IJBPAS, May, 2025, 14(5): 2941-2951

ISSN: 2277–4998

International Journal of Biology, Pharmacy and Allied Sciences (IJBPAS)

'A Bridge Between Laboratory and Reader'

www.ijbpas.com

A PROSPECTIVE STUDY ON IMPACT OF COUNSELLING IN IMPROVING MEDICATION ADHERENCE ON BIPOLAR PATIENTS IN PSYCHIATRY

NITHIN MANOHAR R[*1], GEORGE A[2], ROY AK[3], TOM C[1], THOMAS MA[1], ABRAHAM MA[1], ROY RE[1] AND MATHEWS SM[4]

1: Department of Pharmacy Practice, Pushpagiri College of Pharmacy, Thiruvalla, Kerala, India

2: Department of Pharmacology, Pushpagiri College of Pharmacy, Thiruvalla, Kerala, India

3: Department of Psychiatry, Pushpagiri Institute of Medical Sciences, Thiruvalla, Kerala, India

4: Principal, Pushpagiri College of Pharmacy, Thiruvalla, Kerala, India

***Corresponding Author: Dr. Nithin Manohar R: E Mail: ntnmanohar@yahoo.com**

Received 16th Jan. 2024; Revised 20th Feb. 2024; Accepted 24th July 2024; Available online 1st May 2025

https://doi.org/10.31032/IJBPAS/2025/14.5.9043

ABSTRACT

Study objective: Bipolar Affective Disorder is the sixth biggest cause of disability adjusted life years in those aged 15 to 44, according to the WHO and is a long-term, complex mood disorder. Non adherence is quite common among patients with bipolar disorder which negatively affects their social functioning and reduces their quality of life. The study aims to evaluate the effect of counselling in improving medication adherence on bipolar patients in psychiatry and to identify the effect of Clinical Pharmacist's in improving the quality of life of the patients with bipolar disorder.

Methodology: A prospective observational study was conducted in a tertiary care hospital for a duration of 6 months

Result: Among the 81 patients who participated in this study, 59.2% were male patients which reveals that the prevalence rate was higher in males during our study and after counselling the

medication adherence of the patients has increased from 10% to 80%. Moreover, there has been a gradual increase in the quality of life of the patients by 28%.

Conclusion: Our study revealed that there has been an improvement in the medication adherence and quality of life; as a result of the crucial role played by clinical pharmacists in counselling the patients about their treatment and by providing them with support throughout their visit to the hospital. The study shows the importance of clinical pharmacists and how Clinical Pharmacist-led collaborative counselling treatments have helped the patients in understanding about their condition and developing a positive attitude towards their treatment which stabilized their mood disorder and reduced the risk of relapse.

Keywords: Bipolar Affective Disorder, Medication Adherence, Patient counselling, Quality of life

INTRODUCTION

Bipolar disorder, also known as manic-depressive illness, is one of the most common severe chronic psychiatric disorders. The cyclic mood disorder is characterised by recurrent swings in energy, mood and behaviour that span the spectrum of human emotions **[1-3]**.

Bipolar disorder requires both non pharmacological and pharmacological treatments to stabilise mood because it is a chronic illness with a variable course **[3, 4]**. Patients' attitudes towards medications may be relatively independent of their demographic and clinical characteristics. Furthermore, patients' attitudes are more likely to be influenced by their knowledge of the illness, attitudes among their family members, the clinician-patient relationship, and overall, the patients' quality of life.

Patients with bipolar disorder typically receive combination therapy, with an average of four different psychiatric medications. Although some patients may require multiple medications to alleviate the disability caused by bipolar disorder, a high number of medications may indicate poor pharmacologic adherence to the initial regimen. The most economical and speediest method of obtaining evidence of compliance typically involves self-report methods. [4] Noncompliance with treatment is commonly associated with denial about the seriousness of the disorder. Non-compliant bipolar disorder patients typically lack understanding of the nature of their disorder and the importance of long-term treatment. Noncompliance to their medication not only worsen their condition but also affect their quality of life.

