

# Discrepancies in Parents-Adolescents Conflicts across Gender: A Step Forward in Validation of Conflict Behavior Questionnaire-44

Najda Rizwan Khan, Jamil A. Malik\*, Anila Kamal

National Institute of Psychology, Center of Excellence, Quaid-i-Azam University, Pakistan

Copyright © 2015 Horizon Research Publishing All rights reserved.

**Abstract** The research is aimed to test construct validity of Conflict Behavior Questionnaire (CBQ-44) using confirmatory factor analysis. Additionally, potential gender invariance is tested as a result of item sensitivity of scale. Following the back translation method, data of 494 adolescents (girls=203, boys=291) was collected from different institutes of Lahore, Rawalpindi and Islamabad. Sample age ranged 11-23 years with Mean age  $\pm$ SD (19.25,  $\pm$ 2.33 years). Construct validation was tested by conducting confirmatory factor analysis using Mplus Version 6.12. Results presented good model fit of Conflict Behavior Questionnaire-44 for a two components model and all items loaded well on their respective scales. Cronbach's Alpha of the two components (i.e., .73 and .89) suggested that scales are reliable. Significant positive bivariate correlation with issue check list (i.e.,  $r=.24$ ; and  $r=.26$ ,  $p<.01$ , for Appraisal of parents, and Appraisal of dyads respectively) evidenced the convergent validity whereas significant negative bivariate correlation with Authoritative Father (i.e.,  $r=-.39$ , and  $r=-.34$ ;  $p<.01$ ) and Authoritative Mother (i.e.,  $r=-.34$ , and  $r=-.37$ ;  $p<.01$ ) for Appraisal of parents, and Appraisal of dyads respectively evidenced criterion related validity of CBQ-44 adolescent version. Though CFA across gender also showed good fit of the model to the data (i.e.,  $\chi^2(df)=1919.86(1842)$ , CFI=.95, TLI=.94, and RMSEA=.02) equality constraints for all parameters in a step by step approach resulted in a significant model fit decrease. Our findings support the two component model of CBQ-44 adolescent version yet suggest that the items on the instrument are not equally sensitive for male and female adolescent.

**Keywords** Adolescence, Conflicts Discrepancies, Measurement Sensitivity, Gender Invariance, Nested Models

## 1. Introduction

Conflict in many instances serves a mean of renegotiating boundaries and rules between stake holder i.e., parents and adolescent [1], leading to redefining systems i.e., family

system [2]. Apart from the crucial developmental role in family system [1, 2], high levels of parent-adolescent conflict may lead to resentment and internalization in adolescents [3, 4]. Conflict in families is defined as an interaction characterized by discomfort and the use of disagreement to lessen that discomfort [5]. As a state of tension and dispute [6], it is a significant stressor related to negative feelings and emotions [7]. Parent-adolescent conflicts are related to a number of externalizing and internalizing adolescent problems [8] including low self-esteem, and depression [9], and decreases family cohesion [10]. Studies have indicated that a moderate level of conflict may be healthy whereas higher levels may be unhealthy [11, 12]. Though, literature on parent-adolescents conflicts has reported discrepancies among male and female adolescents [13, 14], it is never explored whether the differences are gender specific or construct specific.

Most literature using CBQ and/or other instruments reported differences in prevalence of conflict between parents and adolescents across gender and the discrepancies are not unidirectional [13, 14]. Though there might be various explanations for the presence of such discrepancies, psychometrics of the instrument is of prime importance. Given the significance of parent-adolescent conflict as a component of family system's augmentation [1, 2], it is important to address the construct validation issues of parent-adolescent conflict. The indicators on several of the instruments may depict gender specific behaviors. These types of interaction behaviors may be more frequent in one gender and less frequent in other. The more an instrument is comprised of gender specific behaviors, the less reliable are the differences reported by the instrument.

A careful interpretation of the gender differences shall be presented while discussing findings from instruments containing gender sensitive behaviors. In view of the above mentioned arguments, after a review of various measures of parents-child conflict, the Child Behavior Questionnaire (CBQ-44) [15] was selected to address the issues. CBQ-44 is a comprehensive battery [15] widely used to assess different interaction behavior between parents and adolescents [16-18].

