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ORIGINAL PAPER

Validation of the Conflict Resolution Scale from the Conflicts and Problem-Solving Scales and a New Abbreviated Short Form

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Abstract

Conflict resolution is a pivotal factor in understanding the recognized link between interparental conflict and child adjustment. Valid and reliable measures of parental conflict resolution are therefore needed. The aims of the present study were to validate the widely used Conflict Resolution Scale from the Conflicts and Problem-Solving Scales (CPS), and to develop and validate a short form of the same scale. Using a sample comprising 381 primarily married or cohabiting parent dyads (Sample 1), we tested the unidimensionality and measurement invariance across gender of the original Conflict Resolution Scale. A short form was developed using the same sample and was further validated by using both Sample 1 and a more diverse sample in terms of family structures comprising 846 parent dyads (Sample 2). Our findings support the Conflict Resolution Scale as unidimensional. Measurement invariance across gender was confirmed in both samples. Further, the short form showed a good to excellent fit to the data in both samples and a strong correlation with the original Conflict Resolution Scale. This suggests no critical loss of information when using the short form. The Conflict Resolution Scale – original and short form – demonstrated high internal reliability. Good validity was established through associations with related constructs (parental relationship and life satisfaction, and child adjustment), and by increased explained variance above conflict frequency/intensity alone. We particularly recommend the Conflict Resolution short form for research purposes and encourage further validation using samples from different cultural contexts and focusing on tests of stability and item contents analyses.

Keywords conflict resolution · interparental conflict · validation · short form development · dyadic measurement invariance · MoBa

Highlights

- The Conflict Resolution Scale from CPS has not been validated.
- We validate the Conflict Resolution Scale using two Norwegian samples of parents.
- We further develop a short form of the same scale, which is particularly desirable in research.
- The Conflict Resolution Scale demonstrates sound validity and reliability, especially the short form of the scale.
- We recommend the short form for use in research, and it may be relevant for clinical practice.

The link between interparental conflict and child behavioural and emotional problems is long recognized (Buehler et al., 1997; Harold & Sellers, 2018). Importantly, the impact of interparental conflicts on children varies depending on how parents manage their conflicts across a broad continuum of severity (Harold & Sellers, 2018). In this context, parental conflict resolution has been identified as an important conflict dimension (Bergman et al., 2016), wherein parents' ability to effectively resolve their conflicts is linked with marital quality and parental psychological wellbeing (Askari et al., 2013; Marchand & Hock, 2000; Gordon & Chen, 2016). Moreover, poorer parental conflict resolution is associated with unfavourable child outcomes such as internalizing and externalizing problems and school adjustment problems (Shelton & Harold, 2008; Siffert & Schwarz, 2011). Thus, parental conflict resolution is important for the wellbeing of the

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whole family and may potentially buffer against negative effects of interparental conflicts.

Couple relationship programs focusing on conflict behaviours and conflict resolution are promising, with results demonstrating both short- and long-term improvements in parenting practices and child adjustment (Faircloth et al., 2011; Miller-Graff et al., 2016). Prevention and intervention programs aimed at improving child mental health may therefore benefit from an added focus on conflict resolution (van Eldik et al., 2020), as this may be more useful than a sole focus on the frequency/intensity of conflicts. In order to assess parental conflict resolution, psychometrically sound instruments are needed. The aim of the present study was to determine the psychometric properties of the Conflict Resolution Scale from the Conflicts and Problem-Solving Scales (CPS; Kerig; 1996) and to develop an agile short form of the same scale for use particularly in research, but possibly also clinical practice. The Conflict Resolution short form developed in the present study will complement the recently published and validated short forms of the Strategy Scales from the CPS (Helland et al., 2021), as these measures together are the most commonly used from the CPS.

The CPS (Kerig, 1996) is one of the most widely used measures of interparental conflict. This instrument covers major dimensions of interparental conflict, including the frequency and intensity, conflict content, strategies, and resolutions. Addressing conflict resolution specifically (e.g., "We feel closer to one another than before the fight", "We end up feeling angry and annoyed with one another") is a unique contribution of the CPS and is widely used, particularly as a predictor of child adjustment (e.g., Davies et al., 2012; George et al., 2014). Still, the psychometric properties of the Conflict Resolution Scale from the CPS have to a limited extent been addressed in previous studies. Since the inception of the scale, there have been advances in statistical techniques, enabling more thorough investigations of scale dimensionality, invariance across groups, and reliability and validity.

