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Perceived Social Support and Relapse in Bipolar Affective Disorder: A Cross-Sectional Study

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ABSTRACT

Bipolar affective disorder (BAD) is a chronic mental disorder with a global lifetime prevalence of 2.4%. Emerging evidence highlights the significance of psychosocial variables, particularly the impact of social support in its clinical course. A cross-sectional study was carried out from March 2021 to August 2021 at the Outpatient Department of Psychiatry at Dr. Ruth Pfau Civil Hospital, Karachi, Pakistan. Participants included patients aged 18 to 65, diagnosed with BAD according to ICD-10 criteria. Those with coexisting medical conditions or substance use were excluded. Patients meeting the inclusion criteria provided informed consent. The principal investigator collected demographic data and illness history using a structured form. Perceived social support was assessed using the Multidimensional Scale of Perceived Social Support (MSPSS). Data were analyzed using SPSS Version 20. Among 94 subjects, 36 (38.3%) were male and 58 (61.7%) were female, with a mean perceived social support (PSS) score of 4.818. Females reported significantly higher support than males (5.16 vs. 4.25, $p < 0.001$). Patients experiencing significant life events (SLE) had lower PSS (4.33 vs. 5.14, $p < 0.002$). Relapses in the past five years were linked to a family history of BAD ($p < 0.001$) and SLE ($p < 0.00$). Patients with BAD perceived moderate social support, with females reporting higher levels. Those experiencing SLE reported lower support. The number of relapses was significantly associated with family history and recent significant life events.

Keywords: *Bipolar Affective Disorder, Mania, Depression, Multidimensional Perceived Social Support, Significant Life Event, Relapse.*

INTRODUCTION

Bipolar affective disorder (BAD) is a lifelong mental health condition characterized by frequent mood disturbances. It is often associated with various psychiatric and medical comorbidities, significantly increasing the risk of serious suicide attempts and contributing to mortality and disability globally. The

2017 Global Burden of Disease study found that bipolar disorder accounts for 0.37% of all disability-adjusted life years (DALYs), highlighting its significant impact on overall health and well-being worldwide.[1] The lifetime prevalence of BAD is 2.4% worldwide, as indicated by a World Mental Health survey across 11 countries.[2] Recent reviews indicate that approximately 0.6% of people in South Asia are affected by bipolar disorder, shedding light on its presence and impact in the region.[3] In Pakistan, while comprehensive data is limited, the World Health Organization reports that 30 to 40% of patients in psychiatric facilities suffer from mood disorders.[4] A survey conducted across multiple universities in Pakistan revealed that 14.3% of students showed symptoms consistent with the bipolar spectrum, highlighting a notable prevalence among young adults in academic settings.[5]

Patients with BAD typically experience cyclical episodes of mood disturbances. Depressive episodes are characterized by low mood, lack of energy, and pessimistic thoughts, while manic episodes present as elevated mood, increased energy, and self-important ideas. Between episodes, patients may experience complete recovery.[6] Despite advancements in treatment, BAD frequently leads to relapses, adversely affecting psychosocial functioning. A follow-up study indicated that 60% of bipolar patients were readmitted at least once within 4.5 years due to relapse or poor functioning post hospitalization.[7] Even with adherence to medication, there remains a 73% risk of relapse within five years, with many patients experiencing multiple relapses.[8] In Asia, recurrent episodes are often predominantly manic, leading to unemployment, interpersonal stress, and a diminished quality of life. This not only places a significant burden on patients but also strains healthcare systems, with economic costs estimated as high as $45 billion.[9]

Research suggests that biological, psychological, and social factors collectively impact illness progression.[10] When bipolar disorder begins at an early age, it's often linked to more frequent mood swings and a greater chance of experiencing psychosis. Additional health issues, like substance use, can also act as triggers, making mood episodes more likely to occur.[11] A family history of mood disorders is a strong predictor of higher relapse rates in individuals with bipolar disorder. Additionally, noncompliance with treatment is a significant challenge, with up to 60% of patients not fully adhering to their prescribed care.[12]

