

Prevalence of Psychiatric Disorders - An Evaluation from a Psychiatric Outdoor Department with ICD-10 Diagnostic Criteria for Research (DCR)

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Abstract

Objective: This retrospective cross-sectional study explored the mental health prevalence among individuals seeking psychiatric evaluation and treatment at the outpatient department (OPD) of Shaheed Syed Nazrul Islam Medical College in Kishoregonj, Bangladesh.

Methods: Medical records of patients visiting the OPD from February 2023 to November 2023 were accessed and reviewed for relevant demographic information and psychiatric diagnoses. Patients with complete and accessible information were included, while those with incomplete records or non-psychiatric primary diagnoses were excluded. The International Classification of Diseases, 10th Revision (ICD-10), was utilized for diagnostic categorization, with diagnoses made according to established guidelines. Neurological disorders falling outside the F00-F99 category of the ICD-10 classification were also excluded to ensure sample homogeneity.

Results: In this study, anxiety disorders represented a significant portion, with generalized anxiety disorder being the most commonly observed subtype. Obsessive-compulsive disorder, dissociative disorders, and somatoform disorders also featured prominently within this category. Additionally, mood disorders were identified as a substantial portion of cases, with depressive disorder of recurrent type, and bipolar condition being the predominant subtypes. Furthermore, schizophrenia, borderline personality disorder, conduct disorders, and acute and transient psychotic disorders were notable in their prevalence. Conversely, certain disorders such as dementia, cognitive disorder, substance abuse, and delusional disorder were observed in a minority of cases.

Conclusion: A high burden of anxiety and depression disorders had been observed in this study. Additionally, the presence of schizophrenia, borderline personality disorder, and other severe mental illnesses underscores the diverse spectrum of conditions encountered. Notably, low incidence of dementia, cognitive disorders, substance abuse, and delusional disorders could be attributed to distinct characteristics of the OPD population or variations in patterns of seeking help for mental health concerns.

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Introduction

Psychiatric disorders are widespread attributing to significant disability, imposing burdens on families, and causing social disruption.¹ The prevalence of psychiatric disorders represents a critical aspect of public health, reflecting the complex interplay between biological, psychological, and social factors within a community. The negligence towards this disorder demonstrates its status as a marginalized healthcare concern within the healthcare system of Bangladesh.² Limited resources, conflicting health priorities, and societal stigma collectively fuel this negligence, exacerbating the gap in mental healthcare provision. The mental health infrastructure in our country faces significant challenges, including a shortage of trained professionals along with limited funding in mental healthcare provision.^{3,4} Only 0.44% of the entire national health budget is allocated on the sector of mental health.³ Despite recent efforts to expand mental health services, access remains a major barrier for many individuals, particularly due to scarcity of public mental health facilities.^{2,4} To serve a population of 162 million, there are only 260 psychiatrists available, contributing to a significant portion of the populace faces barriers to avail mental health services.⁵ Moreover, the barrier to seeking healthcare creates a distinct challenge to utilize mental health services. Various factors including socioeconomic status, cultural beliefs, accessibility, and stigmatized environment acts as these barriers.⁶ According to a 2018-2019 survey conducted in Bangladesh, 18.7% and 12.6% of adults and children (respectively) were prevalent with mental disorder.⁷ There is a dearth of comprehensive studies examining the range of presentation of mental disorders in Bangladesh considering the scale of the issue.⁸ One of the primary obstacles in developing epidemiological insights into a particular health condition is quantifying its

associated burden. In psychiatric epidemiology, progress has been hindered due to ongoing disagreements over the threshold level of the disorder and the persistent challenge of establishing measurement reliability. Which emphasizes systematic categorization and analysis of array of mental health conditions observed in a psychiatric referral center, thus can offer valuable insights into the breadth and diversity of mental disorders within a representative sample. Hence, the objective of this study is to generate empirical data on high-burden mental disorders utilizing data collected from a designated psychiatric outpatient department (OPD) setting at a tertiary care. Hence, to provide evidence for health policymakers to prioritize them in healthcare agendas.

