




Community-Based Assessment of Depression Among Rural Bangladeshi Women: A Questionnaire-Based Study

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Abstract: Background & Objective: Depression is a prevalent issue among rural Bangladeshi women, exacerbated by socio-economic challenges, cultural norms, and limited access to mental health care. Despite the high risk, research on this population's mental health is limited. This community-based study aims to assess the prevalence of depression in rural Bangladeshi women and identify associated socio-economic and demographic factors using a structured questionnaire. The findings will help inform targeted interventions to improve mental health outcomes in this vulnerable group. **Methods:** This study, conducted from October to November 2023 in Puthia Upazila, assessed depression in 318 rural women aged 18-49 using DASS-21. Excluding pregnant and post-menopausal women, it employed descriptive statistics, chi-square tests, and binary logistic regression to identify socio-economic predictors of depression, offering insights for future mental health policies. **Results:** The study of 318 rural women in Bangladesh found that 17.3% (n=55) experienced depression. Key factors included age, with the highest rate of 34.1% in the 46-49 age group (Chi-square = 22.55, $p < .000$), and illiteracy, where 47.8% were depressed (Chi-square = 82.9, $p < .000$). Lower income (29.6%, Chi-square = 33.47, $p < .000$) and having three or more children (33.3%, Chi-square = 22.7, $p < .000$) also correlated with higher depression rates. Logistic regression identified women aged 36-45 as more likely to be depressed (OR = 4.2, $p < .05$), while primary education and having no children were protective factors. **Conclusion:** This study reveals high depression rates among rural Bangladeshi women, influenced by age, education, income, and family size. It highlights the need for targeted mental health interventions addressing these factors to improve well-being.

Original Research Article

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How to cite this article:

Yasmin F, Roy A, Alam MZ, Alam AKM; Community-Based Assessment of Depression Among Rural Bangladeshi Women: A Questionnaire-Based Study. *Taj* 2024;37 (2): 131-138.

Article history:

Received: August 17, 2024

Revised: October 10, 2024

Accepted: November 12, 2024

Published: December 01, 2024

Keywords: Depression, Rural Bangladesh, Women's Mental Health, DASS-21.

Article at a glance:

Study Purpose: The study finds high depression rates in rural Bangladeshi women, emphasizing the need for targeted mental health interventions.

Key findings: The study found 17.3% of rural women in Puthia Upazila have depression; 55.9% with mild symptoms. Key factors include age, education, income, trauma, and limited mental health care.

Newer findings: New findings show higher depression in rural women aged 46-49, with lower education and income. Life challenges and trauma significantly impact mental health.

Abbreviations: ICH: intra-cerebral hemorrhage, BP: Blood Pressure.



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INTRODUCTION

Depression is a major mental health concern that mainly impacts women, especially in rural areas with scarce social and healthcare resources. Rural women face economic, isolation,

and service challenges, raising depression risk. Effective intervention requires assessing physical, emotional, and psychological symptoms like sadness and hopelessness.¹ In both industrialized and emerging nations, depression seems to be a

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major public health concern.² According to estimates, 322 million people worldwide suffered from depression in 2015. Additionally, "depression" was found to be the primary cause of years lived with disability (YLD) worldwide.³ Even though people of all ages, genders, and sociocultural backgrounds frequently experience varied degrees of depression, among the elderly (60 years of age and older), it is the most prevalent psychiatric ailment.^{4,5} Between 2000 and 2050, there will be 16.4 billion older people on the planet, more than doubling from 6.9 billion in the previous 40 years.⁶ Nonetheless, diagnosing depression is frequently challenging.⁷ Depression, a chronic illness, impacts job, family, and societal functioning. Early identification is crucial. Rising national prevalence can affect GDP and productivity (J Neurosci Rural Pract 2020;11:78–83), and is a major suicide risk factor.⁸ Three Indian investigations on patients seen in primary care settings revealed that between 15 and 44% of patients had CMDs, and 33 to 83% of those patients also had depression.⁹ It has been demonstrated that a number of characteristics, including being middle-aged and being within the 40–49 age range, being female, having less education, having a lower socioeconomic position (SES), having experienced domestic abuse, and living apart or getting divorced, are linked to depression. According to NMHS, depression coexisted with up to 22–33% of people who had chronic noncommunicable diseases like cancer, diabetes mellitus, hypertension, ischemic heart disease, and stroke.