Even during remission, patients with BAD experience reduced wellbeing and functioning relative to individuals with other medical conditions and mood disorders.[13] Longitudinal studies show that one-third of patients with a first episode of mania achieve their pre morbid functioning over a period of two years.[14] People with bipolar affective disorder (BAD) often face ongoing struggles in their relationships and experience significant challenges in expressing themselves and interacting socially. These issues can continue even during periods when their mood is stable (euthymic phases) and they may not be showing obvious symptoms of the illness.[15] Compared to the general population, BAD patients generally report lower levels of social support, which may correlate with the course and severity of their condition. There is a significant correlation between social support levels and relapse rates in BAD patients. [19-21]

While some studies have explored the effects of social support on mental health among various Pakistani populations, its specific impact on bipolar patients has not been extensively researched.[22-24] This study explored the relationship between perceived social support and the frequency of relapses in individuals with bipolar disorder. The results highlight the crucial role of psychosocial support in managing the condition, emphasizing the importance of collaboration between patients, their families, and clinicians. By strengthening social support networks, the study suggests that it could help reduce both the long-term health complications and the financial strain often linked to intensive pharmacological treatments for individuals with bipolar disorder.

METHODOLOGY

Study Design

Descriptive Cross-Sectional Study.

Study Setting

Conducted at the Outpatient Department of Psychiatry, Dr. Ruth Pfau Civil Hospital, Karachi, Pakistan.

Duration of Study

Six months following the approval of the synopsis.

Sample Size

The sample size was 94 cases, determined using Open Epi software, with a 95% confidence interval, considering a relapse prevalence of 73% and an absolute precision of 9%.

Sampling Technique

Consecutive sampling method.

Inclusion Criteria

- Patients aged 18 to 65 diagnosed with bipolar affective disorder for at least five years.
- Patients who consented to participate in the research.

Exclusion Criteria

- Patients diagnosed with bipolar disorder for less than five years.
- Individuals with intellectual disabilities.
- Patients with comorbid conditions such as diabetes mellitus, hypertension, thyroid disorders, or dementia.
- Individuals abusing illicit drugs.
- Those with a history of significant head injuries.

Data Collection Procedure

The study began following approval from the College of Physicians and Surgeons of Pakistan. Patients visiting the psychiatric outpatient clinic were approached. Subjects diagnosed with bipolar affective disorder by their primary psychiatrist and meeting the selection criteria were enrolled. Patients who gave informed consent were interviewed. Data were collected using a pre-designed questionnaire, which included patient demographics (age, sex, education, number of mood episodes, duration of illness, and any recent significant life events). Perceived social support was assessed using the Multidimensional Scale of Perceived Social Support (MSPSS).

Statistical Analysis

Data were entered into Microsoft Excel and analyzed using SPSS Version 20. Frequencies and percentages for categorical variables such as gender, marital status, residence, education, current mood status, and recent life incidents were calculated. Mean and standard deviation (SD) were computed for

total perceived social support, support from significant others, family support, and friend support. Effect modifiers—gender, marital status, residence, education, age of onset, duration of illness, and recent life events—were controlled through stratification. Post-stratification, an independent sample t-test was performed to correlate perceived social support with effect modifiers, while a chi-square test was used to examine the frequency of relapse concerning effect modifiers. A p-value of ≤ 0.05 was considered significant.

RESULTS

In this study, 94 patients were included to evaluate the frequency of relapse and perceived social support among individuals with bipolar affective disorder attending a tertiary care hospital. The findings are summarized as follows:

Table 1

Frequencies in percentages of characteristics of patients with bipolar affective disorder

Patient characteristics	Frequencies (%)
Gender	
Male	36 (38.3%)
Female	58 (61.7%)
Marital Status	
Single	31 (33.0%)
Married	55 (59.0%)
Divorced	8 (9.0%)
Residence	
Urban	82 (87.2%)
Rural	12 (12.8%)
Education	
No formal education	9 (10.0%)
Primary to secondary	13 (14.0%)
More than secondary	72 (77.0%)
Family History of Bipolar disorder	
Yes	32 (34.0%)
No	62 (66.0%)
Duration of illness	
5 years or less	30 (31.9%)
More than 5 years	64 (68.1%)
Frequency of relapses	
1-4	49 (52.1%)