Quality of life is defined by the WHO as "individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns". Quality of life assessments will help clinicians to make decisions about the areas of a patient's health that are mostly affected by disease, as well as treatment decisions. In some developing countries where health-care resources are limited, treatments are aimed at improving quality of life, such as palliation, which can be both effective and inexpensive. Hence, combining psychoeducation with existing pharmacologic treatment which results in a more ambitious treatment paradigm that addresses various aspects of bipolar disorder and assists patients in living with the disorder through symptom reduction and a better understanding of the illness. **[5]**

METHODOLOGY

Study design

Prospective observational study was conducted in the Department of psychiatry at a tertiary care hospital consisting of 900 beds and offering a complete range of health care services.

Study population

All patients diagnosed with bipolar disorder in the psychiatric department and those who satisfied the inclusion and exclusion criteria were selected for the study.

Sample size

Using the Cochran's formula, the sample size was found to be 81.

$$N = \frac{(Z_{\frac{\alpha}{2}})^2 \times pq}{d^2}$$

Where, n is the sample size, p is the estimated proportion of population, q = 1-p, d =desired degree of precision, Z = is the standard normal value at the level of confidence desired, usually at 95% confidence interval.

Inclusion criteria

The study included patients who were diagnosed with bipolar disorder under the department of psychiatry within the age group of 18 to 65 years. Both male and female patients with minimum of two drugs per prescription were included.

Exclusion criteria

Subjects who are not willing to give consent and those admitted to departments other than psychiatry were not included. Moreover, those who are below the age of 18 years and above 65 years of age were not included.

Data collection

It was a 6-month study conducted after getting ethical committee approval. Patients' demographic data and drug therapy were collected using well designed patient data collection form. Medication adherence was

assessed using a standardized medication adherence questionnaire and their quality of life was assessed using a standardised questionnaire and patient counselling was provided in order to improve their medication adherence and its impact was assessed.

Statistical analysis

The information collected on the data collection forms were uploaded in an excel sheet and data was analysed using IBM SPSS VERSION 20. Wilcoxon Sign Rank test was used to test if there are any significant differences between the values.

RESULTS

1. **Distribution of patients with bipolar according to gender**

Out of 81 patients, from figure 1, the highest number of patients affected were male (59.2%) followed by female (40.74%).

2. **Distribution of patients with bipolar according to age**

Out of 81 patients, from **Figure 2**, the highest number of patients affected belonged to the age group 55-65 years, followed by age group 15-24, 45-54, 25-34, 35-44 years.

3. **Distribution of MARS-10 before and after scores among bipolar patients**

Out of the 81 patients, analysed from table 3 and **Figure 3**, initially 64 patients showed a score of ≤5 (low adherence) and 17 patients scored >5 (high adherence). On their follow up visits, 81 patients were asked again to respond to the MARS-10 questionnaire which resulted in 5 patients scoring ≤5 (low adherence) and 76 patients scoring >5 (high adherence).

From the study **(Figure 3)**, it was found that there is a significant difference in the medication adherence pair since p-value is 0.000 using Wilcoxon sign rank test.

4. **Distribution of patients based on their QOL domain 1 (physical health)**

Out of 81 samples, from **Figure 4**, the mean score of physical health was initially 46.61 which increased to 78.66. Hence an improvement of 32% was found.

From the study, it was found that there is a significant difference in the physical health domain since p-value is 0.000 using Wilcoxon sign rank test.

5. **Distribution of patients based on their QOL domain 2 (psychological health)**

Out of 81 samples, from **Figure 5**, the mean score of psychological health was initially 41.53 which increased to 81.61. Hence an improvement of 40% was found.

From the study, it was found that there is a significant difference in the psychological health domain since p-value is 0.000 using Wilcoxon sign rank test.

6. **Distribution of patients based on their QOL domain 3 (social relationship)**

Out of 81 samples, from **Figure 6**, the mean score of relationship was initially 44.14 which increased to 72.32. Hence an improvement of 28.2% was found.

From the study, it was found that there is a significant difference in the social relationship domain since p-value is 0.000 using Wilcoxon sign rank test.

7. Distribution of patients based on their QOL domain 4 (environmental health)

Out of 81 samples, from **Figure 7**, the mean score of environmental health was initially 44.06 which increased to 78.60. Hence an improvement of 34.54% was found.

From the study, it was found that there is a significant difference in the environmental health domain since p-value is 0.000 using Wilcoxon sign rank test.

8. Distribution of patients according to their quality of life

Out of 81 samples, from table 8 and **Figure 8**, the mean score of total quality of life was initially 176.48 which increased to 311.62. Hence an improvement of 34% was found.

