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Urdu Translation and Validation of the Questionnaire for Suicidal Ideation (QSI)

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ABSTRACT

Suicidal ideation is a critical public health concern and a key proximal risk factor for suicide attempts and deaths. The accurate assessment of suicidal ideation is essential for early intervention, clinical monitoring, and research. The Questionnaire for Suicidal Ideation (QSI) is a brief, self-report tool designed to measure suicidal thoughts without confounding factors such as preparatory behaviors or intent. The present study aimed to translate the QSI into Urdu and evaluate its psychometric properties in an Urdu-speaking adult population. The study was conducted in two phases. Phase I involved forward-backward translation, expert review, and cross-language validation using a bilingual sample (N = 60), demonstrating high cross-language equivalence (r = .880, p < .01) and test-retest reliability (r = .910, p < .01). Phase II involved empirical validation in a larger sample (N = 360), assessing internal consistency (α = .838), exploratory factor analysis (EFA), and confirmatory factor analysis (CFA). EFA supported a unidimensional factor structure, explaining 58% of the variance, while CFA confirmed excellent model fit (χ^2/df = 1.078, CFI = .999, GFI = .986, RMSEA = .015), with all items loading significantly onto a single latent factor. The findings indicate that the Urdu version of the QSI (QSI-Urdu) is a reliable, valid, and culturally appropriate tool for assessing suicidal ideation in adult Urdu speakers. This adaptation provides a brief, psychometrically sound instrument for clinical screening, research, and longitudinal monitoring of suicidal thoughts in South Asian populations.

Introduction

Suicide is a major global public health issue, accounting for more than 700,000 deaths annually worldwide, with suicidal ideation representing one of the most significant proximal risk factors for suicide attempts and suicide death (World Health Organization, 2023). Suicidal ideation refers to a continuum of thoughts related to death and self-harm, ranging from passive wishes to be dead to active thoughts of killing oneself (Beck et al., 1979; Silverman et al., 2007; Turecki et al., 2019). The available empirical data suggest that suicidal ideation is not merely a antecedent of suicidal behavior but also a significant sign of mental suffering, which should be identified as early as possible and addressed with specific treatment (Nock et al., 2008; Pompili et al., 2025). Suicidal ideation measure is thus an essential aspect of suicide risk assessment, early intervention and clinical outcome monitoring. Suicidal ideation refers to the thoughts of performing a suicide-related action and is a strong indicator of suicide attempts and death by suicide (Pompili et al., 2025). This critical construct has been a problem due to lack of consensus on its definition to accurately and consistently measure it. Most of the instruments available today are confounded with the cognitive experience of having suicidal ideation with other related yet different constructs including preparatory behaviors, intent, or plans. This confusion may lead to the blurring of the particular evaluation of ideation as a distinct therapeutic focus and a delicate indicator of the clinical transformation (Jobes, 2023; Posner et al., 2011).

In an attempt to overcome this psychometric problem, Joyce et al. (2024) came up with Questionnaire on Suicidal Ideation (QSI). The Questionnaire for Suicidal Ideation (QSI) is a brief six-item self-report measure developed to assess suicidal ideation defined as passive thoughts of being dead or active thoughts of killing oneself, without accompanying preparatory behaviors (Joyce et al., 2024; Silverman et al., 2007). This theoretical differentiation is in line with modern theoretical frameworks that focus on the concept of suicidal ideation being a mental process, as opposed to suicidal behavior (Beck et al., 1979; Klonsky et al., 2016). The QSI can offer a superb and unobtrusive instrument in clinical and research practice, especially when assessing and screening suicidal ideation in situations that necessitate repeated evaluation and screening.

The original demonstration of the English-language QSI showed high psychometric characteristics, such as high internal consistency (α =.91 in adults; α =.90 in adolescents), a consistent unidimensional factor structure, and considerable relationships with depression scales and hopelessness scales (Joyce et al., 2024). These results are consistent with the prior studies that identified depression symptomology and hopelessness as the key factors in developing and sustaining suicidal ideation (Beck et al., 1974; Ribeiro et al., 2018). Due to its concise and narrow structure, the QSI is a promising tool that can be utilized in the daily screening of clinical cases, monitoring their outcomes, and conducting large-scale research (Joyce et al., 2024). Nevertheless, to make a psychological tool effective in the linguistic and cultural environment, strict translational and cultural adaptation steps will need to be performed to secure conceptual, semantic, and metric similarity (Sathananthan et al., 2025). Rigorous translation and cultural adaptation is a crucial psychological tool that needs to be efficient in a linguistic and cultural setting and guarantee conceptual, semantic and metric equivalence (Zhang et al., 2025). The Urdu language with hundreds of millions of speakers predominantly in India and Pakistan lacks a tested measure of this kind that is ideation centered. The absence of such a tool limits the possibility to evaluate clinically and carry out researches within such populations (Khan et al., 2021). Consequently, the study at hand was to translate the Questionnaire of Suicidal Ideation (QSI) to Urdu and to assess its psychometric properties of a group of people in a proper sample. It has been accomplished through forward and backward translation, cultural and linguistic appropriateness validated by specialists and an extensive validation study (Cruchinho et al., 2024). We also anticipated that the Urdu

