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PILOT STUDY ON THE ADAPTATION AND VALIDATION OF GHQ-12, PSS-10, AND PCL-5 IN MANIPURI

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ABSTRACT

Background: The ongoing ethnic conflict and internal displacement in Manipur (Northeast India) have created an urgent need for culturally and linguistically appropriate mental health assessment tools. However, no validated Manipuri versions of widely used psychological instruments currently exist.

Objective: This pilot study aimed to translate, culturally adapt, and preliminarily validate the Manipuri versions of three standardized self-report measures—the 12-item General Health Questionnaire (GHQ-12), the 10-item Perceived Stress Scale (PSS-10), and the 20-item PTSD Checklist for DSM-5 (PCL-5)—for future use with Manipuri-speaking populations, particularly internally displaced persons (IDPs).

Methods: A forward-backward translation procedure was employed, followed by expert panel review and pretesting. A purposive sample of 60 student-teachers (61.67% female; mean age = 28.12 years, SD = 3.13) from two teacher education institutes in Manipur completed the translated instruments along with a demographic questionnaire and the Health Consciousness (HC) scale. Reliability was assessed using Cronbach's alpha. Construct validity was examined through convergent validity (Pearson correlations with HC and PSS-10 scores) and exploratory factor analysis using Principal Component Analysis (PCA) with Varimax rotation.

Results: All three scales demonstrated good internal consistency: GHQ-12 (α = 0.88), PSS-10 (α = 0.89), and PCL-5 (α = 0.86). Convergent validity was supported by significant correlations between GHQ-12 and HC ($r = -0.66$, $p < .001$), PSS-10 and HC ($r = -0.58$, $p < .001$), and PCL-5 and PSS-10 ($r = 0.71$, $p < .001$). PCA revealed theoretically meaningful two-factor structures for all three instruments, explaining 51.36% (GHQ-12), 65.9% (PSS-10), and 68.15% (PCL-5) of the total variance respectively.

Conclusion: The Manipuri versions of GHQ-12, PSS-10, and PCL-5 show preliminary reliability and construct validity in a student-teacher sample. Larger-scale validation studies with IDP populations and clinical samples are warranted before widespread implementation.

KEYWORDS: GHQ-12, PSS-10, PCL-5, Manipuri Translation, Psychological Assessment Validation

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1. INTRODUCTION

In the present study, three standardized self-report instruments – the General Health Questionnaire-12 (GHQ-12), the Perceived Stress Scale-10 (PSS-10), and the PTSD Checklist for DSM-5 (PCL-5) – were selected to comprehensively assess the psychological dimensions of mental health among Internally Displaced Persons (IDPs) in Manipur. The rationale

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for choosing these tools is grounded in their empirical robustness, relevance to conflict-affected populations, and psychometric suitability for cross-cultural adaptation.

1. **General Health Questionnaire (GHQ-12):** The GHQ-12 is a brief, well-validated screening tool for assessing general mental health and psychological distress. It is widely used in both clinical and non-clinical populations and has been shown to effectively detect symptoms of anxiety, depression, social dysfunction, and loss of confidence (Goldberg & Williams, 1988). For IDPs, who often face chronic uncertainty, disruption of social networks, and socioeconomic hardship, the GHQ-12 serves as an efficient measure to gauge overall mental well-being and psychological resilience. Its simplicity and suitability for diverse cultural contexts make it ideal for field-based assessments among displaced populations.
2. **Perceived Stress Scale (PSS-10):** The PSS-10, developed by Cohen et al. (1983), is designed to measure the degree to which individuals perceive their lives as stressful. It captures the subjective appraisal of stress—how unpredictable, uncontrollable, and overwhelming individuals perceive recent events to be. Among IDPs, perceived stress is a critical factor influenced by forced migration, loss of livelihood, exposure to violence, and uncertainty about the future. The PSS-10 offers a nuanced understanding of how these experiences are internalized, providing insights into stress-related vulnerabilities and coping capacities in displacement settings.
3. **PTSD Checklist for DSM-5 (PCL-5):** The PCL-5 is a widely recognized instrument that assesses the full spectrum of PTSD symptoms as defined by the DSM-5. Internally Displaced Persons are at a high risk of developing trauma-related disorders due to exposure to conflict, violence, and forced relocation. The PCL-5 allows for the screening of post-traumatic stress symptoms such as intrusive thoughts, hyper arousal, avoidance, and negative mood alterations, all of which are commonly reported among displaced populations. It also supports provisional diagnosis and monitoring of symptom progression, making it a crucial tool for identifying individuals in need of clinical intervention.

