Fig. 3: Quality of life of patients in different domains of WHOQOL-BREF (12th week)

On assessing QOL of patients in different domains of WHOQOL-BREF at 12th week, the mean score for physical health was 23.5 (± 3.02), mean score for psychological domain was 19.98 (±2.15), mean score for social relationships was 9.64 (± 1.79), mean score for environment domain was 28.07 (± 2.2). The total WHOQOL-BREF (12th week) was 81.2 (± 4.53).

Table no.3 Mean Comparison between Domains (Baseline vs 12th Week)

Domains	Baseline	12th week
Physical Health	14.52	23.5
Psychological	14.15	19.98
Social relationships	8.05	9.64
Environment	14.38	28.07

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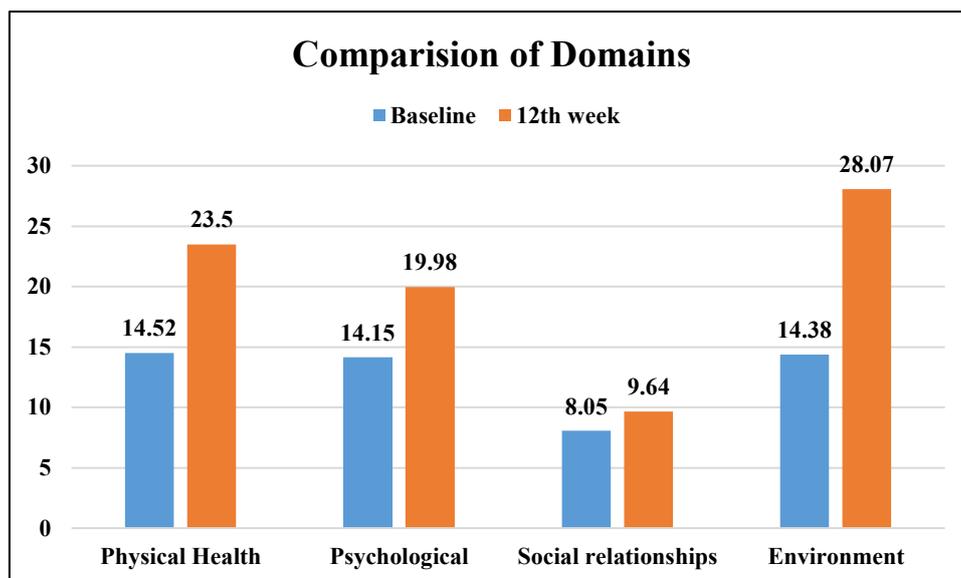
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Fig.4 Comparison of Domains (Baseline vs 12th Week)

All health domains showed positive changes from baseline to the 12th week, indicating overall progress in well-being after an intervention, such as a structured wellness program. Higher scores at week 12 suggest enhanced quality of life across physical, psychological, social, and environmental aspects. This baseline-to-endline comparison highlights the effectiveness of the 12-week period in boosting health metrics

Physical Health-Increased from 14.52 to 23.5, reflecting substantial improvement in bodily function and daily physical capabilities.

Psychological Health- Increased from 14.15 to 19.98, indicating better emotional stability and mental health.

Social Relationships -Modest gain from 8.05 to 9.64, showing slight enhancement in connections and support networks.

Environment-Largest jump from 14.38 to 28.07, demonstrating major gains in perceived environmental quality and safety.

DISCUSSION

The above study was conducted to examine the quality of life (QoL) of patients with bipolar mood disorder (BMD) using the WHOQOL-BREF scale in the beginning and after 12 weeks of treatment at a tertiary care hospital in Assam. The results showed significant and clinically meaningful improvements in all four domains of the WHOQOL-BREF, which are physical, psychological, social, and environmental. This highlights the positive effects of structured treatment, symptom stabilization, and ongoing clinical support.

In the beginning, patients showed moderate issues with overall QoL, with social relationships being the most affected area. Michalak et al. [15] and Sierra et al. [16] noted similar findings, pointing out that bipolar patients often face troubled relationships, limited social participation, and lack of social support, even when their mood symptoms are somewhat controlled. These challenges stem from the changing emotional states, sensitivity in relationships, cognitive issues, and psychosocial instability that are common in bipolar disorder.

After 12 weeks, all domains showed statistically significant improvement, indicating the benefits of early and steady therapeutic interventions. Possible reasons include better mood stabilization, lower symptom severity, improved medication adherence, and active patient involvement through regular follow-up visits. Previous research by Tohen et al.[17] and Vieta et al.[18] reported similar results, showing that early intervention, effective medication management, and consistent monitoring lead to better functioning, quicker recovery, and improved QoL outcomes.

The findings of the above study differ from those of Khafif et al.[19], who reported consistently low QoL among patients with recurrent depressive episodes. This difference could be due to variations in clinical characteristics, the chronic nature of the illness, and treatment adherence. Many participants in this study were in an early or stabilized treatment phase, receiving organized clinical support in a hospital setting, which likely helped them achieve quicker improvements in QoL.

Using the WHOQOL-BREF was beneficial due to its adaptability across cultures and strong psychometric properties, as supported by studies from Skevington et al.[10], Vahedi [13], and Saxena et al.[14] Its ability to detect changes in patient well-being highlights its usefulness in routine psychiatric assessments, where simply seeing symptom relief doesn't adequately reflect patient recovery.

In summary, the results show that QoL in bipolar disorder is dynamic and responds well to consistent treatment, early intervention, and organized follow-up. These improvements underline the need to use QoL as a standard measure in clinical practice, alongside symptom-focused evaluations, to help clinicians provide more patient-centered and comprehensive care.

CONCLUSION
From the above results we can conclude that patients with bipolar mood disorder experience substantial improvement in quality of life following 12-weeks of consistent treatment and monitoring. Routine assessment using WHOQOL-BREF should be incorporated into psychiatric practice to guide patient-centered care.

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AUTHORS CONTRIBUTIONS
Nivedita Saha: One of the researchers that came up with the study concept and research topic. Moreover, being involved in the design of the study, defining intellectual content, searching the literature, obtaining and analyzing data, she was also involved in preparing and editing manuscript, and also reviewing it. Jahirul Islam Laskar: One of the authors who came up with the study's framework, was also involved in data collection, literature search, study design, intellectual content definition, collecting data, and manuscript writing. Vijoy Sankar Kairi: One of the authors who came up with the study's framework, was also involved in data collection, literature search, study design, intellectual content definition, collecting data, and manuscript writing. Dolly Roy: One of the developers of the study's concept. In addition, she had also contributed in the design of the study, defining the intellectual contents, searching the literature, acquiring data, preparing and reviewing the manuscript, and supervised all phases of the research process.

DECLARATION

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