

ORIGINAL ARTICLE

Psychometric Evaluation of the Urdu Version of the Adolescents' Self-Concept Scale

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Conflict of Interest

All the authors have no conflict of interest

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Abstract

The present study sought to translate, socially tailor and psychometrically test the Adolescent Self-Assessment Scale (ASCS) with Urdu-speaking adolescents from Pakistan. This study examines the linguistic equivalence of the scale, its internal consistency, its bisected reliability, its test-retest reliability and its convergent validity in order to determine its relevance for research and clinical application. The validation design was a methodological cross-sectional one. The Urdu version of the ASCS was developed by the normal forward-backward translation process. The Urdu version was filled in by a sample of 300 adolescents (in between 13 and 19 years) who were recruited in both the public and the private educational institutions. To determine linguistic equivalence, a bilingual subsample (n=100) was used to fill both the original English and Urdu version after one week. Cronbach's alpha was used to test internal consistency, and split-half reliability and the test-retest reliability were calculated to test both the temporal and internal stability. The convergent validity was tested on the Rosenberg Self-Esteem Scale (RSES). It provided the linguistic equivalence between the English and Urdu versions that were strong with a correlation between $-.79$ and $-.874$ ($p < .01$). Both the Urdu ASCS and subscales had internal consistency varying between $.87$ and $.90$ which indicates great reliability. Split-half reliability coefficients were between $.68$ and $.84$, test-retest reliability was between $.86$ and $.90$, and this confirms the high scale stability. The positive correlations with the RSES ($r = .43-50$, $p < .01$) were significant enough to determine satisfactory convergent validity. The Urdu version of the ASCS exhibits good psychometric properties, particularly in terms of reliability, stability, and construct validity. It is a technically rigorous and culturally appropriate instrument for measuring self concept in Urdu-speaking adolescents. As a validated tool, this gives researchers, clinicians, and educators a valid tool in analyzing developmental, social, and psychological issues of adolescent self-concept in Pakistan.

Keywords: Psychometric validation, reliability, construct validity, linguistic and scale adaptation.

Introduction

Adolescence is characterized by physical, cognitive, and socio-emotional changes. The development of important concepts such as identity formation and psychosocial adjustment begins during this period [1]. Previous research has shown that self-esteem, a multidimensional concept representing how one perceives and feels about oneself in different areas, plays a crucial role in academic achievement, peer relationships, emotional regulation, and parental psychopathology [2,3].

Because of its crucial importance, accurate measurement of self-concept is fundamental to

developmental research and clinical intervention aimed at promoting adolescent health.

The Adolescent Self-Concept Scale (ASCS) is a common measure of self-concept on a number of relevant dimensions including scholastic competence, looks, social acceptance, good conduct, and athletic skill [4].

The ASCS was initially developed in English, but has been validated in many languages, including Spanish, Mandarin, Turkish, Dutch and Arabic, and is compatible with other recognized measures of self-concept such as the Self-Description Questionnaire, thus allowing its use in diverse cultural contexts [5,6].

However, to use these resources effectively across different cultures, simple verbal coding is not enough. Thorough intercultural adaptation is necessary to ensure that the elements are not only recognizable but also cognitively relevant in the new cultural context [7,8].

A scale developed within an individualistic Western context risks exhibiting logical shortcomings, measurement biases, and reduced validity. Therefore, for Urdu-speaking adolescents, adapting the ASCS requires that its content be relevant to their local experiences, such as school interactions, peer relationships, and social norms, while preserving the psychometric integrity of the original construct.

While many Pakistani schools use English as the language of instruction, an authentic Urdu version of the ASCS is urgently needed. Indeed, the validity of the psychological assessment is optimal when conducted in the individual's native language or in a meaningful language that best allows for the expression of emotional and conceptual nuances [9,10].

There is no psychometrically validated Urdu measure of multidimensional self-concept in adolescents which leaves a gap in research and practice in Pakistan. The present study aimed to translate, adapt and validate the Urdu version of Adolescent Self-Concept Scale (ASCS). We expected the adapted scale to have strong linguistic equivalence with the original English ASCS, high internal consistency and good convergent validity, as demonstrated by significant positive correlations with the Rosenberg Self-Esteem Scale.

Methods

Study Design and Reporting Guidelines

The present study was a cross-sectional study designed to translate, adapt and validate the Adolescent Self-concept scale (ASCS) for Urdu speaking adolescents. All procedures and reporting were conducted according to the COSMIN guidelines for translation and cross-cultural validation, which provide a systematic approach to ensure that the adapted instruments are equivalent in terms of semantic, conceptual and measurement aspects.

Participants

The sample consisted of 300 adolescents (150 males, 150 females) aged 14 to 17 years ($M = 15.54$, $SD = 1.02$), who were recruited from public and private secondary schools and colleges in Lahore, Pakistan, using stratified purposive sampling, to ensure equal representation on gender and school type. Eligibility criteria were fluency in Urdu and being currently

enrolled in secondary or higher secondary school. Participants with diagnosed cognitive or developmental disorders were excluded. A bilingual subsample ($n = 100$) completed the English and Urdu versions of the ASCS, one week apart to assess linguistic equivalence. Prior to participation, all participants provided written assent and parents/guardians provided written informed consent. The study protocol was approved by the IRB of the University of Central Punjab, Lahore.