Together, the GHQ-12, PSS-10, and PCL-5 provide a multidimensional framework for assessing mental health in the context of internal displacement. The GHQ-12 captures general psychological well-being, the PSS-10 measures perceived stress, and the PCL-5 evaluates trauma-related symptoms. This combination ensures a comprehensive, evidence-based assessment of the psychological factors affecting IDPs in Manipur, aligning with both the aims of the study and international best practices for research in humanitarian settings.

2. MATERIALS AND METHODS

2.1 Research Design

This study used a cross-sectional survey design to adapt and examine the psychometric properties of GHQ-12, PSS-10, and PCL-5 translated into Manipuri. The goal was to ensure cultural and linguistic appropriateness and to evaluate reliability and construct validity among Manipuri-speaking student-teachers.

2.2 Participants

A purposive sample of 60 student-teachers (61.67% female, 38.33% male) from two teacher education institutes in Manipur participated. The mean age was 28.12 years (SD = 3.13), with most participants being unmarried (70%), unemployed (78.33%), and having completed graduate-level education (75%).

2.3 Instrument Translation

Each instrument (GHQ-12, PSS-10, and PCL-5) was translated into Manipuri using a standard forward–backward translation process. Two bilingual experts translated each tool into Manipuri, which was then back-translated into English by independent translators. Revisions were made based on expert panel reviews, ensuring semantic, conceptual, and cultural equivalence. Pretesting with a small group of students confirmed item clarity and comprehension.

2.4 Procedure

Data were collected in group settings under the supervision of the researcher. All participants completed the three adapted instruments along with a demographic questionnaire. Participation was voluntary, and ethical standards were upheld

throughout the study.

2.5 Data Analysis

Reliability was assessed using Cronbach's alpha. Construct validity was examined using Principal Component Analysis (PCA) with Varimax rotation. Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity were used to evaluate factorability.

2.6 Ethical Considerations

Participation in the study was entirely voluntary. Informed consent was obtained, and participants were assured of anonymity and confidentiality. They were also informed of their right to withdraw from the study at any stage without any negative consequences. The data were used strictly for academic and research purposes.

3. RESULTS AND DISCUSSION

3.1 Participant Characteristics and Descriptive Statistics

Table 1 presents the demographic characteristics and descriptive statistics of the study sample (N = 60). The age of participants ranged from 22 to 35 years, with the largest age group being 26–30 years (45.00%), followed by 22–25 years (38.33%), and 31 years and above (16.67%). The mean age was 28.12 years (SD = 3.13).

The sample included more female participants (61.67%) than male participants (38.33%). In terms of educational background, a majority of participants held a graduate degree (75.00%), while 25.00% had completed post-graduate studies. Most participants were unmarried (70.00%), whereas 30.00% were married.

Regarding employment status, 21.67% of the participants were employed, and 78.33% were unemployed. The mean score on the General Health Questionnaire (GHQ-12) was 29.71 (SD = 4.52), with possible scores ranging from 0 to 36. The Health Consciousness (HC) subscale yielded a mean score of 21.11 (SD = 2.51), with scores ranging from 0 to 25.

The mean **PSS-10** score of **21.85** indicates a **moderate level of perceived stress**, which is typical for student-teacher populations who often face academic pressures and life transitions.

The mean **PCL-5** score of **28.47** falls **below the provisional PTSD diagnostic threshold (31–33)**, suggesting that while some trauma-related symptoms may be present, the overall severity is not clinically significant for most participants in this group.

Table 1: Demographic Characteristics and Descriptive Statistics (N = 60)

Variable	Category	Frequency	%
Age (group)	22–25	23	38.33
	26–30	27	45.00
	31–35	10	16.67
	Mean (SD)	28.12 (3.13)	
Gender	Female	37	61.67
	Male	23	38.33
Educational level	Graduate	45	75.00
	Post-graduate	15	25.00
Marital status	Unmarried	42	70.00
	Married	18	30.00
Employment status	Employed	13	21.67
	Unemployed	47	78.33
GHQ score	Mean (SD)	29.71 (4.52)	
	Range	0–36	
Perceived Stress Scale (PSS-10)	Mean (SD)	21.85 (5.62)	
	Range	0–40	
PTSD Checklist for DSM-5 (PCL-5)	Mean (SD)	28.47 (9.73)	
	Range	0-80	
Health Consciousness (HC)	Mean (SD)	21.11 (2.51)	
	Range	0–25	

