

Translation and Validation of Adolescents' Self-Concept Short Scale

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Research Article

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Abstract

Adolescents' Self-Concept Short Scale (Veiga & Leite, 2016) was devised to measure self-concept among adolescents. Present study was aimed to translate the scale into Urdu language and validate the underlying factors among adolescents of Pakistan. It comprised of three main phases. Phase-I underlies the translation through forward-back translation method, followed by the cross-language validation study. The translated and the original version were administered on bilingual secondary school students ($N=100$) and reliability was estimated that ranges from .39 to .71 for translated version. Phase-II aimed to establish the construct validity by using Exploratory Factor Analysis on adolescent students ($N=150$) with age range of 13 to 16 years ($M=14.53$; $SD=1.02$). Results showed four main factors, instead of six factors of original scale. Finally, Phase-III of the research aimed to confirm the factorial validity through Confirmatory Factor Analysis (CFA) on sample of secondary school adolescent students ($N=300$) age ranges from 13 to 18 years ($M=15.46$; $SD=1.23$). Findings thus suggested that Adolescents' Self-Concept Short Scale - Urdu version can be utilized as a valid and reliable measure for the assessment of self-concept among adolescent students with understandability of Urdu language.

Introduction

As a human we all have a basic and unique *self* of our own that distinguish us from the others around. This self is exhibited by our feeling, thinking, and actions. And based on these three determinants of our self the people around us formulate a persona of us; that is, who as a person we are? So, this conception then leads to categorization of the persons. Here the point of consideration is, do only other forms an image about who are we? or do we all also ponder on the basic question of Who am I? The answer is yes, we all think about how as a person we are, and this is termed as *self-concept*.

Self-concept is thus referred to as how a person thinks about his or her own self. It is based on an internal model that employs self-assessments for defining schemas that a person holds for his or herself (Gerrig & Zimbardo, 2002). Self-concept is actually an essential part of a person's being which distinguish him or her from the other individuals. Baumeister (1999), stated the self-concept as belief of individual about his or her own self and also the set of attributes that are credited to one self, including the person's attributes and who and what the self is. Self-concept is comprised of the self-schemas one holds, and which interact with the one's esteem, knowledge, and self to form the whole identity. The self-concept underlies one's past, present, and future selves. Where, future selves include our possible selves that represent an individual's idea of what they could and might become in times to come and also what they would like to or afraid of becoming. These possible selves could act as incentive for certain behaviors (Markus & Nurius, 1986; Myers, 2009).

In the phase of childhood, self-concept is concrete and tied to extrinsic (external) elements, various items or skills. But as the child grows characteristic traits develop, and self-concept shifted to intrinsic

(internal) elements. And as the teenage period starts the self-concept become clearer and more relevant to the individual (Fournier, 2018). Also, the teenagers assess their abilities on a continuum based upon the self-concept they possess (Gupta & Thapliyal, 2015). About the self-concept most of the theorists agreed on some points about this construct. That are; self-concept is a broad overview of how one cognitively as well as affectively judge one own self, self-concept underlies different aspect i.e., social, emotional, religious, spiritual, physical and is thus multi-dimensional. Also, the self-concept can be learned, not innate or inherent, and influenced by both the biological and environmental factors (Cherry, 2018; Gecas, 1982).

This self-concept helps an individual in shaping his or her personality and behaviors. So, the exploration of self-concept possesses a significant importance for the understanding of the construct in a better way and also to find out the ways for its enhancement. Also, the phase of adolescent maintains a crucial position for the development of self-concept. At this stage the individual start paying attention to one self and begin developing the foundations of one's self- concept (Manning, 2007; Sebastian, Burnett, & Blakemore, 2008). The literature also demonstrates that self-concept directly affects the learning process among adolescents (Vidals, 2005) through the significant influence it had on the effective cognitive functioning (Santana, Feliciano, & Jimenez, 2009). Also, the students who possess low level of self-concept also possess the low confidence level in relation with their academic aptitude (Amezcuca & Fernandez, 2000; Broc, 2000). The construction of a positive type of self-concept has a paramount significance for the psychological wellbeing of an individual (Flouri & Buchanan, 2003; Marshall, 2001; McCullough, Huebner, & Laughlin, 2000) as well as the academic wellbeing (Marsh & Craven, 2006).