version of the QSI (QSI-Urdu) would replicate the high unidimensional factor structure of the original measure and have high internal consistency, good test-retest reliability and high convergent validity of other psychological constructs.

- Is the Questionnaire for Suicidal Ideation (QSI) a reliable and valid instrument when translated into the Urdu language?
- Does the Urdu version of the QSI retain the same psychometric properties as the original English version?

The Objectives of the Study will be to translate the QSI into Urdu with linguistic and conceptual equivalence and to empirically test the Urdu version with a representative sample.

Method

The current study was done in two phases of operational activities. The initial phase concerned the process of translation and cross-language validation of the Questionnaire Suicidal Ideation (QSI). The second phase entailed conducting empirical validation of the translated scale which mean testing the factorial structure of the scale in the local cultural set up. The identified factor structure was confirmed with the help of the Confirmatory Factor Analysis (CFA) that utilized an independent sample.

Study 1: Translation and Cross-Language Validation

Procedure

Phase I entailed translation of Questionnaire of Suicidal Ideation (QSI) into the Urdu language. The QSI is a short self-report scale of suicidal ideation that was initially created to determine suicidal ideation within the previous week. To guarantee both linguistic and conceptual equivalence, such a procedure as forward-backward translation, which is recommended by the MAPI Research Trust, was adhered to.

The original English version of the QSI was translated to Urdu by two bilingual professionals working independently. A review committee of psychologists and psychometric experts tested the translated versions and agreed on any discrepancy. The Urdu version was again reconciled and a back translation conducted by two other bilingual translators who were not exposed to the original scale earlier. The two versions were compared in semantic and conceptual equivalence of the version back-translated and the one that was translated into English. After professional scrutiny, the QSI was finally released in Urdu version.

Phase II involved the administration of the final Urdu version of QSI to 60 adult participants by means of purposive sampling. All respondents were competent in the Urdu language and were requested to give feedback on the clarity, wording, and understanding of the items they took part in the questionnaire. None of the linguistic ambiguity or issues in understanding the scale were reported which means that the translated scale was culturally and linguistically relevant.

In Phase III, a test–retest design was employed to examine the cross-language equivalence and temporal stability of the Urdu version of the QSI. Sixty bilingual subjects were hired and split into four groups of fifteen. Participants were made to complete the English and Urdu version of the QSI in a counterbalanced manner with a gap of one week between them. This counterbalancing process was involved to reduce the effects of order and memory.

Table 1: ***Correlation Analysis between the English and Urdu Versions of the Questionnaire for Suicidal Ideation (QSI) (N = 60)***

Scale	***R***
English – Urdu	.880**
Test – retest, Urdu –Urdu	.910**

Note. **p < .01

Table 1 indicated the correlation coefficient between the English and Urdu versions of the scale was r = .88, p < .01, indicating a strong and statistically significant positive relationship. This suggests that the translated Urdu version demonstrates high equivalence with the original English version. Similarly, the test–retest reliability for the Urdu version was r = .91, p < .01, reflecting excellent temporal stability over time.

Study 2: Reliability, Factor Analysis, and Psychometric Validation

The scale factorial structure was confirmed again in indigenous culture and the validity of the factor structure was confirmed using a separate sample by confirmatory factor analysis.

Procedure

During the second phase of the study, a systematic series of reliability, exploratory factor analysis (EFA), and confirmatory factor analysis (CFA) were used to assess the psychometric properties of Urdu-translated Questionnaire of Suicidal Ideation (QSI). Purposive sampling was conducted on a total of 360 Urdu-speaking adults, randomly selected in South Pakistani cities, which is within the advice of Tabachnick and Fidell (2019) on the number of factors to be analyzed (n = 300). The informed consent was given by the participants who were informed about the purpose of the research, assured of the confidentiality of their responses, and informed consent was provided in writing, as per the ethics of the APA. The Urdu QSI took about 10-12 minutes to complete and the questionnaire was given on paper.

