International Journal of Global Sustainable Research (IJGSR)
Vol.2, No.9, 2024: 775-782

Prevalence and Risk Factors of Bipolar Disorder in District Dera Ismail Khan

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A R T I C L E I N F O

Keywords : BD, MDQ, D.I.Khan

Received : 21 September
Revised : 23 October
Accepted: 23 November

A B S T R A C T

Background: Bipolar disorder (BD) is a recurring mental health condition that causes individuals to experience alternating episodes of mania and depression. This research explores the prevalence and contributing risk factors for BD among young adults in District Dera Ismail Khan, with a focus on socio-demographic factors such as age, gender, educational background, and employment status. Methods: This cross-sectional study used the Mood Disorder Questionnaire (MDQ) to screen for BD among 339 participants, aged 17–37 years. Participants were asked questions on their age, gender, educational background, and employment status. Results: Results showed that 34.8% of participants screened positive for BD, with a higher prevalence in females (35.8%) compared to males (33.1%). A higher BD prevalence was also observed among older participants and those with advanced education. Additionally, unemployed individuals showed a greater prevalence of BD (37.1%) than employed individuals (23.2%). Conclusion: The findings demonstrate a significant prevalence of BD in District Dera Ismail Khan, particularly among females, young adults, individuals with higher education, and the unemployed. Mental health interventions tailored to these groups may help improve outcomes in this region

DOI: https://doi.org/10.59890/ijgsr.v2i11.2880
ISSN-E: 2828-1519
https://journal.multitechpublisher.com/index.php/ijgsr

INTRODUCTION

Bipolar disorder (BD) is a chronic and severe mental illness characterized by recurrent episodes of mania and depression, which can impair the quality of life and functioning of the affected individuals (Merikangas et al., 2020). Bipolar disorder is classified into two main subtypes: bipolar disorder type I (BDI) and bipolar disorder type II (BDII). Bipolar disorder I is characterized by episodes of mania and depression, while Bipolar disorder II presents with hypo manic and depressive episodes (karanti et al., 2020). Besides affecting approximately 2% of worldwide population, BD is an illness that usually develops in early adulthood, negatively impacting the lives of people in their most productive period (Teixeira et al., 2019). With a prevalence of around 2% globally, bipolar disorder typically emerges during early adulthood, disrupting the lives of individuals during their peak productive years (Teixeira et al., 2019). the epidemiology of BD may vary across different regions, cultures, and populations, depending on the availability and accessibility of mental health services, the awareness and stigma of mental disorders, and the diagnostic criteria and methods used (Malhi et al., 2020). Limited data exists on the exact prevalence of bipolar disorder in Pakistan. However, a study by Bashir et al. (2020) conducted in rural Khyber Pakhtunkhwa (KPK) found a significant prevalence of common mental disorders, suggesting a potential need for further investigation into bipolar disorder within the region. Khyber-Pakhtunkhwa has an underdeveloped system regarding mental health and rarity of trained and qualified professionals, deficiency of mental health resources and facilities due to low priority and budget allocations. These factors may hamper the detection, diagnosis, treatment, and prevention of BD and other mental disorders in KPK (WHO 2020).

Therefore, there is a need for a comprehensive and systematic study of the prevalence and risk factors of BD in KPK, especially in the district of Dera Ismail Khan (D.I. khan), which is one of the most populous and underdeveloped districts in the province. D.I. khan has a high burden of infectious diseases, such as diarrhea, typhoid, and tuberculosis, which may also have an impact on the mental health of the population. However, there is a lack of data and research on the epidemiology of bipolar disorder and other mental disorders in Dera Ismail Khan, which limits the understanding and management of underlying circumstances in this district.

LITERATURE RIVIEW

Therefore, there is a need for a comprehensive and systematic study of the prevalence and risk factors of BD in KPK, especially in the district of Dera Ismail Khan (D.I. khan), which is one of the most populous and underdeveloped districts in the province. D.I. khan has a high burden of infectious diseases, such as diarrhea, typhoid, and tuberculosis, which may also have an impact on the mental health of the population. However, there is a lack of data and research on the epidemiology of bipolar disorder and other mental disorders in Dera Ismail Khan, which limits the understanding and management of underlying circumstances in this district.

