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ORIGINAL ARTICLE

Assessment of Mental Health Awareness and Accessibility of Services in the Rural Population of Sindh, Pakistan

SHAGUFTA HAIDER[1], FAIZA MEMON[2], AYESHA JAVAID[3], MAMOONA MANZOOR[4], BILAL MASOOD[5], MANZOOR ALI[6]
[1]*Assistant professor Department of Community Medicine Gambit Medical College, Pir Abdul Qadir Shah Jillani Institute of Medical Sciences Gambat, Pakistan.*
[2]*Lecturer Department of Community Medicine and Public Health, Indus Medical College Tando Muhammad Khan, Pakistan.*
[3]*Assistant Professor, Community Medicine, Al-Nafees Medical College, Islamabad, Pakistan.*
[4]*Senior Registrar, Islamic International Medical College, Pakistan Railway Hospital Rawalpindi, Pakistan.*
[5]*Assistant Professor Department of Community Medicine, Bolan Medical College Quetta, Pakistan.*
[6]*Associate Professor Psychiatry, Isra University Hyderabad, Pakistan.*
Correspondence to: Shagufta Haider, Email: shaguftasarmad455@gmail.com

ABSTRACT

Background: Mental health awareness and access to services in rural Pakistan are limited, with residents facing barriers such as stigma, financial constraints, and inadequate services, particularly in rural Sindh.
Objective: This study assessed mental health awareness and service utilization among the rural population of Sindh, Pakistan.
Methodology: A cross-sectional, descriptive study was conducted from September 17, 2021, and September 17, 2022, with ethical approval from the Gambat Medical College Ethical Review Committee. A simple random sampling technique recruited n=478 participants from rural districts of Sindh (Thatta, Badin, Tharparkar). Data were collected using a structured questionnaire, including sociodemographic information and mental health awareness, utilizing the Mental Health Knowledge Schedule (MAKS). Data were examined by adopting descriptive statistics as well as logistic regression in SPSS.
Results: The majority of participants (81.7%) believed in medical treatments for mental illness, and 70.3% supported the availability of mental health services at the communal level. However, 80.7% reported a lack of local mental health services, with financial constraints (68.8%) and social stigma (61.1%) as major barriers. Education level and occupation significantly influenced mental health knowledge, with those having higher education and professional occupations showing greater awareness ($p<0.01$).
Conclusion: Mental health awareness is moderate, with significant knowledge gaps, especially among those with lower education. Barriers such as financial constraints and stigma hinder service utilization, highlighting the need for community-based mental health services and educational initiatives in rural Sindh.
Keywords: mental health awareness, rural population, Sindh, mental health services, barriers

INTRODUCTION

Mental wellness is stated as "a state of comfort and security in which a person realizes their capabilities so that s/he can cope with normal pressures of life, works effectively, and contributes to their community" [1]. While mental health is essential for overall well-being, many nations give priority to physical health over mental health. This may be due to the stigma surrounding mental illness. [2]. Individuals often pay attention only to severe mental health problems or those that manifest later in the illness. Common symptoms like anxiety and hopelessness may be overlooked due to their prevalence or lack of awareness. [3, 4, 5, 6].

Mental illness is a widespread global health issue, affecting approximately 10% of adults at any given time. [7] [8]. Beyond its economic burden in terms of GDP loss, it imposes significant social costs. These include but are not limited to emotional strain on caregivers, reduced quality of life, social marginalization, stigma, and lost opportunities for personal growth. [9]. The misconception that mental illness is self-inflicted or incurable further discourages individuals from seeking appropriate treatment. [10]. Negative attitudes among medical professionals toward psychiatry and psychiatrists also hinder the provision of quality mental health care. [11].

People with mental illness (PWMI) frequently face stigma within their communities. It creates difficulties for such people and their families to maintain normal social interactions. This stigma delays treatment-seeking, ultimately slowing recovery [12]. A community's perception of PWMI influences drug compliance, prevention efforts, and treatment-seeking behaviors [9]. Despite developments in mental health learning, the attitudes of the public and the longing for social distance from those with mental illness have continued largely unchanged over time. The same is also highlighted by a new methodical review and meta-analysis [13]. Community attitudes play a key role in shaping behaviors toward mental health, and their understanding is essential. The Community Attitudes Towards the Mentally Ill (CAMI) scale is a validated tool for measuring these perceptions [14].