From the study, it was found that there is a significant difference in the quality of life since p-value is 0.000 using Wilcoxon sign rank test.

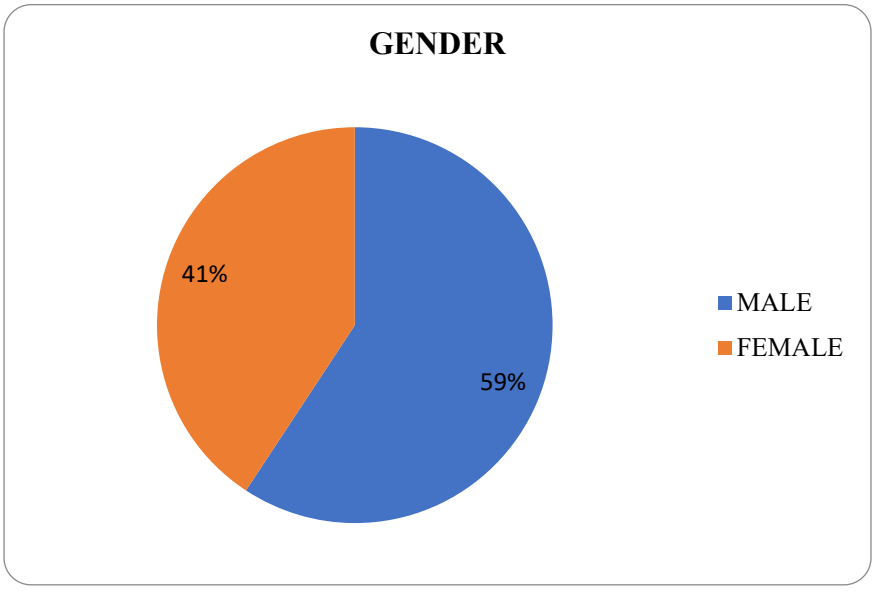

Figure 1: Distribution of patients with bipolar according to gender

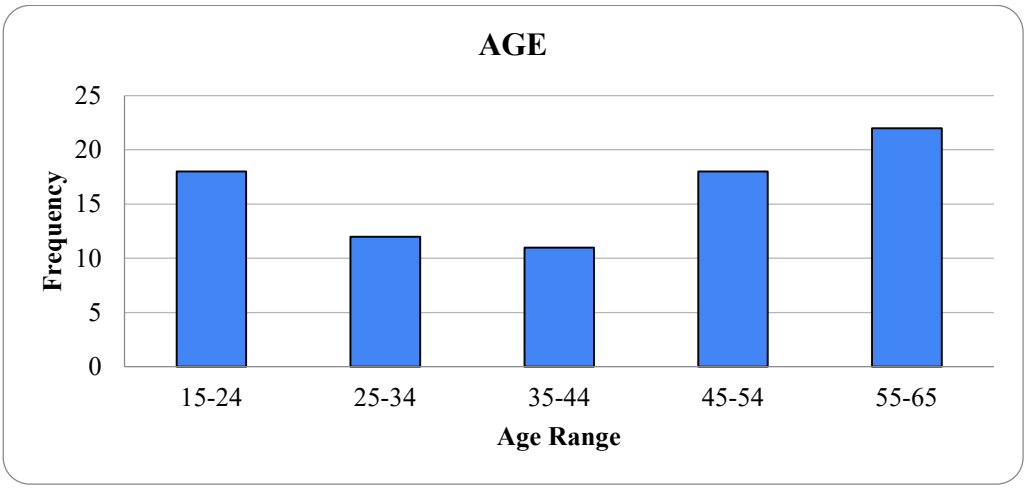

Figure 2: Distribution of patients with bipolar according to age

Table 3: Distribution of MARS-10 before and after scores among bipolar patients.

