Children's Perception of Interparental Conflict Scale: Urdu Translation and Validation

Sana Bukhari and Sobia Masood

Quaid-i-Azam University

Based on the Cognitive Contextual framework, the Children's Perception of Interparental Conflict (CPIC; Grych, Seid, & Fincham, 1992) scale was developed to measure perception of children about interparental conflict. This paper presents a valid and reliable Urdu translation of CPIC scale, using a sample of 521 adolescents, to make available an instrument that can be used on Pakistani adolescents. The guidelines of Brislin (1970) were used for the translation of CPIC, followed by cross-language validation, which showed significant correlations ($p < .01$) between original and Urdu-version of CPIC. Confirmatory Factor Analysis and follow-up model fit indices showed a good fit on its original four factor structure (GFI = .90; IFI = .91; CFI = .91; RMSEA = .03), after deletion of certain items. Cronbach's coefficient indicated sound internal consistency of all subscales. It is concluded that the Urdu-translated version of CPIC is a reliable and valid measure to assess different aspects of interparental conflict in a sample of Pakistani adolescents. Uses and potential implications of an Urdu-translated version of CPIC are discussed.

Keywords. Interparental conflict, cognitive contextual framework, children's perception, CPIC scale, Urdu translation, validation, adolescents

Many adolescents have the misfortune of experiencing parents' separation or are a part of intact households that have a high or at least some degree of interparental conflict (Escapa, 2017; Slater & Haber, 1984; Wierson, Forehand, & McCombs, 1988; Zinzow et al., 2009). Studies across the globe have shown that exposure to such conflict is associated with a number of negative consequences (DeBoard-Lucas & Grych, 2011; Khaleque, Uddin, Shirin, Aktar, & Himi, 2016; McCloskey & Lichter, 2003). Similarly a study conducted in Pakistan

Sana Bukhari and Sobia Masood, National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan.

Correspondence concerning this article should be addressed to Sana Bukhari, National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan. Email: sana.b.jaleel@gmail.com.pk

reported that adolescents exposed to higher interparental conflict at home had lower levels of parental attachment and poor peer relations (Azam, 2006). Saeed (2001) also noted a positive relationship between perceived interparental conflicts and self-reported delinquency in adolescents. Additionally, when studying aggression among young adults, Feroz, Jami, and Masood (2015) established that exposure to domestic violence and interparental conflict result in long lasting consequences. However, more recently, research efforts have shifted from investigating the existence of a relationship between exposure to interparental conflict and negative outcomes for adolescents, to understanding the underlying mechanism responsible for it (Fisher, 2012).

Majority of the studies that look into the influence of parental discord on the children mostly examine reports of the conflict given by the parents, while few take into account the perception of children about the said conflict (Moura, dos Santos, Rocha, & Matos, 2010). It can be argued that children's appraisals are actually more relevant to their wellbeing and functioning, since these appraisals or perceptions mirror their processing (both emotional and cognitive) of the discord (Grych & Fincham, 1990). Therefore, logic entails that children's appraisals are better predictors of the influences of parental discord upon child related outcomes, as compared to parental accounts (Emery & O'Leary, 1982).

In 1990,Grych and Fincham proposed a cognitive-contextual framework for understanding the association between interparental conflict and child adjustment. In this framework the authors identify the underlying mechanism of the relationship between interparental conflict and its negative consequences for children. According to them, children's appraisals of threat, self-blame and triangulation into interparental conflict act as mediators of the said relationship. The threat appraisal represents the child's perception of the destructive outcomes of conflict between parents, these outcomes may be related to the child or the whole structure of the family. An example of this can be when a child witnesses a fight between his/her parents, he/she would start to fear that this would harm his/her relationship with one or both parents, or that the parents may end up divorced (Grych, 1998; Grych & Cardoza-Fernandez, 2001). It is natural for a child to attempt to understand the reasoning behind parental discord, and even try to resolve it. The threat appraisal of a child is decreased if the child believes that he/she can handle or deal with the discord between parents. When threatening aspect of the conflict is lowered the child can feel confident in responding effectively. But an increased threat appraisal renders the child incapable of coping (Grych & Fincham,

1990). Studies show that interparental conflict can be perceived by the adolescents as a threat to their emotional and overall wellbeing, and such adolescents are likely to develop externalizing and internalizing behaviour problems (Fisher, 2012; Khaleque et al., 2016).Whereas the self-blame appraisal represents a view of the child that he/she is responsible for the parental discord and it is his/her job to make peace (Grych & Fincham, 1993). Research suggests that a child's distress increases when they are of the view that they have caused their parents to fight (Ablow, Measelle, Cowan, & Cowan, 2009). The self-blame appraisal is increased if the child attempts to comprehend the reasons underlying the conflict between their parents, which leads to the children getting tangled in the conflict both in an emotional and physical way. Children that are convinced that they are the cause behind the interparental conflict are drowned in feelings of guilt and shame, and thus try their hardest to somehow resolve it (Grych, Fincham, Jouriles, & McDonald,2000; Khaleque et al., 2016). Numerous studies have put forth evidence that suggest that in reality, these appraisals link interparental conflict to children's behaviour problems (Buehler, Lange, & Franck, 2007; Grych, Harold, & Miles, 2003).