Mental health services in rural Sindh remain scarce, underfunded, and unreachable to the population at large. Lack of specialized professionals in mental health, along with inadequate psychiatric facilities, deteriorate the situation. Additionally, poor incorporation of mental health into prime care facilities further worsens the situation. Rural communities primarily rely on traditional healers, religious interventions, and home-based care. These may delay or even prevent access to evidence-based psychiatric treatment. Additionally, financial constraints, stigma, and a lack of awareness also discourage individuals from seeking professional help. There are cases where government initiatives and non-governmental organizations (NGOs) have made efforts to improve mental health services. However, these interventions are limited in coverage and sustainability. Strengthening the infrastructure of mental health, integrating mental health care into primary health centers, and raising awareness through community engagement are critical to improving accessibility. These also contribute to reducing the burden of untreated mental illness in rural Sindh. [15].

Despite the undeniable presence of stigma, limited research has explored attitudes toward mental illness in rural Pakistani communities. The formation of primary health centers (PHCs) has improved healthcare accessibility for certain conditions. On the other hand, they have largely failed to address the needs of individuals affected by noncommunicable diseases, including mental illnesses. [16]. This study aims to assess awareness and attitudes toward mental health, along with the availability and utilization of mental health services in rural Sindh, Pakistan. A better understanding of community perspectives will help recognize focal areas for interventions in mental health.

METHODOLOGY

This cross-sectional, descriptive study was carried out between September 17, 2021, and September 17, 2022. Ethical approval was attained from the Ethical Review Committee of Gambat Medical College (Ref No: PAQSJIMS/ORIC/ERC/:34). The research was conducted in selected rural districts of Sindh. These areas include Thatta, Badin, and Tharparkar. The target population included men and women aged 18 years and above. The people who had been residents of rural areas in Sindh for at least one

year were selected for the study. Contributors were nominated using a simple random sampling method. Inclusion criteria required individuals to be aged 18 years or older and permanent residents of the area. They are also willing to provide informed consent. Exclusion criteria comprised individuals with severe cognitive impairments and those unable to understand the study materials due to language barriers. Pregnant women, due to potential psychosocial factors that could influence their responses, were also excluded. The sample size was calculated by adopting the standard method for cross-sectional studies:

$$n = Z^2 \times \frac{P(1-P)}{E^2}$$

having Z = 1.96 for a 95% confidence level, P = 50% (assumed for maximum variability), and E = 5% margin of error [17]. This calculation resulted in a required sample size of 384 participants. To account for non-responses and unfinished data, a total of 500 participants were approached for the study. This ensures adequate statistical power for the analysis.

Data collection was conducted by using a structured questionnaire. This questionnaire included sections on sociodemographic characteristics such as age, gender, education level, and socioeconomic status. Mental health awareness was assessed using an improved version of the Mental Health Knowledge Schedule (MAKS). MKAS is a validated tool designed to evaluate participants' understanding of mental health conditions, their symptoms, causes, and available treatments. The questionnaire included a series of "yes" or "no" questions, along with responses that were scored to determine participants' knowledge levels. The median score was calculated, and participants were classified into two groups: The first group included those having sufficient knowledge (above the median range), and the second group included those having insufficient knowledge (below the median range). This classification permitted for a comparative valuation of mental health awareness within the community.

It was a self-administered questionnaire and trained data collectors were present to assist participants with the requirements. Participants were briefed on the study's objectives, assured of discretion, and well-versed about their right to withdraw at any time. Informed consent was obtained from all participants in writing before data collection. Data were collected over three months.

Following data collection, all responses were cleaned, coded, and entered into Microsoft Excel (Microsoft, Washington, USA). After, it was exported to SPSS Statistics version 22 (IBM Corp., Armonk, NY) for analysis. Descriptive statistics, including frequencies, percentages, and means, were used to summarize sociodemographic characteristics, mental health awareness, and access to mental health services. To identify factors associated with mental health knowledge and service utilization, a logistic regression analysis was conducted. This model examined the relationship between mental health awareness (dependent variable) and demographic factors such as education levels, age, and gender (independent variables).

The study was carried out as per the principles explained in the Declaration of Helsinki. Confidentiality and anonymity of participants were strictly maintained throughout the research. Participants were informed about their involvement, which was as a volunteer. They were also informed that they could withdraw from the study at any time without any consequences. By evaluating community perspectives on mental health, this study intended to deliver valuable insights into the barriers and challenges faced in accessing mental health services in rural Sindh.