Although Kerig (1996) proposed the Conflict Resolution Scale as a unidimensional scale, the dimensionality was not tested in the original paper. Nor have any other studies determined its dimensionality by using Confirmatory Factor Analysis (CFA). One study by Davies, Martin and Cicchetti (2012) did use Principal Component Analysis (PCA) to select a subset of the thirteen items from the Conflict Resolution Scale. Their results supported two components discriminating between positive (compromise/successful attempts at conflict resolution) and negative (gridlock/escalation of conflict) items. However, as stated by Kam and Meyer (2015), item valence may distort conclusions on dimensionality, as negatively loaded items may be interpreted as a unique dimension rather than as opposite poles of the same dimension. Thus, the two-dimensional structure suggested by Davies et al. (2012) may simply reflect different response patterns for negatively loaded items. An evaluation of the dimensionality of the Conflict Resolution Scale is therefore warranted.

Since the inception of the CPS there have been tremendous advances in statistical techniques. Such techniques make it possible to develop abbreviated short forms that maintain the breadth of the investigated phenomena and to test the extent to which these measures are reliable, valid, and invariant across different groups. Advances have also been made in the modelling of dyadic measures. Given the complexity and dynamic nature of the family system (Cox & Paley, 2003; Minuchin, 1974), both parents ideally complete the Conflict Resolution Scale making the dyad the sampling unit, but in reality, this is not always the case. We therefore need measures that are reliable when used both dyadically and as self-report by only one parent from the dyad. Demonstrating that the Conflict Resolution Scale is invariant (i.e., equivalent) across mothers and fathers will enable direct comparisons between them (e.g., item level comparisons, scale score comparisons, factor loading comparisons), and can potentially reduce the methodological concerns when using data from only one parent. It is concerning that measurement invariant of the Conflict Resolution Scale is assumed without having ever been formally assessed, especially given the popularity of the measure. Thus, the present study makes an important contribution to the field of family research by formally assessing this.

For the conflict Resolution Scale to be a psychometrically sound measure, it must have good validity. The validity of the CPS is informally established by the associations typically found with other outcomes in the research literature (Davies et al., 2012; Faircloth et al., 2011). Still, formal tests of the validity, including tests of incremental validity are scarce in the literature (Helland et al., 2021). Specifically, testing whether the Conflict Resolution Scale can predict relationship satisfaction and global life satisfaction, or child mental wellbeing over and above what is predicted by the frequency/intensity of interparental conflicts alone, will be an important contribution. This will not only document the robustness of the measure, but also lend further support to the importance of addressing conflict resolution when working with parents in conflict or when working with child outcomes in a family wholistic approach.

Aside from the intuitive practical advantages, psychometrically sound short form questionnaires are attractive for researchers to explore complex phenomena where many constructs are to be assessed (Ziegler et al., 2014). A short form of the Conflict Resolution Scale is desirable in family research to better understand the complex interplay between parental conflict, including conflict resolution and family

dynamics. These processes often require parents to complete several lengthy surveys tapping many different constructs. Questionnaire short forms will help to reduce the burden on parents and have the potential to improve response rates, as these tend to be higher when shorter questionnaires are used (Edwards et al., 2002; Nakash et al., 2006). In view of the recently developed short forms of the Conflict Strategy Scales from the CPS (Helland et al., 2021), a short form of the Conflict Resolution Scale that is comparable to the original (long) scale and with demonstrated reliability and validity is an important and complementary tool ideally suited to family research investigating complex and dynamic processes. Moreover, a short form of the Conflict Resolution Scale will have utility in large-scale epidemiological research where the focus may not be on parental conflict, but where it may nonetheless be important to include a measure of conflict resolution to gain further understanding of the family and family dynamics. Researchers can include the short form without compromising the length of their survey and unduly burdening parents. Increased potential to include a short and reliable measure of conflict resolution in research, may broaden the view on which dimensions of interparental conflicts should be addressed.