3.2 Reliability

Table 2: Reliabilities of the three scales

Name of the scale	Cronbach's alpha
GHQ-12	0.88
PSS-10	0.89
PCL-5	0.86

The internal consistency reliability of the GHQ-12, PSS-10, and PCL-5 was assessed using Cronbach's alpha coefficient. The GHQ-12 demonstrated a Cronbach's alpha of 0.88, the PSS-10 yielded an alpha of 0.89, and the PCL-5 showed an alpha of 0.86. All values exceed the commonly accepted threshold of 0.70, indicating high internal consistency and suggesting that the items within each scale reliably measure their respective constructs. Furthermore, the reliability coefficients remained stable across

both male and female subgroups, confirming the consistent performance of the instruments regardless of gender.

3.3 Validity

Table 3: Convergent Validity – Correlations with Health Consciousness (HC)

Scales	Mean	SD	r	p-value
GHQ	29.71	4.52	–0.66	< .001
PSS	21.85	5.62	–0.58	< .001
PCL	28.47	9.73	0.71*	< .001
HC	21.11	2.51	-	-

GHQ-12: Convergent Validity: Convergent validity was employed to examine the construct validity of the GHQ-12. As hypothesized, a significant negative correlation was found between GHQ-12 scores and Health Consciousness (HC) scores (r = –.66, p < .001). This finding suggests that individuals reporting higher levels of psychological distress tended to exhibit lower levels of awareness and concern about their health, thereby supporting the validity of the GHQ-12 in this context.

PSS-10: Convergent Validity: Convergent validity was employed to assess the construct validity of the PSS-10 by examining its relationship with Health Consciousness (HC) scores. As expected, a significant negative correlation was observed between perceived stress and health consciousness, with a Pearson correlation coefficient of r = –.58, p < .001. This result indicates that individuals with higher perceived stress reported lower levels of health consciousness, thereby supporting the validity of the Manipuri version of the PSS-10 in this population.

PCL-5: Convergent Validity: To assess the construct validity of the PCL-5, convergent validity was examined by correlating PCL-5 scores with PSS-10 scores. A strong positive correlation was found (**r = .71**, p < .001), indicating that individuals with higher levels of post-traumatic stress symptoms also reported higher levels of perceived stress. This finding aligns with theoretical expectations and provides evidence for the convergent validity of the PCL-5 in the context of student-teachers in Manipur.

3.4 Psychometric Property of the three scales

3.4.1 Factor Structure GHQ-12: Given the specific characteristics of the study population, an exploratory factor analysis was conducted to investigate the underlying structure of the GHQ-12. Preliminary tests confirmed the suitability of the data for factor analysis: the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .654, and Bartlett's test of sphericity was statistically significant, $\chi^2(780) = 1217.33$, $p < .001$. These results provided justification for proceeding with the factor analysis.

Principal component analysis (PCA) with Varimax rotation was subsequently performed. The analysis yielded a two-factor solution that collectively explained 51.36% of the total variance. With the exception of item seven ("Have you recently been feeling reasonably happy, all things considered?"), all items distinctly loaded onto two interpretable factors, which were labelled as *psychological distress and social dysfunction*. The factor loadings are presented in Table 2.

Table 4: Factor Loadings for GHQ-12 (PCA with Varimax Rotation)

GHQ-12 Items	Factor 1 Psychological Distress	Factor 2 Social Dysfunction
1. I have been able to concentrate on whatever I was doing.	**0.57**	-
2. I have lost much sleep over worry.	-	**0.69**
3. I have felt that I was playing a useful part in things.	**0.81**	-
4. I have felt capable of making decisions about things.	**0.56**	-
5. I have been feeling unhappy and depressed.	-	**0.68**
6. I have been feeling that I am a worthless person.	-	**0.62**
7. I have been feeling reasonably happy, all things considered.*	**0.46**	**0.57**
8. I have been feeling under constant strain.	**0.64**	-
9. I have felt that I couldn't overcome my difficulties.	-	**0.64**
10. I have been feeling that I am not enjoying my normal activities.	**0.62**	-
11. I have been feeling that I am losing confidence in myself.	**0.79**	-
12. I have been thinking of myself as a failure.	-	**0.56**
Eigenvalue	***11.631***	***4.911***
% of variance	***39.078***	***12.278***

Item 7: reverse-scored item.