>5	45 (47.9%)
Current mood status	
Remission	67 (71.2%)
Depression	12 (12.8%)
Mania	3 (3.2%)
Hypomania	12 (12.8%)

In terms of gender, the study included 36 male patients (38.3%) and 58 female patients (61.7%). Regarding marital status, 31 patients (33%) were single, 55 (59%) were married, and 8 (9%) were divorced or separated. When looking at the area of residence, 82 patients (87.2%) were from urban areas, while 12 (12.8%) lived in rural regions. In terms of education, 72 patients (77%) had education beyond secondary school, 13 (14%) had primary education, and 9 (10%) had no formal education. A family history of bipolar affective disorder was reported in 32 patients (34%), while 62 patients (66%) did not have such a history. Regarding the duration of illness, 30 patients (31.9%) had been diagnosed for five years or less, while 64 (68.1%) had been living with the condition for more than five years. Over the past five years, 49 patients (52.1%) experienced 1 to 4 relapses, while 45 (47.9%) had more than 5 relapses. At the time of the interview, 67 patients (71.3%) were in remission, 12 (12.8%) were hypomanic, 12 (12.8%) were depressed, and 3 (3.2%) were manic.

Table 2

Level of Multidimensional Perceived Social Support

Social Support	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Total MPSS	5.59	1.41	7.00	4.8182	1.29734	1.683
PSS from significant other	6.00	1.00	7.00	5.0346	1.54746	2.395
PSS from Family	5.25	1.75	7.00	5.3352	1.69857	2.885
PSS from Friends	6.00	1.00	7.00	3.7952	1.99561	3.982

The mean level of Total Perceived Social Support was 4.818. The mean social support scores for the subscales of "Significant Other," "Family," and "Friend" were calculated, with results shown in Table 2.

Table 3

Independent sample t-test of demographic factors with level of Multidimensional Perceived Social support. (p<0.05 as statistically significant denoted by asterisks)

Patient Characteristics	Perceived Total Social Support (Mean ± SD)	P value
Gender		
Male	4.25 ± 1.19	0.001*

Female	5.16 ± 1.24	
Residence		
Urban	4.89 ± 1.14	0.111
Rural	4.26 ± 2.03	
Family History of Bipolar disorder		
Yes	4.80 ± 1.14	0.956
No	4.82 ± 1.37	
Duration of illness		
5 years or less	4.71 ± 1.17	0.617
More than 5 years	4.86 ± 1.35	
Significant life event		
Yes	4.33 ± 1.39	0.002*
No	5.14 ± 1.12	
Age at onset of illness		
20 years or less	4.89 ± 1.37	0.339
20 or more years	4.61 ± 1.08	

Post-stratification correlation analysis, using an independent sample t-test, is shown in Table 3. The results revealed that female patients reported significantly higher levels of perceived social support compared to male patients (5.16 ± 1.24 vs. 4.25 ± 1.19, p-value < 0.001). Additionally, patients who had experienced a significant adverse life event reported notably lower levels of perceived social support compared to those who had not (4.33 ± 1.39 vs. 5.14 ± 1.12, p-value < 0.002). However, no significant differences were observed in total perceived social support based on other factors, including residence, age of onset, family history of bipolar disorder, and duration of illness.

Table 4

Table of Chi-Square of patient characteristics with number of relapses. (p<0.05 as statistically significant denoted by asterisks)

Patient Characteristics	1–4 relapses n=49 (52.1%)	5 or more relapses n=45 (47.9%)	P value
Gender			
Male	16 (32.7%)	20 (44.4%)	0.240
Female	33 (67.3%)	25 (55.6%)	

Residence			
Urban	43 (87.8%)	39 (86.7%)	0.874
Rural	6 (12.2%)	6 (13.3%)	
Age at onset of illness			
20 years or less	37 (75.5%)	30 (66.7%)	0.344
More than 20 years	12 (24.5%)	15 (33.3%)	
Marital status			
Single	18 (36.7%)	13 (28.9%)	0.561
Married	28 (57.1%)	27 (60%)	
Divorced /separated	3 (6.1%)	5 (11.1%)	
Education			
No formal education	6 (12.2%)	3 (6.7%)	0.078
Primary to secondary education	10 (20.4%)	3 (6.7%)	
More than secondary education	33 (67.3%)	39 (86.7%)	
History of bipolar disorder			
Yes	9 (18.4%)	23 (51.1%)	0.001*
No	40 (81.6%)	22 (48.9%)	
Significant life event			
Yes	10 (20.4%)	28 (62.2%)	0.000*
No	39 (79.6%)	17 (37.8%)	
Duration of illness			
5 years or less	17 (34.7%)	13 (28.9%)	0.546
More than 5 years	32 (65.3%)	32 (71.1%)	