MARS-10 SCORE	BEFORE	AFTER
≤5	64	5
>5	17	76

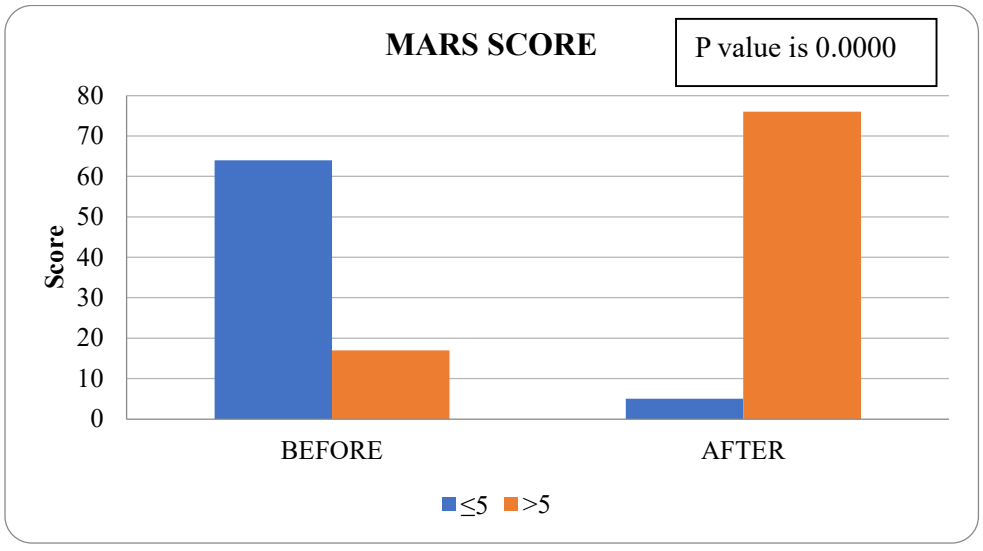

Figure 3: Distribution of MARS-10 before and after scores among bipolar patients.

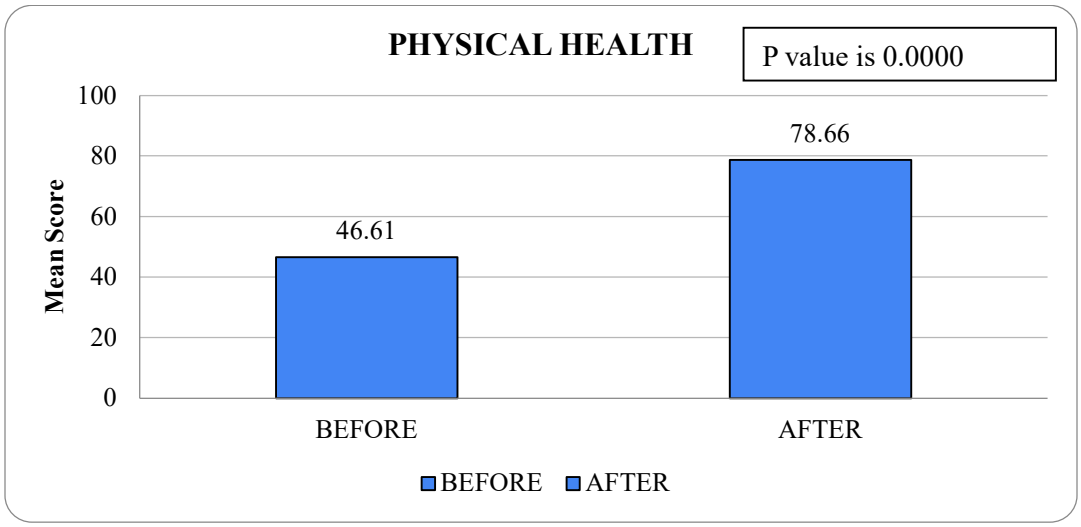

Figure 4: Distribution of patients based on their QOL domain 1 (physical health)