Measures

Adolescent Self-Concept Scale (ASCS). The original ASCS is a 30-item self-report measure that assesses five areas of self-concept: Athletic Competence, Conduct/Morality, Friends and Peer Acceptance, Physical Appearance, and Scholastic Competence. Every area consists of 6 items rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), with higher ratings indicating more positive self-concept. The scale has demonstrated strong reliability ($\alpha = .90$) and validity in previous studies.

Rosenberg Self-Esteem Scale (RSES). For convergent validity study, global self-esteem was measured using the 10-item RSES. A 4-point Likert scale is used to record responses; higher scores indicate higher levels of self-esteem. Pakistani inhabitants have already validated the Urdu version of the RSES.

Translation and Cultural Adaptation Process

A strict forward-backward translation methodology with integrated cultural adaptation phases was followed during the adaptation process:

1. **Forward Translation:** Two independent bilingual experts (psychologists fluent in Urdu and English) translated the ASCS from English to Urdu.

2. **Expert Committee Review:** The translated versions were reviewed by a panel of clinical therapists, developmental psychologists, translators, and educational experts. The committee rated each item on:

- **Semantic equivalence** (meaning preservation)
- **Conceptual relevance** (applicability to Pakistani adolescents' lived experiences)
- **Cultural relevance** (fit with gender norms, interactions with others, academic settings) The adaptations included changing examples

of leisure pursuits to reflect sports commonly played in the local context and changing the language used to refer to interactions between peers to be consistent with the dynamics of a collectivistic society.

3. **Compilation Phase:** an Urdu version of the ASCS was created through a collaborative effort of experts. This version was then translated into English by two bilingual translators without knowledge of the original. The research team compared these previous translations with the original ASCS to ensure cross-lingual consistency and resolved any inconsistencies. The pilot test involved 30 young people, providing feedback that resulted in minor wording changes for improved readability and comprehension.

Procedure

Data were collected in regular school lessons. Trained research assistants delivered uniform guidelines and were available to answer any item-related questions. Participants completed both the Urdu ASCS and the RSES in a same session. For test-retest reliability, a randomly selected subset sample (*n* = 50) repeated the Urdu ASCS after a two-week delay. The bilingual subsample (*n* = 100) completed the English ASCS first, then the Urdu version one week later to determine linguistic equivalency.

Data Analysis

SPSS version 25 was used to analyze the data. Descriptive statistics were calculated for all scale and

subscale scores. **Linguistic equivalence** was assessed using Pearson correlation coefficients between English and Urdu ASCS total and subscale scores in the bilingual subsample. **Internal consistency** was evaluated using Cronbach's alpha for the total scale and subscales. **Split-half reliability** was calculated using the Spearman-Brown formula. **Test-retest reliability** was examined using intraclass correlation coefficients (ICCs) between Time 1 and Time 2 administrations. **Convergent validity** was assessed by Pearson correlations between Urdu ASCS (total and subscale) scores and RSES scores. A significance level of *p* < .01 was adopted for all correlation analyses.

Results

In testing the cross-language validity of the Urdu version of the Adolescent Self-Concept Scale (ASCS), 300 adolescents (150 males, 150 females; age group 14-17 years) were used as a bilingual sample by administering the English and Urdu versions of the scale with one week time interval between them. The descriptive statistics showed that there were similar mean scores between the English ($M = 90.31, SD = 11.09$) and the Urdu ($M = 97.34, SD = 11.02$) version. The Pearson correlation analysis showed that there was a strong positive relationship between the two versions ($r = .874, p < .01$) to affirm that the Urdu translation did not compromise the conceptual and linguistic integrity of the original scale (Table 1). These results indicate a high level of linguistic equivalence, which proves the suitability of the scale to be used in the adolescent groups speaking Urdu.

Table I

Linguistic Equivalence of English and Urdu Version of adolescent self-concept scale (ASCS).

Scale	Language	M	SD	R
Original version ASCS Total	English	90.31	11.09	.79**
Urdu version ASCS Total	Urdu	97.34	11.02	.874**

Linguistic equivalence was established with 1 week interval. $P < .01$
 Internal consistency, split-half reliability and test-retest reliability were used to determine reliability of the Urdu ASCS. Both the Cronbach 5 subscales ACS, CMS, FAS, PAS and SCS had Cronbach to 5 coefficients of between 0.87-0.90 and the 5-scale Cronbach to 5 coefficient of 0.87 which reflects high

internal consistency. Split-half reliability estimates were too healthy with a range of .68 to .84 in subscales and the total score. One week test-retest reliability showed a high level of stability with correlation coefficients as high as .86 to .90 among subscales and .88 to full scale (Table 2). All these findings support the temporal and internal stability of the Urdu ASCS.

Table II

Estimation of Cronbach's Alpha, Split-Half and Test-Retest Reliability of Adolescent self-concept scale (ASCS) Urdu Version and its Subscales.