Methods

Subject and setting

A retrospective cross-sectional design was utilized to investigate the prevalence of mental health disorders among individuals seeking psychiatric evaluation and treatment at the outpatient department of Shaheed Syed Nazrul Islam Medical College in Kishoregonj, Bangladesh. The study was conducted for a 6 month period from October 2023 to March 2024. Medical records of patients visited from February 2023 to November 2023 have been accessed and reviewed to extract relevant information on demographics (age, gender, socio-economic status) and psychiatric diagnosis. Medical records with complete and accessible information have been included. Medical records with incomplete or missing information and patients with non-psychiatric primary diagnoses unless co-occurring with psychiatric conditions remained excluded from the study. Patients regarded ineligible for the study if they presented with neurological disorders falling outside the F00-F99 category of the ICD-10 classification. This exclusion standard aimed to maintain the homogeneity of the study

sample and to ensure that the analysis primarily

focused on psychiatric disorders.

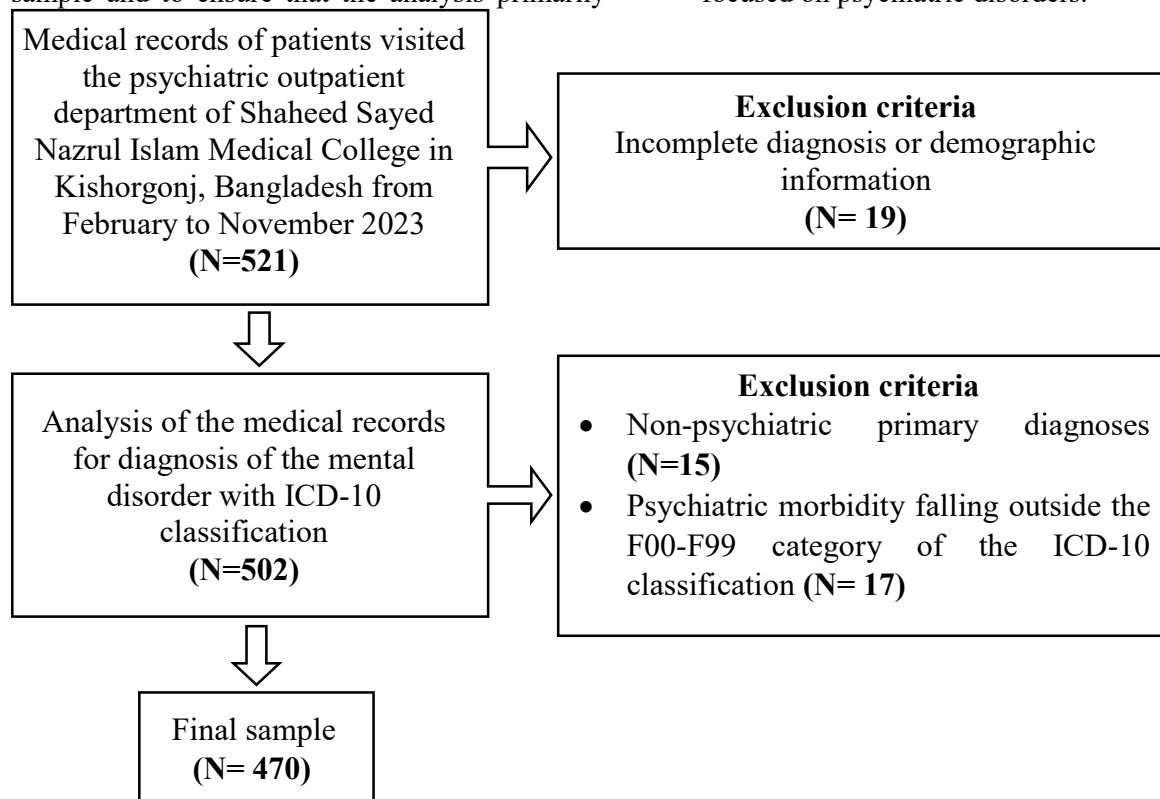


Figure 1. Sample selection flow diagram

Implementation of ICD-10 guidelines to diagnose the cases

Researcher employed the International Classification of Diseases, 10th Revision (ICD-10), as the tool for the diagnostic process.⁹ When evaluating patients, each case was meticulously assessed for symptoms, behaviors, and medical history through the lens of ICD-10 criteria. This structured approach ensures a systematic and accurate diagnosis, essential for effective treatment planning and patient care. By adhering to the specific diagnostic guidelines outlined in the ICD-10, each case was precisely classified for mental health disorders and assigned with corresponding diagnostic codes into the patient records. This offers a comprehensive classification system for mental health disorders, covering a broad range of conditions with specific diagnostic criteria. Utilizing these criteria enhances the validity

of prevalence estimates, as diagnoses are made according to established and validated guidelines.