Conflict Behavior Questionnaire is comprised of two versions, parents and adolescents' versions [15]. In original CBQ, parents version has 75 items and adolescents' version has 73 items [19]. There are two shorter versions of CBQ, one is 44-item form (the CBQ-44) retains the two scales of the original questionnaire developed by Prinz, (1979) [15]. The other is 20-item form (the CBQ-20) which retains the items from the CBQ that maximally discriminated distressed from non-distressed families. The present study is conducted to advance construct validation of adolescent's version of CBQ-44 and to investigate gender invariances as a characteristic of instrument sensitivity. CBQ-44 was selected based on the fact that it is more precise with less chances of redundant indicator in comparison to CBQ-75 whereas it provides margin of addressing maximum behavior interactions between parents and adolescents in comparison to CBQ-20 which is more frequently used as a screening tool [12, 17, 18, 20].

CBQ-44 Adolescent's version taps two potential sources of complaints (1) dissatisfaction with the other person's behavior (i.e., appraisal of parents) and (2) evaluations of the interactions between two members (i.e., appraisal of dyads) [15]. It is considered as a measure of perceived communication-conflict behavior at home and it gives a general estimate of how much conflict and negative communication the family experiences. Though extensively used around the world [12], and constructed using a bottom-up approach [15], to the extent of our knowledge the instrument is never empirically tested for construct validation in a top down processes. The current study is aimed to extend the empirical validation data of CBQ-44 using a top-down process, i.e., confirmatory factor analysis and to examine structure of CBQ-44 across genders to figure-out gender invariance as measured by the instrument.

## 2. Method

### Sample and Procedure

Sample of the present study consisted of all the adolescent participating in the project "Adolescents' personality pathology, a dimensional approach in Pakistani perspective". The sample ( $N=494$ ) age range 11 – 23 years with Mean age  $\pm$  SD =  $19.25 \pm 2.33$ , including 42% females was collected from Islamabad, Rawalpindi and Lahore. Trained interviewer approached the participants in their institutions and informed consent was taken from the sample and/or custodian (i.e., parents, head of institutions - wherever applicable). Instruments were translated using the standard back translation method [21]. Participants were presented souvenirs as token of their cooperation. Along with a demographic sheet, participants completed following instruments.

### Instruments

Conflict Behavior Questionnaire (CBQ-44) [15]. The

conflict behavior questionnaire (CBQ-44) by Prinz, R.J et al., (1979) is a short version of original Conflict Behavior Questionnaire [15]. CBQ-44 is a measure of perceived communication-conflict behavior at home consisting 44 conflict behaviors statements in dichotomous (i.e., yes/no) format. The instrument taps two potential sources of complaints: (1) dissatisfaction with the other person's behavior and (2) evaluations of the interactions between the two members. There are two versions of CBQ: (1) Parents version, (2) adolescents version. For the present study only adolescent's version of CBQ-44 was used. CBQ-44 was translated in Urdu using the standard back translation method [21]. Alpha reliability for the two components was .89 and .73 for appraisal of parents and appraisal of dyads respectively for the study sample.

Issue Checklist [22]. Issue checklist (IC) by Prinz, R.J et al., (1979) was designed to assess frequency and intensity of discussion associated with specific issues that might arise at home [15]. In contrast to the CBQ which focused on general descriptions of conflict-related behaviors, the IC asked adolescents to recall disagreements about specific issues. The IC is composed of 44 topics that are potential sources of disagreement in households with young adolescents, such as bedtime, getting low grades in school, how to spend free time, and talking back to parents. For each topic, the respondent indicated whether or not some aspect of the topic has been discussed in the past month. For each topic that was endorsed, the respondent rated the intensity of the discussion or agreements and estimated how often the topic has been broached during the month. The instrument has well established reliability and validity [23]. Cronbach's Alpha of the scale for the present study was .89 and .92 for frequency and intensity scales respectively.