According to the family systems theorists, triangulation is "the involvement of a third person in a dyadic conflict" (Fosco & Grych, 2008, p. 844). Triangulation can exist in various forms. In the context of the present study, triangulation refers to the child getting involved in interparental discord. Children may be triangulated into interparental conflict by their own will or they may be forced by one or both parents. A child could try to make peace or may be pressured into choosing sides with either parent, a child may even try to divert attention to him/herself (by misbehaving) in order to stop the parents from fighting with each other (Buchanan & Waizenhofer, 2001). Research show that couples in high conflict marriages are likely to involve the kids in the arguments they are having with their spouses (Kerig, 1995; Lindahl, Clements, & Markman, 1997).

Based on this frame-work, the Children's Perception of Interparental Conflict (CPIC)scale was developed. The said scale was constructed using an American sample, however, since then it has also been used on samples from Europe (Bringhenti, 2005); Italy (Godde & Walper, 2001); Germany (Iraurgi et al., 2008); Spain (Ulu & Fisiloglu, 2004); Turkey (Vairami & Vorria, 2007); Asia (Chi &Xin, 2003); and Portugal (Moura et al., 2010). Researches on the factor similarity of this scale across different countries and cultures can shed light on the cultural sensitivity of this phenomenon and the theory upon which CPIC scale is based, which would allow more inclusive,

generalizable, and comparative discussion of findings. Cultural context could actually be an important element when measuring interparental conflict as it is a phenomenon likely to be influenced by culture, such as the socialization process, values, and parenting styles, which warrants the need to validate instruments across cultures (Moura et al., 2010). Therefore, this study intends to examine CPIC's factor structure in a culture different from the one where it was originally developed. To accomplish this, the present research translates and then examines the validity of the CPIC factor structure, using a sample of Pakistani adolescents.

The Children's Perception of Interparental Conflict Scale

This instrument was developed by Grych, Seid, and Fincham (1992) based on the cognitive contextual framework (Grych & Fincham, 1990), to measure particular dimensions or aspects of parental conflicts from the perspective of the children. This scale contains 48 items divided into four subscales: Conflict properties (item example: I often see my parents arguing), threat (item example: I get scared when my parents argue), self-blame (item example: It's usually my fault when my parents argue), and triangulation (item example: I feel like I have to take sides when my parents have a disagreement).

The subscale of Conflict Properties has a total of 19 items; the Threat subscale contains 12 items: the Self-blame subscale contains 9 items and lastly, the Triangulation subscale contains 8 items (see Table 1). All items have three response options ranging from 2 = *True,* 1 = *Sort of or Sometimes True* and 0 = *False*. Pertaining to their content, items number 1, 2, 6, 9, 13, 17, 20, 27, 28, 30, 32, 36, 39 and 47 were reverse coded. The scale does not have a composite score. Originally developed to be used on young children, this scale has also been tested for psychometric properties on adolescents and emerging adults with reliability of subscales ranging from .76 to .92 (Moura et al., 2010).

Based on the arguments and rationale presented previously, highlighting the importance of studying children's perception of interparental conflict, and the lack of a suitable instrument to measure it in the Pakistani population, this study takes on the task to translate and adapt the CPIC scale into Urdu language, in order to make available an Urdu language, reliable and valid instrument to measure perceptions of interparental conflicts in Pakistani adolescents. Therefore, the aims of this study include:

1. Translation and adaptation of Children's Perception of Interparental Conflict scale into Urdu language.
2. Establishing validity of the Urdu-translated version of Children's Perception of Interparental Conflict scale.