A post-stratification chi-square test was conducted to examine the relationship between the frequency of relapses and effect modifiers, as shown in Table 4. Among patients with 1 to 4 relapses in the past five years, only 18.1% had a family history of bipolar illness, compared to 51% of those with 5 or more relapses. Additionally, a history of significant life events was significantly associated with the number of relapses over the past five years; 62.2% of patients who experienced significant life events had more than 5 relapses, compared to 20.8% who had 1 to 4 relapses. The correlation of relapse frequency with gender, residence, age of onset, marital status, and education was not statistically significant.

Table 5

Chi-Square of significant life event with manic episodes

Significant Life Event	None	1-3	4-6	More than 6	P value
Yes	3 (33.3%)	23(25.3%)	6 (40%)	6 (100%)	0.23
No	6 (66.7%)	41(64.1%)	9 (60%)	0	

Table 6

Chi-Square of significant life event with depressive episodes

Significant Life Event	None	1-3	4-6	More than 6	P value
Yes	6 (20%)	12 (40%)	3 (23.1%)	17 (81%)	0.00*
No	24 (80%)	18 (60%)	10 (76.9%)	4 (19%)	

Relationship between significant life events with manic and depressive episodes have been shown in Tables 5 and 6 respectively. There is a strong correlation of significant life events with depressive episodes ($p < 0.000$).

DISCUSSION

Physical and mental health is significantly impacted by the level of social support he receives from his social circle [25]. While social support has been studied in relation to bipolar disorder, its measurement and relevance have received limited attention in South Asian populations .Although considerable research has explored the impact of social support and mental health in the Pakistani population,[26,27] there are no studies assessing social support in patients with bipolar disorder in Pakistan. Multiple cross-sectional studies conducted in the West have reported that individuals with bipolar disorder have lower levels of social support compared to healthy controls.[28-31] Findings from a Turkish study indicated that reduced perceived social support, as measured by the MSPSS, correlated with higher incidences of suicide attempts, longer durations of untreated illness, and slower recovery times, and sub threshold depressive symptoms.[32]

Despite the equal prevalence of bipolar disorder in both genders,[33] this study showed a higher number of females compared to males. This discrepancy may be attributed to higher rates of comorbid substance use in men.[34] As a result, men with comorbid substance use were excluded from this study. The findings showed that patients reported a moderate level of multidimensional social support, which contrasts with findings from studies conducted in Western contexts. Interestingly, family support was rated higher than support from friends and significant others, which may reflect the collectivist nature of Pakistani culture. In such cultures, there is often a strong emphasis on commitment, adherence to social norms, and fostering social connections, leading to a greater sense of belonging and community rather than isolation.[35] The results of this study are significant for collectivistic societies like Pakistan, where strong family ties and integration can help mitigate the negative effects of chronic medical and psychiatric illnesses. Research suggests that individuals with a stronger orientation toward collectivism tend to experience better mental health, reporting lower levels of depression, anxiety, and stress.[36] Conversely,

another cross-cultural study negated social support as a protective mediator in collectivist cultures compared to individualistic cultures.[37]

In this study, females reported higher levels of perceived social support compared to males. This gender difference is consistent with findings from previous studies within the Pakistani population.[38,39]. In Turkey women in comparison to men, exhibited higher scores in relational and individual self-aspects, as well as perceived family support.[40] Females often utilize emotional strategies to address daily challenges, leading to greater attention and assistance. In contrast, men may resort to negative coping mechanisms such as denial and substance use, which can heighten their stress.[41] Women are generally more emotionally expressive and possess better socialization skills, enabling them to garner more support from their social networks than men.[42]

A history of adverse life events within the past six months was linked to lower levels of perceived social support among the patients. Such events can contribute to increased feelings of depression, further affecting individuals' overall well-being and support networks.[43] According to cognitive theory, depression is linked to negative perceptions of oneself, the world, and the future.[44] Depressed individuals may struggle to recognize or fully utilize the support available within their social networks due to irrational thought patterns. This could help explain the lower levels of perceived social support observed among participants who had recently experienced life stressors.

