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Translation and Validation of Attitude towards Girl Child Marriages into Local Language

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Abstract

The study was primarily concerned with the translation and validation of the Attitude towards Girl Child Marriages scale into the Urdu language, meant to use by students of Pakistan. The present study consists of stages I and II, stage I comprised Exploratory Factor Analysis (EFA) while stage II covered Confirmatory Factor Analysis (CFA). The study was conducted to examine the alpha reliability, and validation of the Urdu translated version of the scale. A separate independent sample of 250 Pakistani students for each stage with the age range of 19-35 years was selected for both EFA and CFA respectively. The significantly comparable means and standard deviations were found for the Urdu version of the scale. The results revealed positive and significant correlations between subscales and strong alpha reliability of the Urdu scale. The inter-scale correlations and internal consistency on an attitude towards girl child marriages were also analyzed. The results show that the scale is valid and consistent with the culture of Pakistan. The implications of the Urdu version of the Attitude towards Girl Child Marriages scale in educational, social, and research settings are discussed in the study.

Keywords: *Attitude towards Girl Child Marriages, Urdu translation, Exploratory Factor Analysis, Confirmatory Factor Analysis.*

The impacts of girl-child marriages are one of the noteworthy social issues in Pakistan. The concept of girl child marriages or early marriages of girls is a worldwide problem and it is a consequence of patriarchy. The problem is not seen by many practitioners in marrying their daughters so early because the consequences are not open to everyone. The effects of these marriage practices are conventionally not reported by girls for the trepidation of exhibition or lack of vigilance. According to the reports of the United Nations International Children's Emergency Fund (UNICEF, 2013b), girl child marriages in Pakistan are connected with tradition, culture, and customary practices. Females' view of well-being hindrances furthermore, benefits might impact their well-being as well as intergenerational advancement or interruption of youngster marriage rehearses (Efevbera & Farmer, 2021). Effective context-specific interventions to stop child marriage are desperately needed. Civil society and policy-makers got to be engaged to trigger structural and cultural changes to catch up on the harmful social norms and practices; such a holistic and comprehensive approach could end in ending child marriages at the end of the day. (Akter et al., 2022).

It sometimes involves the transfer of mazuma (money), settlement of debts, or exchange of daughters (*Vani/Swara or Watta Satta*) sanctioned by a Jirga or Panchayat (council of elders from the community).

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The practice of child, early and coerced espousement is widespread and occurs in all regions of Pakistan, with the highest prevalence in the Sindh Province (Nasrullah et al., 2014). According to the United Nations Convention on the Rights of the Child (1989), any human being under the age of 18-years is considered a child.

In developing countries, one in every nine female children is forced to marry before the age of 15, 70 million women who are between 20 and 24 years of age state that they were forced to marry before the age of 18. (International Center for Research on Women [ICRW], 2015; UNICEF, 2013b). Unfortunately, if this trend continues, it is predicted that 180 million girl children will have been forced to marry within the following decade (ICRW, 2015), with the number raising to 710 million by the year 2050 (UNICEF, 2013b). These girls have a scarcity of access to health care employees and their services thanks to a scarcity of awareness, spousal management, and restricted quality (Deane, 2021). Child married women's health, autonomy, and dignity, as this risky condition is more and more distressing throughout the COVID-19 pandemic (Paul & Mondal, 2021).

Attitude towards Girl Child Marriages

Attitude is a positive or negative effect on girl child marriages. A comprehensive definition of attitude includes emotions, beliefs, behaviors, and their interaction (Zan & Martino, 2007). The attitude towards girl child marriages means a detailed study of thinking, feeling, and the person's behavior towards these marriage practices. Marriages under 18 are girl child marriages, and the attitude towards these marriages either positive or negative is mostly determined by the society itself. It depends on what kind of beliefs the society holds and reflects them in their attitude. Ultimately these attitudes are seen in practices like child marriages, somehow these are denied when they are asked about them but are clearly shown when they are confronted with the

situation. Marriage before the age of 18 years among women, affects around 10 million teenage girls every year, worldwide (United Nations Population Fund [UNFPA], 2009).

