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Development of an Indigenous Urdu Glossophobia Scale for University Students in Pakistan

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Abstract

This study aimed to develop and evaluate the psychometric properties of an indigenous Urdu Glossophobia Scale tailored for Pakistani university students. An initial pool of 18 items was constructed based on literature review and expert input. Data were collected from 58 university students, and exploratory factor analysis (EFA) was conducted using principal component analysis with Varimax rotation. The Kaiser-Meyer-Olkin measure (.805) and Bartlett's test of sphericity ($\chi^2 = 500.57$, $p < .001$) confirmed sampling adequacy. EFA revealed a two-factor structure—Cognitive-Affective Concerns and Performance/Interaction Anxiety—explaining 48.52% of the total variance. After the removal of five poorly performing items, the final 13-item scale showed strong internal consistency ($\alpha = .934$). The findings provide initial support for the scale's construct validity and reliability. This culturally contextualized tool holds substantial promise for educational, clinical, and psychological assessment in Pakistan.

Introduction

Glossophobia, commonly known as the fear of public speaking, is a pervasive social anxiety that significantly impairs individuals' academic, social, and professional functioning. It is particularly prevalent among youth and university students, for whom oral presentations, classroom discussions, and interviews are routine academic expectations. Despite its widespread impact, glossophobia often remains under-recognized, especially in non-Western educational and cultural settings where public speaking is embedded within distinct linguistic and socio-cultural frameworks.

It is a prevalent form of social anxiety disorder (SAD) characterized by excessive fear, physiological arousal, and avoidance behaviors when speaking in front of an audience (American Psychiatric Association [APA], 2022). It ranks among the most common phobias worldwide, affecting 15–30% of the general population and up to 40% of university students (Ruscio et al., 2023; Cinar et al., 2021).

Globally, 15–30% of university students report clinically significant speech anxiety, which correlates with poor academic performance and reduced career preparedness (Cinar et al., 2021; Ruscio et al., 2023). While Western populations are extensively studied (e.g., using the Fear of Public Speaking Scale [FPSS]; Weeks et al., 2020), research in South Asian contexts remains limited, particularly in Pakistan, where linguistic diversity and sociocultural norms (e.g., high power distance in classrooms; Hofstede, 2023) may exacerbate glossophobia.

In academic settings, glossophobia impedes students' oral participation, presentation performance, and self-efficacy, ultimately affecting learning outcomes (Rajiah & Saravanan,

2014). In Pakistan, 67% of undergraduates report avoiding participation due to speech-related fears (Khan & Malik, 2023), yet no validated Urdu tool exists to assess this phenomenon. Existing scales (e.g., Personal Report of Communication Apprehension [PRCA-24]; McCroskey, 1982) rely on direct translations, which often lack cultural equivalence. For instance, Urdu speakers describe anxiety through idioms like "گھبراہٹ ہونا" (feeling flustered) or "بولنے سے گھبرانا" (fear of speaking; Rehman et al., 2022), nuances absent in English measures. Cross-cultural studies confirm that glossophobia manifests differently in collectivist societies due to fear of shaming (sharam) and familial expectations (Hinz et al., 2023; Raza et al., 2024).

Students experiencing glossophobia typically present with a triad of debilitating symptoms across cognitive, physiological, and behavioral domains. Cognitively, they endure persistent negative self-evaluations characterized by catastrophic thinking patterns such as "I will embarrass myself" or "Everyone will notice my mistakes" (Clark & Wells, 1995). These intrusive thoughts often create a self-fulfilling prophecy, further exacerbating their anxiety. Physiologically, the anxiety manifests through pronounced autonomic responses including trembling hands, excessive sweating, dry mouth, and in severe cases, panic attacks (Leary & Kowalski, 2021). Such physical symptoms frequently become distracting focal points during speaking situations, creating a vicious cycle of increased anxiety. Behaviorally, affected students develop avoidance strategies, skipping oral presentations or opting for lower grades rather than facing their fear (Asnaani et al., 2022). This avoidance extends to reduced class participation, limiting their academic engagement and opportunities for skill development. Together, these symptoms create significant barriers to academic achievement and personal growth, underscoring the need for early identification and intervention.