Data collection and analysis

The demographic information, relevant clinical history, investigation report, diagnostic categorization and codes were recorded in a semi-structured data collection sheet. Data have been presented as frequency and percentage under general categories, subtype, and specific subtypes of ICD-10 classification for mental disorders. Statistical analysis of the results were done by using IBM-SPSS software version 25 (SPSS Inc, Chicago, IL, USA).

Ethical consideration

Institutional review board (IRB) sanction was availed from hospital ethical committees before accessing and reviewing medical

records. Patient confidentiality was strictly maintained by de-identifying and anonymizing all collected data.

Results

In this sample, the general category of F40 - F48 which represents the neurotic, stress-related and somatoform disorders comprised more than half of the of patients (n=246, 52.34%). Within this overarching category, the subtype of anxiety disorders (F41: Other anxiety disorders) exhibited the highest frequency (n=106, 22.55%) where, the specific subtype-generalized anxiety disorder (F41.1) was most common (n=73, 15.53%). Other common disorders within this category were the subtype of F44: dissociative [conversion] disorders (n=34, 7.23%), F45: somatoform disorders (n=44, 9.36%), F42: obsessive compulsive disorder (n=34, 7.23%). Another prevalent disorder according to the ICD-10 category was the general category of F30-F39: Mood [affective] disorders (n=78, 16.6%). In this category, depressive disorders were most common (n=52, 11.06%) represented as the subtypes of depressive disorder (F32, n=34, 7.32%) and recurrent depressive disorder (F33, n=18, 3.83%). Other prevalent disorder under this category was bipolar affective disorder (F31, n=22, 4.68%) were most frequent. Disorders of adult personality and behaviour (F60-F69,

n=33) and childhood onset of behavioral and emotional disorders (F90 - F98) were evident in 33(7.02%) and 37(7.87%) of the respondents, respectively.

Among other disorders, schizophrenia (F20, n=28,5.96%), borderline personality disorder (F60.31, n=29, 6.17%), conduct disorders (F91, n=27,5.74%), acute and transient psychotic disorders (F23, n=20,4.25%) were evident in considerable proportion in this sample.

The disorders that were present in least proportion were: dementia (F01, n=6,1.28%), cognitive disorder (F06.7, n=2,0.04%), substance abuse (F19.-,n=4,0.08%), delusional disorder (F22.0, n=3,0.06%), manic episodes (F30, n=2, 0.04%), dysthymia (F34.1, n=1,0.02%), phobic anxiety disorders (F40, n=9,1.9%), reaction to severe stress, and adjustment disorders (F43, n=15,3.19%), neurasthenia (F48.0,n=4, 0.08%), eating disorders (F50,n=1, 0.02%), nonorganic sleep disorders (F51, n=8, 1.7%), sexual dysfunction (F52, n=2, 0.04%), other specified disorders of adult personality and behavior (F68.8, n=4, 0.08%), childhood autism (F84.0, n=2, 0.04%), hyperkinetic disorder, (F90, n=8, 1.7%), enuresis (F98.0, n=2, 0.04%) (Table I IV4).

Table I: Presentation of psychiatric disorders F00-F39

Subtype	n	Specific subtype	n
F00-F09 Organic, including symptomatic, mental disorders (n=8)			
F01 Vascular dementia	6	F01.1 Multi-infarct dementia	1
		F03 Unspecified dementia	5
F06 Other mental disorders due to brain damage and dysfunction and to physical disease	2	F06.7 Mild cognitive disorder	2
F10-F19 Mental and behavioral disorders due to psychoactive substance use (n=4)			
		F19. - Mental and behavioral disorders due to multiple drug use and use of other psychoactive substances	4
F20-F29 Schizophrenia, schizotypal and delusional disorders (n=51)			
F20 Schizophrenia			28
F22 Persistent delusional disorders	3	F22.0 Delusional disorder	3
F23 Acute and transient psychotic disorders	20	F23.0 Acute polymorphic psychotic disorder without symptoms of schizophrenia	18
		F23.9 Acute and transient psychotic disorder, unspecified	2
F30-F39 Mood [affective] disorders (n=78)			
F30 Manic episode	2	F30.0 Hypomania	1
		F30.9 Manic episode, unspecified	1
F31 Bipolar affective disorder	22	F31.0 Bipolar affective disorder, current episode hypomanic	2
		F31.1 Bipolar affective disorder, current episode manic without psychotic symptoms	10
		F31.6 Bipolar affective disorder, current episode mixed	1
		F31.9 Bipolar affective disorder, unspecified	9
F32 Depressive episode	34	F32.0 Mild depressive episode	32
		F32.3 Severe depressive episode with psychotic symptoms	1
		F32.9 Depressive episode, unspecified	1
F33 Recurrent depressive disorder	18	F33.9 Recurrent depressive disorder, unspecified	18
F34 Persistent mood [affective] disorders	1	F34.1 Dysthymia	1
F39 Unspecified mood [affective] disorder			1