In developing this short form, it is particularly important to cover as much as possible of the variance of the original scale and to include both positively and negatively framed items to include the variance covered by potentially different response patterns of these. We use the recommended OMEGA macro to develop a short form of the Conflict Resolution Scale (Hayes & Coutts, 2020), which previous studies have successfully used to develop short forms of existing scales (e.g., Xu et al., 2021). An advantage of the OMEGA macro is that it generates all possible short forms that can be constructed from the existing scale and additionally, it provides estimates of the internal consistency for each of these short forms and each short form's correlation with the full scale (Hayes & Coutts, 2020). Based on these indices an optimal short form can be selected. Notwithstanding this approach, we are cognizant that the individual items selected for the short form should make sense at a qualitative level and cover different aspects of conflict resolution as evident in the original Conflict Resolution Scale.

Taken together, the present study had two over-arching aims. The first aim was to contribute to the family research field by validating the Conflict Resolution Scale from the CPS by examining its dimensionality, measurement invariance across gender, internal consistency, and concurrent and incremental validity. The second aim was to develop a short form of the same scale and to examine its measurement invariance across gender, internal consistency, and concurrent and incremental validity across two different samples of parents.

Method

Samples and Participant Characteristics

Data for this study were drawn from two Norwegian samples. Sample 1 comprised a sub-sample of 381 families who participate in the Norwegian Mother, Father and Child Cohort Study (MoBa; see Magnus et al., 2016), a cohort profile study investigating the causes of disease in mothers and children. A small number of additional families ($n = 16$) were recruited when they attended mediation at a Family Counselling Centre in relation to parental breakup or divorce and included in Sample 1. Sample 2 comprised 846 families participating in the Dynamics of Family Conflict Study (Fam-C), a Norwegian longitudinal study investigating family dynamics and the impact of parental conflicts on both children and parents. Families in Sample 2 were recruited when they attended a Family Counselling Centre, a low-threshold free of charge service to families seeking help in relation to family life and/or parenting, in addition to providing mandatory mediation for parents moving apart. Only families where both parents had answered the Conflict Resolution Scale (see Measures below) were included in the study. Due to missing data, 4 mothers and 21 fathers from 23 families in Sample 1, and 30 mothers and 10 fathers from 39 families in Sample 2 were excluded. We checked the data for multivariate outliers using Mahalanobis distance and identified 15 multivariate outliers (8 mothers and 7 fathers from 14 families) in Sample 1, and 8 (1 mother and 7 fathers from 8 families) in Sample 2. These were excluded, leaving the final Sample 1 and Sample 2 comprised of 360 and 799 parent dyads respectively.

In Sample 1, parents were living together except for a few of the additionally recruited families. The parents had been together for an average of 19.65 years ($SD = 4.25$) and had an average of 2.66 children together ($SD = 0.89$). Among mothers, 79.4% reported to be in full-time work (80% or more), 12.8% reported to be in part-time work (less than 80%), and 7.8% reported "other" occupational status, including maternity leave, sick leave, job seeking, or studying. Regarding annual income, 25.1% of mothers earned < 400 000 NOK, 29% earned between 400 000 – 500 000 NOK, and 45.9% earned > 500 000 NOK. Among fathers, 95.0% reported to be in full-time work (80% or more), 1.9% reported to be in part-time work (less than 80%), and 3.1% reported "other". In terms of annual income, 5.3% earned < 400 000 NOK, 16.7% earned between 400 000 – 500 000 NOK, and 78% earned > 500 000 NOK. In Sample 2, 49.4% reported that they were living with the other parent, 22.8% were separating/had recently separated from the other parent, and 27.8% had lived apart from the other parent for at least 6 months. Further, parents had been together on average 12.75 years

Table 1 Descriptive Statistics for the Conflict Resolution Scale (Sample 1, N = 360)

	Mothers				Fathers			
	M	*SD*	Skewness	Kurtosis	*M*	*SD*	Skewness	Kurtosis
1. We feel that we've resolved it, or come to an understanding	2.74	0.48	−1.54	1.35	2.74	0.47	−1.50	1.15
2. We feel closer to one another than before the fight	2.02	0.79	−0.49	−0.18	1.97	0.81	−0.46	−0.32
3. We have fun making up with one another	1.24	0.85	0.15	−0.71	1.20	0.88	0.20	−0.78
4. We don't resolve the issue, but "agree to disagree"	1.58	0.71	−0.40	−0.10	1.36	0.72	−0.28	−0.54
5. We each give in a little bit to the other	2.26	0.60	−0.33	0.20	2.15	0.59	−0.37	1.13
6. We feel worse about one another than before the fight	0.82	0.74	0.63	0.12	0.89	0.75	0.39	−0.56
7. We feel like talking about it was a big waste of time	0.65	0.75	0.99	0.53	0.70	0.68	0.56	−0.32
8. We don't resolve the issue; we continue to hold grudges	0.61	0.69	0.93	0.55	0.66	0.73	0.80	−0.13
9. We end up feeling angry and annoyed with one another	0.89	0.76	0.42	−0.50	0.79	0.68	0.38	−0.41
10. The whole family ends up feeling upset	0.38	0.62	1.56	1.85	0.37	0.58	1.31	0.70
11. We stay mad at one another for a long time	0.34	0.56	1.45	1.66	0.41	0.62	1.32	0.95
12. We don't speak to one another for a while	0.45	0.65	1.17	0.46	0.54	0.72	1.17	0.76
13. We break up with each other for a time	0.00	0.00	-	-	0.01	0.09	10.76	114.02