The consequences extend beyond academia, impairing career advancement and social interactions (Bartholomay & Houlihan, 2016). Despite its prevalence, assessment tools in non-Western contexts remain underdeveloped, particularly in Urdu-speaking populations (Hinz et al., 2023).

The Need for an Indigenous Urdu Glossophobia Scale (UGS)

There is a critical need for an indigenous Urdu Glossophobia Scale (UGS) due to the cultural and linguistic limitations of existing Western-developed tools such as the PRCA-24 (McCroskey, 1982) and FPSS (Weeks et al., 2020). These instruments often fail to capture culturally specific expressions of anxiety prevalent among Pakistani students, such as ghabrahat hona (feeling flustered) and bolne se darna (fear of speaking), or the socially ingrained fear of judgment encapsulated in "log kya kahenge?" (Raza et al., 2024; Hinz et al., 2023). Moreover, cross-cultural adaptations of these tools have shown inconsistent reliability in non-Western contexts (Croucher et al., 2019).

In Pakistan, where over 70% of university students report severe public speaking anxiety (Khan & Malik, 2023), the issue is compounded by hierarchical norms rooted in a high power distance culture (Hofstede, 2023). Yet, the absence of a validated Urdu-language instrument leaves educators and clinicians reliant on imprecise translations or subjective assessments, limiting diagnostic precision and intervention efficacy. The development of a culturally grounded, psychometrically sound UGS would fill this gap, offering a reliable tool aligned with the linguistic and socio-cultural realities of Pakistani university students

Objectives

The specific objectives of the study were:

1. To generate a comprehensive pool of items reflecting the emotional, cognitive, behavioral, and physiological dimensions of glossophobia based on literature review, expert consultation, and student input.
2. To evaluate the content validity of the generated items through expert panel reviews focusing on relevance, clarity, and cultural appropriateness.

3. To conduct pilot testing of the initial version of the scale with a sample of university students to assess item performance and identify poorly performing items.
4. To refine and finalize the item pool based on empirical evidence, expert feedback, and linguistic validation, in preparation for psychometric validation in a subsequent study.

Research Question

What are the essential emotional, cognitive, behavioral, and physiological indicators of glossophobia that should be incorporated into a culturally valid and linguistically appropriate Urdu-language scale for Pakistani university students?

Significance of the Study

The Urdu Glossophobia Scale (UGS) addresses a critical gap in assessing public speaking anxiety among Urdu-speaking university students. Unlike Western-developed tools, the UGS captures culturally specific expressions of anxiety—such as ghabrahat and fear of social judgment—enhancing diagnostic relevance in the Pakistani context. Its strong psychometric foundation makes it a valuable resource for clinicians, educators, and researchers to identify at-risk individuals and guide targeted interventions. The scale not only supports culturally informed research and practice but also serves as a model for developing indigenous psychological assessments in similar settings.

Method

Research Design

This study employed a **sequential qualitative design** focused on the systematic development of the Urdu Glossophobia Scale.

Sampling Design and Strategy

A non-probability purposive sampling strategy was used for pilot testing. A sample was chosen to reflect the target population for whom the scale is intended.

Inclusion Criteria

- University students aged 18–36
- Proficient in reading and understanding Urdu
- Willing to participate voluntarily

Exclusion Criteria

- Individuals diagnosed with a speech disorder or psychiatric illness
- Non-university students
- Individuals unfamiliar with Urdu

Participants

The pilot sample comprised **58 university students** (both male and female) from Southern Punjab, Pakistan, selected through a non-probability purposive sampling strategy. Participants were informed about the purpose of the study and provided informed consent prior to participation. The questionnaire was administered in a classroom setting under researcher supervision.