This study found that multidimensional social support was not significantly associated with the age at onset, the length of illness, or a family history of bipolar disorder. The absence of an association between age of onset and social support has also been documented in previous research. Both younger and older patients with bipolar affective disorder exhibited lower levels of social support compared to healthy controls.[30] However, a recent study from Brazil found that bipolar patients with an earlier age of onset reported lower levels of tangible social support, experienced longer durations of illness, and had a higher number of suicide attempts compared to those with a later onset of the disorder.[45]

Numerous studies have shown that individuals with positive family history of bipolar disorder experience more severe course of illness[46] .A case report from the Pakistani population corroborated this finding, revealing that family history is strongly linked to earlier age of onset, more aggressive episodes, and frequent relapses.[47] This study supports the association of positive family history of bipolar illness with the increased frequency of relapses.

The correlation between significant life events and mood episodes has been widely studied. A cross-sectional study in Japan found that bipolar patients experiencing depression or mania reported higher psychological distress during stressful life events compared to euthymic patients. In that study, the severity of depressive symptoms, rather than manic symptoms, was associated with significant life events.[48] This raises the question of whether stressful life events result from mood episodes in bipolar patients. A Dutch study found that negative life events worsened both manic and depressive symptoms, with positive events triggering manic symptoms and negative ones linked to depression. [49] In this study, participants reporting a significant life event in the last six months had more than five relapses in the past five years, with these relapses being predominantly depressive rather than manic.

STRENGTHS OF THE STUDY

In Pakistan, there have been no prior studies evaluating social support among bipolar patients. This study contributes in the available literature that bipolar patients in Pakistan reported moderate level of perceived social support. This enables comparisons of social support levels between bipolar patients in Pakistan and those from non-Pakistani studies, helping to understand the differences based on sociodemographic, cultural, and racial factors. The findings can serve as a foundation for longitudinal studies assessing the

relationship between social support, stressful life events, and relapses in the course of illness. A notable aspect of this study is that the majority of patients were assessed during the euthymic phase.

LIMITATIONS

The study's limited sample size and its confinement to one public sector hospital reduce the generalizability of the results to wider populations. Another limitation is the potential impact of recall bias on the findings. We recommend conducting further large-scale, multicenter studies that include a greater number and diversity of participants.

CLINICAL IMPLICATIONS

This study emphasizes the importance of social networks in the clinical course of bipolar patients. Pakistani society exemplifies a collectivist culture, where strong social ties and bonds are prioritized. Clinicians and therapists can leverage this cultural aspect to design interpersonal and family therapies that may lead to better outcomes for bipolar patients.

CONCLUSION

The concept of social support and its influence on physical and mental health has emerged as a crucial adjunct to medical treatment. Its role in shaping the course of bipolar disorder has been researched for several decades. In the context of Pakistani culture, this study is the first to report on the levels of perceived support among bipolar patients, who were found to have moderate levels of multidimensional perceived social support. Women reported higher levels of support compared to men. Additionally, significant life events were associated with lower levels of perceived social support and an increased number of relapses over five years of illness.

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REFERENCES

He H, Hu C, Ren Z, Bai L, Gao F, Lyu J. Trends in the incidence and DALYs of bipolar disorder at global, regional, and national levels: Results from the global burden of Disease Study 2017. Journal of psychiatric research. 2020;125:96-105.

Merikangas KR, Jin R, He JP, Kessler RC, Lee S, Sampson NA, et al. Prevalence and correlates of bipolar spectrum disorder in the world mental health survey initiative. Archives of general psychiatry. 2011;68(3):241-51.

Naveed S, Waqas A, Chaudhary AMD, Kumar S, Abbas N, Amin R, et al. Prevalence of Common Mental Disorders in South Asia: A Systematic Review and Meta-Regression Analysis. Frontiers in psychiatry. 2020;11:573150.