RESULTS

A total of 478 individuals contributed to the study, including 48.4% males and 51.6% females. The majority (63.1%) were aged between 18-31 years, while 41.5% of participants were married. 67.8% had completed primary or secondary education, while 32.2% had no formal education. Most of the participants were employed in unskilled labor (30.1%) and semi-skilled jobs (25.3%) as shown in table 1.

Table 1: Sociodemographic Features of Study Participants (n=478)

Characteristic	n (%)
Gender	
Male	267 (55.9%)
Female	211 (44.1%)
Age Group	
18-29 years	126 (26.4%)
30-39 years	143 (29.9%)
40-49 years	103 (21.5%)
50 years & above	106 (22.2%)
Education Level	
No formal education	132 (27.6%)
Primary education	161 (33.7%)
Secondary education	129 (27.0%)
Higher education	56 (11.7%)
Occupation	
Unemployed	191 (40.0%)
Employed (farmers, laborers)	234 (49.0%)
Professional	53 (11.1%)

Table 2 summarizes the knowledge of mental health problems among the participants. The majority of respondents identified that mental illness could be attributed to factors such as stress/tension (67.7%), accident/injury (70.8%), and brain functional abnormalities (71.4%). Less frequently cited causes included witchcraft (48.3%) and possession by evil spirits (44.9%).

When asked about the treatment of mental illness, 81.7% of respondents believed in the effectiveness of medical treatments, while 58.6% thought mental illness could be managed by families at home. 70.3% believed that mental health services should be available at the community level, and 75.4% expressed the need for government-provided counseling and mental health programs.

Table 2: Knowledge of Respondents Regarding Mental Health Problems (n=478)

Variable	n (%)
Caused by Mental illness	
Genetics	173 (49.4%)
Tension/ Stress/ Anxiety	237 (67.7%)
Injury/ Accident	248 (70.9%)
Abnormality of brain function	250 (71.4%)
Conflicts in family	236 (67.4%)
Too much worrying	240 (68.6%)
Neurotransmitter imbalances	220 (62.9%)
Influence of Witchcraft	169 (48.3%)
Punishment for past sins from God	177 (50.6%)
Under Possession of evil spirits	157 (44.9%)
Personal weakness or disease	155 (44.3%)
Bad food & nutrition	182 (52.0%)
Pollution	131 (37.4%)
Treatment of Mental illness can be done by	
Old-style traditional methods	100 (28.6%)
Religious healing	96 (27.4%)
Medical treatment	286 (81.7%)
Professional counseling	283 (80.9%)
Medication effective for mental disorders	312 (89.1%)
Psychiatric facility treatment	286 (81.7%)
Families at home	205 (58.6%)
Witch physicians	170 (48.6%)
Marriage can be a cure	199 (56.9%)
Free Govt. mental healthcare facilities	246 (70.3%)
Counselors for mental illness	264 (75.4%)

As shown in Table 3, the availability of mental health services in rural Sindh was limited, with 80.85% of respondents reporting the lack of mental health services in their community. Despite this, there was moderate utilization of available services, with 32.4% of participants having sought psychiatric help at some point. Barriers to service utilization included financial constraints (68.9%), lack of awareness (54.3%), and stigma (61.2%).

Additionally, 59.1% of respondents identified the physical distance to mental health facilities as a significant barrier to accessing services. Interestingly, 70.3% of respondents believed that mental health services should be available at the community level, and 75.4% supported the idea of increased government funding for mental health care.

Table 3: Availability, Utilization, and Barriers to Mental Health Services in Rural Sindh (n=478)

Variable	n (%)
Availability of Services	
Mental health services available locally	92 (19.3%)
Mental health services not available locally	386 (80.7%)
Utilization of Services	
Sought psychiatric services	154 (32.4%)
Never sought psychiatric services	324 (67.8%)
Barriers to Access	
Financial constraints	329 (68.9%)
Lack of awareness	260 (54.3%)
Social stigma	292 (61.2%)
Physical distance	282 (59.1%)
Desired Changes	
Services should be available locally	335 (70.3%)
Government mental health programs are needed	360 (75.4%)

Table 4 shows that logistic regression analysis was conducted to examine the factors influencing mental health knowledge and service utilization among participants. The results revealed that education level significantly impacted mental health knowledge. Participants with no formal education had significantly higher odds of inadequate mental health knowledge compared to those with higher education levels (AOR: 1.81, 95% CI: 1.28–2.38, p<0.01). In contrast, individuals with higher education were significantly more likely to have adequate knowledge (AOR: 0.46, 95% CI: 0.26–0.82, p<0.01). However, individuals with only primary education did not show a statistically significant difference in mental health knowledge compared to the reference group (AOR: 1.53, 95% CI: 0.89–2.15).