Rationale of Study

The assessment of self-concept among adolescents is thus of significance owing to the importance of it at that age which is evident from the literature (Fournier, 2018; Gupta & Thapliyal, 2015). A number of instruments are developed to assess self-concept among adolescents; including, Self-Perception Profile for Adolescents (SPPA) (Harter, 1988), Piers- Harris Children's Self-Concept Scale (PHCSCS) (Piers & Hertzberg, 2002), and Academic Self-Concept for Adolescents (ASCA) Scale (Ordaz-Villegas, Acle-Tomasini, & Reyes- Lagunes, 2013). The current study, however, focused on Adolescents' Self-Concept Short Scale (ASCSS) (Veiga & Leite, 2016) as the most recent and psychometrically valid measure to assess self-concept among adolescents.

It is evident that the translation and validation of research instruments is of significant importance so as to address the cultural variability and to make the measure conceptually as well as reliable across the culture (Bassnett, 2011, 2013; France, 2012; Huang & Wong, 2014; Hung & Wakabayashi, 2006). Also, the cultural difference has been found to significantly affect self-concept (DeAndrea, Shaw, & Levine, 2010; Del Prado et al., 2007; Nisbett, 2003). The translation and validation could help address that cultural variability and make the measure more comprehensible to assess the self-concept among adolescents in

Pakistan. The present study thus aimed to translate and validate the Adolescent's Self-concept Scale into Urdu language.

Method

Sample and Procedure

The research comprised of two phases underlying; translation of Adolescents' Self- concept Short Scale (ASCSS), language validation of translated scale, and its construct validation. The phase-I involved translation and language validation of scale for which a prior permission was acquired from the author "Feliciano Veiga" via E-mail. The purpose was achieved by employing forward-back translation method (Brislin, 1970; Van de Vijver & Hambleton, 1996). Independent translations were obtained from five bilingual experts and these forward translations were reviewed by committee of subject matter experts. The finalized Urdu version of the scale (Appendix A) was then back translated into English by five bilinguals and the appropriate final back translation was selected through committee approach. The language validity for Urdu version was established by using a sample of bilinguals ($N=100$) comprising of an equal number of male and female adolescents. The sample is divided into four groups; that are, English-Urdu, English-English, Urdu-English, and Urdu-Urdu. The aim was to establish the test-retest reliabilities for each group and determine whether Urdu-Urdu validity is highest among all the four groups. The division of sample for language validation is demonstrated by figure below:

Phase-II aimed to establish construct validity through Exploratory Factor Analysis (EFA) and confirming that factor structure through Confirmatory Factor Analysis (CFA).

Independent samples were obtained for both analyses comprising of 100 and 300 respectively with equal number of male and females. Sample was approached at secondary schools of Islamabad and Rawalpindi after seeking permission from the head. All the ethical considerations were ensured including; confidentiality and anonymity of the participants.

Instrument

Adolescent Self-Concept Short Scale (ASCSS). This scale is the version of Piers-Harris Children's Self-Concept Scale (Piers & Hertzberg, 2002) constructed by Veiga and Leite in 2016. It is a 30 item-scale comprising of responses from completely disagree to completely agree, scored 1-6. The scale in total highlighted six factors; including, Behavior (Be), Anxiety (An), Intellectual status (Is), Popularity (Po), Physical Appearance (Pa), and Happiness (Ha), that underlies 5 items each. The value for internal consistency ($\alpha = .87$) is high showing that the scale possesses a good reliability (Veiga & Leite, 2016).

Results

Phase-I: Translation and Language Validation of ASCSS

The translated version was obtained through Forward-Back Translation technique without any modification. The language validity of Urdu version was established by assessing the test-retest reliability. The results are given as follows:

Table 1. *Test-retest Reliabilities of Adolescent's Self-concept Short Scale (ASCSS) and its subscales (N=100)*

	GP.I (EE) (n=25)	GP.II (EU) (n=25)	GP.III (UE) (n=25)	GP.IV (UU) (n=25)
Total	.73	.76	.70	.86
Anxiety	.65	.68	.52	.69
Physical Appearance	.68	.53	.67	.71
Behavior	.54	.50	.58	.74
Popularity	.62	.65	.60	.79
Happiness	.58	.61	.63	.56
Intellectual Status	.55	.67	.59	.74

Values demonstrated that of the four groups the highest correlation coefficients are observed for the Urdu-Urdu (UU) group ($p < .01$). Results thus indicates that the test-retest scores for Urdu-Urdu (UU) group are highly correlated thus translated Urdu version was found to have a better comprehension.