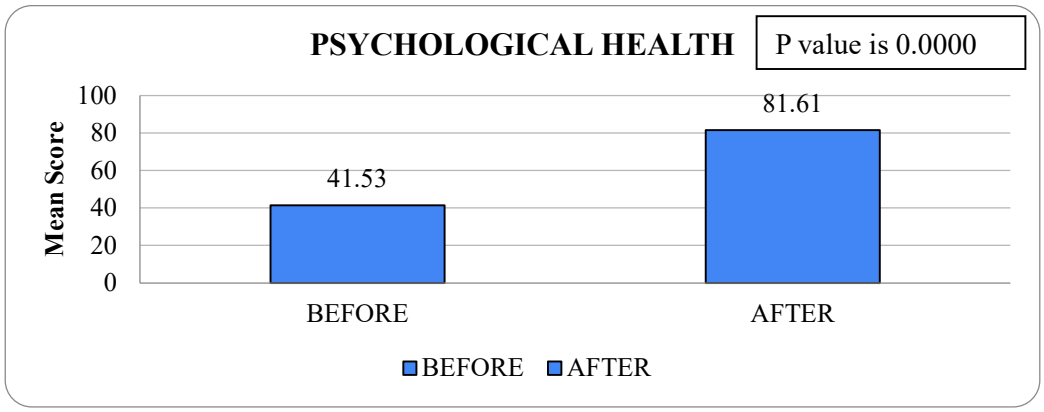

Figure 5: Distribution of patients based on their QOL domain 2 (psychological health)

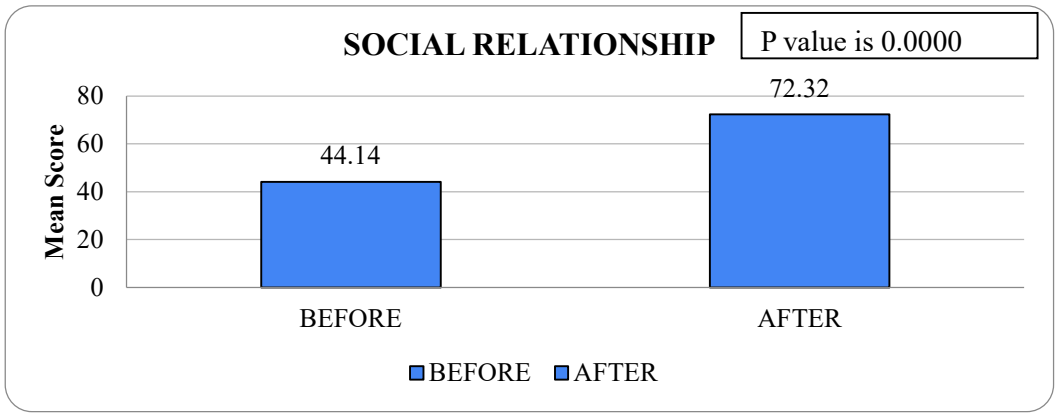

Figure 6: Distribution of patients based on their QOL domain 3 (social relationship)

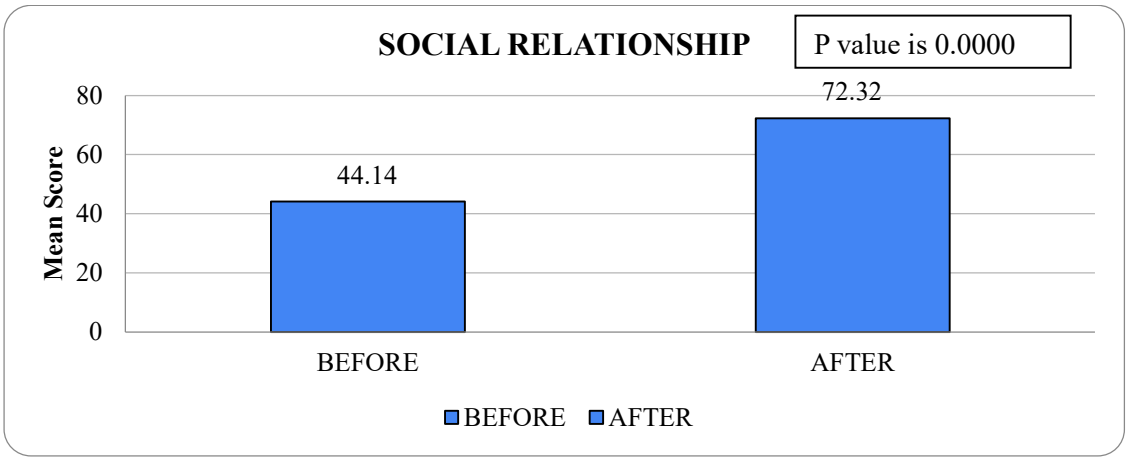

Figure 7: Distribution of patients based on their QOL domain 4 (environmental health)

Table 8: Distribution of patients according to their quality of life.

