Original Research Article

PSYCHIATRIC MORBIDITY IN PATIENTS ATTENDING RURAL HEALTH TRAINING CENTRE IN SIKAR, RAJASTHAN

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ABSTRACT

Background: Psychiatric morbidity is a significant concern in rural health settings, particularly in areas like Sikar, Rajasthan, where healthcare resources are limited and accessibility to mental health services is constrained. Rural Health Training Centre (RHTC) play a crucial role in providing healthcare services to underserved populations. Understanding the prevalence and types of psychiatric disorders in these settings is essential for developing targeted interventions.

Materials & Methods: This cross-sectional study was conducted at RHTC affiliated with Sikar Medical College over six months. The study included 500 patients attending the RHTC, selected based on calculated sample size using a 95% confidence level and 5% margin of error. Data were collected through structured interviews using the General Health Questionnaire (GHQ-12) and the Patient Health Questionnaire (PHQ-9). Socio-economic status was assessed using the Kuppuswamy scale.

Results: Out of 500 patients, 24% were diagnosed with psychiatric morbidity. Specific disorders included depression (10%), anxiety (8%), substance abuse (6%), somatization disorders (3%), psychotic disorders (2%), bipolar disorder (1.6%), and PTSD (1%). A significant portion of patients with severe conditions were referred to tertiary care centre.

Conclusion: The high prevalence of psychiatric morbidity highlights the urgent need to integrate mental health services into primary healthcare at RHTC. Addressing socio-economic factors, improving mental health infrastructure, and implementing telepsychiatry are essential steps to enhance mental health outcomes in rural areas.

Keywords: Psychiatric Morbidity, Rural Health, Mental Health, Rural Training Centre, Sikar, Rajasthan.

INTRODUCTION

Mental health disorders constitute a major public health issue worldwide, with rural areas often facing unique challenges in diagnosing and treating these conditions. In India, rural populations are particularly vulnerable due to a combination of factors including limited healthcare infrastructure, high levels of poverty, and social stigma associated with mental health issues. The RHTC in Sikar, Rajasthan, play a crucial role in providing healthcare services to these underserved populations. However, the extent and nature of psychiatric morbidity in patients attending these centres remain underexplored. This study aims to fill this gap by examining psychiatric morbidity in patients attending RHTC in Sikar and identifying associated demographic and socio-economic factors.

MATERIAL AND METHODS

Sample Size Calculation The sample size of 500 patients was determined based on previous studies that indicated a prevalence rate of psychiatric morbidity ranging from 20% to 30% in rural settings.[1-3] Using a confidence level of 95% and a

margin of error of 5%, the required sample size was calculated using the formula.

$$n = \frac{Z^2\, p\,(1-p)}{e^2}$$

where 'n' is the sample size, 'Z' is the Z-value (1.96 for 95% confidence), 'p' is the estimated prevalence (0.25), and 'e' is the margin of error (0.05). The calculated sample size was approximately 384, which was then increased to 500 to account for potential non-responses and to ensure adequate representation of various demographic subgroups.

Study Setting Sikar district, located in the northeastern part of Rajasthan, India, is predominantly rural with agriculture being the primary occupation. The district has a RHTC affiliated with Sikar Medical College, which serve as the primary healthcare provider for the rural population. These centres are equipped with basic healthcare facilities, including outpatient departments (OPDs), inpatient wards, diagnostic services, and training facilities for medical students.

Data Collection and Tools Data collection involved structured interviews using standardized psychiatric assessment tools, namely the General Health Questionnaire (GHQ-12) and the Patient Health Questionnaire (PHQ-9).

GHQ-12 (General Health Questionnaire) The GHQ-12 is a self-administered screening tool used to detect psychiatric disorders in community settings. It consists of 12 questions that assess the respondent's mental health over the past few weeks, with each question scored on a four-point scale (0-3). The total score ranges from 0 to 36, with higher scores indicating greater levels of distress. The GHQ-12 is widely used due to its brevity, ease of administration, and robust psychometric properties. It has been validated in various cultural settings, including rural India, making it an appropriate tool for this study.[4]

PHQ-9 (Patient Health Questionnaire)
The PHQ-9 is a self-administered tool used to screen for the presence and severity of depression. It consists of nine questions based on the diagnostic criteria for major depressive disorder in the DSM-IV. Each question is scored on a four-point scale (0-3), with the total score ranging from 0 to 27. Scores of 5, 10, 15, and 20 represent cut-offs for mild, moderate, moderately severe, and severe depression,

respectively. The PHQ-9 is widely used in primary care settings due to its validity, reliability, and ease of use.[5] It was selected for this study to provide a detailed assessment of depressive symptoms among the rural population.