Early marriage forces girls into adulthood and, frequently motherhood before they are emotionally or physically mature. It profoundly affects a girl's life, not only by substantially lowering her educational prospects but also by causing health complications and harming psychological well-being. It has been often seen that there are some myths associated with the background of child marriages. The reason to consider the causes of child marriages is to explore them from the root level and stop them before they cause further damage to the social system. People find it difficult to control other issues so they find the easiest way out to prevent social problems like pregnancy before marriage, family honor, and the women living in impoverished areas, with low education status and high gender inequalities are at risk of girl child marriage (Nour, 2006). These marriages are commonly practiced in Pakistan (UNFPA, 2007) disproportionately, and affect girls of lower socioeconomic status and those residing in rural regions (Sathar et al., 2003). Further support is provided by another study that explicates that girl-child marriage is most liable to occur among underprivileged girls, who have low education levels, and live-in rural areas. It again says that girls' opportunities to edify and to build life skills disunites them from family and friends, compromises their facility of health promotion practices and seek timely care, and enhances their susceptibility to considerable health and hospitalized complications (Chandra-Mouli et al., 2013).

The need to assess the most sensitive social issue related to standardized tests across different cultures has increased during the past few decades (Chang, 2001). During the process of translation, the linguistic and conceptual understanding of scale items must be maintained (Geisinger, 1994). Before that, the adaptation of the instrument must be validated (Fouad, 1993). Due to the growing concern of attitude toward girl child marriages in gender-related studies of different social sciences, the cross-cultural validity and translation in different languages need to be established. So, the present study was dedicated to translating and adapting the attitude towards girl child marriages scale into a local language of Pakistan i.e., Urdu. Weber (2008) discussed that Urdu is ranked in the group of top 10 languages and it is recently being recognized internationally.

The present study was intended to establish the validity of the Urdu version of attitude towards girl child marriages scale by the analysis of psychometric properties. The scale was translated for the MPhil thesis to highlight the role of social dominance orientation in endorsing attitudes toward girl child marriages. The data was collected from Islamabad, the capital city of Pakistan. Finding the link between social dominance orientation and the attitude toward child marriage practices was the primary concern of the present study. In addition to this, the role of gender was also explored for contrasted group validation.

The translation and adaptation of attitude towards girl child marriages scale were also necessary for cross-cultural comparison of acceptance or rejection towards girl child marriages. So, the translation and cross-cultural Urdu version of the present scale must be available for the researchers of Pakistan whoever may use it to address the issues of girl child marriages. The study followed the main objective such as:

1. To translate and validate the attitude towards girl child marriages scale in the Urdu language under Pakistani context.
2. To establish the psychometric properties of attitude towards girl child marriages scale Urdu version.

Method

To fulfill the objectives of the present study, the outline was drawn to translate and then validate the attitude towards girl child marriages scale. Once the translation was done, the validation of the scale was performed. The study was concerned with the examination of retest reliability and correlations of subscales and to assess the CFA of attitude towards girl child marriages, internal consistency, and inter-scale correlations.

Measure

The Attitude towards Girl Child Marriages scale was obtained from the original author through e-mail correspondence for research purposes. The details of the scale are given as:

Attitudes toward Girl Child Marriages Scale.

This scale was developed in Turkey by Malatyalı et al. (2017) in English based on previous qualitative studies (Cakir, 2013; Nasrullah et al., 2014) about girl child marriages and it is also available in the Turkish language (Malatyalı et al., 2017). The scale consisted of 12 items, including four reversed-coded items (*item nos.* 1, 3, 6, and 12). Participants will indicate their level of agreement with items on a scale ranging from 1 (*Strongly disagree*) to 6 (*Strongly agree*). A higher score indicated the participant's higher approval of girl child marriages. The English version of the scale applies to adolescents and its alpha reliability is .91 (Malatyalı et al., 2017). In the present study, this scale was translated into Urdu and the reliability of this version is noted as .81 for the student's sample.

