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TRANSLATION AND PSYCHOMETRIC VALIDATION OF THE NIGHTMARE DISTRESS QUESTIONNAIRE (NDQ) IN URDU

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Abstract

Nightmares are a common source of psychological distress and sleep disturbance. The Nightmare Distress Questionnaire (NDQ; Belicki, 1992) is a widely used instrument, but its applicability has been limited to English-speaking populations. This study translated the NDQ into Urdu using Brislin's (1976) forward-backward procedure and examined its psychometric properties in a sample of 130 Pakistani university students. Results indicated strong linguistic equivalence (r=.806, p < .01), good internal consistency (α = .76, inter-item α = .89), and high test-retest reliability (r=.860, p < .01). Exploratory factor analysis supported a unidimensional structure, and approximate confirmatory factor analysis showed moderate fit for the one-factor model. The Urdu NDQ appears to be a reliable and valid tool for assessing nightmare-related distress in Pakistani students.

INTRODUCTION

Nightmares are vivid, emotionally distressing dreams that typically occur during rapid eye movement (REM) sleep and often lead to abrupt awakenings accompanied by fear, anxiety and physiological arousal. Beyond being transient sleep disturbance, nightmares are clinically significant phenomena that have been consistently linked to heightened psychological distress, emotional dysregulation, anxiety, depression, and impaired daily functioning (Belicki, 1992; Al Odhayani, Watson & Brown, 2013). Empirical evidence suggests that while nightmare frequency is important, the subjective distress associated with nightmares is a more robust predictor of psychological maladjustment and functional impairment than frequency alone. Consequently, accurate assessment focus in sleep and trauma research. To address this need, Belicki (1992) developed that Nightmare Distress Questionnaire (NDQ), a 13-item self-report measure designed to assess the emotional, cognitive and functional impact of nightmares. Since its introduction, the NDQ has been widely employed in both clinical and non-clinical populations, demonstrating strong reliability and validity across multiple studies. The instrument has been particularly valuable in trauma-exposed samples, where nightmare distress serves as an important indicator of broader psychopathology. NDQ is restricted to English-speaking populations, limiting its utility in non-Western and multilingual contexts.

The effective use of psychological instruments across cultures necessitates careful linguistic and conceptual adaptation. As emphasized by Brislin (1976), translation is not merely a linguistic process that must ensure sematic, conceptual, and functional equivalence between the original and translated versions. Without such rigor, cross-cultural comparisons and clinical interpretations may be compromised. In Pakistan, this issue is

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particularly salient. Urdu is the national language and the primary medium of communication for a large proportion of the population, while English proficiency varies substantially. According to national literacy estimates, a significant segment of Pakistani adults lacks sufficient fluency in English to reliably comprehend and respond to English-language psychological measures, underscoring the necessity for validate Urdu instruments.

Given the growing recognition of nightmare distress as a clinically meaningful construct and the lack of an Urdu-language assessment tool, the present study aimed to translate and preliminarily validate the Nightmare Distress Questionnaire into Urdu. By employing Brislin's (1976) forward-backward translation methodology and evaluating key psychometric properties- including linguistic equivalence, internal consistency, test-retest reliability, and factor structure- this study seeks to provide a suitable tool among the Urdu speaking-specially for the population of Pakistan. The availability of an Urdu NDQ is expected to facilitate future research, enhance clinical assessment, and contribute to a more comprehensive understanding of sleep-related distress in non-western settings.

Method

The study was conducted in multiple phases. Phase I involved the translation of the NDQ using Brislin's (1976) forward-backward translation procedure. Phase II assessed the appropriateness and clarity of the translated version through pilot testing. Moreover, the phase III examined the empirical equivalence between the English and Urdu versions. Finally Phase IV evaluated the Factor Analysis and approximate Confirmatory Factor Analysis (CFA). A total sample of 130 university students participated in the validation phase.

Phase I

Translation of the Nightmare Distress Questionnaire

The NDQ (Belicki, 1992) primary objective of phase I was to produce an Urdu version of the NDQ that is conceptually equivalent to the original scale and comprehensible to Pakistani respondents.