When pairwise *t*-tests were performed to check if mother and father scores on each item differed, we only found significant differences for Item 4 (We don't resolve the issue, but "agree to disagree"; $t(352) = 4.32$, $p < 0.001$) and Item 5 ("We each give in a little bit to the other"; $t(356) = 2.78$, $p > 0.01$), where mothers endorsed these items to a higher degree than fathers

($SD = 6.25$) and had on average 1.82 children together ($SD = 0.75$). Among mothers, 60.6% reported to be in full-time work (80% or more), 11.8% reported to be in part-time work (less than 80%), and 27.6% reported "other" occupational status. Among fathers, 83.1% reported to be in full-time work (80% or more), 4.4% reported to be in part-time work (less than 80%), and 12.5% reported "other" occupational status. Parents in Sample 2 were asked about the family's financial situation over the last year rather than annual income, and 4.2% of mothers reported that they had managed poorly/very poorly in the last year, 29.8% reported they had managed, and 66% reported they had managed well/very well. Among fathers, 5.2% reported they had managed poorly/very poorly in the last year, 26.7% that they had managed, and 68.1% that they had managed well/very well. Overall, Sample 1 may be described as having slightly higher socio-economic status (i.e., higher proportion of parents in fulltime employment) relative to Sample 2. Although the income figures are not directly comparable, one can speculate that parents in Sample 1 may have a higher annual income overall. The annual median income in Norway is 483 240 NOK for women and 515 280 NOK for men, and full-time employment rates are 64.7% for woman and 84.4% for men (Statistics Norway [SSB], 2021, 2023). In comparison to the general population in Norway, figures seem to indicate that Sample 1 may be slightly better off than average, and Sample 2 slightly worse off.

Sample 1 parents gave written informed consent and completed paper questionnaires sent to them by mail, which they returned in separate envelopes, while Sample 2 parents consented electronically when they attended their appointment at a Family Counselling Centre. Subsequently, they received an electronic link sent to their personal e-mail address or via SMS to their phone, which they used to access questionnaires that were completed online. The MoBa cohort is currently regulated by the Norwegian Health Registry Act. The current study is covered by approval from the Regional Committees for Medical and Health Research Ethics in Norway (project numbers: 29002 and 11680).

Measures

Conflict Resolution

Parents' conflict resolution was assessed using the Conflict Resolution Scale from the CPS (Kerig, 1996). The scale consists of 13 different conflict resolution outcomes (e.g., "We feel that we've resolved it, or come to an understanding") that are rated in terms of frequency of occurrence on a 4-point scale (0 = *Never* through 3 = *Usually*). Negative items (e.g., "We stay mad at one another for a long time") were reverse coded. Item scores were summed to create a scale total score, with higher scores indicating better conflict resolution. Total scores were only used in the regression analyses (see Analytic Approach), for all other analyses, we used the responses given to individual items on the Conflict Resolution Scale. Table 1 presents an overview of the individual conflict resolution items. The Norwegian version of the scale can be found in the Supplementary Material.

Frequency/Intensity of Interparental Conflict

The frequency/intensity of interparental conflict was assessed with two items from the CPS (Kerig, 1996) tapping the frequency of minor and major disagreements, respectively, rated on a 6-point scale (1 = *Once a year or less*, through 6 = *Just about every day*). Following Kerig's scoring procedure, the responses to major disagreements were double weighted to gauge the intensity of interparental conflict. Major and minor disagreement items were summed to create a total score (possible range: 3–18), with higher scores indicating more frequent/intense interparental conflict.