Parent Authority Questionnaire [24]. The PAQ developed by Buri (1997) is a Likert type questionnaire designed to measure permissive, authoritarian and authoritative parenting styles. PAQ assess the magnitude and manner in which authority is exercised [24]. Each item of the questionnaire is stated from the viewpoint of an individual evaluating the patterns of authority exercised by his or her parent. This questionnaire consists of two parts. Each part comprises of 30 items and yields permissive, authoritarian, and authoritative score. The Part I measures attitude of father towards child and Part II measures attitude of mother towards child. The PAQ yields six separate scores for each participant i.e., mother's permissiveness, mother's authoritarianism, mother's authoritative, father's permissiveness, father's authoritarianism, and father's authoritative. The instrument has been translated and culturally validated [25]. Alpha reliability of the instrument ranged .64 with to .80 for the study sample.

## 3. Analysis and Results

Preliminary analysis suggested gender differences on both components of CBQ-44 i.e., males appeared to score high (mean difference 1.91,  $p < .01$ ; and mean difference 0.69,

$p < .01$  respectively) for appraisal of parents, and appraisal of dyads. Results presented in Table 1 also indicate that sample didn't differ significantly on demographic characteristics i.e., age, years of formal education, and family income ( $p > .05$ ). A noticeable difference appeared on parenting styles across gender. Both mother (mean difference 2.86,  $p < .01$ ) and father (mean difference 5.75,  $p < .01$ ) appear to have more authoritarianism parenting style for males compare to their female counterparts whereas only mothers appear to have slightly higher authoritative parenting style for females (mean difference 1.35,  $p < .05$ ) compare to male adolescents and young adults.

Cronbach's alphas were computed for the two factors on the whole sample as well as across gender. The results presented in Table 2 indicated good reliability for both factors i.e., Cronbach's alpha .89 on the whole sample (Male = .89, and Female = .88) for appraisal of parents scale and Cronbach's alpha .73 on the whole sample as well as for males and females population for appraisal of dyads scale. Psychometric properties on construct validation of the instrument were further extended by computing correlations

with issue checklist and parental authority questionnaire. In order to provide an indication of extent to which Conflict Behavior Questionnaire-44 is consistent with issue checklist, convergence was taken for each individual's scores on both the scales. As Table 3 illustrates, issue checklist frequency as well intensity is significantly related to appraisal of parents (i.e.,  $r = .20$ , and  $r = .31$ ;  $p < .01$ ), and appraisal of dyads (i.e.,  $r = .20$ , and  $r = .23$ ;  $p < .01$ ). Furthermore, appraisal of parents also positively correlated with authoritarianism parenting styles ( $r = .28$ ,  $p < .01$ , and  $r = .16$ ,  $p < .01$  respectively for father authoritarianism and mother authoritarianism). Appraisal of dyads positively correlated only with father authoritarianism ( $r = .14$ ,  $p < .05$ ). Bivariate correlations between authoritative parenting style and components of CBQ-44 also presented evidence for criterion related validity by suggesting a negative relationship between appraisal of parents and father authoritativeness ( $r = -.48$ ,  $p < .01$ ) and mother authoritativeness ( $r = -.35$ ,  $p < .01$ ). Appraisal of dyads also negatively correlated ( $r = -.42$ ,  $p < .01$ ;  $r = -.26$ ,  $p < .01$ ) with father authoritativeness and mother authoritativeness respectively.

**Table 1.** Descriptives of Study Variables

	Females			Males			F
	N	Mean	S.D	N	Mean	S.D	
Age	201	18.03	1.98	285	18.43	2.55	3.48
Years of Formal Education	195	9.66	2.89	285	9.15	3.50	2.82
Family Income	203	24.00	77.52	291	24.83	42.14	0.02
Father permissiveness	117	23.27	5.10	173	22.11	5.59	3.26
Father authoritativeness	121	40.76	7.64	179	40.78	6.61	0.00
Father authoritarianism	122	33.13	6.77	179	38.88	6.03	59.68**
Mother permissiveness	126	24.46	5.74	180	24.68	6.03	0.10
Mother authoritativeness	126	43.14	6.17	180	41.79	5.51	4.07*
Mother authoritarianism	126	30.67	5.91	181	33.53	5.96	17.25**
Appraisal of parent	143	5.82	5.53	212	7.73	6.19	8.81**
Appraisal of dyad	145	3.50	2.85	216	4.19	3.41	3.95*
Issue checklist frequency	185	56.01	47.41	128	48.61	47.94	1.82
Issue checklist intensity	201	87.69	41.50	130	85.67	36.14	.21
Frequency x Intensity	188	158.00	149.35	128	127.32	137.94	3.42