QUALITY OF LIFE	BEFORE	AFTER
MEAN SCORING	176.48	311.62
PERCENTAGE	44%	78%

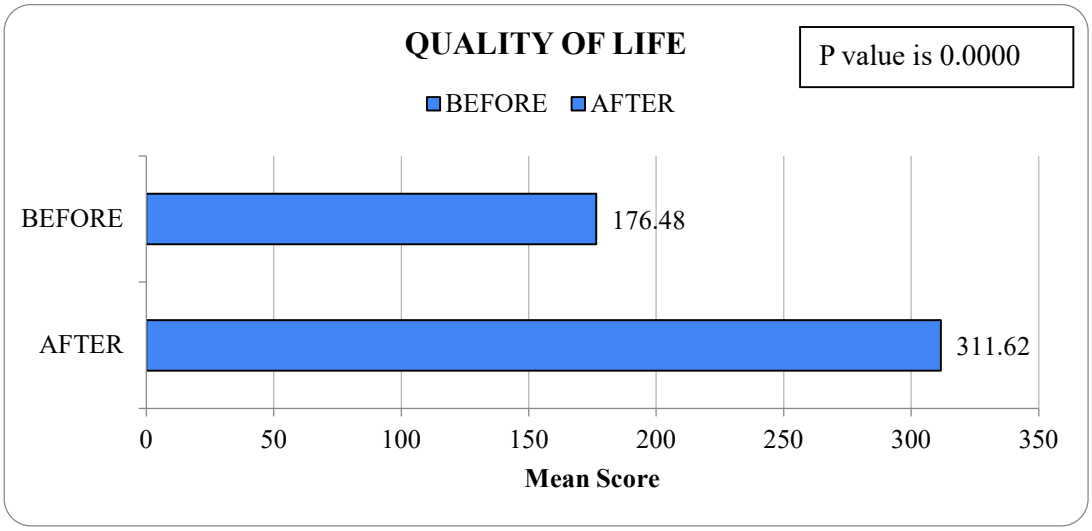

Figure 8: Distribution of patients according to their quality of life

DISCUSSION

This study was conducted to evaluate the impact of counselling in improving medication adherence on bipolar patients and thereby assess their quality of life. The patients' demographic details were collected. The patients' data was analysed using standardised medication adherence and quality of life questionnaires. Out of 81 subjects taken in this study, males were more affected by bipolar disorder than females. The male predominance (59.26%) can be attributed due to the financial burden, irregular dietary habits and inability to express

one's emotion. This result is similar to the study conducted by Selvin AE, *et al*., (2021) **[6]** where majority of the patients are male compared to female. Majority of the patients with bipolar disorder belonged to the age group 55-65 years (27.16%) since as age increases the episodes of bipolar increases. The findings were similar to study conducted by Coryell, W. *et al*. (2009). **[7]** Out of 81 patients taken in this study, 64 patients showed a score of ≤5 (low adherence) and 17 patients scored >5 (high adherence). On their follow up visits, 81 patients were asked again to respond to the MARS-10 questionnaire which resulted in 5 patients scoring ≤5 (low adherence) and 76 patients scoring >5 (high adherence). There was an improvement seen as a result of clinical pharmacist led collaborative treatment approach. The findings are similar to the study conducted by Deep R, *et al*., (2022) **[8]**.

Out of 81 patients taken in this study, the physical health of the patient improved by 32% due to clinical pharmacist led collaborative treatment approach. The result is similar to study conducted by Soumya P. Thomas, *et al*., (2016) **[9]**. The psychological health of the patient improved by 40% due to clinical pharmacist led collaborative treatment approach. The finding is similar to the study conducted by Malini Govinadan, *et al*., (2020) **[10]**. The social relationship of the patient has improved by 28.2% as counselling was provided even to their bystanders which helped in increasing their understanding about the disease condition and developing a positive attitude towards the patient and their treatment. The findings are similar to the study conducted by Malini Govinadan, *et al*., (2020) **[10]**. The environmental health of the patient has improved by 34.54% as counselling was provided even to their bystanders which helped in developing a positive attitude towards the patient and their treatment. The findings are similar to the study conducted by Malini Govinadan, *et al*., (2020) **[10]**. Hence, the overall quality of life of the patient has improved by 34% as a result of clinical pharmacist led collaborative treatment approach also counselling was provided even to their bystanders which helped in developing a positive attitude towards the patient and their treatment. The result is similar to study conducted by Singh P, *et al*., (2017) **[11]**.