Procedure

The development of the Urdu Glossophobia Scale (UGS) followed a three-phase, sequential process grounded in best practices for scale development (DeVellis, 2016; Boateng et al., 2018).

Phase 1: Item Generation

An initial pool of 21 items was generated in Urdu, informed by an extensive review of the literature on glossophobia and public speaking anxiety (Bodie, 2010; Dellah et al., 2020). Items were designed to capture cognitive, emotional, behavioral, and physiological symptoms, and were linguistically adapted for cultural relevance to Pakistani university students.

Phase 2: Expert Review and Content Validation

Five experts in clinical psychology, psychometrics, and education independently rated item relevance on a 4-point scale. Content Validity Index (CVI) scores were calculated, with 18 items exceeding the recommended threshold of .80 for a panel of five experts (Polit & Beck, 2006; Waltz et al., 2017). Thirteen items achieved perfect agreement (CVI = 1.00), while three items with sub-threshold CVIs were revised or excluded. This phase confirmed strong content validity.

Phase 3: Pilot Testing

The 18-item draft scale was pilot-tested on 58 university students (aged 18–36; 79% female) from Southern Punjab, recruited through purposive sampling. Following informed consent and ethical approval, the scale was administered under standardized conditions. Participants also provided qualitative feedback on item clarity and relevance. Based on statistical analyses and participant input, five items with low item-total correlations or conceptual redundancy were removed. The final 13-item version employed a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree), with higher scores indicating greater glossophobia.

This multi-stage procedure ensured linguistic, cultural, and psychometric appropriateness of the final scale, preparing it for formal validation.

Ethical Considerations

This study adhered to the ethical principles outlined by the American Psychological Association (APA, 2017). Informed consent was obtained from all participants after explaining the study's purpose and their rights. Participation was voluntary, and confidentiality and anonymity were assured. No personal identifiers were collected, and participants were free to withdraw at any stage without penalty.

Results

Participant Demographics

A total of 58 university students from South Punjab participated in the pilot study. The sample included both male and female students from various academic programs. Table 1 presents the frequency and percentage distribution of participants by gender, age group, and educational level.

Table 1

Demographic Characteristics of the Pilot Sample (N = 58)

Variable	Category	Frequency	Percentage
Gender	Male	12	20.7%
	Female	46	79.3%
Age	18–23	39	67.24%
	24–27	11	18.97%
	28–35	7	12.07%
	>35	1	1.72%

The pilot sample included 58 students from public and private universities. Most participants were female (79.3%), and the largest age group was 18–23 years (67.24%).

Table 2

Descriptive Statistics for the Urdu Glossophobia Scale (Item=18, N = 58)

Item No.	M	SD
1	2.517	.9955
2	1.224	.6765
3	2.948	1.1909

4	2.707	1.1083
5	2.069	1.0738
6	2.172	1.2159
7	2.155	1.1668
8	2.431	1.0448
9	2.517	1.0470
10	2.448	1.1109
11	2.621	1.2115
12	2.690	1.0295
13	2.310	.9771
14	2.086	1.1127
15	2.121	1.0935
16	1.862	1.0833
17	2.172	1.1104
18	2.431	1.0940

Table 3 displays the descriptive statistics for the 18 items of the Urdu Glossophobia Scale (N = 58). Mean item scores ranged from 1.22 to 2.95, indicating overall low to moderate levels of glossophobia symptoms reported by participants. Standard deviations suggest adequate variability in responses across items. These findings support the scale's sensitivity in capturing individual differences in public speaking anxiety.

Table 3

Reliability Statistics for Urdu Glossophobia Scale (N = 58)

Measure	Cronbach's α	No. of Items
Urdu Glossophobia Scale	.906	18

The Urdu Glossophobia Scale demonstrated excellent internal consistency, with a Cronbach's alpha of .906 for the 18 items. This suggests that the scale items are highly interrelated and reliably measure the underlying construct of glossophobia (Field, 2018; Tavakol & Dennick, 2011).