Method

To fulfill the aforementioned objectives, the current study was divided into three phases:

Phase I: Translation and adaptation of CPIC

Phase II: Cross-language validation

Phase III: Structural validation through Confirmatory Factor Analysis

Phase I: Translationand adaptation of CPIC

Previous studies in Pakistan measuring the influence of parental discord on the exposed children and adolescents used various Urdu-translated instruments such as Marital Conflict Scale, originally developed by Lopez (1991) and translated into Urdu by Azam (2006), and Childhood Exposure to Domestic Violence Scale, originally developed by Edleson, Johnson, and Shin (2007), and translated into Urdu by Masood (2014). However, these instruments merely address the exposure and not the perceptions and appraisals of the adolescent about the conflict. Therefore, a need was identified to translate the CPIC scale into Urdu language for its use on a Pakistani sample. After seeking permission from the original author of the scale, the translation and adaptation of CPIC scale was done by following the guidelines of Brislin (1970). Translation was carried out in the following steps:

Step 1: Forward-translation of items into targeted language

Step 2: Selection of most suitable item through committee approach

Step 3: Back-translation of items into source language

Step 4: Selection of most suitable item through committee approach

In Step 1, Children's Perception of Interparental Conflict (CPIC) scale was translated from the source language, English, into Urdu. The translation was done by following the guidelines recommended by Brislin (1970) which included making sure there was maximum similarity of the content of the source and the target language scale; there should also be no replacement or deletion of any item.

Translation was carried out by bilingual translators; five people participated in the forward-translation process. Among them three had a background in Psychology and all five were fluent in both the source and target languages.

The translators fulfilled the criteria noted by Brislin (1970) according to which all translators need a clear understanding of the source and target language of the scale. Also, should produce items in the target language that can be easily understood by respondents. They were instructed to translate the items as correctly as possible and also pinpoint items that are irrelevant to the Pakistani culture and to suggest suitable alternatives for such items.

After receiving the translations from all participating translators, in Step 2 a committee was gathered to select the most appropriate and accurate translation. The committee consisted of two Psychology PhDs, one MPhil scholar and the researcher. Each and every item of the scale was thoroughly examined by the committee and out of the five translations, the one that conveyed the exact or closest meaning to the original text was selected. The translated items were also evaluated on the basis of context and grammatical soundness while emphasizing on the conceptual equivalence between the original text and translation. Some of the items were rephrased for better comprehension. It was also made sure that the translation should not comprise of such words that would be hard to understand by the target sample.

In Step 3 of the translation process, the items that the committee selected were taken to another set of five bilingual translators for back-translation who were unfamiliar with the original scale in the English language. Out of these five, four translators had a background of psychology and all were fluent in both the source and target language. All the translators were instructed to back-translate the items in English by trying to keep content equivalence between both the versions.

In Step 4, back-translated items were taken to the committee for final selection. The committee consisted of two psychology PhDs and the researcher. Committee received the original and back-translated items and assessed the concordance between the back-translations and original English version of each item. Items that were closest in meaning with the original items were retained. After consultation with the original author, modifications were made in those items which had some problem in their back-translation.

Finally, the translated version of the scale that emerged after the said procedure was administered on 50 adolescent students and was

reviewed by subject matter experts. Participants were asked to give feedback on the comprehension, language difficulty and statement clarity of instruments. They were requested to give suggestions regarding the response format of the questionnaire. Participants were also asked to tell about any confusion they may have faced while reading the items. According to the feedback received after the tryout, it was found that participants understood all the translated items.

Phase II: Cross-Language Validation

Cross-language validation was conducted in order to statistically determine the similarity between the original English language version and the Urdu-translated version of CPIC.

Sample

The sample for cross language validation of CPIC scale comprised of 26 students from private schools of Islamabad and Rawalpindi. It consisted of 13 boys and 13 girls, with an age range of 13-17 years ($M = 14.38$, $SD = 1.09$), belonging to grades 8 to 10 ($M = 8.46$, $SD = 0.86$).

Procedure

Following the translation process, in order to establish cross language validation of the translated scale, both the translated version and original source language version of questionnaire were administrated on 26 students with a gap of 15 days. Results of Phase II are presented in Table 1.

Table 1

Cross-Language Validation of CPIC Scale Urdu-Version with CPIC Scale English Version (N = 26)

Subscales	k	r
1. Conflict	19	.74**
2. Threat	12	.74**
3.Self-blame	9	.72**
4.Triangulation	8	.79**

**$p < .01$.

As shown in the Table 1 the English and Urdu versions of the CPIC scale have high significant correlations on all the subscales ranging from .72-.79, which displays sound cross language validity.

Phase III: Structural Validation through Confirmatory Factor Analysis

The CPIC scale was developed by Grych et al. (1992) based on the cognitive contextual framework (Grych & Fincham, 1990), and was specifically designed to assess particular aspects of interparental conflict as perceived by the witnessing children. Itsfactor structure has been validated across different studies (e.g., Bickham & Fiese, 1997; Grych et al., 1992; Moura et al., 2010; Reese-Weber & Hesson-McInnis, 2008). However, Confirmatory Factor Analysis (CFA) was performed to determine if the established factor structure is equally applicable and valid on a sample of Pakistani adolescents.