Phase-II: Construct Validation of ASCSS

Construct validity was established by Exploratory factor analysis (EFA) and Confirmatory factor analysis (CFA). Factor structure for the scale was determined by EFA. Bartlett's test of sphericity was found to be significant ($p = .000$) which demonstrates that the items possess adequate common variance for the conduction of factor analysis; that is, items could lead to the definite factor structures by the exploratory factor analysis (EFA). Kaiser-Meyer-Olkin Measure (KMO) of sample adequacy was .76 which is close to 1 thus indicating that the data set is adequate for the factor structuring (Field, 2013). The factor extraction method of principal component analysis (PCA) with varimax rotation was used for factor analysis as used by the authors of original version of ASCSS (Veiga & Leita, 2016). Scree plot was also obtained to determine the factors contributing in maximum variance. Results are mentioned as follows:

Scree plot demonstrate that the maximum variance is explained by four components as lying above the point of inflexion.

Table 2. *Factor Structure for Adolescent's Self-Concept Short Scale (ASCSS)-Urdu (N=100)*

Items	1	2	3	4	<i>h₂</i>
09. I get into a lot of fights	.70				.53
03. I often get into troubles	.64				.42
07. I cry easily	.64				.44
29. I am often sad	.61				.48
01. I am often afraid	.57				.38
19. I get nervous when the teacher calls on me	.55				.43
04. I feel left out of things	.54				.35
13. I am nervous	.53				.37
14. I have nice hairs		.65			.48
08. I have a pleasant face		.64			.42
05. I am happy person		.62			.50
02. I am good looking		.56			.46
17. I am cheerful		.52			.53
11. I am unhappy		-.49			.45
12. My classmates think I have good ideas		.46			.23
15. In school I am a dreamer		-.46			.34
16. My classmates make fun of me			.62		.43
27. I behave badly at home			.59		.43
23. I am lucky			-.57		.52
20. My looks bother me			.48		.27
22. It is hard for me to make friends			.48		.36
21. I do many bad things			.46		.40
06. I am good in my school work				.65	.50
18. I can give a good in my school work				.61	.42
28. In games and sports, I watch instead of playing				.49	.37
24. I am an important member of my class				.48	.27
Eigen values	3.63	3.08	2.86	2.12	
% of variance	12.11	10.26	9.54	7.08	
Cumulative %	12.11	22.37	31.91	38.99	

Table indicate that EFA resulted into four factor structure for the Urdu version with good factor loadings ($\lambda > .40$) which demonstrate that all the items significantly contribute in explaining variance for the

construct of self-concept among adolescents. Findings also suggest that all the factors demonstrate a cumulative variance of 39%. Factors are such that:

- Factor 1: Anxiety (SC9, SC3, SC7, SC29, SC1, SC19, SC4, SC13) has eigen value of 3.63, cause 12.11% of variance.
- Factor 2: Physical Appearance (SC14, SC8, SC5, SC2, SC17, SC11, SC12, SC15) has eigen value of 3.08, cause 10.26% of variance
- Factor 3: Behavior (SC16, SC27, SC23, SC20, SC22, SC21) has eigen value of 2.86, cause 9.54% of variance.
- Factor 4: Intellectual Status (SC6, SC18, SC28, SC24) has eigen value of 2.12 and cause 7.08% of variance, with $\alpha=.58$

The psychometric properties of the Urdu version of ASCSS and the four subscales (i.e., factors) obtained as a result of EFA was also determined. The findings are mentioned as follows:

Variables	Items	<i>M</i>	<i>SD</i>	α	1	2	3	4	5
1.Anxiety	8	26.76	6.40	.75	-	.15	.30	.25	.74**
2.Physical appearance	8	30.86	4.34	.65		-	.43**	.33	.62**
3.Behavior	6	23.84	4.02	.66			-	.33	.70**
4.Intellectual status	4	15.24	2.72	.50				-	.58**
5.Adolescent's self-concept	30	111.04	13.78	.82					-

The values demonstrate significant coefficient of reliability for all the subscales and total scale. Also, it indicates that all the four subscales; anxiety, physical appearance, behavior, and intellectual status forms a significantly positive correlation with the total score on the scale. These findings thus demonstrate that the factor structure obtained in psychometrically sound in nature. The construct validity of this factor structure was established through Confirmatory factor analysis (CFA) by using AMOS 21. The goodness fit for the items is demonstrated by the table below:

Table 3. *Confirmatory Factor Analysis of Self-Concept (Indices of Model Fit) (N=300)*

Model	χ^2	df	p	CMIN/df	Fit indices			
					CFI	NFI	TLI	RMSEA
Model-1 Second Order CFA (30 items - without error covariances)								
	806.03	371	.00	2.17	.74	.61	.71	.06

Note. CFI = Comparative Fit Index, NFI = Non normed Fit Index, TLI = Tucker Lewis Index, RMSEA = Root Mean Square Error of Approximation

It demonstrates that the model is good fit for our data without application of error covariances. Though the addition of error covariance could further improve the model fitness by reducing the error variance and increasing the true or actual variance explained. (Divers, Redden, Carroll, & Allison, 2011; Kim & Kim, 2018).

