Research Paper

A Study of Functional Impairment and Psychosocial Stressors in Semi-Urban Adults with Common Mental Disorders Using WHODAS 2.0

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ABSTRACT

This study assessed psychosocial stressors and functional impairment in semi-urban adults with common mental disorders (CMDs) using WHODAS 2.0. A total of 105 participants (64 females, 41 males) aged 18 to 55 years were surveyed in Jaipur, Rajasthan, from December 2024 to June 2025. Participants self-reported CMD symptoms and stressors. A semi-structured psychosocial checklist and standardized tools (PHQ-9, GAD-7, WHODAS 2.0) were administered. Data were analyzed using descriptive statistics, Pearson correlation, t-tests, and hierarchical multiple regression. Females reported a higher mean stressor count (M = 3.86) than males (M = 3.63). WHODAS 2.0 showed high internal consistency (Cronbach's α > 0.85). Depression severity predicted functional impairment, while psychosocial stressors did not show a significant predictive value. Results highlight the importance of CMD symptoms over cumulative stress burden in determining disability levels. Findings suggest the need for targeted interventions focusing on CMD symptom reduction.

The burden of mental disorders in low- and middle-income countries has risen significantly, but the understanding of how psychosocial stressors influence functioning remains limited, particularly in semi-urban settings. This study explores how common mental disorders (CMDs) and contextual stressors affect functional impairment, with an emphasis on identifying predictors of disability. The research aims to contribute to rehabilitation strategies in culturally diverse, under-researched populations such as semi-urban India.

Objectives
To examine the relationship between CMD symptoms, psychosocial stressors, and functional impairment in semi-urban adults using WHODAS 2.0.

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Hypothesis
Higher CMD symptoms and a greater number of psychosocial stressors will predict higher levels of functional impairment.

Scientific Tools
1. Patient Health Questionnaire-9 (PHQ-9)
2. Generalized Anxiety Disorder-7 (GAD-7)
3. WHODAS 2.0 (12-item Hindi interviewer version)
4. Psychosocial Stressor Checklist (researcher-developed)

MATERIALS AND METHODS

Participants
105 participants (64 females, 41 males), aged 18 to 55 years, residing in semi-urban areas of Jaipur, Rajasthan.

Inclusion Criteria:
- Adults aged 18 to 55
- Self-reported psychological distress consistent with CMDs
- Residents of semi-urban Rajasthan

Exclusion Criteria:
- Diagnosed psychotic or neurological disorders
- Severe cognitive impairment

Data collection
Conducted between December 2024 and June 2025 by trained field staff in private settings using Hindi language tools. Verbal informed consent was obtained. Data were directly entered into Google Sheets.

Scoring
Scores for PHQ-9, GAD-7, WHODAS 2.0, and stressor count were computed by summing item-level responses. The stressor checklist used dichotomous coding (1 = present, 0 = absent).

Variables
- Independent variables: PHQ-9 score, GAD-7 score, stressor count
- Dependent variable: WHODAS Total score

Data Analysis
Used descriptive statistics, reliability analysis (Cronbach's alpha), Pearson's r for correlation, independent samples t-tests, and hierarchical multiple regression (three blocks: demographics, CMD symptoms, stressors). Significance set at $p < 0.05$.

RESULTS AND DISCUSSION
Descriptive data indicated a slightly higher stressor burden among females (M = 3.86) than males (M = 3.63), though this was not statistically significant ($p > .05$). WHODAS 2.0 demonstrated excellent reliability ($\alpha > 0.85$). Pearson correlation showed that CMD symptoms (PHQ-9) were strongly associated with functional impairment ($r = 0.62$, $p < 0.01$). Stressor count had a weaker, non-significant correlation with WHODAS scores. Regression

analysis revealed that CMD symptoms significantly predicted WHODAS scores ($\beta = .57$, $p < 0.001$), whereas stressors did not add predictive value beyond symptoms. These findings emphasize the primacy of depressive and anxiety symptoms over contextual stressors in functional disability among this population.

CONCLUSIONS

CMD symptom severity is a stronger predictor of functional impairment than the number of psychosocial stressors in semi-urban adults. Interventions must prioritize the treatment of depression and anxiety symptoms to effectively reduce disability.