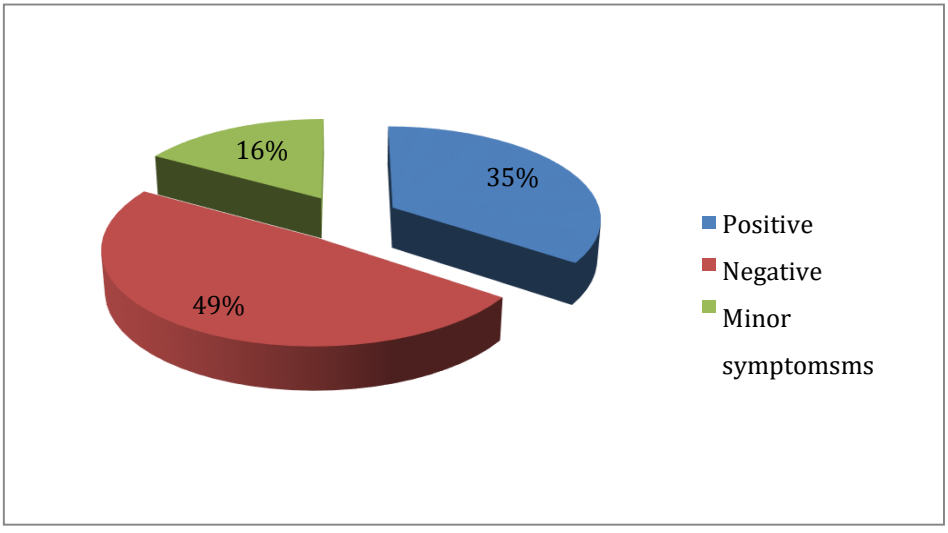
METHODOLOGY

1. ***Study Design***
   This cross-sectional study was conducted in District Dera Ismail Khan from April 10 to September 10, 2024, using the Mood Disorder Questionnaire (Hirschfield et al., 2000) to assess BD symptoms among participants.
2. ***Sample Size and Selection***
   The study sample included 339 individuals selected through random sampling. The participants ranged in age from 17 to 37 years and included 121 males and 218 females.

   - ***Inclusion Criteria:*** Individuals aged 17–37 years living in District Dera Ismail Khan.
   - ***Exclusion Criteria:*** Individuals currently receiving psychiatric treatment were excluded from the study.
3. ***Data Collection and Analysis***
   Data were collected on participants' age, gender, education level, and employment status. BD positivity was determined based on MDQ criteria, and data analysis was conducted using Microsoft Excel with descriptive statistics, tables, and graphs for presenting findings.

RESULT AND DISCUSSION

1. ***Participant Demographics***
   The sample consisted of 339 participants, with 47.2% in the 17-21 age group, 34.5% in the 22-26 age group, 13.6% in the 27-31 age group, and 4.7% in the 32-37 age group. Female participants comprised 64.3% of the overall sample.
2. ***Bipolar Disorder Prevalence***
   Out of the total participants, 118 individuals (34.8%) screened positive for BD, 165 (48.7%) screened negative, and 56 (16.5%) exhibited minor symptoms. Females had a slightly higher prevalence of BD (35.8%) than males (33.1%).



3. ***Education Level and Bipolar Disorder***
   The highest prevalence of BD was found among participants with intermediate (64.3%) and M.Phil. (33.3%) education levels, suggesting that educational attainment may play a role in BD prevalence.
4. ***Employment Status and Bipolar Disorder***
   A higher prevalence of BD was observed among unemployed individuals, with 37.1% testing positive for BD, compared to 23.2% of employed participants.

This study highlights a notable prevalence of BD among young adults in District Dera Ismail Khan, especially among females, unemployed individuals, and those with higher education levels. The higher prevalence among females aligns with other studies that show a tendency for females to report mental health issues more frequently than males. The association between BD and unemployment observed in this study reflects findings from previous studies, where unemployment has been linked to an increased risk of mental health issues. Additionally, the correlation between BD prevalence and education level may suggest that those with higher education are more aware of BD symptoms, leading to higher reporting rates. The results are partially consistent with findings by Shakeel et al. (2021), who emphasized the need for greater public awareness of BD. Studies on university students also support the observed link between advanced education and mental health disorders (Iqbal et al., 2014). This study evaluated medical students from Nishtar Medical University in Multan and Shaikh Zayed Medical College in Rahim Yar Khan, revealing that approximately 26.84% of the sample population screened positive for bipolar spectrum disorders. This study found a significantly higher prevalence of BSD compared to other parallel cross-sectional studies (Ghuloum et al,. 2011). This discrepancy is likely attributable to differences in the sample population, socio-economic culture, or a combination of both factors. The variance in the prevalence of bipolar spectrum illnesses among medical students globally may be attributed to differing curricula, study methodologies, working hours, lifestyles, and extracurricular activities. A marginally higher prevalence rate was observed in males compared to females (53.75% vs. 46.25%), which was statistically insignificant, thereby confirming the equal prevalence of bipolar disorders as indicated in other studies (Bond et al,. 2015). The age group most affected by BSD was found to be 21 to 22 years old, which is consistent with previous demographic research that indicated that symptoms typically begin to appear in early adulthood. Several factors may contribute to this trend, including the promotion of the study year, an increase in the number of subjects, skills, and clinical rotations (Cowen et al., 2011).

The neuropsychiatric condition known as bipolar disorder (BD) is typified by extreme mood swings that alternate between manic and depressive periods. While suicidality, reduced cognition, and anhedonia are indicators of depressive episodes, impulsivity, low sleep quality, and high-risk behaviour are signs of manic episodes (Khalid et al., 2018).

The prevalence and burden rates of bipolar disorder have remained stable over the past 23 years; however, demographic changes resulting from decreasing global mortality rates and an ageing population have contributed to a consistent rise in the number of prevalent cases and overall burden. Health systems must initiate planning for services capable of addressing the anticipated increase in burden. Despite the increased global attention to mental and substance use disorders resulting from previous GBD studies, there are still limited policy initiatives aimed at addressing their burden (Whiteford et al., 2017). Relatively little money is allocated to mental health, and treatment rates are still low. Approximately 0.5% of the overall health budget in low-income nations is allocated to mental health, whereas middle-income countries allocate 2.4% and high-income countries allocate 5.1% (Gater et al., 2015).