Reliability Analysis

Cronbach alpha was used to determine the internal consistency reliability of Urdu QSI. The findings shown that the reliability was excellent, which proves that all six items are consistent in their measurement of the construct of suicidal ideation.

Table 2: ***Reliability Statistics for the Urdu QSI***

Scale	**Number of Items**	**Cronbach's Alpha**
QSI Urdu	6	.838

Table 2 indicates the internal consistency of the Urdu version of the QSI was assessed using Cronbach's alpha. The results indicated that the scale demonstrated good reliability (Cronbach's α = .84) across its 6 items. This suggests that the items of the Urdu QSI are consistently measuring the same underlying construct.

Exploratory Factor Analysis (EFA)

Exploratory factor analysis (EFA) was applied in order to test the underlying factor structure of Urdu QSI. The Kaiser-Meyer-Olkin (KMO) measure and the test of sphericity of Bartlett were used to test the sampling adequacy. The KMO of 0.880 was a very good sample adequacy and the

value of the Bartlett test was significant ($\chi^2 = 700.106$, df = 15, $p < .001$), and this showed that the data were adequate to undergo factor analysis.

Table 3: ***KMO and Bartlett's Test for Urdu QSI***

Test	Value
KMO	0.880
Bartlett's Test of Sphericity (χ^2)	700.106
df	15
Sig.	.000

Table 3 indicates that the suitability of the data for factor analysis was assessed using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's test of sphericity. The KMO value was .88, indicating meritorious sampling adequacy. Additionally, Bartlett's test of sphericity was significant, $\chi^2(15) = 700.11$, $p < .001$, suggesting that the correlation matrix was not an identity matrix.

Figure 1: ***Scree Plot for Urdu QSI***

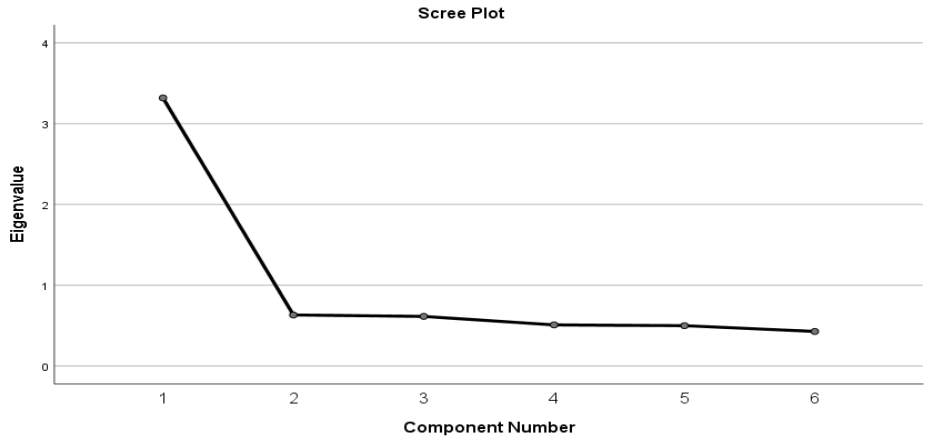

Figure 1 indicates that the initial component explains the variance clearly with the majority, which was the supporting fact of the one-dimensionality of the scale. The extraction of the factor was performed by Principal Axis Factoring (PAF). Only one factor was kept which explained 58 percent of the total variance. The six QSI items that were loaded considerably on the factor, with loadings between 0.691 and 0.787, which is more than the minimum threshold of 0.40.

Table 4: ***Single Factor Solution for Urdu QSI Items (PAF)***

Item	Factor Loading
QSI_Urdu_1	0.741
QSI_Urdu_2	0.787
QSI_Urdu_3	0.735
QSI_Urdu_4	0.691
QSI_Urdu_5	0.773
QSI_Urdu_6	0.730

Table 4 indicated that A Principal Axis Factoring (PAF) analysis was conducted to examine the factor structure of the Urdu version of the QSI. The results supported a single-factor solution, with all six items loading strongly on one factor. The factor loadings ranged from .69 to .79, indicating that each item had a substantial contribution to the underlying construct. Specifically, all loadings exceeded the commonly recommended threshold of .40, demonstrating good item-factor relationships. These findings suggest that the Urdu QSI has a unidimensional structure, with all items collectively measuring a single underlying construct.

Confirmatory Factor Analysis (CFA)

Following EFA, CFA was conducted using AMOS software to examine whether the original one-factor structure of the QSI was retained in the Urdu version. Model fit was evaluated using Chi-square (χ^2), Comparative Fit Index (CFI), Goodness of Fit Index (GFI), and Root Mean Square Error of Approximation (RMSEA). After theoretically justified modifications, the model demonstrated acceptable to good fit indices, confirming that the factor structure adequately represented the observed data.