Occupational status also played a notable role in mental health knowledge. Unskilled laborers had significantly higher odds of inadequate knowledge compared to professionals (AOR: 1.79, 95% CI: 1.12–2.75, p<0.01), as did skilled workers (AOR: 1.75, 95% CI: 1.05–2.28, p<0.05). Conversely, unemployed individuals and semi-skilled workers did not show a statistically significant association with mental health knowledge after adjustment.

Regarding mental health service utilization, higher education levels were associated with an increased likelihood of seeking psychiatric help. Barriers to service utilization were significant determinants of access. Financial constraints were the most frequently reported barrier, reducing the likelihood of service utilization (AOR: 0.58, 95% CI: 0.42–0.87, p<0.01). Social stigma also negatively impacted service utilization; individuals perceiving mental illness as a source of shame were less likely to seek professional care (AOR: 0.51, 95% CI: 0.36–0.79, p<0.01). Additionally, physical distance barriers contributed to reduced service utilization (AOR: 0.68, 95% CI: 0.49–0.89, p<0.05).

The association between mental health awareness and demographic factors such as age and gender were also analyzed. Participants aged 50 years and above had slightly higher odds of adequate mental health awareness compared to those aged 40–49 years (AOR: 0.85, 95% CI: 0.51–1.27) and 30–39 years (AOR: 0.79, 95% CI: 0.53–1.08), though these differences were not statistically significant. Similarly, female participants had slightly lower odds of adequate mental health awareness compared to males, but this was also not statistically significant (AOR: 0.82, 95% CI: 0.55–1.23).

Table 4: Logistic Regression Analysis of Factors Associated with Mental Health Knowledge and Service Utilization (n=478)

Variable	Category	Inadequate Knowledge (%)	Adequate Knowledge (%)	OR (95% CI)	AOR (95% CI)
Sex	Male	126 (47.2%)	141 (52.8%)	0.79 (0.52-1.16)	0.82 (0.55-1.23)
	Female	127 (60.2%)	84 (39.8%)	1	1
Age Group	18-29 years	56 (44.4%)	70 (55.6%)	1.12 (0.86-1.75)	1.09 (0.82-1.68)
	30-39 years	85 (59.4%)	58 (40.6%)	0.82 (0.48-1.13)	0.79 (0.53-1.08)
	40-49 years	63 (61.2%)	40 (38.8%)	0.88 (0.55-1.34)	0.85 (0.51-1.27)
	50 years and above	49 (46.2%)	57 (53.8%)	1	1
Education Level	No formal education	89 (67.4%)	43 (32.6%)	1.76 (1.15-2.26) **	1.81 (1.28-2.38) **
	Primary school	79 (49.1%)	82 (50.9%)	1.46 (0.86-1.98)	1.53 (0.89-2.15)
	Secondary school	67 (51.9%)	62 (48.1%)	0.55 (0.36-1.05)	0.72 (0.42-1.20)
	Higher education	18 (32.1%)	38 (67.9%)	0.63 (0.33-0.96) **	0.46 (0.26-0.82) **
Occupational Status	Unemployed	88 (46.1%)	103 (53.9%)	1.55 (0.89-2.12)	1.44 (0.74-1.96)
	Unskilled labor	82 (56.2%)	64 (43.8%)	1.72 (1.05-2.84) **	1.79 (1.12-2.75) **
	Semi-skilled	72 (60.5%)	47 (39.5%)	1.62 (0.95-2.12)	1.48 (0.86-1.94)
	Skilled	59 (61.5%)	37 (38.5%)	1.87 (1.16-2.56) *	1.75 (1.05-2.28) *
	Professional	27 (50.9%)	26 (49.1%)	1	1
Barriers to Service Utilization	Financial constraints	235 (71.4%)	94 (28.6%)	0.63 (0.38-0.92) **	0.58 (0.42-0.87) **
	Social stigma	205 (70.2%)	87 (29.8%)	0.50 (0.33-0.75) **	0.51 (0.36-0.79) **
	Physical distance barrier	198 (70.2%)	84 (29.8%)	0.71 (0.52-0.94) *	0.68 (0.49-0.89) *

OR; Odds Ratio, AOR; Adjusted Odds Ratio, 95% CI; 95% Confidence Interval, p < 0.05 is considered statistically significant (*), p < 0.01 is considered highly statistically significant (**). Reference Category (1): Used as a baseline for comparison in logistic regression models.