Translation of Attitude towards Girl Child Marriages scale

Procedure.

The translation of the attitude towards girl child marriages scale into Urdu was done using the criteria presented by Bristlin (1986). Before translation, consent from the original author was obtained through email correspondence. The process involved the translation and adaptation of the test material according to the requirements of the culture. In this way, instruments with equivalent assessments for cross-cultural studies can be developed.

There are four basic requirements discussed by Lonner (1985) and Chang (2001) for equivalence of translated and adapted scales. These are functional, conceptual, metric, and linguistic equivalence which were followed for the present scale's translation and adaptation. Each equivalence has its refined meaning for the instrument to be adapted and translated. The first functional equivalence is to show the same function of concepts for different cultures. The conceptual equivalence is to define the same meaning attached to the concept or behavior. The metric equivalence is defined as the psychometric properties or the extent of scale construct must be the same across cultures. Finally, linguistic equivalence is the genuine translation obtained for the language in which it is being developed. The present study was designed to obtain the final translation following these equivalence types. In the case of the present translation, for example in Item 1 "Girls do not have adequate physical qualities to marry before 18 years of age." the word "adequate" has the same function across both cultures. The second conceptual equivalence was ensured by checking that the concept "adequate" has the same meaning across both cultures. The metric equivalence was ensured by finding the psychometric properties as shown in Table 1. The linguistic equivalence was ensured by backward, forward translation comparison and pretesting of scale.

Forward Translation.

In this step, three bilinguals (native speakers of Urdu) were contacted as the quality of the test is highly dependent upon the competency of translators so it was ensured that all the translators are either MPhil or Ph.D. students. The purpose of the study and target population was explained to them. They were asked to translate the statements by keeping in view the age and

educational level of the targeted sample. It was requested that sentences should be simple and converse to the original expression of the statements. They were also asked to identify any word or item which they think is not related to the culture of Pakistan. There was no time limit for the translator the early response was highly appreciated and desired.

First Committee approach.

The main purpose of this step was to analyze each of the three translations for each sentence and select through mutual decision the closest and most relevant concerning Pakistani culture. The expert panel was comprised of three MPhil students of the National Institute of Psychology. The first committee approach was held to select one from three forwarded translations. The main objective was to deliver an understanding of the concept, appropriateness of the statement, choice of expression, and words concerning the age and educational level of the sample and cultural relevance. Each item was separately analyzed in detail and possible translations were discussed.

Back Translation.

The Urdu translation for each English statement was selected in the first committee approach and this Urdu version with the same instructions was then sent to different translators. It was assured that the back translators were different from those who have done forward translation for the same scale. Three back translators for each statement were attained. This time the back translators were a Ph.D. professor from Urdu University, and two MPhil students from NIP were requested. Both versions of the scale, original and translated were then compared in the second expert committee approach and all the issues regarding it were resolved afterward.

Second Committee approach.

All the back translations were arranged in a way that the Urdu version of every item is followed by three back translators. The closest statements to the original English version were retained and the Urdu version of those statements was obtained. Two translations out of three were more similar to the original version. The closest statements from these translations were combined to select the correct translated items. After this whole process, the finally obtained backward translations were sent for review to original authors. The review was finalized without any change through correspondence on e-mails with the original author. The scale was further utilized for analysis and sampling.

Stage 1: Validation of the Attitude towards Girl Child Marriages scale

An independent sample of 250 educated adolescents (200 male & 50 female) under the age range of 19-35 years with (M = 40.75, & SD = 17.04) and studying from Undergraduate to postgraduate were selected for retest reliability of the present version. The principal axis factoring extraction method with the oblimin rotation method was used as the factors were consistent in meaning and correlated with each other. The results have shown the significance of Bartlett's test of Sphericity [$\chi^2(66) = 902.32$, $p = .000$] and it has shown equal variance of the sample taken from the population. The test for sampling adequacy was found through Kaiser-Meyer-Olkin Measure (KMO) resulting in .85. it shows that the sample selected in the present stage is adequate to run EFA.