Conceptual clarification

Before the translation, very item of NDQ were examined to get its theoretical clarity. The psychological meaning of all items was examined to preserve equivalence in emotional tone, distress intensity and contextual relevance.

Recruitment and Briefing of Translators

The bilingual translation team was formed consisting of two clinical psychologists and one language expert fluent in both English and Urdu. The translators were informed about the study purpose and were asked to focus on conceptual rather than literal translation.

Forward Translation

Two separate forward translations were rendered from English into Urdu. The translators prioritized semantic precision, cultural suitability, grammatical correctness, and overall readability. Special attention was paid to emotionally loaded terms describing fear, distress and sleep-related discomfort.

Reconciliation of Forward Translations

An expert committee compared both Urdu translations and resolved discrepancies through consensus. Items that best captured the intended psychological meaning of the original NDQ were retained, resulting in a reconciled Urdu version.

Backward Translation

The reconciled Urdu version was back-translated into English by an independent bilingual expert who was blind to the original scale. This step ensured semantic and conceptual equivalence.

Review of Forward and Backward Translations

The original NDQ and the back-translated version were compared item by item. Minor linguistic refinements were made to ensure clarity and consistency. The finalized Urdu NDQ was then proofread.

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Phase II

Appropriateness of Translation

The clarity and cultural suitability of the Urdu NDQ were assessed using a pilot sample of 30 students selected through purposive sampling. Participants reported no ambiguity or comprehension difficulties, indicating satisfactory face validity.

Phase III

Empirical Equivalence of English and Urdu Version

To establish cross-language equivalence, a subgroup of bilingual participants completed both English and Urdu versions of the NDQ with a one-week interval. Test-retest correlations demonstrated strong equivalence between versions, confirming empirical validity.

Phase IV

Psychometric Validation Participants

A total of 130 university students (65 males, 65 females; age range 18-30 years) were included through convenience sampling from Bahria University, Lahore.

Instruments

Nightmare Distress Questionnaire (NDQ; Belicki, 1992)

The NDQ consists of 13 items measuring emotional and functional distress caused by nightmares. Response was recorded on a Likert-type scale, with higher scores indicating greater distress.

Procedure

Participants provided informed consent and completed the Urdu NDQ in classroom settings. Confidentiality was assured, and ethical standards were maintained in accordance with APA guidelines.

Results

Linguistic equivalence

A strong correlation was observed between English and Urdu versions (r= .806, p< .01), indicating satisfactory linguistic equivalence.

Table 1

Linguistic Equivalence of NDQ (N=130)

Scale	NDQ English
NDQ Urdu	.806**

Note: N=130; 4- day test-retest interval. **p< .01.

Reliability Analysis

Cronbach's alpha for the Urdu NDQ was .76, improving to .89 when recalculated from the inter-item correlation matrix. One-week test-retest reliability was high (r=.860, p< .01)

Table 2

Cronbach's Alpha of Urdu NDQ (N=340)

Scale	Items	Cronbach's α
NDQ Urdu	13	.76

Note: NDQ= Nightmare Distress Questionnaire.

Table 3

Test-Retest Reliability of Urdu NDQ (N=130)

Scale	Test-Retest Correlation	Interval
NDQ Urdu	.860**	1 week

Note. **p<.01 (2-tailed)

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Additionally, Cronbach's alpha recalculated from the inter- item correlation matrix was α= .89, indicating strong internal consistency.

Sampling Adequacy and Sphericity

KMO= .846 and Bartlett's χ^2 (78) = 697.58, p< .001 confirmed data suitability for factor analysis.

Table 4 KMO and Bartlett's Test(N=130)

Statistic	Value
KMO Measure	.846
Bartlett's χ^2(df=78)	697.58
Bartlett's p-value	<.001

These values confirm that the data were suitable for factor analysis.

Exploratory Factor Analysis

Approximate CFA indices for the one-factor model indicated moderate fit (CFI = .84, RMSEA = .11, SRMR = .08).