It has been discovered that the following conditions are risk factors for suicide, a condition that frequently coexists with severe depression: age between 40 and 49 years old and gender.¹⁰ Assessing depression among rural women in Bangladesh is a critical step towards improving their mental health and overall well-being. The findings from this study will provide valuable insights for policymakers, healthcare providers, and social workers, enabling them to develop effective strategies to support this vulnerable population. By addressing the mental health needs of rural women, we can contribute to the broader goal of achieving better health outcomes and social equity in Bangladesh.

MATERIALS & METHODS

This study, conducted in Puthia Upazila, Rajshahi, from October to November 2023, assessed depression among 318 rural Bangladeshi women aged 18–49 using the DASS-21 short form. Excluding recent pregnancy and menopause cases, the study employed descriptive and inferential statistics to analyze depression's socio-economic and demographic associations, guiding future interventions.

RESULTS

Approximately 318 rural women aged 18 to 49 were interviewed using the DASS-21 short form.

Table 1: Socio-demographic characteristics of the respondents (n=318)

Variables	Categories	Frequency	Percentage (%)
Age (years)	18-25	87	27.41
	26-35	111	34.9
	36-45	79	24.8
	($\bar{x}\pm SD$)=(33.9 \pm 22.13) years	41	12.9
Religion	Muslim	209	65.7
	Hinduism	109	34.3
Marital status of the respondents	Married	263	82.7
	Unmarried	36	11.3
	Divorced/separated	9	2.8
	Widowed	10	3.1
Education of the Respondents	Illiterate	67	21.1
	Primary	55	17.3
	Secondary	139	43.7
	Higher secondary	46	14.5

Employment status of the Respondents	Graduate and Above	11	3.5
	Service holder	25	7.9
	Housewife	241	75.8
	Student	42	13.2
	Day laborer	4	1.3
Types of family	Others	6	1.9
	Nuclear	209	65.7
Monthly income	Joint	109	34.3
	5000 to 15,000	159	50
Mean monthly income ($\bar{x} \pm SD$) = (20764.15 \pm 12452.47)	16000 to 25,000	72	22.6
	26,000 to 40,000	69	21.7
	41,000 and more	18	5.7
Number of family members	4 or less than 4	176	55.3
	More than 4	142	44.7
Number of children (n=282)	No	51	18.1
	1-2 children	168	59.6
	3 and more children	63	22.3

Table 1 details the socio-demographic profile of 318 rural women. The average age is 33.9 years. Most are Muslim (65.7%) and married (82.7%). Education levels vary, with 21.1% illiterate

and 3.5% college graduates. Employment is predominantly housewives (75.8%), with a mean income of 20,764.15 BDT. Family sizes vary, with 55.3% having 4 or fewer members.

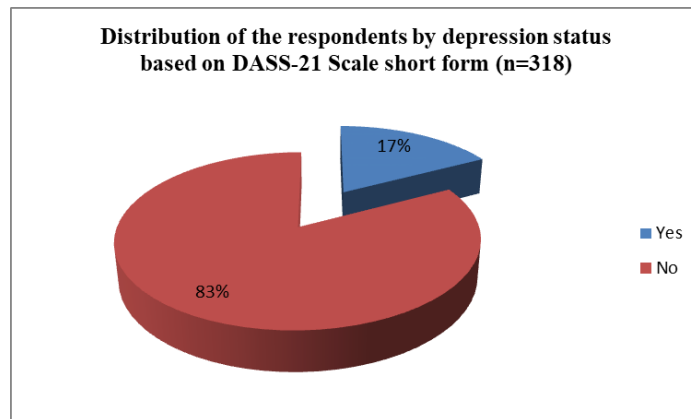


Figure 1: Distribution of respondents by depression status according to the DASS-21 short form Scale (n=318)

The figure shows that 17.3% of respondents have depression, while 82.7% do not, based on the DASS-21 Scale short form.