Sample

A total of 620 questionnaire booklets were distributed out of which 593 were returned. The response rate was 95.6%. 72 booklets were discarded due to similar pattern responses and unanswered questionnaires. As a result, the sample comprised 521 participants out of which 388 were boys (64.9%) and 183 were girls (35.1%). Their age ranged between 13 to 19 years ($M = 15.25$, $SD = 1.75$), and they belonged to grades 8 to 12 ($M = 9.35$, $SD = 1.46$).

Procedure

The goodness of fit of all the models was determined using multiple fit indices, which include: Chi-square (χ^2) and relative normed Chi-square (χ^2/df), Comparative Fit Index (CFI), Incremental Fit Index (IFI), Goodness of Fit Index (GFI), And Root Mean Square Error of Approximation (RMSEA).The statistic of Chi-square is used to assess if the model holds in the population, the nonsignificant value of chi-square, measured at the threshold of .05, indicates a good model fit (Barrett, 2007). Chi-square statistic is extremely sensitive to sample size, even though it is popularly used for determining model fit. In large samples χ^2 statistic is more inclined to show the model as a poor fit, on the other hand if the sample size is too small χ^2may fail to distinguish between goodness and badness of model fits (Hooper, Coughlan, & Mullen, 2008).

According to Brown (2006) in order to determine the fit of model in population, RMSEA is also a famous statistic. RMSEA is an index based on population which is not affected by sample size, although it is affected by parameter count. Various researchers have proposed different values of RMSEA, as acceptable model fit. According to Roberts (1999) RMSEA less than .05 indicates a good model fit for the data. Similarly, a value of less than or equal to .05 is also

considered a good model fit, and values of less than or equal to .08 indicate reasonable error of approximation (Byrne, 2013). However, it is recommended by Brown (2006) in case of small sample size, if other fit indices indicate a good model fit, the value of RMSEA at .08 is also acceptable.

GFI is another fit index which measures variance proportion that is accounted for the estimated covariance of population. GFI can range in its value from 0 to 1, the value closer to 1 indicates good fit (Hooper et al., 2008). CFI and IFI compare hypothesized model with a restrictive baseline model, which is an independent model with all variables mutually uncorrelated; to measure the goodness and improvement in model (Yu, 2002). If CFI and IFI values fall in the between .90 to .95 range, this is considered to be acceptable (Bentler, 1990).

The confirmatory factor analysis for the translated CPIC scale, was done in order to determine if it was a psychometrically sound instrument for Pakistani population. Items with low factor loadings were deleted after qualitative analysis of the content of those items and after expert opinion and permission of the original author of the scale. Covariances between the errors of the items were added to obtain model fit.

Results

Results of Phase III, including model fit indices, factor loadings, squared multiple correlations are noted in Table 2 and Table 3. Following that, alpha reliability coefficients of the final version of the Urdu CPIC along with correlation coefficients between subscales are noted in Table 4.

Table 2

Confirmatory Factor Analysis for Children's Perception of Interparental Conflict (N = 521)

	$\chi^2(df)$	GFI	IFI	CFI	RMSEA	$\Delta\chi^2\ (\Delta df)$
Model 1	2722.31(1076)	.58	.69	.69	.05	
Model 2	1649.49(696)	.84	.79	.051	.05	1072.82(380)
Model 3	1072.80(652)	.90	.91	.91	.03	576.69(424)

Note. GFI = Goodness of Fit Index; IFI = Incremental Fit Index; CFI = Comparative Fit Index, RMSEA = Root Mean Square Error of Approximation; Model 1 = Default model of CFA; Model 2 = Model 1 after deleting items with low factor loadings; Model 3 = Model 2 after adding error covariances.

Table 2 represents the model fit indices for the CPIC Scale'sfour factor structure. It shows that model fit $\chi^2(df)$ = 2.53(1070) with

values of CFI = .69, IFI = .69 and RMSEA = .054. The value of CFI and IFI were low, therefore, in order to get better fit, error covariances were added on basis on content overlapping. The value of CFI and IFI got raised to .91 and .91 respectively which is considered as good fit.