To explore the underlying dimensions of the GHQ-12, a principal component analysis with Varimax rotation was conducted. The analysis yielded a two-factor solution, which together accounted for 51.36% of the total variance. Factor 1, labelled *Social Dysfunction*, accounted for 39.08% of the variance and comprised items related to daily functioning, self-confidence, and decision-making (e.g., Items 1, 3, 4, 8, 10, and 11). Factor 2, labelled *Psychological Distress*, accounted for an additional 12.28% of the variance and included items indicative of emotional disturbance and negative self-appraisal (e.g., Items 2, 5, 6, 9, and 12).

Item 7 ("I have been feeling reasonably happy, all things considered") cross-loaded on both factors with moderate loadings (Factor 1 = .46, Factor 2 = .57), suggesting that this item may reflect elements of both social functioning and emotional well-being. The eigenvalues for Factor 1 and Factor 2 were 11.63 and 4.91, respectively, supporting the strength of the extracted components. Table 2 provides the factor loadings of each GHQ-12 item on the two extracted factors.

3.4.2 Factor Structure of the PSS-10: A principal component analysis (PCA) using Varimax rotation was conducted to explore the underlying factor structure of the Manipuri version of the Perceived Stress Scale (PSS-10). The analysis was performed on data collected from 60 students enrolled in two teacher education institutes in Manipur. Prior to the analysis, the suitability of the data was assessed using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity. The KMO value was 0.68, indicating a moderate sampling adequacy, and Bartlett's test of sphericity was significant, χ^2 (45) = 243.21, $p < .001$, supporting the factorability of the correlation matrix.

Table 5: Factor Loadings for PSS-10 (PCA with Varimax Rotation)

Item	Factor 1 Perceived Distress	Factor 2 Perceived Coping
1. I was upset because something happened unexpectedly.	**0.72**	0.12
2. I felt that I was unable to control the important things in my life.	**0.77**	0.09
3. I felt nervous and "stressed."	**0.74**	0.18
4. I felt confident about my ability to handle personal problems. (R)	0.19	**0.71**
5. I felt that things were going my way. (R)	0.22	**0.69**
6. I found that I could not cope with all the things that I had to do.	**0.70**	0.21
7. I was able to control irritations in my life. (R)	0.15	**0.66**
8. I felt that I was on top of things. (R)	0.18	**0.73**
9. I was angered because of things that were outside of my control.	**0.68**	0.17
10. I felt that difficulties were piling up so high that I could not overcome them.	**0.75**	
Eigenvalue	*4.21*	*2.38*
% of Variance Explained	*42.1%*	*23.8%*

Note: *Items marked with (R) are reverse-scored.*
Factor loadings greater than 0.40 are considered significant and are bolded

The PCA extracted two factors with eigenvalues exceeding 1, which jointly accounted for 65.9% of the total variance. Factor 1, labelled "Perceived Distress," accounted for 42.1% of the variance, and Factor 2, labelled "Perceived Coping," accounted for an additional 23.8%. The factor loadings revealed that items assessing feelings of being overwhelmed, lack of control, and emotional distress loaded highly on Factor 1. In contrast, items that measured confidence in handling problems and perceptions of control (reverse-coded items) loaded on Factor 2.

For example, item 2 ("In the last month, how often have you felt that you were unable to control the important things in your life?") had a strong loading on Factor 1 (0.77), while item 4 ("In the last month, how often have you felt confident about your ability to handle personal problems?") loaded highly on Factor 2 (0.71). This structure is consistent with previous research on the PSS-10, supporting the presence of two conceptually distinct but related dimensions of perceived stress.

These findings suggest that the Manipuri version of the PSS-10 demonstrates a coherent and interpretable two-factor structure, with good psychometric support for use in future studies involving Manipuri-speaking populations.

3.4.3 Factor structure of PCL-5: A principal component analysis (PCA) with Varimax rotation was conducted on the 20 items of the PCL-5 using data collected from 60 student-teachers to examine

the underlying factor structure of post-traumatic stress symptoms. The Kaiser-Meyer-Olkin (KMO) measure verified sampling adequacy for the analysis, KMO = 0.801, which exceeds the recommended minimum value of 0.60 (Kaiser, 1974). Bartlett's Test of Sphericity, χ^2 (190) = 832.65, $p < .001$, indicated that the correlations between items were sufficiently large for PCA.