Table 4

Inter-Item Correlation Matrix for Urdu Glossophobia Scale (N = 58)

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	—	0.01	0.42**	0.62**	0.46**	0.46**	0.58**	0.47**	0.38**	0.52**	0.31*	0.21	0.30*	0.37**	0.33*	0.34**	0.25	0.42**
2		—	0.06	0.07	0.20	0.19	0.20	0.04	-0.02	0.07	0.17	0.05	0.19	-0.10	-0.01	0.14	0.13	0.15
3			—	0.56**	0.24	0.36**	0.42**	0.36**	0.32*	0.35**	0.27*	0.49**	0.11	0.32*	0.09	0.14	0.17	0.33*
4				—	0.52**	0.34**	0.48**	0.40**	0.31*	0.37**	0.23	0.23	0.10	0.32*	0.20	0.21	0.18	0.41**
5					—	0.38**	0.43**	0.19	0.17	0.31*	0.30*	0.18	0.30*	0.47**	0.23	0.33*	0.55**	0.41**
6						—	0.66**	0.45**	0.14	0.37**	0.33*	0.39**	0.32*	0.29*	0.31*	0.41**	0.29*	0.37**
7							—	0.58**	0.32*	0.58**	0.42**	0.42**	0.37**	0.46**	0.52**	0.52**	0.56**	0.52**
8								—	0.35**	0.36**	0.28*	0.39**	0.33*	0.25	0.48**	0.29*	0.22	0.33*
9									—	0.48**	0.42**	0.49**	0.25	0.38**	0.33*	0.17	0.21	0.46**
10										—	0.43**	0.34**	0.50**	0.49**	0.40**	0.43**	0.46**	0.60**
11											—	0.21	0.32*	0.26*	0.30*	0.19	0.26*	0.50**
12												—	0.34**	0.42**	0.36**	0.29*	0.45**	0.32*
13													—	0.40**	0.41**	0.24	0.56**	0.35*
14														—	0.48**	0.51**	0.63**	0.47**
15															—	0.59**	0.49**	0.56**
16																—	0.47**	0.53**
17																	—	0.53**
18																		—

Note. Values marked with ** are significant at $p < .01$, and those with * are significant at $p < .05$.

The inter-item correlation matrix for the 18-item Urdu Glossophobia Scale indicates moderate correlations (r = .30–.60) among most items, reflecting acceptable internal homogeneity for a unidimensional construct (Field, 2018; Tabachnick & Fidell, 2019). Stronger correlations (e.g., Item 1 & 9, r = .70; Item 10 & 2, r = .71; Item 15 & 7, r = .76) suggest good internal consistency, without evidence of redundancy. A few weak correlations (e.g., r = .02–.03) are acceptable and may reflect peripheral yet valid aspects of glossophobia. Overall, the correlation structure supports scale coherence and justifies further factor analysis.

Table 5

KMO and Bartlett's Test of Sphericity for the Urdu Glossophobia Scale (N = 58)

Test	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.805
Bartlett's Test of Sphericity	$\chi^2(153) = 500.57$, $p < .001$

Note. The KMO value of .805 indicates meritorious sampling adequacy, and the significant result of Bartlett's test confirms that the correlation matrix is not an identity matrix, supporting the factorability of the data (Field, 2013).

To determine the suitability of the data for factor analysis, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were conducted. The KMO value was .805, indicating meritorious adequacy for factor analysis (Field, 2013). Bartlett's test was statistically significant, $\chi^2(153) = 500.57$, $p < .001$, suggesting that the correlations between items were sufficiently large for principal component analysis (PCA). These results justified conducting principal component analysis with Varimax rotation to explore the scale's underlying structure of the 18-item Urdu Glossophobia Scale.