**Table 2.** Cronbach's Alpha reliability

Variables	Number of Items	Male (n=291)	Females (n=203)	Whole Sample (n=494)
Father permissiveness	7	.63	.67	.65
Father authoritativeness	10	.76	.85	.80
Father authoritarianism	10	.60	.69	.70
Mother permissiveness	8	.64	.65	.64
Mother authoritativeness	10	.70	.83	.77
Mother authoritarianism	9	.65	.65	.67
Appraisal of parent	28	.89	.88	.89
Appraisal of dyad	16	.73	.73	.73
Issue checklist frequency	44	.90	.87	.89
Issue checklist intensity	44	.92	.92	.92
Frequency x Intensity	44	.86	.82	.84

**Table 3.** Correlation between components of CBQ-44 and study variables

	Appraisal of parent			Appraisal of dyad		
	Females	Males	Whole sample	Females	Males	Whole sample
Father permissiveness	-.28**	-.10	-.18**	-.26**	-.10	-.17**
Father authoritative	-.50**	-.49**	-.48**	-.47**	-.41**	-.42**
Father authoritarianism	.15	.25**	.28**	.12	.07	.14*
Mother permissiveness	.03	.12	.08	-.02	.18*	.11
Mother authoritative	-.53**	-.21**	-.35**	-.44**	-.14	-.26**
Mother authoritarianism	.22*	.06	.16**	.24**	-.10	.05
Issue checklist frequency	.25**	.16*	.20**	.24**	.22**	.20**
Issue checklist intensity	.35**	.29**	.31**	.31**	.26**	.23**
Frequency x Intensity	.40**	.27**	.33**	.38**	.31**	.26**

\* (p≤.05), \*\* (p≤.01); 2-tailed

**Table 4.** Comparison of item loading across nested models of CBQ-44

Models	Factors	Item loadings (Range)		
		Males	Females	Whole Sample
Default	Appraisal of Parents	-	-	.56-.92
H <sub>0</sub>		.58-.91	.38-.93	-
H <sub>1</sub>		.57-.90	.36-.94	-
H <sub>2</sub>		.42-.92	.42-.92	-
H <sub>3</sub>		.41-.90	.41-.90	-
Default	Appraisal of Dyads	-	-	.58-.91
H <sub>0</sub>		.59-.91	.51-1.00	-
H <sub>1</sub>		.58-.90	.49-1.00	-
H <sub>2</sub>		.58-.93	.58-.93	-
H <sub>3</sub>		.59-.90	.59-.90	-

H<sub>0</sub>: Across gender (all parameter estimated free), H<sub>1</sub>: Across gender (Item loadings and factor variances constraint equal), H<sub>2</sub>: Across gender (H<sub>1</sub> + Residuals constraint equal), H<sub>3</sub>: Across gender (H<sub>2</sub> + Threshold constraint equal)

**Table 5.** Model fit indices and chi square difference test across nested models of CBQ-44

Models	Model Fit				DIFFTEST		
	X <sup>2</sup> (df)	CFI	TLI	RMSEA	H <sub>0</sub> X <sup>2</sup> (df)	H <sub>1</sub> X <sup>2</sup> (df)	H <sub>2</sub> X <sup>2</sup> (df)
Default	1150.92(901)	.97	.97	.03	-	-	-
H <sub>0</sub>	2229.01(1842)	.96	.96	.04	-	-	-
H <sub>1</sub>	2255.16(1846)	.95	.95	.04	23.24 (4)**	-	-
H <sub>2</sub>	2322.17(1890)	.95	.95	.04	102.71 (48)**	83.88 (44)**	-
H <sub>3</sub>	2687.97(1933)	.91	.92	.05	459.99(91)**	450.42(87)**	1759.53(43)**