Discussion And Conclusion

The literature demonstrates the significance of self-concept for adolescents to ensure the psychological wellbeing (Flouri & Buchanan, 2003; McCullough et al., 2000) as well as the academic wellbeing (Marsh & Craven, 2006). (Chauhan et al., 2018; Melemis, 2015; Milhorn, 2018; Zumwalt, 2016). It is of significance to measure it across cultures that could be accomplished by translating the instrument assessing self-concept among adolescents. The current study thus carried out the translation of the Adolescent's Self-concept Short Scale (ASCSS) into Urdu followed by language validation, and establishment of psychometrics for translated version. The language validation study demonstrated the temporal validity of the scale. The respective factor structures for the Urdu version were also determined through EFA ($N=100$) and were confirmed then by using CFA ($N=300$). The EFA indicated four factors instead of six of the original scale which contributed for a total of approximately 39% variance. The CFA also exhibited the goodness of fit. The translated version is thus a reliable and valid instrument to assess self-concept among adolescents with understandability of Urdu language.

Limitation And Suggestions

Study was restrained to the secondary school graders only inclusion of variable sample could produce better factor structures. Convergent and divergent validity for the translated version was not established. It is suggested for future researchers to determine both for establishing better validity.

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Appendix A

Appendix A

Figures

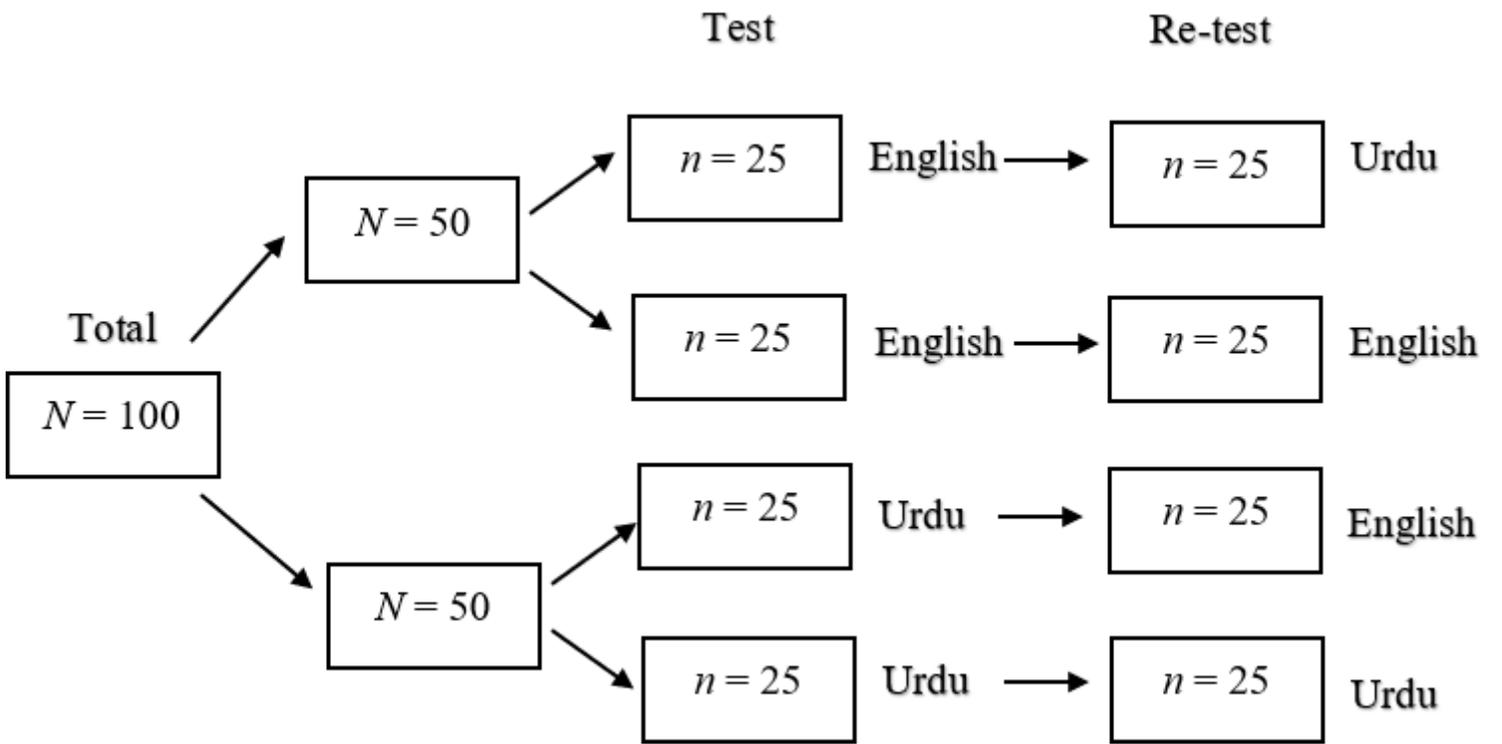


Figure 1

Division of sample into four groups for language validation

Scree Plot

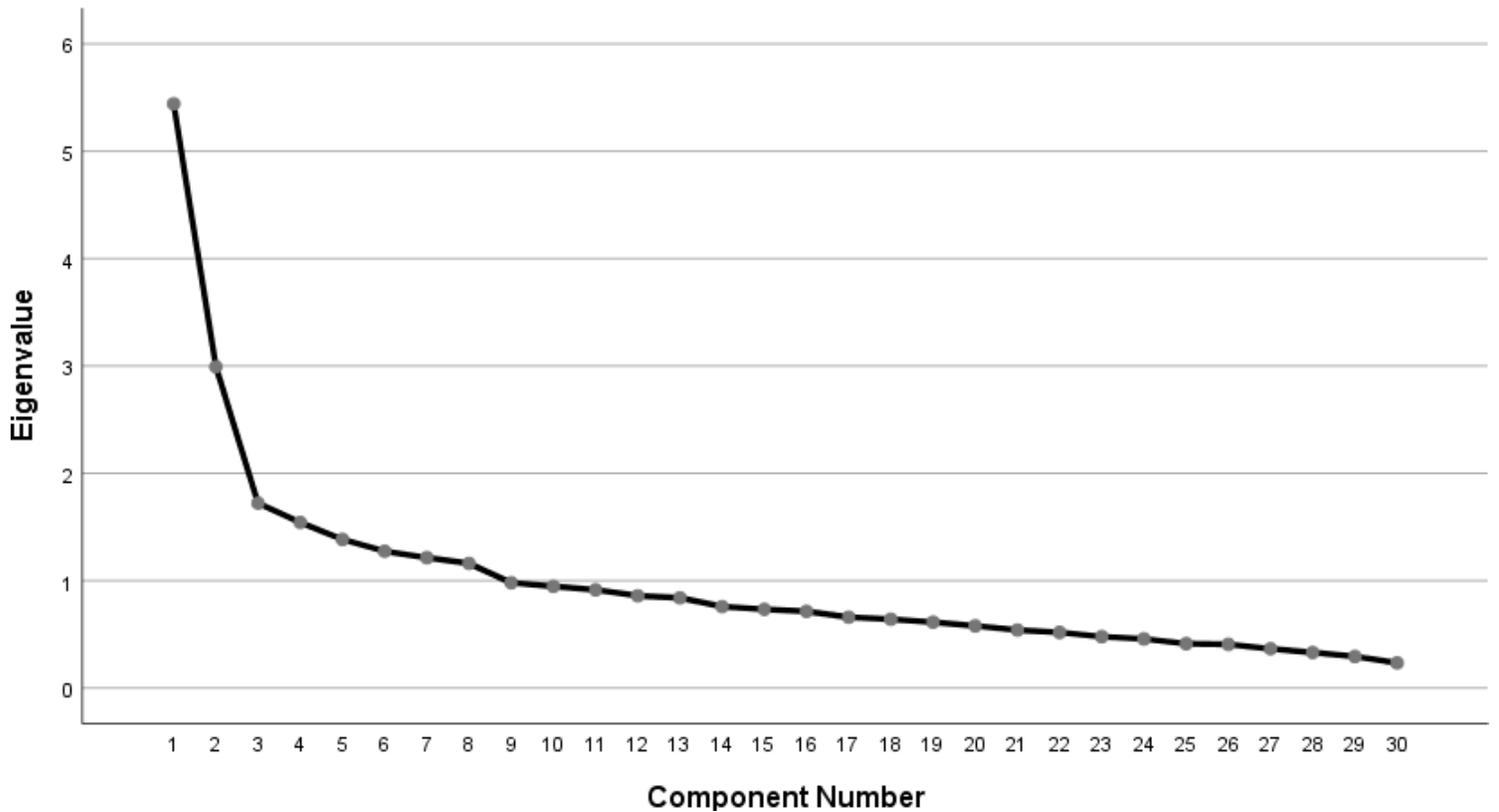


Figure 2

Scree plot showing Eigen values and the respective component number