Results

For the consistency check, the reliabilities, skewness, and kurtosis were calculated and reported for the Attitude towards Girl Child Marriages scale as reported in Table 1.

Table 1

Means, Standard Deviations, reliability, Skewness, Kurtosis, and Range of attitude towards girl child marriages scale of Urdu Version (N = 250)

Scale	Items	α	*M*	*SD*	Range		Skewness	Kurtosis
					Actual	Potential		
AGCM	12	.81	38.57	12.0	12-67	12-72	-.47	-.47

Note: AGCM = Attitude toward Girl Child Marriages Scale.

Means, standard deviations, and reliabilities show the significant values for the Attitude towards Girl Child Marriages (AGCM) scale Urdu version.

After the translation of the Attitude towards Girl Child Marriages scale, the scale was used for validation. To further establish the construct validity of the scale, item-to-total correlations were calculated using Pearson Product Moment Correlations. Item-to-total correlations have shown that all items are significantly correlating with the sum of total items at $p < 0.01$ level ranging from .50-.79 for Factors I and II. Therefore, this is sufficient evidence to include all the items in the final form of the scale. The factor loadings for EFA of AGCM scale into two factors are tabulated in Table 2.

Table 2

Factor Loadings for Exploratory Factor Analysis with Oblimin Rotation of Attitude towards Girl Child Marriages (AGCM) scale (N = 250)

Items	**Factor I**	**Factor II**
	Rejection towards GCM	**Acceptance towards GCM**
1	.32	
3	.68	
6	.65	
12	.35	
2		.34
4		.53
5		.50

7		.74
8		.77
9		.76
10		.64
11		.69
Eigen values	.93	3.77
% Of variance	7.76	31.44
Cumulative %	39.20	31.44

Note. % = Percentage

The alpha reliabilities for both factors were found to be .58 and .83 respectively which shows good internal consistency for these factors. The factor loadings for the 12 items were found to be above .30 according to the criteria for EFA (Tabachnick & Fidell, 2001). The items with factor loadings greater than .30 were retained (see Table 2). Moreover, it shows principal axis factoring extraction for the factor loadings into two-factor solutions (Malatyalı et al., 2017). Table 2 presents the solution for two factors of the AGCM scale. The Eigenvalue for factor I using principal axis factoring was found to be 1.51% with a % variance of 12.60%. The total variance explained through EFA was 48.38 %. While the Eigenvalue using principal axis factoring was 4.29% with a % of the variance of 35.79% for factor II.

As the Attitude towards Girl Child Marriages scale measures the acceptance and rejection of these marriage practices. This solution based on two factors was identifying the items with acceptance and rejection towards girl child marriages. The face validity of the items exactly meets the requirements of items that they purport to measure. For example, item no. 06 (*Main 18 saal say kum umar ki shadion k khilaaf hun*) clearly shows the rejection towards these marriage practices and loaded on factor I. On the other hand, item 10 (*Kuch makhsoos halat main 18 saal say kam umar main shaadi karna zaroori hoti hai*) loaded on factor II, i.e., acceptance towards girl child marriages.