Relationship Satisfaction

Parents' global satisfaction with their relationship with the other parent was assessed with a single question from the CPS (Kerig, 1996). Using a 7-point scale (0 = *Extremely unhappy* through 6 = *Perfect*) parents responded to the question "Overall, how happy are you with this relationship?".

Life Satisfaction

Parents' general life satisfaction was assessed with the Norwegian version of the Satisfaction with Life Scale (SWLS; Clench-Aas et al., 2011). SWLS comprises five positively framed statements (e.g., In most ways my life is close to my ideal) rated on a 6-point scale (1 = *Strongly disagree* through 7 = *Strongly agree*) with a total score ranging from 5 to 35. The Norwegian SWLS has been found to have excellent internal reliability with Cronbach's coefficient $\alpha = 0.91$ and has demonstrated measurement invariance across gender (Clench-Aas et al., 2011). Ordinal alpha coefficients in Samples 1 and 2 were in the range 0.92 – 0.94.

Child Adjustment

Parents reported on the adjustment of the youngest child that they participated with in the respective studies, using a Norwegian adaptation of the Strength and Difficulties Questionnaire – Parent report (SDQ-P; Goodman, 1997, 2001). The SDQ-P consists of 25 items rated on a 3-point scale (0 = *Not true*, 1 = *Somewhat true*, 2 = *Certainly true*) across five subscales related to difficulties with emotional functioning, conduct, hyperactivity, interaction with peers, and prosocial behaviour. Item scores are summed to create a total scale score (excluding items from the Prosocial Behaviour Subscale) ranging from 0 – 40 with a higher score representing higher degree of difficulty. The SDQ-P has good internal, convergent, and discriminant validity (Goodman, 2001). Both parents in Sample 1, and mothers only in Sample 2, completed the SDQ-P. Ordinal alpha coefficients were between 0.86 – 0.89.

The CPS (Kerig, 1996) was adapted to Norwegian following standard translation procedures using a (forward) translation and back translation method (Hilton & Skrutkowski. 2002) with the permission of the scale's author. The other measures used in this validation were already translated to Norwegian before being applied in the current study.

Analytic Approach

Data analyses were performed using IBM SPSS Statistics (Version 27) and the R (Version 3.6.1) software environment for statistical computing and graphics. The following R packages were used for the analyses: dplyr (Wickham et al. 2019), psych (Revelle, 2019), stats (R Core Team, 2019), DFA.CANCOR (O'Connor, 2020), and lavaan (Rosseel, 2012).

Dimensionality and Measurement Invariance of the Original Scale in Sample 1

The single-factor structure of the original Conflict Resolution Scale was validated with CFA for mothers and fathers separately. Given the data were ordinal and deviated from normality, the diagonal weighted least square (DWLS) estimator and mean- and variance adjusted χ^2 test statistic (scale-shifted approach) were used (Finney & DiStefano, 2006; Rhumtella et al., 2012). An advantage of this adjustment, is that it scale-corrects the "null" model.

We tested for measurement invariance across gender using CFA with the data in the wide-format (i.e., the parental dyad as the sampling unit) using robust DWLS and delta parameterization (Svetina et al., 2020). First, we assessed the data for non-independence between mother and father scores by examining item correlations and performing a canonical correlation to see if our dyadic analytic framework was justified, which it was (see Results). Second, we determined the baseline model by fitting a model with two latent factors: one for mother conflict resolution and one for father conflict resolution allowing for covariance between latent factors to account for non-independence at the factor level (see Fig. 1, model without C1-C12). Next, we fitted the same model, but adding correlated error terms between common indicators for mothers and fathers to also account for non-independence at the factor indicator level (see Fig. 1, full model). Third, based on the better fitting baseline model, we followed recommendations by Svetina et al. (2020) and Wu and Estabrook (2016) for invariance testing with ordinal data and tested for equal item thresholds (i.e., thresholds invariance) by constraining thresholds to be equal for mothers and fathers. Thresholds are cutpoints that divide the unobserved data of an assumed underlying normal distribution (of item responses) into sections that each correspond to an observed ordinal score (Bowen & Masa, 2015). A test of threshold invariance explores if the items on a given scale measure the same thing