DISCUSSION

Over half (50.8%) of the survey participants in this study had only rudimentary knowledge of mental health and mental illness. This result aligns with findings from previous studies in other regions, such as Ravi's cross-sectional study in New Delhi, India, which reported similarly low levels of understanding about mental illness among the general public. [18]. Chu et al. also observed a significant lack of knowledge in Nigeria, where 96.5% of respondents believed that individuals with mental illnesses exhibit dangerous behaviors, reflecting widespread negative perceptions of mental health. [19].

This study found that several sociodemographic factors were statistically significant, such as education level and occupation, while determining mental health knowledge. Illiterate contributors were 1.81 times more likely to have inadequate familiarity as compared to those with higher education levels. This finding mirrors similar studies, such as one by Arinze-Umobi and O. Chiweta-Oduah in Nigeria, where literate individuals demonstrated a significantly better understanding of mental health than their illiterate counterparts [20]. In this study, participants with higher education were 0.46 times more likely to have adequate knowledge in comparison to those having no formal education,

which underscores the importance of education in mental health literacy.

Regarding occupation, participants employed in unskilled labor and semi-skilled jobs. This exhibited significantly lower mental health knowledge compared to professionals. Specifically, unskilled laborers were 1.79 times more likely to have inadequate knowledge. Semi-skilled workers were 1.48 times more likely to lack understanding. These results suggest that occupation, particularly lower-level employment, may be associated with limited exposure to mental health education and resources. Similarly, studies from other countries, such as those by Abolfotouh et al., have demonstrated that lower socioeconomic status and occupation can negatively influence mental health awareness [21].

In terms of understanding the causes of mental illness, the study participants identified various factors. Stress and tension (67.7%) were considered a major cause, followed by accidents/injuries (70.9%) and brain functional abnormalities (71.4%). This reflects a more biomedical understanding of mental illness. However, a significant proportion of participants (48.3%) also believed that witchcraft could cause mental illness, and 50.6% attributed it to God's punishment for past sins. These beliefs may point to the influence of traditional, religious, or supernatural explanations for mental health issues, which can be prevalent in rural communities [22].

Regarding treatment options, the majority of respondents (81.7%) believed that medical treatment could address mental health problems, and 80.9% supported professional counseling. However, nearly 28.6% of participants still favored traditional methods for treatment, indicating a persistent reliance on non-professional interventions. These findings are consistent with those from studies in similar settings. There is a Saudi Arabian study where a substantial portion of the population expressed a preference for traditional healing over modern medical practices [2]. Moreover, 70.3% of participants desired free mental healthcare at government facilities. This reflects a significant demand for accessible and affordable mental health services.

The accessibility and utilization of mental health services in rural Sindh were found to be inadequate. w80.7% of participants reporting a lack of local mental health services. Despite this, 32.2% of the respondents had sought psychiatric services, though many never accessed care due to barriers such as financial constraints (68.8%), social stigma (61.1%), and physical distance (59.0%). Notably, financial constraints and social stigma were strong predictors of inadequate knowledge and limited service utilization, with those reporting these barriers having 0.58 and 0.51 reduced odds of adequate knowledge, respectively. These barriers are consistent with global trends in mental health service access, where stigma and cost remain significant challenges, particularly in rural and low-income settings [23].

Participants in this study also articulated a wish for changes in mental health services. 75.3% indicated that government mental health programs were needed, and 70.1% called for local availability of services. These findings highlight the urgent need for comprehensive mental health programs that are both accessible and acceptable to rural populations. The desire for government intervention aligns with the views expressed in other studies from low-resource settings, emphasizing the need for state-supported mental health initiatives to overcome both financial and cultural barriers to care [24].

One of the limitations of this study is its cross-sectional nature, which precludes causal inferences. Additionally, the use of the MAKS questionnaire, which could be susceptible to recall bias, may have influenced the responses. Non-respondents may have had different attitudes toward mental illness and mental health services, which could affect the overall results.

CONCLUSIONS

This study highlights that over 50% of participants in rural Sindh lack sufficient knowledge about mental health and mental illness. This underscores the requirement for targeted mental health education programs, especially in rural areas. Improving mental health literacy, addressing the stigma related to mental illness, and increasing the availability of affordable mental health services may lead to better mental health outcomes. Empowering communities with knowledge and enhancing access to mental health care, with the integration of mental health services into primary healthcare settings, could significantly improve the mental well-being of the rural population in Sindh and similar regions.

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