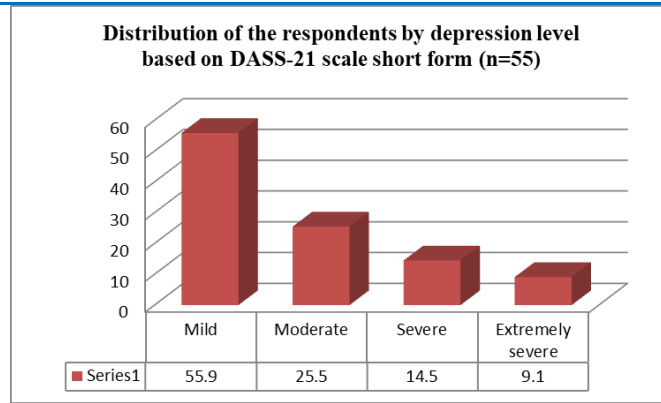


Figure 2: Distribution of respondents by depression level based on the DASS-21 short form (n=55).

The figure shows 55.9% of respondents have mild depression, 25.5% moderate, 14.5% severe, and 9.1% extremely severe.

Table 2: Distribution of respondents based on different aspects associated with depression (n=318).

Different Aspects Associated with Depression	Frequency	Percentage (%)
Faced any challenges or difficulties within the last year	Yes	134
	No	184
History of trauma or abuse	Yes	129
	No	189
Current Medication or treatment	Yes	167
	No	151
Availability of mental health care facility	Yes	68
	No	250
Impact of COVID-19 on Mental Health	Yes	166
	No	152
Mental health care support	Poor	45
	Good	171
	Very good	102
Issues related to reproductive health	Yes	61
	No	257

Table 2 reveals 42.1% faced recent challenges, 52.5% on medication, 21.4% had mental health care access.

Table 3: Relationship between Presence or absence of depression with various factors

Various factors	Depression status		Chi-square Value	P-value	
	Yes	No			
Age of the respondents (years)	18-25	9(10.3%)	78(89.7%)	22.55	P<.000
	26-35	10(9.0%)	10(91.0%)		
	36-45	22(27.85)	57(72.2%)		
	46-49	14(34.1%)	27(65.9%)		
Education of the respondents	Illiterate	32(47.8%)	35(52.2%)	82.9	P<.00
	Primary	18(32.7%)	37(67.3%)		
	Secondary	4(2.9%)	135(97.1%)		
	Higher	0(0.00%)	46(100%)		
	Graduation and above	1(9.1%)	10(90.9%)		

Monthly family income (tk.)	5000-15000	47(29.6%)	112(70.4%)	33.47	P<.000
	16000-25000	4(5.6%)	68(94.4%)		
	26000-40000	3(4.3%)	66(95.7%)		
	41000 and more	1(5.6%)	17(94.4%)		
Employment status of the respondents	Service Holder	2(8.05)	23(92.0%)	14.14	P<.007
	Housewife	46(19.1%)	195(80.9%)		
	Student	2(4.8%)	40(95.2%)		
	Day laborer	2(50%)	2(50%)		
	Others	3(50%)	3(50%)		
Number of children	No children	20(23.0%)	67(77.0%)	22.7	P<.00
	1-2 children	14(8.3%)	154(91.7%)		
	3 and more children	21(33.3%)	42(66.7%)		
Marital status of the respondents	Married	47(17.9%)	216(82.1%)	6.27	P>.05
	Unmarried	2(5.6%)	34(94.4%)		
	Divorced	3(33.3%)	6(66.7%)		
	Widowed	3(30.0%)	7(70.0%)		
Faced any challenges within last 1 year	Yes	32(23.95)	102(76.1%)	7.02	P<.00
	No	23(12.5%)	161(87.5%)		
History of trauma or abuse	Yes	35(27.1%)	94(72.9%)	14.68	P<.00
	No	20(10.6%)	169(89.4%)		
Reproductive health issues	Yes	13(21.3%)	48(78.7%)	.851	P>.05
	No	42(16.3%)	215(83.7%)		

Table 3 shows significant depression associations with age (34.1% in 46-49), education (47.8% illiterate), income (29.6% low), and employment (50% day laborers). High rates were

also seen in those with three or more children (33.3%) and recent trauma (27.1%). Marital status and reproductive health had minimal impact.