\* (p≤.05), \*\* (p≤.01); H<sub>0</sub>: Across gender (all parameter estimated free), H<sub>1</sub>: Across gender (Item loadings and factor variances constraint equal), H<sub>2</sub>: Across gender (H<sub>1</sub> + Residuals constraint equal), H<sub>3</sub>: Across gender (H<sub>2</sub> + Threshold constraint equal)

Confirmatory factor analysis was conducted in Mplus version 6.12 using the weighted least squares mean and variance adjusted WLSMV estimator. WLSMV is assumed to present more precise and reliable estimates compare to

ML estimator for models of reasonable complexity [26], small-to-medium sample size and when categorical indicators having fewer than 3 categories [27] i.e., with dichotomous response options. The two factors of CBQ-44

were designed into a same model. Model fit indices as shown in Table 5 suggested a good fit (i.e.,  $\chi^2$  (df) = 1150.92 (901), CFI = .97, TLI = .97, and RMSEA = .03) of the factor structure to the data. As presented in Table 4, all items loaded well on their respective factors i.e., item loadings range from .56 to .92 for the factor appraisal of parents and items loadings ( $\lambda$ ) range from .58 to .91 for appraisal of dyad. A gender wise CFA was conducted to test the generalizability of the scale across gender. The result presented in Table 4 suggests that all items loaded well on their respective factors for both genders. For male,  $\lambda$  range from .58 to .91, and  $\lambda$  range from .59 to .91 for the factor appraisal of parents, and appraisal of dyad respectively. For females,  $\lambda$  range from .38 to .93, and  $\lambda$  range .51 to 1.00 for the factor appraisal of parents, and appraisal of dyad respectively.

Model fit indices of the gender wise analysis (i.e.,  $\chi^2$  (df) = 2229.01 (1842), CFI = .96, TLI = .96, and RMSEA = .04) presented a good fit of the model to the data suggesting generalizability of the instrument for both the gender. Further, analysis was conducted to investigate the invariance across gender as a characteristic of the instrument. The invariance testing was conducted in a step by step approach from configural invariance to strong invariance [28]. The gender wise CFA, conducted with freely estimated parameters (Model H<sub>0</sub>) was compared with the model containing equality constraints for factor variances and items loadings across gender (Model H<sub>1</sub>) in first step. In second step, model containing equality constraints for factor variances, items loadings and residuals across gender (Model H<sub>2</sub>) was compared with H<sub>0</sub> and H<sub>1</sub>. In the final step model containing quality constraints for factor variances, items loadings, residuals and threshold across gender (Model H<sub>3</sub>) was compared with H<sub>0</sub>, H<sub>1</sub> and H<sub>2</sub>. Simple chi square difference is not recommended while using WLSMV estimator, yet the program Mplus provides a test of difference “the DIFFTEST” for comparing nested models. Ranges of items loadings are presented for all five models in Table 4 whereas fit indices and chi square difference test is presented in table 5. The results suggested that all constraint models are different from their preceding models with  $p < .01$  for all chi square difference tests.

#### 4. Discussion

Given the significance of parent-adolescent conflicts in development and growth of family system [1, 2] and in health and well-being of adolescents [6-10], it is imperative to have a profound instrument to grab the concept. With its sound psychometrics CBQ-44 [15] is one of the most commonly used instruments for the purpose [16-18]. The present study aimed to extend validation data for CBQ-44 and to test the capability of the instrument for its sensitiveness across gender. In line with earlier literature, the study results also presented gender differences for the prevalence of parent-adolescent conflicts [13, 14, 29].

Among several of the explanations, the least focused but of the prime importance is the gender sensitivity of the instrument used to measure conflict [30]. In our opinion, the indicators to measure the conflicts may have differential connotation for girls and boys across cultures.