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Appendix A: Psychosocial Stressor Checklist (Hindi Version)
This 14-item checklist was developed specifically for semi-urban Indian contexts to assess prevalent psychosocial stressors contributing to functional distress and CMD symptoms. Participants were asked if they had experienced any of the following in the past 6 months. Items were binary scored:
Yes = 1, No = 0

सामाजिक तनाव कारकों की सूची (Stressor Checklist in Hindi)
निर्देश:

यह चेकलिस्ट भारत के अर्ध-शहरी क्षेत्रों में प्रचलित मनोसामाजिक तनावों का मूल्यांकन करने के लिए तैयार की गई है, जो कार्यात्मक अशक्तता और सामान्य मानसिक विकार (CMD) के लक्षणों में योगदान कर सकते हैं।

कृपया नीचे दी गई प्रत्येक स्थिति के बारे में सोचें और बताएं कि क्या आपने पिछले 6 महीनों में इनमें से किसी भी स्थिति का अनुभव किया है।
यदि हाँ, तो उस विकल्प को **1** अंक दें। **यदि नहीं,** तो उसे **0** अंक दें।

A Study of Functional Impairment and Psychosocial Stressors in Semi-Urban Adults with Common Mental Disorders Using WHODAS 2.0

आपके उत्तर पूरी तरह गोपनीय रहेंगे और केवल इस अध्ययन के उद्देश्य से उपयोग किए जाएंगे।

क्रम संख्या	तनाव कारक विवरण
1	वित्तीय दबाव या कर्ज का बोझ
2	चल रही स्वास्थ्य समस्याएं (स्वयं या परिवार में)
3	देखभाल की जिम्मेदारियाँ (वृद्ध या विकलांग की)
4	वैवाहिक संघर्ष या तलाक
5	ससुराल या विस्तृत परिवार से विवाद
6	शोक या हालिया मृत्यु
7	शैक्षणिक असफलता (स्वयं या बच्चों की)
8	नौकरी की अस्थिरता या हालिया बेरोजगारी
9	शारीरिक बीमारी या चोट
10	सामाजिक बहिष्कार या भेदभाव
11	लिंग आधारित हिंसा या उत्पीड़न
12	कानूनी या ज़मीन से संबंधित विवाद
13	घर में नशाखोरी या लत की समस्या
14	प्रवास या आवासीय समस्याओं के कारण विस्थापन

Scoring:
The total score (0–14) reflects the cumulative burden of stressors. This score was used as **Stressor_Count** in statistical analysis.

Clinical Use:
- Can guide individualized psychosocial interventions.
- Helps identify clusters of social adversity contributing to CMD symptoms.
- Useful in both clinical intake and community-based screening programs.

Appendix B: Standardized Tools

1. Patient Health Questionnaire-9 (PHQ-9)
The PHQ-9 is a 9-item self-report measure used to screen and assess the severity of depressive symptoms. Each item is scored from 0 ("Not at all") to 3 ("Nearly every day"), with a total score range of 0–27.

Sample Items:
- Little interest or pleasure in doing things
- Feeling down, depressed, or hopeless

Scoring:
- 0–4: Minimal
- 5–9: Mild
- 10–14: Moderate
- 15–19: Moderately Severe
- 20–27: Severe Depression

2. Generalized Anxiety Disorder-7 (GAD-7)
The GAD-7 is a 7-item tool used to assess symptoms of generalized anxiety. Like the PHQ-9, it uses a 4-point Likert scale (0–3), with a total possible score of 21.

Sample Items:
- Feeling nervous, anxious, or on edge
- Not being able to stop or control worrying

Scoring:
- 0–4: Minimal
- 5–9: Mild
- 10–14: Moderate
- 15–21: Severe Anxiety

3. WHODAS 2.0 (12-item Hindi Interviewer Version)

The WHO Disability Assessment Schedule (WHODAS 2.0) assesses functioning across six domains: cognition, mobility, self-care, getting along, life activities, and participation. The 12-item version is brief, widely used in community and clinical settings, and validated in Indian populations.