Subscales ACS	Alpah (n=300)		Split-Half Reliability (n = 300)	
		.89	.76	.90
CMS	.88	.74	.86	CMS
FAS	.90	.74	.89	FAS
PAS	.89	.68	.87	PAS
SCS	.87	.83	.88	SCS
ASCS-Total	.87	.84	.88	ASCS- Total
Subscales	Alpah (n=300)	Split-Half Reliability (n = 300)	Test- Retest Reliability (n = 300)	Subscales
ACS	.89	.76	.90	ACS

Note. ACS= Athletic competence scale, CMS= Conduct/morality scale, FAS= friends and peer acceptance, PAS= Physical appearance, SCS= Scholastic competence, ASCS= adolescents self-concept scale.

The Urdu ASCS was tested with convergent validity by evaluating the results of the correlation with the Rosenberg Self-esteem Scale on a group of 300 adolescents. Each of the five subscales and the

overall score showed high positive correlations with self-esteem with a correlation ranging between $r = .43$ and $r = .50$ ($p < .01$). In particular, the total ASCS score was found to be correlated with the self-esteem at $r = .50$, thus supporting the fact that the higher the self-concept scores, the higher the self-esteem, as expected by theory (Table 3). These results have a high degree of construct validity of Urdu ASCS.

Table III

Estimation of Convergent Validity of Urdu version of Adolescents self-concept scale (ASCS), with Rosenberg Self-Esteem Scale, Form (N = 300)

Scale	Items	Rosenberg Self- Esteem Scale R
ACS	6	.46
CMS	6	.49
FAS	6	.45
PAS	6	.46
SCS	6	.43
ASCS-Total	30	.50*

P<.01.

The findings prove that ASCS Urdu version has good psychometric qualities, such as linguistic equivalence with the original scale in English, good internal consistency, temporal stability, and good convergent validity with self-esteem. The reliability and validity ratios of the scale indicate that it is a powerful and culturally suitable instrument of the evaluation of adolescent self-concept among the Urdu-speaking communities.

Discussion

The present study aimed to develop and validate a culturally adapted Urdu version of the Adolescent Self-Concept Scale (ASCS) for use with Pakistani adolescents. The findings provide robust empirical support for the psychometric soundness of the adapted scale. Our primary hypotheses were confirmed: the Urdu ASCS demonstrated (1) strong linguistic equivalence with the original English version, (2) outstanding temporal stability and internal consistency and (3) good convergent validity with a measure of global self-esteem.

The excellent correlation between the English and Urdu versions ($r = .87$) demonstrates good cross-linguistic equivalence, which is a necessary condition for any modified instrument. This success may be due to the rigorous forward-backward translation methodology and, more importantly, the iterative evaluation by the qualified committee, which guaranteed that items were not only precisely translated but also culturally appropriate. This approach aligns with guidelines for cross-cultural adaptation that stress the need to achieve logical rather than literal equivalency.

The accuracy indices of Urdu ASCS were all high. The good internal consistency of all subscales ($\alpha = .87-.90$) indicates the items within each area are internally consistent and reflect the same fundamental design. In addition, the high test-retest reliability ($ICC = .86-.90$) over a two-week interval indicates the scale's temporal stability, indicating that the Urdu ASCS produces identical results in the absence of unforeseen influences. The values of these reliability coefficients are equivalent to, and in some instances even better than, values reported in the original validation of ASCS and its translations in other languages, which suggests that the multidimensional structure of the scale has been successfully maintained in the Urdu version.

Furthermore, the convergent validity hypothesis was confirmed. The significant positive correlations between Urdu ASCS subscales and the Rosenberg Self-Esteem Scale ($r = .43-.50$) are theoretically consistent because self-concept (a domain-specific

cognitive measure) and self-esteem (a global affective measure) are closely related yet distinct constructs. The modest strength of such associations is appropriate in that it demonstrates that the ASCS measures a related construct and also shows that it captures distinct variance not explained by self-worth worldwide alone. This trend supports the utility of ASCS as a multidimensional instrument that can provide a detailed picture of an adolescent's self-perception across several domains of life, providing greater accuracy for intervention than a unidimensional self-esteem test.

Implications and Contribution

The scale provides educational counselors and clinicians with a single tool to identify a child who is exhibiting negative or negative self-concept in specific areas (e.g., physical appearance, academic achievement) and provides direct and indirect treatment. In addition, it can be used to measure the impact of social welfare or school-based mental health programs.

Conclusion

Overall, the Urdu version of the ASCS demonstrates good psychometric properties. Convergent validity was good, internal consistency was high, and temporal stability and interlinguistic equivalence, among other good psychometric properties, were also observed. Thus, our findings support the utility of the Urdu ASCS as a valid and culturally sensitive instrument for measuring the multidimensional construct of self-esteem among adolescents. This study contributes to the psychological assessment of adolescents in Pakistan and provides a psychometrically sound measure in the local language that will be useful for research, professional, and educational purposes.

Limitations

The sample consisted of urban youth from Lahore, which may limit generalizability to other areas or rural communities. Furthermore, the study recruited only youth aged 14–17, so the scale's utility needs to be tested in a smaller sample.

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