The imbalance of gender sensitive items across cultures may have caused discrepancies in invariance of magnitude for parent-adolescent conflict across gender. As a prerequisite to test this assumption we firstly reviewed common psychometrics of the instrument across gender. As evidenced in earlier literature regarding the psychometrics of the instrument [15], the reliability index showed that instrument is reliable for both girls and boys. The validation data on construct validation also confirmed validity evidences [15] for both the genders in terms of convergent and criterion related validity. Approximately similar (i.e., low to medium) positive correlation of the components of CBQ with Issue checklist evidenced convergent validity for both male and female whereas a negative relationship with medium to high correlation between components of CBQ and father authoritativeness for both males and females evidenced criterion related validity of the instrument.

Our result on psychometric properties of the instrument confirmed the results reported by many others [15, 31, 32] regarding usefulness of the instrument. Nevertheless, literature is lacking for validation data on factorial validity of the instrument. The present study was also aimed to extend the validation data conducting confirmatory factor analysis. The CFA results confirmed the factor structure of the instrument [15] not only for the whole sample but also across gender. Item loadings appeared to be above the threshold on both components of CBQ for the whole sample and across gender.

Finally, the assumptions regarding measurement invariance as a characteristic of item sensitivity were tested by constraining parameters to be equal across groups (male and female). Equality constraint for parameters in each nested model cost a significant chi square increase suggesting a decrease in model fit at each level. The result confirmed our assumptions regarding the sensitivity issues across gender invariance at least for the sample of the present study.

#### 5. Limitations and Future Recommendations

The present study was aimed to extend validation data of adolescent version of Conflict Behavior Questionnaire (CBQ-44) and to test differential levels of parent adolescent conflict across gender as a characteristic of item sensitivity within instrument. Though CBQ-44 is a valid and reliable instrument in taping parent-adolescents conflicts, our results suggest a more vigilant description and interpretation of differences across gender. A balance in gender sensitive items for each gender might present a better estimate. Further research shall address these issues in development and use of

instruments by introducing some correction factors for any potential influence of item sensitivity.

## Acknowledgements

The research is supported by Higher Education Commission grant no. PM-IPFP/HRD/2010/1809.