Table 3

Factor Loadings and Squared Multiple Correlations for Children's Perception of Interparental Conflict Scale Urdu-Version (N = 521)

Children's Perception of Interparental Conflict (CPIC) Scale Four Factor Structure								
Item No.	λ	SMCs	Item No.	λ	SMCs	Item No.	λ	SMCs
1	.30	.10	18	.61	.37	35	.54	.29
2	.38	.14	19	.52	.27	36	**.07**	**.01**
3	.38	.14	20	.47	.22	37	.53	.28
4	.37	.13	21	.60	.35	38	.60	.36
5	.44	.20	22	.68	.46	39	.42	.17
6	**-.04**	**.00**	23	**-.11**	**.01**	40	.61	.37
7	.51	.26	24	.61	.37	41	.57	.33
8	.47	.22	25	.51	.26	42	.61	.37
9	**.25**	**.06**	26	.65	.42	43	.60	.36
10	.51	.26	27	.36	.13	44	.33	.11
11	.52	.28	28	.52	.27	45	.42	.17
12	**.11**	**.01**	29	.66	.44	46	.50	.25
13	.47	.22	30	**.05**	**.00**	47	**.19**	**.04**
14	.46	.21	31	.65	.42	48	.40	.16
15	.59	.34	32	**.13**	**.02**			
16	.47	.21	33	.42	.18			
17	**-.17**	**.03**	34	.48	.23			

Note. λ = Factor Loading; SMC = Squared Multiple Correlation; Boldface numbers indicate low λ and low SMCs; Bold faces indicate problematic values.

Table 3 shows factor loadings and squared multiple correlations for CPIC scale four-factor structure. All the items of CPIC show acceptable values of factor loadings and squared multiple correlations (SMCs) except item no. 6 ($\lambda = -.04$), 9 ($\lambda = .25$), 12 ($\lambda = .11$), 17 ($\lambda = -.17$), 23 ($\lambda = -.11$), 30 ($\lambda = .05$), 32 ($\lambda = .13$), 36 ($\lambda = .07$) and 47($\lambda = .19$). The SMCs of these items are also below the acceptable rage of .20; 6 (SMC = .00), 9(SMC = .06), 12 (SMC = .01), 17 (SMC = .03), 23 (SMC = .01), 30 (SMC = .00), 32 (SMC = .02), 36 (SMC = .01) and 47 (SMC = .04). Thus, based on the criteria given by Bian, (2011), the factor loadings of these items are < .30 and, SMCs of the same items are below the threshold of .20. As per the criteria given by Hooper et al. (2008) these items were excluded after consultation with the original author. Excluding these items significantly improved the

reliability and fit indices. Factor loadings ranged from .30 to .68, SMCs ranged from .10 to .44.

Table 4

Reliability and Correlation Coefficients of the Sub-Scales of CPIC (N = 521)

Variables	k	α	M	SD	1	2	3	4
1.Interparental Conflict	18	.85	8.38	6.51	-	.36**	.35**	.48**
2.Threat	9	.72	8.17	3.80		-	.33**	.38**
3.Self-Blame	7	.77	1.89	1.85			-	.46**
4.Triangulation	5	.60	2.37	2.11				-

$^{**}p < .01.$

According to the table above, the α values of the subscales of the translated version after CFA, show that all the subscales of the CPIC have an acceptable reliability coefficient (Salvia, Ysseldyke, & Bolt, 2010). In addition to that, Table 4 reports the correlation coefficients, showing significant positive correlation between all subscales indicating interrelatedness of the factors.

Discussion

Often times, researchers opt to translate and adapt an existing scale to make it usable on a new population sample, as this process is faster and more economical in comparison to the process of developing a new instrument from scratch. However, since many psychological variables are culturally sensitive it is important to determine the validity of the translated instrument. Thus the objective of this study was to translate and validate the CPIC scale, adapting it for use on samples of Pakistani adolescents. The translation process, adhering to the guidelines of Brislin (1970), was followed by tests assessing the validation of the translated version. Exploratory Factor Analysis is a data driven technique and is recommended to be used when there is little or no preconception about how the items will factor (Levine, 2005),whereas Confirmatory Factor Analysis(CFA) is a statistical procedure used to assess a predefined model to fit an observed set of data (Shafique, Khalily, & Mchugh, 2017). The CPIC scale has a substantial theoretical base (Cognitive Contextual framework; Grych & Fincham, 1990) and the validity of the factor

structure of the original version of CPIC scale has been well established in past studies (e.g., Bickham & Fiese, 1997; Grych et al., 1992; Mouraet al., 2010; Reese-Weber & Hesson-McInnis, 2008).Due to these reasons and following the precedence of various other translation studies (e.g., Fatima, Masood, Ahmad, & Bukhari, 2019; Loas et al., 2010; Shafique et al., 2017) this study deems the use of CFAsufficient to analyze the factor structure of the Urdu-translated version of CPIC scale, in order to determine the validity of the established factor structure for a sample of Pakistani adolescents.