Najam S, Chachar AS, Mian AJPJoNS. The mhgap; will it bridge the mental health Treatment gap in Pakistan? 2019;14(2):28-33.

Iqbal SM, Rahman R-U, Saad M, Farid J, Zafar SJIJoABS. Prevalence of vulnerability for bipolar spectrum disorder among students of Pakistan. 2014;1(2):3-8.

Harrison PJ, Cowen P, Burns T, Fazel M. Shorter Oxford textbook of psychiatry: Oxford university press; 2017.

Goldberg JF, Harrow M, Grossman LSJTAjop. Course and outcome in bipolar affective disorder: a longitudinal follow-up study. 1995;152(3):379-84.

Gitlin MJ, Swendsen J, Heller TL, Hammen CJTAjop. Relapse and impairment in bipolar disorder. 1995;152(11):1635-40.
Sajatovic MJAJMC. Bipolar disorder: disease burden. 2005;11(3 Suppl):S80-4.
Saunders KE, Goodwin GMJAipt. The course of bipolar disorder. 2010;16(5):318-28.
Leboyer M, Henry C, Paillere-Martinot ML, Bellivier FJBd. Age at onset in bipolar affective disorders: a review. 2005;7(2):111-8.
Lingam R, Scott JJAps. Treatment non-adherence in affective disorders. 2002;105(3):164-72.
Cooke RG, Robb JC, Young LT, Joffe RTJJoad. Well-being and functioning in patients with bipolar disorder assessed using the MOS 20-ITEM short form (SF-20). 1996;39(2):93-7.
Tohen M, Hennen J, Zarate Jr CM, Baldessarini RJ, Strakowski SM, Stoll AL, et al. Two-year syndromal and functional recovery in 219 cases of first-episode major affective disorder with psychotic features. 2000;157(2):220-8.
Robb JC, Cooke RG, Devins GM, Young LT, Joffe RTJJopr. Quality of life and lifestyle disruption in euthymic bipolar disorder. 1997;31(5):509-17.
Reblin M, Uchino BNJCoip. Social and emotional support and its implication for health. 2008;21(2):201-5.
Feeney BC, Collins NLJP, review sp. A new look at social support: A theoretical perspective on thriving through relationships. 2015;19(2):113-47.
Owen R, Gooding P, Dempsey R, Jones SJCp, psychotherapy. The reciprocal relationship between bipolar disorder and social interaction: A qualitative investigation. 2017;24(4):911-8.
Johnson L, Lundström O, Åberg-Wistedt A, Mathé AAJBD. Social support in bipolar disorder: its relevance to remission and relapse. 2003;5(2):129-37.
Weinstock LM, Miller IWJCP. Psychosocial predictors of mood symptoms 1 year after acute phase treatment of bipolar I disorder. 2010;51(5):497-503.
Waqas A, Raza N, Lodhi HW, Muhammad Z, Jamal M, Rehman AJPo. Psychosocial factors of antenatal anxiety and depression in Pakistan: is social support a mediator? 2015;10(1):e0116510.
Qadir F, Khalid A, Haqqani S, Medhin GJBph. The association of marital relationship and perceived social support with mental health of women in Pakistan. 2013;13:1-13.
Qadir F, Khalid A, Medhin GJW, health. Social support, marital adjustment, and psychological distress among women with primary infertility in Pakistan. 2015;55(4):432-46.
Mason BL, Brown ES, Croarkin PEJBS. Historical underpinnings of bipolar disorder diagnostic criteria. 2016;6(3):14.
Cohen SJAp. Social relationships and health. 2004;59(8):676.
Tariq A, Beihai T, Abbas N, Ali S, Yao W, Imran MJIjoer, et al. Role of perceived social support on the association between physical disability and symptoms of depression in senior citizens of Pakistan. 2020;17(5):1485.
Jameel HT, Panatik SA, Nabeel T, Sarwar F, Yaseen M, Jokerst T, et al. Observed social support and willingness for the treatment of patients with schizophrenia. 2020:193-201.
Eidelman P, Gershon A, Kaplan K, McGlinchey E, Harvey AGJBd. Social support and social strain in inter-episode bipolar disorder. 2012;14(6):628-40.
Wilkins KJHR. Bipolar I disorder, social support and work. 2004;15(Suppl):21-30.
Beyer JL, Kuchibhatla M, Looney C, Engstrom E, Cassidy F, Krishnan KRRJBD. Social support in elderly patients with bipolar disorder. 2003;5(1):22-7.
Kulhara P, Basu D, Mattoo SK, Sharan P, Chopra RJJoad. Lithium prophylaxis of recurrent bipolar affective disorder: long-term outcome and its psychosocial correlates. 1999;54(1-2):87-96.
Kazan Kizilkurt O, Giynas FE, Yazici Gulec M, Gulec HJP, Psychopharmacology C. Bipolar disorder and perceived social support: relation with clinical course, and the role of suicidal behaviour. 2019;29(4):787-93.