## REFERENCES

- [1] Hawk, S.T., et al., *Mind your own business! Longitudinal relations between perceived privacy invasion and adolescent-parent conflict*. Journal of Family Psychology, 2009. 23(4): p. 511.
- [2] Parkin, C.M. and L. Kuczynski, *Adolescent perspectives on rules and resistance within the parent-child relationship*. Journal of Adolescent Research, 2012. 27(5): p. 632-658.
- [3] Yeh, K.H., *Mediating effects of negative emotions in parent-child conflict on adolescent problem behavior*. Asian Journal of Social Psychology, 2011. 14(4): p. 236-245.
- [4] Bradford, K., L.T.B. Vaughn, and B.K. Barber, *When there is conflict interparental conflict, parent-child conflict, and youth problem behaviors*. Journal of Family Issues, 2008. 29(6): p. 780-805.
- [5] Montgomery, J. and W. Fewer, *Family systems and beyond*. 1988, New York: Human Sciences Press
- [6] Fabricius, W.V., P. Diaz, and S.L. Braver, *Parenting time, parent conflict, parent-child relationships, and children's physical health*, in *Parenting plan evaluations: Applied research for the Family Court*, K. Kuehnle and L. Drozd, Editors. 2012, Oxford University Press: New York.
- [7] Morris, A.S., et al., *The role of the family context in the development of emotion regulation*. Social Development, 2007. 16(2): p. 361-388.
- [8] Branje, S.J.T., et al., *Parent-adolescent conflicts, conflict resolution types, and adolescent adjustment*. Journal of Applied Developmental Psychology, 2009. 30(2): p. 195-204.
- [9] Pasch, L.A., et al., *Acculturation, parent-adolescent conflict, and adolescent adjustment in Mexican American families*. Family Process, 2006. 45(1): p. 75-86.
- [10] Crane, D.R., et al., *The influence of family functioning and parent-adolescent acculturation on North American Chinese adolescent outcomes*. Family Relations, 2005. 54(3): p. 400-410.
- [11] Schlomer, G.L., M. Del Giudice, and B.J. Ellis, *Parent-offspring conflict theory: An evolutionary framework for understanding conflict within human families*. Psychological Review, 2011. 118(3): p. 496.
- [12] Holmes, T.R., L.A. Bond, and C. Byrne, *The role of beliefs in mother-adolescent conflict: An application of the theory of planned behavior*. Current Psychology, 2012. 31(2): p. 122-143.
- [13] Rudolph, K.D. and C. Hammen, *Age and gender as determinants of stress exposure, generation, and reactions in youngsters: a transactional perspective*. Child Development, 1999. 70(3): p. 660-77.
- [14] van de Looij-Jansen, P.M., et al., *Discrepancies between parent-child reports of internalizing problems among preadolescent children: Relationships with gender, ethnic background, and future internalizing problems*. The Journal of Early Adolescence, 2011. 31(3): p. 443-462.
- [15] Prinz, R.J., et al., *Multivariate assessment of conflict in distressed and nondistressed mother-adolescent dyads*. Journal of Applied Behavior Analysis, 1979. 12(4): p. 691.
- [16] Bauman, L.J., et al., *Children caring for their ill parents with HIV/AIDS*. Vulnerable Children and Youth Studies, 2006. 1(1): p. 56-70.
- [17] Sullivan, A.E., et al., *Family functioning and the course of adolescent bipolar disorder*. Behavior Therapy, 2012. 43(4): p. 837-847.
- [18] Keenan-Miller, D., et al., *Family functioning, social impairment, and symptoms among adolescents with bipolar disorder*. Journal of the American Academy of Child & Adolescent Psychiatry, 2012.
- [19] Robin, A.L. and S.L. Foster, *Negotiating parent-adolescent conflict: A behavioral-family systems approach*. 2002: The Guilford Press.
- [20] Daviss, W.B. and R.S. Diler, *Suicidal Behaviors in Adolescents With ADHD: Associations With Depressive and Other Comorbidity, Parent-Child Conflict, Trauma Exposure, and Impairment*. Journal of Attention Disorders, 2012.
- [21] Brislin, R.W., *Comparative research methodology: Cross-cultural studies*. International Journal of Psychology, 1976. 11(3): p. 215-229.
- [22] Robin, A.L., et al., *An approach to teaching parents and adolescents problem-solving communication skills: A preliminary report*. Behavior Therapy, 1977. 8(4): p. 639-643.
- [23] Robin, A.L. and J.G. Weiss, *Criterion-related validity of behavioral and self-report measures of problem-solving communication skills in distressed and nondistressed parent-adolescent dyads*. Behavioral Assessment, 1980. 2: p. 339-352.
- [24] Buri, J.R., *Parental authority questionnaire*. Journal of Personality Assessment, 1991. 57(1): p. 110-119.
- [25] Babree, S., *Agressive and non-aggressive children's perception of parental acceptance, rejection, and control*, in *National Institute of Psychology*. 1997, Quaid-i-Azam University: Unpublished.
- [26] Nussbeck, F.W., M. Eid, and T. Lischetzke, *Analysing multitrait-multimethod data with structural equation models for ordinal variables applying the WLSMV estimator: What sample size is needed for valid results?* British Journal of Mathematical and Statistical Psychology, 2006. 59(1): p. 195-213.
- [27] Beauducel, A. and P.Y. Herzberg, *On the performance of maximum likelihood versus means and variance adjusted weighted least squares estimation in CFA*. Structural Equation Modeling, 2006. 13(2): p. 186-203.
- [28] Schroeders, U. and O. Wilhelm, *Equivalence of reading and listening comprehension across test media*. Educational and Psychological Measurement, 2011. 71(5): p. 849-869.

- [29] Smetana, J.G., *Adolescents' and parents' reasoning about actual family conflict*. Child Development, 1989: p. 1052-1067.
- [30] Meredith, W., *Measurement invariance, factor analysis and factorial invariance*. Psychometrika, 1993. 58(4): p. 525-543.
- [31] Robin, A.L., *A controlled evaluation of problem-solving communication training with parent-adolescent conflict*. Behavior Therapy, 1981. 12(5): p. 593-609.
- [32] Shek, D.T.L., *A longitudinal study of the relations between parent-adolescent conflict and adolescent psychological well-being*. Journal of Genetic Psychology, 1998. 159(1): p. 53-67.