The CPIC scale has a nine-factor structure as well as a four-factor structure. On the recommendation of the authors of CPIC, the four-factor was adopted in this study due to its superior psychometric properties. The recommended predefined factor structure of CPIC consists of four-interrelated factors including: Conflict Properties, Threat, Self-blame and Triangulation. Upon initial analysis, it was found that some items had low factor loadings; below the recommended range of .30 (Bian, 2011), those items included: Item 36 of Conflict Properties subscale, items 6, 23 and 32 of the Threat subscale, items 9 and 47 of the Self-blame subscale, items 12, 17 and 30 of the Triangulation subscale. The mentioned items also had values of Squared Multiple Correlations (SMCs) below acceptable range of .20 (Hooper et al., 2008; see Table 3). Therefore, after subjective evaluation of these items, consultation with experts and original authors of the scale, these items were excluded. Exclusion of the items improved the model to some extent. In order to achieve model fit, error covariances were added, keeping in mind the theoretical integrity of the scale. After adding the error covariances the fit indices stretched up to an acceptable range implying that the current model fitted the data well (see Table 2). Hence in the present study the above-mentioned items were deleted and a final version of 39-item of CPIC Urdu Version was retained instead of the 48-item version, for the present sample. However, it is important to note that the items excluded in this study should not be excluded from subsequent studies without first conducting CFA of all 48 items.

In Table 4 the results of the reliability analysis indicate that all four subscales of the CPIC scale have an acceptable reliability. Furthermore, the presence of significant correlation coefficients between the subscales supports the postulate of the cognitive contextual framework that interparental conflict is linked to appraisals of threat, self-blame and triangulation in those exposed to it. This suggests that the construct of children's perception of interparental conflict in Pakistani culture matches the operationalization of the framework given by Grych and Fincham (1990).

Implications

Exposure of children to parental conflict is a prevalent phenomenon in Pakistan that has been reported in various indigenous studies and has been linked to a number of psychological issues (Azam & Hanif, 2011; Feroz et al., 2015, Khatoon, Maqsood, Qadir, & Minhas, 2014).However, due to a lack of instruments, the underlying mechanism of this link remained under researched in Pakistan. The present study makes available a reliable and valid instrument that can be used to measure this underlying mechanism that associates this exposure to child behavior problems and overall adjustment of children. In addition, this scale has been used chiefly for research purposes so far, however, given the well-argued relationship of parental conflict with child adjustment problems; the clinical usefulness of this instrument is worth exploring. It can very well prove to be helpful to professionals in research, clinical and public health sectors.

Limitations and Suggestions

This study dealt with the translation and validation of the CPIC scale showing that the Urdu-translated version is a reliable and valid measure to assess interparental conflict and its different aspects in a sample of Pakistani adolescents. At the same time, it should be kept in mind that in the process of confirming its factor structure someof the items were excluded due to their low factor loadings. However, through qualitative evaluation of those items and expert opinion it was decided that removing these items for this study, did not compromise the structural integrity of the scale. Still, it is suggested that exploratory factor analysis should be done on the Urdu-translated version of CPIC and that items deleted in this study should be qualitatively analyzed in light of the cultural context. Furthermore, the sample of adolescents used in this study all belonged to intact families, given the contextual sensitivity of the construct of interparental conflict, it is suggested that future researches compare CPIC's factor structure across intact, separated and divorced families.

Conclusion

Most researches in Pakistan studying effects of exposure to interparental conflicts on children and adolescents failed to take into account the perceptions of the children and the underlying mechanism that is supposedly responsible for the relationship between such

exposure and its negative consequences, in part due to lack of suitable instruments. Therefore, to help address this gap in indigenous literature, the present study makes available a reliable and valid Urdu language version of Children's Perception of Interparental Conflict Scale, which can help researchers better explore and understand the prevalent phenomenon of exposure to interparental conflict in the country.

References

Ablow, J. C., Measelle, J. R., Cowan, P. A., & Cowan, C. P. (2009). Linking marital conflict and children's adjustment: The role of young children's perceptions. *Journal of Family Psychology*, *23*(4), 485-499.

Azam, A. (2006). *Impact of parent's marital conflicts on adolescents' parental attachment and social competence* (Unpublished MPhil Dissertation), National Institution of Psychology, Quaid-i-Azam University, Islamabad, Pakistan.

Azam, A., & Hanif, R. (2011).Impact of parents' marital conflicts on parental attachment and social competence of adolescents. *European Journal of Developmental Psychology*, *8*(2), 157-170.

Barrett, P. (2007). Structural equation modeling: Adjudging model fit. *Personality and Individual Differences*, *42*(5), 815-824.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, *107*(2), 238-246.

Bian, H. (2011). *Structural equation modeling with Amos 2*. Retrieved from http://core.ecu.edu/ofe/StatisticsResearch/SEM%20with%AMOS%2011.pdf

Bickham, N. L., & Fiese, B. H. (1997). Extension of the Children's Perceptions of Interparental Conflict Scale for use with late adolescents. *Journal of Family Psychology*, *11*(2), 246-250.