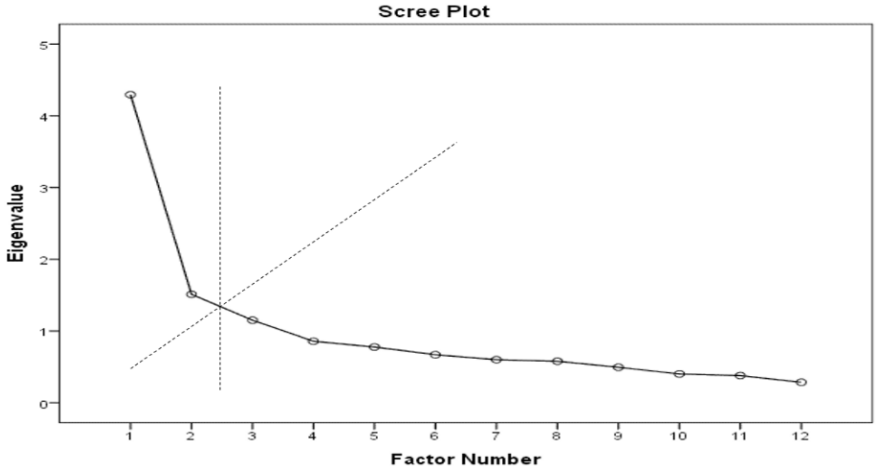

Figure 1, Scree plot of Attitude towards Girl Child Marriages scale

The loading of the items on their presumed factors was shown through the pattern matrix. The scree plot for the present data has shown two-factor structures. The scree plot (see *Figure* 1) was considered while analyzing the structure of factors and it was found that items 1, 3, 6, and 12 loaded on factor I. These items were negatively scored in the originally developed unidimensional form of this scale. While the other items like 2, 4, 5, 7, 8, 9, 10, and 11 were loaded on factor II. As shown in Figure 1 the point of inflection is somewhere between factors II and III so two factors were extracted. However, the third factor did not appear to hold commonality in the context, so was not conveying any clear picture. To incorporate the authority's suggestions of having two-factor structures, EFA was found reliable for it. The results appeared to be quite acceptable as the two factors were conveying the two different aspects that were covered by the Attitude towards Girl Child Marriages scale.

After two factor solutions for the scale, the next step was to choose a suitable title for each factor. To fulfill this practice, the statements of items for each factor were separately written in two columns on a paper sheet. This sheet was then distributed among ten Ph.D. and MPhil scholars having good vocabulary and understanding of scale title selection. The simple and precise instructions were given i.e., "Kindly suggest the suitable title for the items given in separate columns".

The following titles were selected using a committee approach consisting of the researcher herself and the supervisor.

1. Acceptance towards Girl Child Marriages (A-GCM)
2. Rejection towards Girl Child Marriages (R-GCM)

The details for each factor were given as:

1. Acceptance towards GCM.

The items included 2, 4, 5, 7, 8, 9, 10, and 11. These items show that people have acceptance towards child marriage practices. The higher the score on this subscale, the more acceptance towards girl child marriages.

2. Rejection towards GCM.

Items 1, 3, 6, and 12 were included showing the rejection of child marriage practices. The higher the score on this subscale, the more rejection for girl child marriages.

Stage 2: Confirmatory Factor Analysis of AGCM scale

Sample. The sample of under to postgraduate students from public universities in Islamabad was collected using a convenient purposive sampling technique. An independent sample of 250 (59

Male and 191 Female) students falling in the age range of 19-35 years (M = 23.6 & SD = 76.4) was selected for confirming the factors for this new version.

Results

The psychometric properties of the Urdu version were calculated. A satisfactory range was obtained for skewness and kurtosis.

Table 3

Means, Standard Deviations, Reliabilities, Skewness, and Kurtosis of attitude towards girl child marriages scale (N = 250)

Scale	Items	*A*	*M*	*SD*	Range		Skewness	Kurtosis
					Actual	Potential		
AGCM	12	.79	39.05	11.52	12-69	12-72	-.01	-.13
A-GCM	8	.84	30.18	9.52	8-48	1-48	-.34	-.63
R-GCM	4	.65	8.87	4.75	4-24	1-24	.92	.05

Note. AGCM = Attitude toward Girl Child Marriages Scale, A-GCM = Acceptance towards Girl Child Marriages, R-GCM = Rejection towards Girl Child Marriages.

Descriptive statistics along with an actual and potential range for the scores of full scale and subscale, alpha coefficients, skewness, and kurtosis are presented in Table 3. Alpha coefficients represent the internal consistency of the instruments. The values of the skewness and kurtosis for the present stage indicate that the data is nearly normally distributed which fulfills the assumptions of parametric testing. Thus, the values in Table 3 for all the scales are normally distributed.