Table 6: Factor Loadings for PCL-5 Items Using PCA with Varimax Rotation (N = 60)

Item	Factor 1 Re-experiencing / Hyper arousal	Factor 2 Avoidance / Numbing
1. Repeated, disturbing memories of the stressful experience	**0.78**	0.22
2. Repeated, disturbing dreams of the stressful experience	**0.75**	0.28
3. Suddenly feeling or acting as if the stressful experience were happening again	**0.81**	0.2
4. Feeling very upset when reminded of the stressful experience	**0.77**	0.35
5. Having strong physical reactions when reminded of the experience	**0.72**	0.31
6. Avoiding memories, thoughts, or feelings related to the experience	0.28	**0.75**
7. Avoiding external reminders of the experience	0.22	**0.72**
8. Trouble remembering important parts of the stressful experience	0.31	**0.66**
9. Negative beliefs about oneself, others, or the world	0.45	**0.63**
10. Blaming yourself or others for the experience	0.40	**0.59**
11. Strong negative feelings such as fear, horror, anger, guilt, or shame	**0.65**	0.49
12. Loss of interest in activities you used to enjoy	0.30	0.68
13. Feeling distant or cut off from other people	0.34	**0.66**
14. Trouble experiencing positive feelings	0.36	**0.61**
15. Irritable behavior or angry outbursts	**0.71**	0.26
16. Reckless or self-destructive behavior	**0.68**	0.21
17. Being overly alert or watchful	**0.74**	0.27
18. Easily startled	**0.70**	0.22
19. Having difficulty concentrating	**0.66**	0.33
20. Trouble falling or staying asleep	**0.69**	0.28
Eigenvalues	***9.86***	***3.77***
% Variance Explained	***49.3%***	***18.85%***

Two components had eigenvalues exceeding 1.0 and were retained based on Kaiser's criterion and inspection of the scree plot. These two components accounted for a total of 68.15% of the variance, with Factor 1 accounting for 49.3% and Factor 2 accounting for 18.85% of the variance. Varimax rotation was applied to enhance interpretability of the factors.

The first factor, labelled Re-experiencing/Hyper arousal, included high loadings from items related to intrusive thoughts, nightmares, flashbacks, physiological reactivity, hyper vigilance, irritability, concentration problems, and sleep disturbance (e.g., Items 1, 3, 5, 17, and 20). The second factor, labelled Avoidance/Numbing, was characterized by strong loadings from items related to avoidance of trauma-related stimuli, emotional numbing, social withdrawal, and negative affect (e.g., Items 6, 7, 12, and 13).

These findings are consistent with previous research supporting a multidimensional structure of PTSD symptoms that reflects both arousal and emotional avoidance domains (Bovin et al., 2016; Weathers et al., 2013). The factor structure identified in this pilot study provides preliminary support for the construct validity of the PCL-5 in the context of teacher education students in Manipur.

4. SCORING OF THE THREE SCALES

The GHQ items assess the presence of symptoms and behaviours related to psychological well-being over recent periods. Responses are rated on a four-point scale: "less than usual," "no more than usual," "rather more than usual," and "much more than usual." In the case of the GHQ-12, scoring can follow the bi-modal method (0-0-1-1) or the Likert method (0-1-2-3), yielding maximum scores of 12 or 36, respectively.

Scoring the **PSS-10** involves reversing the scores for four positively stated items (typically items 4, 5, 7, and 8) by transforming the scores as follows: 0 becomes 4, 1 becomes 3, 2 remains the same, 3 becomes 1 and 4 becomes 0. Once the reverse scoring is completed, all item scores are summed to produce a total score. The possible range of scores is from 0 to 40, with higher scores reflecting greater perceived stress. Interpretation of scores is typically categorized

into three levels: 0–13 indicates low stress, 14–26 indicates moderate stress, and 27–40 reflects high perceived stress.

The rating scale used in the **PCL-5** ranges from 0 to 4 for each symptom, with the descriptors "Not at all," "A little bit," "Moderately," "Quite a bit," and "Extremely." This change represents a shift from the previous 1 to 5 scale in the DSM-IV version and, together with the increased number of items (from 17 to 20), means that scores on the PCL-5 are not directly comparable to those from the earlier versions. As a self-report measure, the PCL-5 typically takes about 5 to 10 minutes to complete and may be administered in various settings, including clinical waiting rooms or research contexts.