Kawa I, Carter JD, Joyce PR, Doughty CJ, Frampton CM, Elisabeth Wells J, et al. Gender differences in bipolar disorder: age of onset, course, comorbidity, and symptom presentation. 2005;7(2):119-25.
Diflorio A, Jones IJIrop. Is sex important? Gender differences in bipolar disorder. 2010;22(5):437-52.
Hogg MA, Vaughan GM. Social psychology: Pearson Education; 2008.
Bhullar N, Schutte NS, Malouff JMJIDR. Associations of Individualistic-Collectivistic Orientations with Emotional Intelligence, Mental Health, and Satisfaction with Life: A Tale of Two Countries. 2012;10(3).
Nosheen A, Riaz MN, Malik NI, Yasmin H, Malik SJPJoPR. Mental Health Outcomes of Sense of Coherence in Individualistic and Collectivistic Culture: Moderating Role of Social Support. 2017;32(2).
Afread PM, Nilofer A, Praveena S, Bee SA, Vasuki MJJoPSP. An effect of perceived social support on psychological distress among engineering students. 2022;6(3):5753–61-–61.
Bukhari SR, Afzal FJTIJoIP. Perceived social support predicts psychological problems among university students. 2017;4(2):18-27.
Miloseva L, Vukosavljevic-Gvozden T, Richter K, Milosev V, Niklewski GJEJ. Perceived social support as a moderator between negative life events and depression in adolescence: implications for prediction and targeted prevention. 2017;8:237-45.
Romans SE, McPherson HMJJoAD. The social networks of bipolar affective disorder patients. 1992;25(4):221-8.
Köhler-Forsberg O, Sylvia LG, Ruberto VL, Kuperberg M, Shannon AP, Fung V, et al. Familial severe psychiatric history in bipolar disorder and correlation with disease severity and treatment response. 2020;273:131-7.
Aadil M, Munir A, Arshad H, Tariq F, Anwar MJ, Amjad N, et al. Consanguinity associated with increased prevalence and severity of bipolar disorder in Pakistan: a case report highlighting the genetic link. 2017;9(7).
Beck A, Rush A, Shaw B, Emery GJNY. Cognitive therapy of depression. Guilford press. 1979.
Studart-Bottó P, Bezerra-Filho S, Sarmento S, Miranda-Scippa ÂJCP, Psychotherapy. Social support in patients with bipolar disorder and differing ages at onset. 2022;29(1):351-9.
Sato A, Hashimoto T, Kimura A, Niitsu T, Iyo MJFip. Psychological distress symptoms associated with life events in patients with bipolar disorder: a cross-sectional study. 2018;9:200.
Sam SP, Nisha A, Varghese PJJIjopm. Stressful life events and relapse in bipolar affective disorder: A cross-sectional study from a tertiary care center of Southern India. 2019;41(1):61-7.
Koenders M, Giltay E, Spijker A, Hoencamp E, Spinhoven P, Elzinga BJJoad. Stressful life events in bipolar I and II disorder: cause or consequence of mood symptoms? 2014;161:55-64.
orrent C, Bonnin CdM, Martínez-Arán A, Valle J, Amann BL, González-Pinto A, et al. Efficacy of functional remediation in bipolar disorder: a multicenter randomized controlled study. 2013;170(8):852-9.