Table 5 Factor Loadings: One Factor PAF Solution (N=130)

Item	Loading	Communality (h^2)
NDQ4	.72	.52
NDQ5	.72	.51
NDQ3	.61	.37
NDQ7	.58	.34
NDQ1	.58	.33
NDQ13	.39	.36
NDQ6	.38	.26
NDQ8	.34	.33
NDQ2	.31	.26
NDQ10	.29	.32
NDQ11	.27	.21
NDQ12	.27	.21
NDQ9	.14	.26

Note. Loadings ≥ .40 are generally considered acceptable. Most items loaded in the moderate-to-strong range.

Confirmatory Factor Analysis (Approximate Fit Indices)

Table 6 Approximate CFA Fit Indices (N=130)

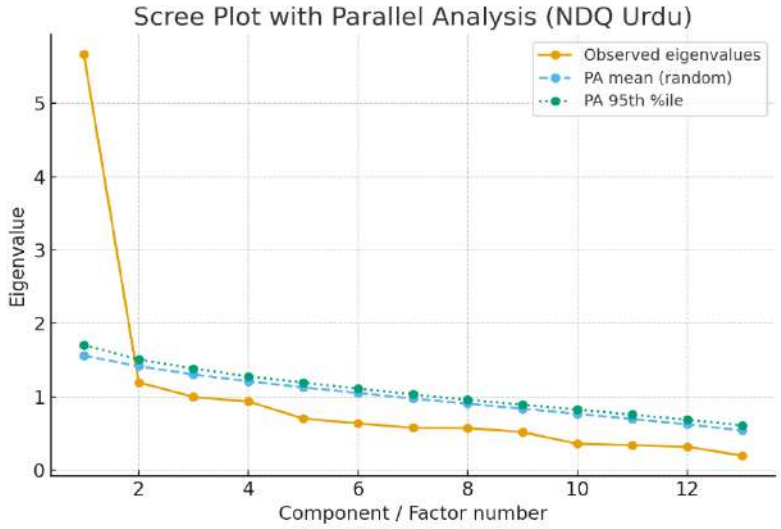
Model	χ^2	Df	CFI	TLI	RMSEA	SRMR
1-Factor (13-items)	171.20	65	.84	.72	.11	.08
2-Factor (forced)	120.42	52	.90	.75	.10	.06

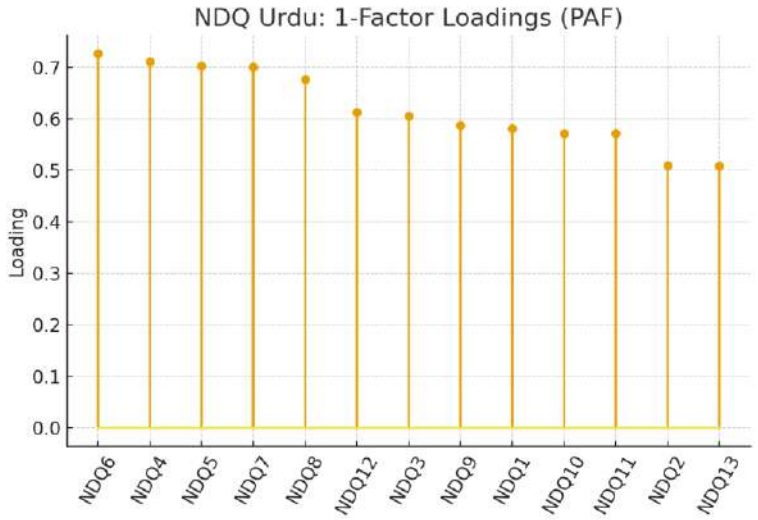
Note. Values derived from PAF-implied covariance; interpret as approximate indicators.

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Nightmare Distress Questionnaire-Urdu