Table 5: ***CFA Model Fit Indices for Urdu Questionnaire for Suicidal Ideation (QSI)***

Model	χ^2	Df	χ^2/df	GFI	CFI	RMSEA
Final Model Fit	9.702	9	1.078	0.986	.999	.015

Note: N = 339, Chi-square > .05, CFI = Comparative fit indices, GFI = Goodness of fit indices, RMSEA = Root Mean Square of approximation.

Table 5 indicates that A Confirmatory Factor Analysis (CFA) was conducted to evaluate the factor structure of the Urdu version of the Questionnaire for Suicidal Ideation (QSI). The results indicated an excellent model fit to the data. The chi-square value was non-significant, $\chi^2(9) = 9.70$, $p > .05$, suggesting that the model adequately fits the observed data. Furthermore, the relative chi-square was $\chi^2/df = 1.08$, which is well below the recommended threshold of 3, indicating a good fit. Additional fit indices also supported this conclusion, with the Goodness of Fit Index (GFI) = .99 and the Comparative Fit Index (CFI) = .999, both exceeding the recommended cutoff of .90. The Root Mean Square Error of Approximation (RMSEA) = .015 was substantially below the acceptable limit of .06, further confirming excellent model fit.

Figure 2: ***Confirmatory Factor Analysis of Questionnaire for Suicidal Ideation (QSI): Final Factor Loading of Questionnaire for Suicidal Ideation (QSI)***

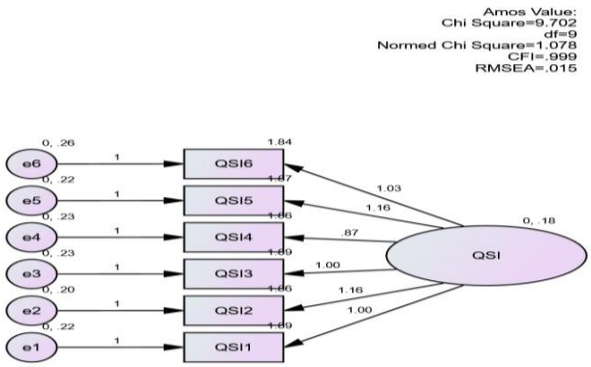

Table 6: ***Standardized Factor Loadings for Urdu Questionnaire for Suicidal Ideation (QSI)***

Items	Standardized Estimate (λ)
QSI1	.678
QSI2	.743
QSI3	.667
QSI4	.611
QSI5	.726
QSI6	.658

Note**:** All factor loadings are statistically significant at $p < .001$

Table 6 indicates that the standardized factor loadings for the Urdu version of the Questionnaire for Suicidal Ideation (QSI) were examined to assess the contribution of each item to the latent construct. The results indicated that all items loaded adequately on the underlying factor, with standardized estimates ranging from .61 to .74. All factor loadings exceeded the recommended minimum threshold of .50, suggesting that each item has a meaningful contribution to the construct. Among the items, QSI2 showed the highest loading ($\lambda = .74$), while QSI4 had the lowest ($\lambda = .61$), though still within acceptable limits.

Discussion

The objectives of the current research were to translate and psychometrically test the Questionnaire of Suicidal Ideation (QSI) into Urdu and test its reliability, factor structure, and cross-language equivalence in an Urdu-speaking sample of adults. In general, the results gained a solid support when it comes to the Urdu version of the QSI (QSI-Urdu) being a reliable and valid instrument to measure suicidal ideation, which is consistent with the psychometric properties reported by the original version of the QSI (QSI-English). Study 1 results showed a high level of cross language equivalence between the English and Urdu versions of QSI. The English and the Urdu administration show high positive correlation ($r = .880$, $p < .01$) this suggests that the two versions measure the same underlying construct with high level of consistency. This observation implies that translation procedure was effective in terms of maintaining the original conceptual and semantic meaning of items, which is a major parameter in cross-cultural scale adaptation (Beaton et al., 2000; Van de Vijver and Leung, 2011). Moreover, the test-retest correlation in the Urdu version was also very high ($r = .910$, $p < .01$), which is strong evidence of the temporal consistency of the QSI-Urdu. Such a test-retest reliability is much higher than the generally accepted levels and implies that the measure yields consistent scores across time provided that the level of suicidal ideation is assumed to be stable. This stability is especially significant to clinical monitoring and longitudinal research, whereby it is often necessary to repeatedly assess suicidal ideation (Posner et al., 2011; Jobes, 2023). In Study 2, internal consistency reliability of the QSI-Urdu was also determined to be high (Cronbachs alpha =.838), which implies that six items are homogenous and they uniformly measure a single construct. This coefficient of reliability is similar to the values found in the original English version (2 =.91 in adults; Joyce et al., 2024) and consistent with previous studies in which conceptually specific ideation-focused instruments can be expected to deliver high levels of internal consistency.