Table 4

Correlations between attitude towards girl child marriages subscale (N = 250)

Variable	*R*
Attitude towards Girl Child Marriages scale	.92**
Acceptance towards Girl Child Marriages	.59**
Rejection towards Girl Child Marriages	.22**

Note. **$p < 0.01$

Confirmatory Factor Analysis for AGCM Scale.

The Attitude toward Girl Child Marriages Scale was taken to measure the attitude of university students toward girl child marriages. The scale was translated and adapted to measure the attitude toward girl child marriages. Factor structures of this scale have never been studied or reported before in the culture of Pakistan. So, the CFA on the following scale was done to test its uni-dimensionality and to check the construct validity concerning the changes made

.

Table 5

CFA of Attitude toward girl child marriages Scale (N =250)

	$\chi^2(df)$	NFI	IFI	TLI	CFI	RMSEA	$\Delta\chi^2(\Delta df)$
Model 1	156.50(53)	.84	.89	.86	.89	.08	
Model 2	102.33(50)	.90	.94	.92	.94	.06	54.17(3)

Note. NFI = Normed Fit Index, IFI = Increment Fit Index, TLI = Tucker Lewis Index, CFI = Comparative Fit Index, RMR = Root Mean Square Residual, RMSEA = Root Mean Square Error of approximation.

Model 1 = Default Model

Model 2 = Model 1 after adding error variances

Table 5 depicts fit statistics for the attitude toward girl child marriages scale (12 items). Model fit in the student's sample was achieved after adding the covariance between e1 <-> e2, e7 <-> e8, and e8 <-> e12 as these items were about the negative attitude towards girl child marriage practices. After adding this covariance, a good model fit for the student's sample was achieved as $\chi^2(50) = 102.33$, $p < .05$, NFI = .90, IFI = .94, TLI = .92, and CFI = .94 whereas value of RMSEA = .06 and RMR = .20. The diagram below represents the results calculated in the Table 5 (*Figure* 2).

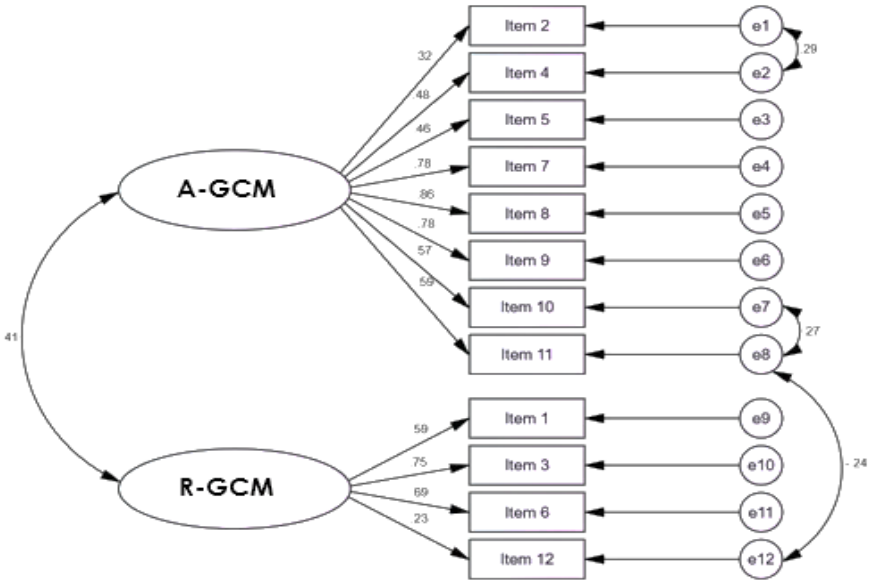

Figure 2, Confirmatory Factor Analysis for Attitude toward Girl Child Marriages Scale

The CFA of scale has shown some modifications before model fit as shown in Figure 2. Moreover, the standardized estimates have also shown near the arrows going into the respective item. These standardized estimates were achieved after model fit after adding a covariate between the unobserved variables of items 1, 2, 7, 8, and 12.