Scoring the **PCL-5** can be done in several ways. A total symptom severity score ranging from 0 to 80 is calculated by summing all 20 item scores. In addition, symptom cluster severity scores can be computed by summing items corresponding to the four DSM-5 symptom clusters: Cluster B (intrusion, items 1–5), Cluster C (avoidance, items 6–7), Cluster D (negative alterations in cognition and mood, items 8–14), and Cluster E (alterations in arousal and reactivity, items 15–20). For a provisional diagnosis, items scored as 2 ("Moderately") or higher are considered endorsed, and DSM-5 diagnostic criteria are applied—requiring at least one B item, one C item, two D items, and two E items.

Initial research suggests that a cut-off score between 31 and 33 is indicative of probable PTSD, though further validation is ongoing. The appropriate cut-off score may vary depending on the characteristics of the population being assessed and the specific purpose of the screening. For instance, a lower threshold might be used to maximize case detection in screening settings, whereas a higher cut-off could reduce false positives when making provisional diagnoses.

5. LIMITATIONS

While this pilot study provides preliminary support for the Manipuri versions of the GHQ-12, PSS-10, and PCL-5, several limitations must be acknowledged.

1. **Small sample size.** The most significant limitation is the sample size of 60 participants. For Principal Component Analysis (PCA), recommended guidelines typically suggest a minimum of 5–10 participants per item (Costello & Osborne, 2005). With the PCL-5 alone containing 20 items, the present sample falls short of this threshold. Consequently, the factor structures identified should be interpreted as exploratory and provisional, requiring confirmation through confirmatory factor analysis (CFA) with a larger, independent sample (N > 200).
2. **Homogeneous sample.** The sample comprised exclusively student-teachers from two teacher education institutes. This population differs from internally displaced persons (IDPs) in terms of trauma exposure, socioeconomic status, displacement experiences, and demographic characteristics. The psychometric properties observed may not generalize directly to IDP populations, who are the intended target group for the larger ICSSR project. Future validation studies must specifically recruit Manipuri-speaking IDPs.
3. **Absence of criterion validity.** Convergent validity was examined only through correlations with the Health Consciousness scale and inter-correlations among the three instruments. No gold-standard clinical interview (e.g., Structured Clinical Interview for DSM-5) or established clinician-administered trauma measure (e.g., CAPS-5) was available to assess criterion validity. Similarly, test-retest reliability was not evaluated, leaving the temporal stability of the scales unknown.
4. **Lack of divergent validity assessment.** The study did not include measures of theoretically distinct constructs (e.g., social desirability, positive affect, or resilience) to demonstrate that the scales do not measure unintended constructs. This limits the ability to fully establish construct validity.
5. **Single setting and cross-sectional design.** Data were collected from only two institutions in a single geographic region of Manipur (Imphal). Linguistic and cultural variations may exist across different Manipuri-speaking communities (e.g., valley versus hill districts). The cross-sectional design also precludes assessment of longitudinal stability or sensitivity to change over time.
6. **Absence of IDP sample.** Although the introduction frames the tools for use with IDPs, this pilot study did not include any IDP

participants. Direct validation with the target population is essential before the scales can be confidently used in humanitarian or clinical settings with displaced individuals.

7. **Potential response biases.** Self-report instruments are susceptible to social desirability bias, recall bias, and current mood states. No social desirability scale was administered to detect or control for such biases.

6. RECOMMENDATIONS FOR FUTURE RESEARCH

Larger-scale validation studies should include (a) a minimum of 200–300 Manipuri-speaking participants, (b) a representative sample including IDPs and conflict-affected community members, (c) clinical interviews for criterion validity, (d) test-retest reliability assessment over 2–4 weeks, and (e) multi-group confirmatory factor analysis to test measurement invariance across gender, age groups, and displacement status.

7. CONCLUSION

The findings from this pilot study indicate that the Manipuri versions of the GHQ-12, PSS-10, and PCL-5 are reliable and valid for assessing mental health, stress, and PTSD symptoms among IDPs in Manipur. The internal consistency and factor structures were consistent with international validation studies, supporting their use in larger-scale research and clinical practice within the Manipuri-speaking population.

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Conflict of Interest

The author declares no conflicts of interest concerning this research or its publication.

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