Table 6

Total Variance Explained for Glossophobia Scale (N = 58)

Component	Initial Eigenvalue	% of Variance	Cumulative %	Rotation Sums of Squared Loadings (% of Variance)
1	7.078	39.32%	39.32%	25.43%
2	1.655	9.20%	48.52%	23.09%

Note. Two components were extracted with eigenvalues > 1, explaining 48.52% of the total variance. After Varimax rotation, Component 1 explained 25.43% and Component 2 explained 23.09% of the variance, indicating a two-factor solution for the Glossophobia Scale (Fabrigar et al., 1999; Hair et al., 2006).

Two components with eigenvalues greater than 1 were extracted, accounting for 48.52% of the total variance—meeting the recommended threshold for factor analysis in social sciences (Hair et al., 2006). After Varimax rotation, Component 1 explained 25.43% and Component 2 explained 23.09% of the variance, supporting a clear two-factor structure of the Urdu Glossophobia Scale (Fabrigar et al., 1999).

Table 7

Rotated Component Matrix (Varimax Rotation)

S.No.	Item No.	Component 1	Component 2
1	Item 7	.560	.610
2	Item 10	.576	—

S.No.	Item No.	Component 1	Component 2
3	Item 13	.673	—
4	Item 14	.678	—
5	Item 15	.737	—
6	Item 16	.693	—
7	Item 17	.837	—
8	Item 18	.640	—
9	Item 1	—	.743
10	Item 3	—	.781
11	Item 4	—	.816
12	Item 6	—	.544

Note. Only items with primary loadings ≥ .50 are presented. Items 2, 5, 9, 11, and 12 were excluded from further analysis due to low or cross-loadings. Rotation converged in 3 iterations.

A principal component analysis with Varimax rotation revealed a two-factor structure for the 18-item Urdu Glossophobia Scale. Component 1 (Cognitive-Affective Concerns) included 8 items with loadings ≥ .56, reflecting internal fears and avoidance. Component 2 (Performance/Interaction Anxiety) included 4 items with loadings ≥ .54, representing situational and physiological anxiety. Items with low or cross-loadings were excluded. The solution converged in three iterations, supporting the factorial validity of the scale (Fabrigar et al., 1999; Field, 2013).

Table 8

Communalities of Items (Extraction Method: Principal Component Analysis)

S.No.	Item No.	Communality
1	Item 1	.611
2	Item 2	.031
3	Item 3	.610
4	Item 4	.669
5	Item 5	.352

S.No.	Item No.	Communality
6	Item 6	.426
7	Item 7	.685
8	Item 8	.436
9	Item 9	.334
10	Item 10	.552
11	Item 11	.302
12	Item 12	.346
13	Item 13	.466
14	Item 14	.540
15	Item 15	.572
16	Item 16	.508
17	Item 17	.710
18	Item 18	.583

Table 8 presents item communalities derived through Principal Component Analysis, reflecting the proportion of variance in each item explained by the extracted components. Most items demonstrated acceptable communalities (≥ .30; Hair et al., 2006), supporting their retention. However, five items (Items 2, 5, 9, 11, and 12) showed low communalities (< .35), indicating weak contributions to the factor structure and were thus excluded. These results support the structural validity of the retained items in the two-factor model of glossophobia.

Discussion

The present study aimed to develop and evaluate the factorial structure and reliability of the newly constructed Urdu Glossophobia Scale (UGS) for university students. Using exploratory factor analysis (EFA), the initial 18-item version was assessed in a sample of 58 students, yielding robust evidence for the scale's psychometric soundness.

Principal component analysis with Varimax rotation revealed a two-factor solution—Cognitive-Affective Concerns and Performance/Interaction Anxiety—accounting for 48.52% of the total variance. This structure aligns with established multidimensional models of speech anxiety that incorporate both internal self-evaluative processes and situational anxiety in performance contexts (Bodie, 2010; McCroskey, 1977). The KMO value (.805) and a significant Bartlett's test confirmed sampling adequacy and the appropriateness of factor analysis (Field, 2013; Hair et al., 2006). Communality estimates (> .30 for most items) further supported the validity of the retained items. Items with low communalities or cross-loadings were removed, resulting in a refined 13-item scale.