This is inconsistent with the overall burden attributable to mental and substance use disorders. In 2013, the total burden attributed to mental and substance use disorders was 10.7% in high-income countries, compared to 5% in middle-income countries and 5.2% in low-income countries, as classified by the Commonwealth's income groupings (Compare et al., 2016).

Limited pharmacotherapeutic options for bipolar disorders have demonstrated effectiveness as maintenance treatments, specifically in preventing mania and depression in randomised, double-blind, placebo-controlled trials. Certain medications authorised in various regions as maintenance therapies for bipolar illnesses have demonstrated efficacy in postponing the beginning of and diminishing the recurrence of mania, though not depression (e.g., risperidone and aripiprazole). Other medications, such as lamotrigine, have demonstrated effectiveness in maintaining antidepressant symptoms but less effectiveness in averting manic episodes. The intricacy, expense, and moral dilemmas associated with keeping individuals with bipolar illnesses on a placebo treatment for several years are major contributors to the massive gap in the evidence base for maintenance treatments. The consensus statement from the International Society of Bipolar Disorders advocates for the use of antidepressants as adjunctive treatments in individuals with stable, episodic bipolar depression, provided they do not exhibit rapid cycling, mixed features, a history of antidepressant-induced destabilisation, or any combination of these characteristics.143 Antidepressants may be used in conjunction with mood-stabilizing pharmacological agents, such as lithium, lamotrigine, and second-generation antipsychotics. Limited evidence suggests that certain antidepressants, including selective serotonin reuptake inhibitors (e.g., fluoxetine and sertraline), serotonin and norepinephrine reuptake inhibitors (e.g., venlafaxine), and norepinephrine and dopamine reuptake inhibitors and releasers (e.g., bupropion), may serve as monotherapy for both acute and maintenance treatment of adults with bipolar II depression (McIntyre et al., 2020).

Available BD treatment guidelines are based on the results of published randomized clinical trials (RCTs) and meta-analysis studies (Nivoli et al., The treatment of patients with bipolar disorder focusses on alleviating symptoms, preventing subsequent episodes (relapses and/or recurrences), and restoring prior psychosocial functioning. Professional organisations at both national and

international levels have released treatment guidelines.These provide essential evidence of efficacy in the evaluation of novel treatments and management practices. The design and structure of RCTs possess inherent limitations when considered within the broader context of the disease. Randomized controlled trials (RCTs) typically concentrate on a specific disease phase or treatment; however, in clinical practice, patients often receive multiple medications across various disease phases. Additionally, randomised controlled trials often exclude patients with severe disease or co-morbidities, including suicidal behaviour, substance dependence, and personality or anxiety disorders, which are common in bipolar disorder (Vieta et al., 2013).

In bipolar disorder (BD) and chronic schizophrenia (CS), social isolation and loneliness exhibited a significantly stronger association compared to schizophrenia alone. The association between the two variables in schizophrenia is relatively low, resembling that observed in unselected population samples, where associations approximate 0.25. As a result, the correlations between BD and CS were exceptionally high. This could be due to a number of factors, one of which is that patients with BD and maybe CS are more likely to be cognizant of and able to process emotional reactions to social isolation (such as loneliness) than people with schizophrenia (Lee et al., 2013).

Unlike the other samples, BD showed that social avoidance contributed to feelings of loneliness and isolation. A stronger propensity for social isolation and loneliness may accompany BD's tendency to avoid social situations, which may stem from a heightened sensitivity to rejection in social situations (Ng,T.H et al.m 2013).

CONCLUSIONS AND RECOMMENDATIONS

- ***Conclusions***

This study reveals a significant prevalence of BD among young adults in District Dera Ismail Khan, particularly among females, highly educated individuals, and the unemployed. The findings indicate a need for targeted mental health support, awareness initiatives, and resources for at-risk groups. Future research should expand the sample population and include longitudinal data to gain a deeper understanding of BD in this and similar communities.

- ***Recommendations***
- Establish community-based mental health screening initiatives to find untreated patients.
- Run efforts to make people more aware of mental illness to lessen the stigma that surrounds it.
- Establish community support organizations to offer patients emotional and social support.

FURTHER STUDY

The prevalence and risk factors of bipolar disorder in District Dera Ismail Khan represent a significant yet insufficiently examined domain within mental health research. The disease may be brought on by environmental stresses such political unrest, displacement, and restricted access to mental health care, as well as socioeconomic difficulties and genetic predispositions. Behaviours related to diagnosis and treatment-seeking may also be influenced by the cultural stigma associated with mental illness. Epidemiological surveys should be the main focus of future research in order to ascertain prevalence rates, pinpoint important demographic vulnerabilities, and evaluate the impact of biological and psychological risk factors. By understanding these features, it is possible to develop customised interventions and mental health policies for the region.

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