Table II: Presentation of psychiatric disorders F40-F48

F40-F48 Neurotic, stress-related and somatoform disorders (n=246)			
F40 Phobic anxiety disorders	9	F40.1 Social phobias	6
		F40.2 Specific (isolated) phobias	2
		F40.9 Phobic anxiety disorder, unspecified	1
F41 Other anxiety disorders	106	F41.1 Generalized anxiety disorder	73
		F41.2 Mixed anxiety and depressive disorder	5
		F41.8 Other specified anxiety disorders	1
		F41.9 Anxiety disorder, unspecified	27
F42 Obsessive - compulsive disorder	34	F42.2 Mixed obsessional thoughts and acts	34
F43 Reaction to severe stress, and adjustment disorders	15	F43.0 Acute stress reaction	4
		F43.1 Post-traumatic stress disorder	2
		F43.2 Adjustment disorders	4
		F43.81 Prolonged grief disorder	1
		F43.9 Reaction to severe stress, unspecified	4
F44 Dissociative [conversion] disorders	34	F44.9 Dissociative [conversion] disorder, unspecified	28
F45 Somatoform disorders	44	F45.0 Somatization disorder	35
		F45.1 Undifferentiated somatoform disorder	8
		F45.32 Irritable bowel syndrome	1
F48 Other neurotic disorders	4	F48.0 Neurasthenia	4

Table III: Presentation of psychiatric disorders F50- F98

F50-F59 Behavioral syndromes associated with physiological disturbances and physical fact (n=11)			
F50 Eating disorders	1	F50.2 Bulimia nervosa	1
F51 Nonorganic sleep disorders	8	F51.9 Nonorganic sleep disorder, unspecified	8
F52 Sexual dysfunction			2
F60-F69 Disorders of adult personality and behavior (n=33)			
F60 Specific personality disorders	29	F60.31 Borderline personality disorder	29
F68 Other disorders of adult personality and behaviour	4	F68.8 Other specified disorders of adult personality and behavior	4
F80-F89 Disorders of psychological development (n=2)			
F84 Pervasive developmental disorders	2	F84.0 Childhood autism	2
F90 - F98 Behavioural and emotional disorders with onset usually occurring in childhood and adolescents (n=37)			
F90 Hyperkinetic disorders	8	F90.9 Hyperkinetic disorder, unspecified	8
F91 Conduct disorders	27	F91.3 Oppositional defiant disorder	8
		F91.9 Conduct disorder, unspecified	19
F98 Other behavioural and emotional disorders with onset usually occurring in childhood and adolescence	2	F98.0 Nonorganic enuresis	2

Discussion

Mental disorders significantly contribute to distress, disability, and societal burden.¹ The distribution and prevalence of mental health disorders within a population provide crucial insights into the landscape of psychiatric conditions and the burden they pose on public health systems. Here, identifying individuals having mental disorders significantly depends on conceptualization and diagnostic measurements of mental illness.¹¹ This study included a consecutive sample of patients presenting to a psychiatric outpatient department during the study period. The mental health disorders in this sample have been presented according to the Diagnostic Criteria for Research outlined in the International Classification of Diseases, Version 10 (DCR-ICD-10). It offers a standardized and globally acknowledged framework for classifying mental health conditions, promoting uniformity in diagnosis and reporting across various healthcare environments and regions.⁹

In this sample, respondents with anxiety disorders exhibited the highest frequency (n=106, 22.55%) where, generalized anxiety disorder was most common (n=73, 15.53%). The prevalence of depressive disorders ranked second among all mental health conditions (n=52, 11.06%). These findings align with global trends, where anxiety and depressive disorders are recognized as the mental health conditions with the highest prevalence.^{10,11} Around 284 million individuals worldwide experience anxiety disorders, while approximately 264 million people wrestle with depressive disorders.¹⁰ In a study conducted across different states of India, similar burdens of mental health conditions were depicted, with anxiety and depression emerging as the most prevalent ones.¹² Anxiety disorders were the most common class of disorders in an epidemiological survey in China.¹³