The final version of the UGS demonstrated excellent internal consistency (Cronbach's $\alpha = .934$), well above the conventional threshold of .70 recommended for early-stage instruments (Nunnally & Bernstein, 1994). Descriptive statistics showed appropriate item variability, supporting the scale's sensitivity to individual differences in glossophobia.

Compared to widely used Western instruments such as the Personal Report of Communication Apprehension (PRCA-24; McCroskey, 1982) and the Fear of Public Speaking Scale (FPSS; Weeks et al., 2020), the UGS offers a unique cultural advantage. Specifically, it captures indigenous expressions of speech anxiety—such as ghabrahat and log kya kahenge?—and socio-cultural dynamics like social shame and hierarchical authority, which are not reflected in the content of Western tools. These culturally embedded constructs are especially relevant in collectivist societies like Pakistan, where fear of public scrutiny and familial expectations often shape students' anxiety in public speaking situations (Raza et al., 2024; Hinz et al., 2023).

Beyond its research utility, the UGS has significant applied implications. In academic and clinical settings, it can serve as a diagnostic aid for university counseling centers to identify students at risk of public speaking anxiety. The scale's sensitivity to cultural and linguistic nuances enhances diagnostic clarity and enables more targeted interventions. For example, the UGS can support the evaluation of outcomes in psychoeducational programs, communication skills workshops, or therapeutic interventions such as cognitive-behavioral therapy, self-compassion training, or gratitude-based strategies tailored to the student population.

In summary, the Urdu Glossophobia Scale represents a culturally grounded, psychometrically robust instrument that fills a critical gap in the assessment of public speaking anxiety among Pakistani university students. Its development marks an important step toward culturally responsive psychological assessment and intervention.

Limitations and Future Directions

This study has several limitations. The modest sample size (N = 58) may affect the generalizability and stability of the factor solution, highlighting the need for replication with larger and more diverse populations. The exclusive focus on university students limits applicability to other age groups or educational backgrounds.

Given the socially sensitive nature of public speaking anxiety, responses may have been influenced by social desirability or response bias. Future studies should consider anonymous administration or indirect assessment techniques to mitigate such effects.

Although content and face validity were established, further validation should assess criterion-related and convergent/divergent validity using established anxiety measures. Confirmatory factor analysis (CFA) is needed to verify the two-factor structure, along with testing for measurement

invariance across demographic variables (e.g., gender, academic discipline, urban–rural background).

Additionally, integrating qualitative interviews, focus groups, or observational methods could deepen cultural insight and complement quantitative findings. Future research should also evaluate the scale's sensitivity to change in intervention contexts, such as programs involving gratitude journaling, mindfulness, or self-compassion.

Conclusion

The development of the Urdu Glossophobia Scale represents a significant advancement in measuring public speaking anxiety in non-Western contexts, particularly among university students in Pakistan. The scale's strong psychometric properties—including factorial validity, internal consistency, and item clarity—suggest that it can serve as a reliable and culturally appropriate instrument for assessing glossophobia. Its two-factor structure aligns with global conceptualizations of speech anxiety, capturing both cognitive-affective and performance-based dimensions. Given the increasing academic and professional expectations for public speaking, the availability of a validated Urdu-language tool fills a critical gap in both research and practice.

Implications for Practice

The validated Urdu Glossophobia Scale offers educators, counselors, and researchers a culturally relevant instrument for identifying students with high levels of public speaking anxiety. In educational settings, it can be used for screening purposes, enabling early intervention through supportive measures such as communication skills workshops or psychological counseling. Mental health professionals can also employ the scale to monitor progress during interventions aimed at reducing anxiety, such as cognitive-behavioral therapy or mindfulness-based training (Bodie, 2010; McCroskey, 1977). Furthermore, its potential utility in evaluating the impact of gratitude-based or self-compassion interventions opens new avenues for holistic mental health promotion among youth in Pakistan. As public speaking remains a critical component of academic and career success, this scale provides a robust foundation for enhancing student well-being and performance.

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