Discussion

The growing number of researches in the field of gender psychology especially the concept of girl child marriages has taken over the growth. The studies based on girl child marriage practices in Pakistan pursue the local population to find the answer to their research questions. Therefore, the psychometrically tested Urdu versions in Pakistan are necessary for a better understanding of the
social issues. Furthermore, the interpretation or translation of the foreign developed scales is fundamental for the spreading of new data, information, and thoughts across the world. It is totally important to accomplish viable correspondence between various societies. During the time spent spreading new data, interpretation is something that can change history. Therefore, the present study anticipated the availability of the Urdu version of the attitude towards girl child marriages scale.

The assessment of each citizen or individual separately is very important for every culture because it defines the population. In this way, the findings obtained from a sample can be correctly generalized to the population. The necessity of individual-level testing has recently taken much importance in Pakistan. Therefore, psychologists have taken the stance of individual testing in each field of psychology. But it requires locally developed, translated, and validated tests to avoid the cultural irrelevance of the internationally developed scales. The important advantage of translating the scale is the fairness of testing and allowing the individual to get assessed in one's native language (Hamleton & Kanjee, 1995).

The guidelines of Bristlin (1986) were used to translate the attitude towards girl child marriages scale in the present study. The translations were obtained from one or more translators having good language skills for both languages to avoid the element of subjectivity. The quality of the instrument depends upon the quality of measurement (Fouad, 1993) used in the research which can be maintained through construct and content validity (kozma et al., 1990). Although the validity established through English versions of the instruments makes its applicability in other cultures and languages makes it inappropriate. The need to translate that instrument arises from its applicability in other languages. Moreover, there was no data available regarding the reliability and validity of both English and Urdu languages regarding this scale. Therefore, this study provided the data and invited future research to establish psychometrics of this scale in Pakistan. The present study translated the instrument for establishing the psychometric properties of this new version according to the culture and native language of Pakistan.

The validity of the instrument used in research first requires reliability. According to the suggestions of Nunnally (1978), the minimum criteria for Cronbach's coefficient alpha is .70 for basic research measures. This criterion was utilized in the present study, and the alpha coefficient was found according to the guidelines. The same instructions go for an instrument based on internal consistency. The recommended minimum sample range for the confirmatory factor analysis is 200 (Hoelter, 1983). The present stage utilized an independent sample of 250 for EFA in stage 1 by following the sample size selection guidelines of Comrey and Lee (1992). It provided the subsequent scale of sample size adequacy: fifty –poor, 100 – poor, 200 – fair, 300 – good, 500 – very good, and 1,000 or a lot of – glorious. The test for sampling adequacy was found through Kaiser-Meyer-Olkin Measure (KMO) resulting in .85. It shows that the sample selected in the present stage is adequate to run EFA. The two-factor solution was extracted from the unidimensional scale of AGCM. The negatively scored items from the original scale were loaded on Factor I and it was considered as a subscale with the name of Rejection towards Girl Child Marriages. The positively scored items were loaded on Factor II and named Acceptance towards Girl Child Marriages. The higher score was considered with a higher tendency toward the corresponding attitude. The results from the scree plot in Figure A suggest that factor I and factor II are predominant factors. Table 2 is showing the Eigenvalue for factor I using principal axis factoring was found to be 1.51% with a % variance of 12.60%. The total variance explained through EFA was 48.38 %. While the Eigenvalue using principal axis factoring was 4.29% with a % of the variance of 35.79% for factor II. Further, this factor solution was validated through confirmatory factor analysis on an independent sample.