Table 4: Binary logistic regression analysis showing predictors of depression among rural women of Bangladesh

Variables of interest	Multivariate analysis	
	Odds Ratio (95% CI of OR)	P-value
Age of the respondents (36 to 45 years)	4.2(0.97-18.706)	P<.05
Monthly family income (5000 to 15000tk)	0.16(0.043-0.506)	P<.006
Education of the respondents(primary)	0.02(0.006-0.109)	P<.000
Number of children (no children)	0.134(0.042-0.424)	P<.001
History of trauma or abuse	0.329(0.121-0.895)	P<.03

Binary logistic regression identified key depression predictors among rural Bangladeshi women: older age (OR = 4.2), lower income (OR = 0.16), lower education (OR = 0.02), no children (OR = 0.134), and history of trauma (OR = 0.329). These factors significantly influence depression risk.

DISCUSSION

Depression impacts 17.3% of rural women in Puthia Upazila, with most cases being mild. This underscores the critical need for targeted mental health support. The study's 17.3% prevalence of depression among rural women aligns with other research, such as a study on rural women in Thailand, which also found significant rates of depression symptoms, highlighting similar mental health concerns in rural settings.¹¹ Similar patterns

are seen worldwide. For example, rural Chinese women also experience depression, though prevalence varies by region and study methods.¹² Economic and behavioral factors greatly affect depression rates among rural women, potentially leading to higher rates than the 17.3% prevalence reported in this study.¹³ The 55.9% prevalence of mild depression among rural women mirrors findings from other studies, such as research on rural Bangladeshi women, which also found a high rate of mild depressive symptoms.¹⁴ The 39.1% prevalence of moderate to severe depression among women matches broader findings, with studies showing high rates of serious depression, especially in rural areas.¹⁵

The data shows a higher proportion of mild depression compared to the global average of around 5% for adults, which varies by region and gender.¹⁶ The study found that age, education, and income correlate with depression rates. Women aged 46-49 had the highest prevalence (34.1%), suggesting that older age increases depression risk due to health issues and increased responsibilities.¹⁷ The prevalence of depression among women aged 46-49 is particularly notable. Studies show that this age group faces unique stressors, such as managing multiple responsibilities and health challenges, contributing to elevated depression rates.¹⁸ Education is a key factor; illiterate women had the highest depression rate (47.8%), while higher education reduces depression risk.¹⁹ Lower income significantly increases depression rates, highlighting the need for economic support and poverty alleviation.²⁰ Employment status affects mental health; day laborers had the highest depression rates (50%), while secure jobs showed lower rates.²¹ Job security significantly affects mental health; service workers with stable conditions report lower depression rates, highlighting that job security and supportive environments reduce depression risk.²² Women with three or more children have higher depression rates (33.3%) due to increased stress and responsibilities.²³

Women facing recent challenges had higher depression rates (23.95%), and those with trauma history showed increased depression, stressing the need for trauma-informed care.²⁴ Daily stressors significantly impact mental health,

with chronic exposure linked to higher depression rates, supporting the notion that recent stressors affect emotional well-being.²⁵ Access to mental health care in rural areas is limited, with only 21.4% reporting availability. This highlights a critical need for improved services and provider training.²⁶ Binary logistic regression shows depression is more likely in women aged 36-45, with trauma increasing risk; lower income and education reduce it.

CONCLUSION

In conclusion, addressing depression among rural women in Bangladesh requires policy reform, better healthcare access, and community support. Expanding mental health services, improving education and economic opportunities, and providing trauma-informed care are essential. Raising awareness and reducing stigma will also enhance outcomes. These steps will help improve mental health and social equity for rural women.

Acknowledgment

62nd batch of MBBS students from Rajshahi Medical College, Rajshahi.

Authors' contributions

Concept and design: FY, AR, MZA, AKMSA

Data collection

62nd batch of RMC, Data cleaning, encoding, entry, analysis & interpretation: FY, AR, ZA

Drafting and final approval: FY, AR, MZA, AKMSA

Declarations

Funding

No financial assistance was provided to the authors for the research, authorship, and/or publication of this article.

Conflict of Interest

None declared.

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