Bringhenti, F. (2005). Contribution to the validation of an interparental conflict measure: The Children's Perception of Interparental Conflict (CPIC) scale. *Bollettinodi Psicologia Applicata*, *247*, 35-51.

Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, *1*(3), 185-216.

Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. New York, NY: Guilford Publications.

Buchanan, C. M., & Waizenhofer, R. (2001). The impact of interparental conflict on adolescent children: Considerations of family systems and family structure. In A. Booth, A. C. Crouter, & M. Clements (Eds.), *Couples in conflict* (pp.149-160). Abingdon, UK: Routledge.

Buehler, C., Lange, G., & Franck, K. L. (2007).Adolescents' cognitive and emotional responses to marital hostility. *Child Development, 78*(3)*,* 775-789.

Byrne, B. M. (2013). *Structural equation modeling with Mplus: Basic concepts, applications, and programming*. Abingdon, UK: Routledge.

Chi, L., & Xin, Z. (2003).The revision of Children's Perception of Marital Conflict scale. *Chinese Mental Health Journal*, *17*, 554-556.

DeBoard-Lucas, R. L., & Grych, J. H. (2011). Children's perceptions of intimate partner violence: Causes, consequences, and coping. *Journal of Family Violence*, *26*(5), 343-354.

Edleson, J. L., Johnson, K. K., & Shin, N. (2007). *Children's Exposure to Domestic Violence scale: User manual*. Minnesota center against domestic violence, University of Minnesota, USA.

Emery, R. E., & O'Leary, K. D. (1982). Children's perceptions of marital discord and behaviour problems of boys and girls. *Journal of Abnormal Child Psychology*, *10*(1), 11-24.

Escapa, S. (2017). Effects of post-divorce parental conflict on children's educational achievement. *Spanish Journal of Sociological Research*, *158*, 41-58.

Fatima, N., Masood, S., Ahmad, M., & Bukhari, S. (2019). Translation and adaptation of Tolerance for Disagreement Scale among Pakistani married couples. *Foundation University Journal of Psychology*, *3*(1), 56-79.

Feroz, U., Jami, H., & Masood, S. (2015). Role of early exposure to domestic violence in display of aggression among university students. *Pakistan Journal of Psychological Research*, *30*(2) 323-342.

Fisher, S. D. (2012). *Mediators of interparental conflict and adolescent internalizing/externalizing behaviors* (Doctoral Dissertation). Retrieved from ir.uiowa.edu/cgi/viewcontent.cgi?article3294&contextetd

Fosco, G. M., & Grych, J. H. (2008). Emotional, cognitive, and family systems mediators of children's adjustment to interparental conflict. *Journal of Family Psychology*, *22*(6), 843-854.

Godde, M., &Walper, S. (2001). The German short version of the Children's Perception of Interparental Conflict scale. *Diagnostica*, *47*, 18-26.

Grych, J. H. (1998). Children's appraisals of interparental conflict: Situational and contextual influences. *Journal of Family Psychology*, *12*(3), 437-453.

Grych, J. H., & Cardoza-Fernandes, S. (2001). Understanding the impact of interparental conflict on children: The role of social cognitive processes. In J. Grych & F. Fincham (Eds.), *Interparental Conflict and Child Development: Theory, Research, and Application* (pp. 157-187). New York: Cambridge University Press.

Grych, J. H., & Fincham, F. D. (1990). Marital conflict and children's adjustment: A cognitive-contextual framework. *Psychological Bulletin*, *108*(2), 267-290.

Grych, J. H., Fincham, F. D., Jouriles, E. N., & McDonald, R. (2000). Interparental conflict and child adjustment: Testing the mediational role of appraisals in the cognitive-contextual framework. *Child Development*, *71*(6), 1648-1661.

Grych, J. H., Harold, G. T., & Miles, C. J. (2003).A prospective investigation of appraisals as mediators of the link between interparental conflict and child adjustment. *Child Development*, *74*(4), 1176-1193.

Grych, J. H., Seid, M., & Fincham, F. D. (1992). Assessing marital conflict from the child's perspective: The Children's Perception of Interparental Conflict scale. *Child Development*, *63*(3), 558-572.

Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural equation modelling: Guidelines for determining model fit. *Dublin Institute of Technology ARROW*, *6*(1), 53-60.

Iraurgi, I., Mart´ınez-Pampliega, A., Sanz, M., Cosgaya, L., Gal´ındez, E., & Munoz, A. (2008). Escala de Conflicto Interparental desde la Perspectiva de los Hijos (CPIC): Estudio de validaci´on de unaversi´onabreviada de 36 items [Children's Perception of Interparental Conflict Scales (CPIC): Validation study of a short version of 36 items]. *RevistaIberoamericana de Diagn´ostico e Avaliac¸ ˜aoPsicol´ogica*, *25*, 9-34.