The confirmatory analysis of factors was performed on the scale. Confirmatory factor analysis (CFA) is an intense instrument with statistical importance for looking at the idea of and relations among concealed or latent concepts such as attitudes, disorders, personality traits, and intelligence (e.g., mentalities, qualities, knowledge, clinical scatters). Rather than its explanatory cousin, exploratory factor investigation, CFA expressly tests from the earlier speculations about relations between obvious factors (e.g., test scores or appraisals) and hidden items and constructs. CFA is regularly the explanatory apparatus of decision for creating and refining estimation instruments, surveying legitimacy of particular construct, distinguishing impacts of different techniques, and assessing factor invariance crosswise over time and samples (Brown, 2006). CFA was connected to its brilliant practice rules accessible for the advancement and approval of any instrument. It is applied in the present study because of its excellent practice guidelines available for the development and validation of any instrument (Brown, 2006; Thompson, 2004).

The factors were confirmed in the present study with an independent sample of 250 male and female university students through confirmatory factor analysis in stage 2. Curran et al. (2002) stated that after *N* turned into >200 the RMSEA results are correct with mild misspecifications for CFA. Having inferred different model fit indices and estimates, there comes a need to assess demonstrated fit by the researcher for the respective model. Besides the chi-square decency of fit test, there are various supplementary lists of fitting indices. Previous studies accompanying different fit measures tend to perform well as for sample inadequacy (Fan et al., 1999; Hu & Bentler, 1998, 1999; Jakson, 2007; Marsh, et al., 1996; Marsh et al., 2004; Marsh et al., 1998); SRMR; Tucker-Lewis filing index (TLI) non-normed fit index (NNFI) (Tucker & Lewis, 1973; Bentler & Bonett, 1980); relative non-centrality index (RNI; McDonald & Marsh, 1990); CFI; and Bollen's delta 2, additionally suggested to as the incremental fit index (Bollen, 1989).

On these statistics, the model fit index for attitude towards girl child marriages scale AGCM for first-order CFA of 12 items viewing its correlation within covariance indicates this as an acceptable model. However, for testing the composite integrity of this scale, a model of second-order CFA was tested providing acceptable figures of $\chi^2(50) = 102.33$, $p < .05$, NFI = .90, IFI = .94, TLI = .92, and CFI = .94 whereas value of RMSEA = .06 and RMR = .20. Cut-off values for measures add complexity to an evaluated model, however, these speculations have been changed over time. The majority of cut-off limits are observed in the acceptable range. Errors covariance is another aspect frequently practiced but rarely addressed. Errors covariance is illustrating that particular items or sub-factors have similar points of view for participants while scoring, thus this justifies employing them in measures assessing construct of psychology which are overlapping usually. Figure 2 represents the results calculated in Table 5. The results in the present research are well supported by the above-mentioned figures about fit indices and regression weights so that the measurement models accuracy of confirmatory factor analysis of the AGCM-Urdu version. The overall purpose of confirmatory factor analysis was to ensure the stability of the factor structure (Hinkin, 1995). In the present stage, the confirmatory factor analysis was done to check the stability of factor structure according to Pakistani culture.

Limitations and Implications

The scale used in the present study for translation and validation needs some more validity checks when it is applied to samples other than students. The generalizability issues of the present scale might differ from sample to sample it needed to be recognized in Pakistan for both English and Urdu versions of this scale. The Urdu translation of this scale provides the researchers an opportunity to test this scale for a non-English and uneducated population of Pakistan. The sample in the present study were all students and therefore better much more likely to be better educated and most likely of middle social class. The scale needs to be used in other Urdu-speaking populations, e.g., non-urban or rural populations, more conservative populations. The other aspects of reliability need to be addressed in future research e.g., test-retest, responsiveness, acceptability with other populations, readability, and feasibility. The present study is useful to use the translated and validated scale on a current social issue. It is applicable in gender psychology research, and its related disciplines to correctly analyze the true nature of the context of the Pakistani population.

Conclusion

The Girl Child Marriages scale was translated and validated into a local language with reference to Pakistani culture. Now this scale can be effectively used in research on this subject reference to Pakistani Culture.

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