Kuppuswamy Socio-Economic Classification
The socio-economic status of the participants was assessed using the Kuppuswamy Socio-Economic Status Scale, which classifies households into five categories based on three parameters: education of the head of the household, occupation of the head of the household, and monthly income of the family. This scale is widely used in India to assess socio-economic status and has been validated for use in both urban and rural settings. The classification is as follows:

- Upper (I)
- Upper Middle (II)
- Lower Middle (III)
- Upper Lower (IV)
- Lower (V)

Data Analysis
Data were analyzed using SPSS software. Descriptive statistics were used to summarize the demographic and socio-economic characteristics of the patients. Chi-square tests and logistic regression analyses were performed to identify factors associated with psychiatric morbidity.
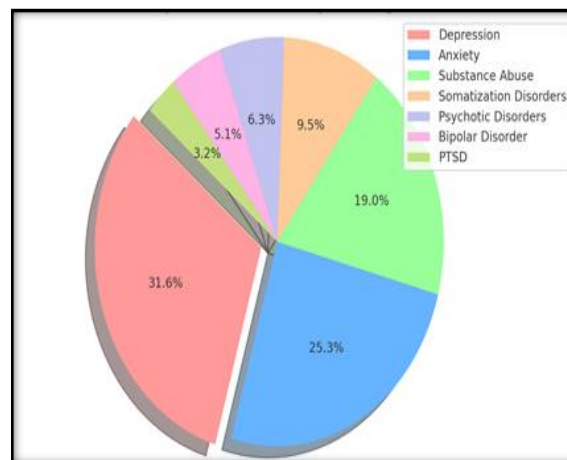
Figure 1: Distribution of Psychiatric morbidity among RHTC patients

Table 1: Socio demographic profile of study participants

Age Distribution		
	30-50 years	60%
	Other Ages	40%
Gender		
	Females	58.3%
	Males	41.7%
Education		
	Primary Education	40%
	Secondary Education	35%
	Illiterate	25%
Income		
	Less than INR 10,000	65%
	More than INR 10,000	35%

Employment Status			
	Agricultural Work		70%
	Unemployed		20%
	Other Occupations		10%
Socio-Economic Classification			
	Lower (V)		50%
	Upper Lower (IV)		30%
	Lower Middle (III)		20%

RESULTS

Out of the 500 patients attending the RHTC during the study period, 120 (24%) were diagnosed with some form of psychiatric morbidity. The breakdown of specific disorders is as follows:

- Depression: 50 patients (10%)
- Anxiety: 40 patients (8%)
- Substance abuse: 30 patients (6%)
- Somatization disorders: 15 patients (3%)
- Psychotic disorders: 10 patients (2%)
- Bipolar disorder: 8 patients (1.6%)
- Post-traumatic stress disorder (PTSD): 5 patients (1%)

Demographic and Socio-Economic Data

- **Age Distribution**: The majority of the patients with psychiatric morbidity were in the age group of 30-50 years (60%).
- **Gender**: 70 females (58.3%) and 50 males (41.7%) were diagnosed with psychiatric disorders.
- **Education**: 40% of the patients had primary education, 35% had secondary education, and 25% were illiterate.
- **Income**: 65% of the patients had a monthly income of less than INR 10,000.
- **Employment Status**: 70% were employed in agricultural work, 20% were unemployed, and 10% were involved in other occupations.
- **Socio-Economic Classification**: Using the Kuppuswamy scale, 50% of the patients were classified as lower (V), 30% as upper lower (IV), and 20% as lower middle (III).

Referrals to Tertiary Health Care Centre

During the study period, 30 patients (6%) were referred to tertiary health care centre for specialized psychiatric care. These referrals were primarily for cases involving severe depression, psychotic disorders, and substance abuse that required advanced diagnostic and therapeutic interventions.

DISCUSSION

The high prevalence of psychiatric morbidity among patients attending the RHTC in Sikar underscores the critical need for integrating mental health services into primary healthcare in rural areas. The majority of patients diagnosed with psychiatric disorders were in the economically productive age group, indicating a significant impact on their livelihood and overall community well-being. Women were more likely to be diagnosed with psychiatric disorders, possibly due to the higher social and economic stressors they face in rural settings. The low levels of education and income among the patients highlight the socio-economic factors contributing to psychiatric morbidity.

Comparative Analysis with Other Studies

The prevalence of psychiatric morbidity in our study (24%) is consistent with findings from other rural settings. For instance, a study conducted in rural Karnataka reported a psychiatric morbidity prevalence of 25% among primary care attendees.[1] Similarly, a study in rural Tamil Nadu found a prevalence of 22%.[2] However, our study identified a higher prevalence of depression (10%) compared to these studies, which reported rates of 8% and 7%, respectively. This difference may be attributed to regional variations in socio-economic conditions, healthcare accessibility, and cultural factors.