Kerig, P. K. (1995). Triangles in the family circle: Effects of family structure on marriage, parenting, and child adjustment. *Journal of Family Psychology*, *9*(1), 28-43.

Khaleque, A., Uddin, M. K., Shirin, A., Aktar, R., & Himi, S. A. (2016). Cognitive and contextual factors mediating the relation between interparental conflict and adolescents' psychological maladjustment. *Journal of Child and Family Studies*, *25*(2), 669-677.

Khatoon, H., Maqsood, A., Qadir, F., & Minhas, F. A. (2014). Prevalence of anxiety among children exposed to inter-parental domestic violence: Proportional ratio between community sample and shelter home sample. *Journal of Pakistan Psychiatric Society, 11*(13), 14-17.

Levine, T. R. (2005). Confirmatory factor analysis and scale validation in communication research. *Communication Research Reports*, *22*(4), 335-338.

Lindahl, K. M., Clements, M., & Markman, H. (1997). Predicting marital and parent functioning in dyads and triads: A longitudinal investigation of marital processes. *Journal of Family Psychology*, *11*(2), 139-151.

Loas, G., Dugré-Lebigre, C., Fremaux, D., Verrier, A., Wallier, J., Berthoz, S., & Corcos, M. (2010). The Alexithymia Questionnaire for Children (AQC): French translation and validation study in a convenience sample of 80 children. *L'Encephale*, *36*(4), 302-306.

Lopez, F. G. (1991). Patterns of family conflict and their relation to college student adjustment. *Journal of Counseling & Development*, *69*(3), 257-260.

Masood, S. (2014). *The prevalence and nature of exposure to intimate partner violence as reported by Pakistani young adults* (Unpublished PhD dissertation). The University of Warwick, United Kingdom.

McCloskey, L. A., & Lichter, E. L. (2003). The contribution of marital violence to adolescent aggression across different relationships. *Journal of Interpersonal Violence*, *18*(4), 390-412.

Moura, O., dos Santos, R. A., Rocha, M., & Matos, P. M. (2010). Children's Perception of Interparental Conflict Scale (CPIC): Factor structure and invariance across adolescents and emerging adults. *International Journal of Testing, 10*(4), 364-382.

Reese-Weber, M., & Hesson-McInnis, M. (2008). The children's perception of interparental conflict scale: Comparing factor

structures between developmental periods. *Educational and Psychological Measurement*, *68*(6), 1008-1023.

Roberts, J. K. (1999). *Basic concepts of confirmatory factor analysis.* Paper presented at the annual meeting of the Southwest Educational Research Association. San Antonio, TX: Retrieved from http://eric.ed.gov/? id=ED427091

Saeed, B. (2001). *Perceived maternal violence and relationship with delinquency* (Masters Research Report). National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan.

Salvia, J., Ysseldyke, J. E., & Bolt, S. (2010). *Assessment: In special and inclusive education.* Boston, MA: Wadsworth.

Shafique, N., Khalily, M. T., & Mchugh, L. (2017). Translation and Validation of Symptom Checklist-90.*Pakistan Journal of Psychological Research*, *32*(2) 545-561.

Slater, E. J., & Haber, J. D. (1984).Adolescent adjustment following divorce as a function of familial conflict.*Journal of Consulting and Clinical Psychology*, *52*(5), 920-931.

Ulu, I. P., & Fisiloglu, H. (2004). A validity and reliability study of the Children's Perceptions of Interparental Conflict scale. *T̈urk Psikoloji Yazilari*, *7*, 61-75.

Vairami, M., & Vorria, P. (2007). Interparental conflict and (pre)adolescent's peer relationships. *Hellenic Journal of Psychology*, *4*, 257-280.

Wierson, M., Forehand, R., & McCombs, A. (1988). The relationship of early adolescent functioning to parent-reported and adolescent-perceived interparental conflict. *Journal of Abnormal Child Psychology*, *16*(6), 707-718.

Yu, C. Y. (2002). *Evaluating cutoff criteria of model fit indices for latent variable models with binary and continuous outcomes* (Vol. 30). Los Angeles: University of California, Los Angeles.

Zinzow, H. M., Ruggiero, K. J., Resnick, H., Hanson, R., Smith, D., Saunders, B., & Kilpatrick, D. (2009). Prevalence and mental health correlates of witnessed parental and community violence in a national sample of adolescents. *Journal of Child Psychology and Psychiatry*, *50*(4), 441-450.