Furthermore, the pandemic has exacerbated the incidence of anxiety along with depression. A study revealed that, compared to pre-pandemic levels, there was a significant increase in the occurrence of depression, stress, and anxiety among the Bangladeshi sample.¹⁴ Along with these disorders, somatoform disorders (n=44, 9.36%), dissociative [conversion] disorders (n=34, 7.23%), obsessive compulsive disorder (n=34, 7.23%), disorders of adult personality and behavior (n=33, 7.02%), childhood onset of behavioral and emotional disorders (n=37, 7.87%), borderline personality disorder (n=29, 6.17%), bipolar affective disorder (n=22, 4.68%) schizophrenia (n=28, 5.96%), conduct disorders (n=27, 5.74%), acute and transient psychotic disorders (n=20, 4.25%) were evident in considerable proportion in this sample. In a study in Bangladesh, depressive disorders, anxiety, somatoform disorders, sleep-waking and schizophrenia was predominant.¹⁵ In another community based study in Bangladesh found somatoform disorders, mood disorders, and sleep disorders to be most highly prevalent.¹⁶ Schizophrenia and bipolar affective disorder were the most commonly found disorders in an indoor patient evaluation from a psychiatric hospital in Bangladesh.¹⁷

In this sample, least common disorders were severe stress reaction, and adjustment disorders (n=15, 3.19%), anxiety related to phobia disorders (n=9, 1.9%), sleep disorders (n=8, 1.7%), hyperkinetic disorder, (n=8, 1.7%), dementia (n=6, 1.28%), substance abuse (n=4, 0.08%), neurasthenia (n=4, 0.08%), delusional disorder (n=3, 0.06%), cognitive disorder (n=2, 0.04%), manic episodes (n=2, 0.04%), sexual dysfunction (n=2, 0.04%), childhood autism (n=2, 0.04%), enuresis (n=2, 0.04%) dysthymia (n=1, 0.02%), eating disorders (n=1, 0.02%). Estimated prevalence of dementia in Bangladesh in 2019 was 0.6 million that is

0.3% of the total population¹⁸. Mental health surveys and evaluations of outpatient department (OPD) patients indicate that the prevalence of substance use disorder in Bangladesh varies from 0.69% to 7.66%.¹⁹⁻²¹ A systematic review suggests that autism spectrum disorders are estimated to affect between 0.2% and 0.8% of the population in Bangladesh.²² The observed differences in the proportion of mental health disorder presentations may be attributed to variations in sample selection, as well as disparities in diagnostic criteria. This is further complicated by potential biases in help-seeking behaviors. Individuals with higher socioeconomic status or education may be more likely to utilize outpatient services, while those with severe mental illnesses might be disproportionately represented in such settings compared to the general population.^{23,24}

Study limitations

- OPD patients may not represent the entire population, as those who do not seek professional help are not included. Therefore, while OPD data provide valuable insights, they may not fully capture the mental health needs of the entire population.
- The findings from this single-center study may have limited generalizability due to potential selection bias or regional variations in prevalence.
- Some diagnostic criteria in the ICD-10 may be complex or subjective, leading to variability in interpretation and application among healthcare providers. This variability can introduce inconsistencies in diagnosis and classification, affecting the reliability of prevalence estimates.

Conclusion

Our findings revealed a high burden of anxiety disorders, particularly generalized anxiety disorder, followed by mood disorders

with depression as the most common subtype in a psychiatric OPD setting. These results highlight the significant impact of mood and anxiety disturbances on mental health. Additionally, the presence of schizophrenia, borderline personality disorder, and other severe mental illnesses underscores the diverse spectrum of conditions encountered. Notably, the lower prevalence of dementia, cognitive disorders, substance abuse, and delusional disorders may be due to specific characteristics of the OPD population or variations in help-seeking behaviors.

Recommendation

While the psychiatric OPD may provide valuable care to those who seek it, efforts should also be directed towards outreach, education, and community-based services to address the broader mental health needs of the population. Therefore, it is imperative to conduct community-based research aimed at capturing the prevalence of mental health disorders and addressing the associated healthcare needs.

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