Sample Items:
- Standing for long periods such as 30 minutes
- Taking care of household responsibilities
- Joining in community activities

Scoring:
 Each item is rated from 1 ("None") to 5 ("Extreme or cannot do"). A higher score indicates greater disability.

Appendix C: Scoring Rubrics

PHQ-9 (Patient Health Questionnaire-9)
Scoring Rubric:
- Each of the 9 items is scored from 0 (not at all) to 3 (nearly every day). Total score range: 0–27
- 0–4: Minimal depression
- 5–9: Mild depression
- 10–14: Moderate depression
- 15–19: Moderately severe depression
- 20–27: Severe depression

Clinician Notes:
- Consider functional impairment when interpreting scores.
- Moderate scores or above may warrant referral for therapy or psychiatric evaluation.
- Cultural expressions of distress (e.g., somatic symptoms) may influence responses.

GAD-7 (Generalized Anxiety Disorder-7)
Scoring Rubric:
- Each item is scored from 0 (not at all) to 3 (nearly every day). Total score range: 0–21
- 0–4: Minimal anxiety
- 5–9: Mild anxiety
- 10–14: Moderate anxiety
- 15–21: Severe anxiety

Clinician Notes:
- GAD-7 is a screening tool, not a diagnostic instrument.
- High scores indicate the need for a structured clinical interview and treatment planning.
- Use in conjunction with other CMD assessments for best results.

WHODAS 2.0 (12-item Hindi Interviewer Version)
Scoring Rubric:
- Each item is rated from 1 (no difficulty) to 5 (extreme difficulty, cannot be done). Total score range: 12–60
- Higher scores indicate greater functional disability

Clinician Notes:
- Provide culturally adapted explanations during administration.
- Use visual aids (e.g., numeric scale cards or filled circles) for semi-literate participants.
- Effective for tracking activity limitation and social participation issues.
- Useful to monitor rehabilitation outcomes over time.

Appendix D: Verbal Informed Consent Form (Hindi)

हिंदी संस्करण

अध्ययन का शीर्षक: सामान्य मानसिक रोगों वाले अर्ध-शहरी वयस्कों में कार्यात्मक दुर्बलता और मनोसामाजिक तनावों का अध्ययन (WHODAS 2.0 का उपयोग)

प्रधान अन्वेषक:
सुकिर्ति मीना

संस्थान:
महात्मा ज्योति राव फुले विश्वविद्यालय, जयपुर

सहमति वक्तव्य (प्रतिभागी को ज़ोर से पढ़कर सुनाएँ):

नमस्ते। मेरा नाम [अन्वेषक/सहायक का नाम] है। मैं एक अध्ययन कर रहा/रही हूँ जिसमें हम मानसिक तनाव और रोजमर्रा के जीवन में आने वाली कठिनाइयों के बारे में जानकारी इकट्ठा कर रहे हैं।

आपका इस अध्ययन में भाग लेना पूरी तरह से स्वैच्छिक है। आप किसी भी प्रश्न का उत्तर देने से मना कर सकते हैं या बीच में कभी भी साक्षात्कार रोक सकते हैं। आपकी पहचान गुप्त रखी जाएगी और यह जानकारी केवल शोध के लिए उपयोग की जाएगी।

यह साक्षात्कार लगभग 20–30 मिनट का होगा। आपको इससे कोई प्रत्यक्ष लाभ नहीं होगा, लेकिन इससे हमारे समाज में मानसिक स्वास्थ्य सेवाओं को बेहतर बनाने में मदद मिल सकती है।

क्या आप इसमें भाग लेने की अनुमति देते हैं?

☐ हाँ   ☐ नहीं

मौखिक सहमति प्राप्त करने की तिथि: _____ / _____ / 2025

साक्षात्कारकर्ता का हस्ताक्षर: _____

Appendix E: Correlation Matrix

Variable	Mean	Standard Deviation	PHQ-9 (r)	GAD-7 (r)	WHODAS 2.0 (r)	Stressor Count (r)
PHQ-9	11.32	6.28	1	0.62	0.51	0.38
GAD-7	10.45	5.94	0.62	1	0.47	0.41
WHODAS 2.0	24.68	10.53	0.51	0.47	1	0.29
Stressor Count	3.76	2.45	0.38	0.41	0.29	1