The alpha difference with the original variant can be due to cultural differences in the expression of the suicidal ideation, or more variability in the cognition and reporting of the ideation in the Urdu-speaking populations. However, the reliability that is obtained is within acceptable and desirable ranges of psychological assessment tools (Nunnally and Bernstein, 1994). Principal Axis Factoring in Exploratory Factor Analysis showed that the QSI-Urdu has a single factor that can

best explain its variance leading to 58% with a single factor. The six items loaded well onto the latent factor ranging between.691 and.787. These findings are empirical evidence of the unidimensional nature of the scale and the fact that suicidal ideation as measured by QSI is a coherent and unified construct in the Urdu-speaking population. This was further supported by the following Confirmatory Factor Analysis. The one-factor model also had very good fit measures (2/df = 1.078, CFI = .999, GFI =.986, RMSEA =.015), which are higher than the recommended cut-off values. The results are similar to the initial factor structure mentioned by Joyce et al. (2024) and indicate high structural validity of the QSI-Urdu.

Notably, the CFA findings show that the conceptualization of suicidal ideation as a cognitive phenomenon, as opposed to suicidal intent or suicidal behavior, is still applicable across the language and cultural barriers. This corroborates modern suicidality theories that put ideation as an essential but individual element in the overall suicide continuum (Klonsky et al., 2016; Turecki et al., 2019). The presence of a psychometrically reliable Urdu version of QSI has significant implications not only to clinical practice but also to South Asian research. Because underreporting, stigma, and limited access to mental health services are highly prevalent in Pakistan and other neighboring areas, short and valid screening instruments are particularly useful (Khan et al., 2021; World Health Organization, 2023). The QSI-Urdu provides practitioners with a brief tool of recognizing suicidal thoughts, assessing treatment progress, and taking sound risk management measures.

The QSI-Urdu helps in research by ease of study of suicidal ideation across-cultural and significant comparisons across the linguistic groups. It has good psychometric performance that justifies its application in epidemiological studies, intervention trials and longitudinal designs that aim at suicidal thoughts as a primary outcome variable.

Limitations and Future Directions

Despite its strengths, the present study has several limitations. First, the use of purposive sampling may limit the generalizability of the findings to broader community or clinical populations. Second, convergent and discriminant validity with other validated Urdu-language measures of depression, hopelessness, or anxiety was not examined in the present analysis. Future studies should address these aspects to further strengthen the construct validity of the QSI-Urdu. Additionally, although the sample size for CFA was adequate, replication in clinical samples, adolescents, and high-risk groups would enhance confidence in the robustness of the scale. Longitudinal research examining the sensitivity of the QSI-Urdu to changes over time and treatment effects would also be valuable, given the measure’s intended use for repeated assessment.

Conclusion

The present study aimed to translate and evaluate the psychometric properties of the Urdu version of the Questionnaire for Suicidal Ideation (QSI) in an adult Urdu-speaking population. The findings provide strong empirical support for the reliability, validity, and cultural appropriateness of the QSI-Urdu. The translation process ensured linguistic and conceptual equivalence, as evidenced by the high cross-language correlation and strong test–retest reliability, indicating that the instrument produces stable and consistent results over time. Furthermore, the internal consistency of the QSI-Urdu was found to be good, demonstrating that the items coherently measure the construct of suicidal ideation. Exploratory factor analysis revealed a clear unidimensional structure, with all items loading significantly onto a single factor, accounting for a substantial proportion of variance. This structure was further confirmed through confirmatory factor analysis, which indicated excellent model fit across multiple indices, supporting the

structural validity of the scale. The standardized factor loadings further reinforced that each item meaningfully contributes to the underlying construct, highlighting the scale's convergent validity. Overall, the results are consistent with the original English version of the QSI, suggesting that the Urdu adaptation successfully retains its theoretical foundation and psychometric strength.The QSI-Urdu is a brief, reliable, and valid instrument for assessing suicidal ideation among Urdu-speaking adults. Its strong psychometric properties make it a valuable tool for clinical assessment, research, and early identification of individuals at risk, thereby contributing to suicide prevention efforts in South Asian contexts.

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