1-	جب آپ ڈراؤ نے خواب سے بیدار ہوتے ہیں تو کیا آپ اس کے بارے میں مسلسل سوچتے ہیں اور اس کو اپنے ذہن سے نکالنے میں دشواری محسوس ہوتی ہے؟	،بہت کم، کبھی کبھار، اکثر، کبھی نہیں ہمیشہ
2-	کیا اکثر آپ کبھی اپنے آپ کو کسی سے گریز کرتے یا نہ پسند کرتے یا ڈرتے ہوئے پاتے ہیں،کیونکہ وہ آپ کے ڈراؤنے خواب میں ہوتے ہیں؟	،بہت کم، کبھی کبھار، اکثر، کبھی نہیں ہمیشہ
3-	کیا آپ کبھی ڈراونے خواب کے ڈر سے، سونے سے خوفزدہ ہوئے ہیں؟	،بہت کم، کبھی کبھار، اکثر، کبھی نہیں ہمیشہ
4-	ڈراونے خواب سے جاگنے کے بعد، آپ کو دوبارہ سونے میں دشواری محسوس ہوتی ہے؟	،بہت کم، کبھی کبھار، اکثر، کبھی نہیں ہمیشہ
5-	کیا ڈرونے خواب آپ کی نیند کے معیار میں مخل ہوتے ہیں؟	کبھی بھی نہیں،معمولی دلچسپی،کسی حد تک دلچسپی،بہت دلچسپی،بہت زیادہ دلچسپی
6-	کیا آپ کو ڈراؤنے خوابوں سے نمٹنے میں دشواری ہوتی ہے؟	،بہت کم، کبھی کبھار، اکثر، کبھی نہیں ہمیشہ

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7-	کیا آپ کو ایسا محسوس ہوتا ہے کہ خوفزدہ خوابوں سے آپ کو کوئی مسئلہ درپیش ہے؟	،بہت کم، کبھی کبھار، اکثر، کبھی نہیں ہمیشہ
8-	ڈراونے خواب آپ کی ویل بینگ پر اثر انداز ہوتے ہیں؟	کبھی بھی نہیں،معمولی دلچسپی،کسی حد تک دلچسپی،بہت دلچسپی،بہت زیادہ دلچسپی
9-	کیا آپ کو ایسا محسوس ہوتا ہے کہ جو کچھ آپ کے ڈراونے خواب میں ہوا ہے وہ حقیقت میں بھی ہو چکا ہے؟	،بہت کم، کبھی کبھار، اکثر، کبھی نہیں ہمیشہ
10-	کیا آپ کے ڈراؤنے خواب مستقبل کی پیشن گوئی کرتے ہیں؟	،بہت کم، کبھی کبھار، اکثر، کبھی نہیں ہمیشہ
11-	جب آپ کو ڈراؤنے خواب آئیں کیا وہ کبھی اتنے حقیقی دکھتے ہیں کہ جب آپ جاگیں تو آپ کو دشواری ہو، خود کو سمجھانے میں کہ یہ صرف ایک خوف تھا؟	،بہت کم، کبھی کبھار، اکثر، کبھی نہیں ہمیشہ
12-	پچھلے سال میں کیا آپ نے اپنے ڈراونے خوابوں کے لیے پیشہ ورانہ مدد لینے پر غور کیا؟	،بہت کم، کبھی کبھار، اکثر، کبھی نہیں ہمیشہ
13-	اگر کوئی تھیراپی پروگرام مہیا ہو جو آپ کے ڈراؤنے خوابوں کو قابو کرنے یا روکنے میں آپ کی مدد کر سکے تو آپ اس میں حصہ لینے کے لیے کیسے دلچسپی لے رہے ہوں گے؟	کبھی بھی نہیں،معمولی دلچسپی،کسی حد تک دلچسپی،بہت دلچسپی،بہت زیادہ دلچسپی

Discussion

The present study provides preliminary support for the Urdu translation of the Nightmare Distress Questionnaire. Strong linguistic equivalence confirms that the translated version retains the conceptual meaning of the original NDQ. Reliability findings demonstrate acceptable internal consistency and excellent temporal stability, aligning with prior validation studies.

Exploratory and parallel analyses supported a unidimensional structure, consistent with Belicki's (1992) conceptualization of nightmare distress. Although approximate CFA indicated moderate fit, the one-factor model remained theoretically parsimonious and interpretable.

Conclusion

The Urdu version of the Nightmare Distress Questionnaire demonstrate satisfactory linguistic equivalence, good reliability and preliminary construct validity. The scale is suitable for assessing nightmare-related distress among Pakistani university students and provides a valuable tool for research and clinical assessment. Future studies should employ larger and more diverse samples and conduct full CFA using raw covariance matrices.

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