CONCLUSION

Bipolar disorder is one of the leading causes of disability and impairs quality of life of the patients through mood swings; personal suffering; disturbed familial support and uneven socio-economic functioning. Through this study we measured the effect of

counselling on various domains of quality of life of the patients with bipolar disorder. Medication adherence and quality of life were analysed using standardised questionnaires. The patients have shown an improvement in their medication adherence which subsequently improved their quality of life when compared to their initial scores as the counselling provided was aimed towards patient-centred health and to achieve the desired therapeutic outcome.

There was an improvement seen as a result of the crucial role played by clinical pharmacist in counselling the patients about their treatment that they have received and providing support throughout their visit to the hospital. Clinical Pharmacist-led collaborative counselling treatment have helped the patients in understanding about their condition and developing a positive attitude towards their treatment which stabilised their mood disorder and reduced the risk of relapse.

ACKNOWLEDGEMENT

The authors are grateful to thank the research guide Dr Nithin Manohar R, Professor, Department of Pharmacy Practice, Pushpagiri College of Pharmacy, Thiruvalla, for his valuable support and supervision. We extend our gratitude to co-guide Mrs. Anjana George, Assistant Professor, Department of Pharmacology, Pushpagiri College of Pharmacy, Thiruvalla and Dr Roy Abraham Kallivayalil, Professor and Head of the Department, Department of Psychiatry, Pushpagiri Institute of Medical Sciences, Thiruvalla. Special Thanks to Mr. Vijaylal Vijayan, Clinical Psychologist, Pushpagiri Institute of Medical Sciences for his co-operation and support. Also, thanks to Prof. Dr Santhosh M Mathews, Principal, Pushpagiri College of Pharmacy, Thiruvalla.

Conflict of interest

The authors declared no potential conflicts of interest with respect to the research, authorship
and/or publication of this article.

Funding

The authors received no financial support for the research, authorship and/or publication of this
article.

Ethical consideration

Institutional Ethics/Human Ethics Committee approval was obtained with IEC number: PCP/IEC-02B/1/PD-2022, PCP/IEC-02B/2/PD-2022, PCP/IEC-02B/3/PD-2022, PCP/IEC-02B/4/PD-2022.

REFERENCES

[1] American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text

Revision. Washington, DC: American Psychiatric Association, 2000:345–401.

[2] American Psychiatric Association. Practice guideline for the treatment of patients with bipolar disorder (revision). Am J Psychiatry 2002;159:1–50.

[3] Goldberg JF, Harrow M, eds. Bipolar Disorders: Clinical Course and Outcome. Washington, DC: American Psychiatric Press, 1999;11-16

[4] Levin, J.B. *et al*. (2016) "Medication adherence in patients with bipolar disorder: A comprehensive review," CNS Drugs, 30(9), pp. 819–835.

[5] Vieta E. (2005). Improving treatment adherence in bipolar disorder through psychoeducation. J Clin Psychiatry, 66 Suppl 1, 24–29.

[6] Selvin AE, Sreekumar S, P JV. Attitude towards drug adherence in inpatients with bipolar affective disorder: A cross-sectional study. Kerala j. psychiatry. 2021;34(1).

[7] Coryell W, Fiedorowicz J, Solomon D, Endicott J. Age transitions in the course of bipolar I disorder. Psychol Med. 2009;39(8):1247–52.

[8] Deep R, Kumar S, Singh S, Mahal P, Vishwakarma A. Assessment of lithium-related knowledge and attitudes among patients with bipolar disorder on long-term lithium maintenance treatment. Indian J. Psychiatry. 2020;62(5):577-81.

[9] Thomas SP, Nisha A, Varghese PJ. Disability and quality of life of subjects with bipolar affective disorder in remission. Indian J Psychol Med.2016;38(4):336–40.

[10] Kumar K K, Govinadan M, Sattar FA, B S, VP V. Quality of life in bipolar affective disorder: Relationship with demographic and clinical variables. Telangana j. psychiatry. 2020;6(1):47–57.

[11] Singh PA, Madiwalayya S G, Bheemsain T, Shashikala W. The impact of clinical pharmacist lead collaborative care on quality of life of the patients with bipolar disorder: A unicenter prospective, randomization study. Indian J. Pharm. Educ. Res. 2017;51(2s).