Analysis of Specific Disorders

- **Depression**: Depression was the most common psychiatric disorder identified in the study, affecting 10% of the patients. The prevalence of depression was higher among women, possibly due to gender-specific stressors such as domestic violence, discrimination, and the burden of caregiving. Additionally, lower levels of education and economic instability were significantly associated with higher rates of depression. Similar findings were reported in a study from rural Maharashtra, where depression was the most prevalent disorder, particularly among women and individuals with low socio-economic status.[6]
- **Anxiety**: Anxiety disorders were prevalent in 8% of the patients. The primary factors contributing to anxiety included financial stress, lack of social support, and chronic health conditions. Patients with anxiety disorders often reported high levels of worry, restlessness, and physical symptoms such as palpitations and sweating. These findings are consistent with a study conducted in rural Gujarat, which found a prevalence of anxiety disorders of 9% among primary care attendees.[7]
- **Substance Abuse**: Substance abuse was identified in 6% of the patients, with a higher prevalence among males. The substances commonly abused included alcohol, tobacco, and locally available narcotics. Substance abuse was strongly associated with low income, unemployment, and a lack of educational attainment. A study in rural Punjab reported similar findings, with substance abuse prevalence of 7% and significant associations with socio-economic factors.[8]

- **Somatization Disorders**: Somatization disorders were diagnosed in 3% of the patients, characterized by multiple, recurrent, and medically unexplained physical symptoms. These disorders were more common among women and individuals with low educational levels. The prevalence of somatization disorders in our study is lower than the 5% reported in a rural study in West Bengal, which may be due to differences in diagnostic criteria and study populations.[9]

- **Psychotic Disorders**: Psychotic disorders were identified in 2% of the patients, with symptoms including delusions, hallucinations, and disorganized thinking. These patients required referral to tertiary care centre for further evaluation and management. The prevalence of psychotic disorders in our study is comparable to the 2.5% reported in a rural community-based study in Uttar Pradesh.[10]

- **Bipolar Disorder**: Bipolar disorder was diagnosed in 1.6% of the patients, with symptoms of manic and depressive episodes. These patients were managed with mood stabilizers and referred to tertiary care centre for specialized care. The prevalence of bipolar disorder in our study is similar to the 1.5% reported in a rural study in Himachal Pradesh.[11]

- **Post-Traumatic Stress Disorder (PTSD)**: PTSD was identified in 1% of the patients, primarily among individuals who had experienced traumatic events such as accidents or violence. These patients were provided with counselling and referred for specialized psychiatric care. The prevalence of PTSD in our study is lower than the 1.5% reported in a rural study in Odisha, which may be due to differences in exposure to traumatic events.[12]

Challenges Faced by RHTC in Addressing Psychiatric Morbidity

- **Resource Constraints**: One of the primary challenges faced by the RHTC is the limited availability of specialized mental health professionals and diagnostic tools. The centre often rely on general practitioners who may not have adequate training in mental health care. This lack of specialized knowledge can lead to misdiagnosis or delayed diagnosis of psychiatric conditions. Furthermore, the limited availability of medications and other therapeutic resources further complicates the treatment process.[13]

- **Stigma and Awareness**: High levels of stigma associated with mental health issues lead to underreporting and delayed treatment. Many patients are reluctant to seek help due to fear of being ostracized by their community. This stigma is often compounded by a lack of awareness about mental health issues, both among the general population and healthcare providers. Educational initiatives to reduce stigma and increase awareness are critical.[14]

- **Infrastructure Gaps**: The RHTC lack the necessary infrastructure to handle the increasing patient load and provide comprehensive care. This includes insufficient space for counseling sessions, lack of privacy, and inadequate facilities for inpatient care. These limitations can hinder the effective delivery of mental health services and discourage patients from seeking help.[15]

Potential Areas for Improvement

To enhance the effectiveness of the RHTC in Sikar, the following measures can be considered:

- **Capacity Building**: Training healthcare providers in mental health care and improving their skills in diagnosing and managing psychiatric disorders. This can be achieved through regular workshops, continuing medical education (CME) programs, and collaboration with mental health specialists. Providing training in the use of standardized assessment tools like GHQ-12 and PHQ-9 can improve the accuracy of diagnoses.[16]

- **Community Engagement**: Increasing awareness and reducing stigma through community-based education programs and involving local leaders. Community health workers can play a pivotal role in spreading awareness about mental health issues and encouraging individuals to seek help. Engaging with local schools, religious institutions, and community groups can help disseminate information and reduce stigma.[17]

- **Infrastructure Development**: Upgrading facilities and equipment to provide better diagnostic and treatment services. This includes setting up dedicated mental health units within the RHTC and ensuring the availability of essential medications. Improving the physical infrastructure can enhance patient confidentiality and provide a more supportive environment for treatment.[18]

Telemedicine Services: Implementing telepsychiatry services to provide remote consultation and follow-up care, bridging the gap in specialist availability. This can be particularly beneficial in rural areas where access to mental health professionals is limited. Telemedicine can also facilitate ongoing education and support for primary care providers in rural settings.[19]

CONCLUSION

Psychiatric morbidity in rural health settings is a pressing issue that requires urgent attention. The high prevalence of mental health disorders among patients attending the RHTC in Sikar highlights the need for integrating mental health services into primary healthcare. By identifying the prevalence and associated factors of psychiatric disorders, this

study aims to inform future interventions and policies to enhance mental health care in rural areas. The proposed measures, including capacity building, community engagement, infrastructure development, and telemedicine services, can significantly improve the mental health outcomes for the rural population in Sikar.

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