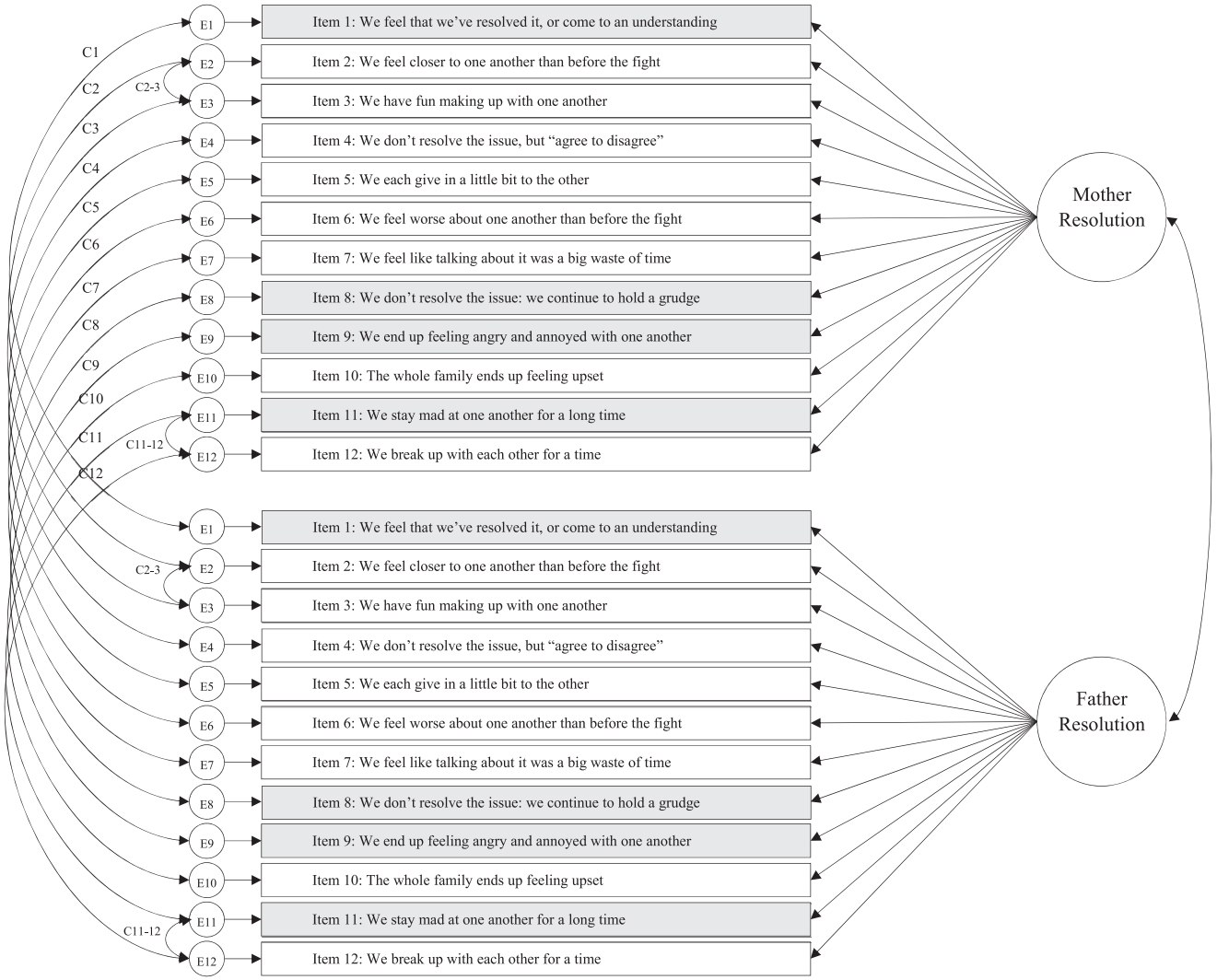

Fig. 1 Baseline model for determining the level of mon-independence to model when testing for measurement invariance. The baseline model has separate latent factors for conflict resolution for mothers and fathers, covariance between factors, correlated error terms between common indicators between mothers and fathers, and correlated error terms between Items 2 and 3 and Items 11 and 12. Greyed out items are included in the Conflict Resolution short form.

across groups, in this instance across mothers and fathers. Finally, we tested for equal thresholds and loadings (i.e., scalar invariance) by additionally constraining indicator factor loadings to be equal for mothers and fathers (the associated R script may be accessed here https://osf.io/hkgju).

The overall fit of models was evaluated with Comparative Fit Index (CFI; Bentler, 1990), Tucker-Lewis Index (TLI; Tucker & Lewis, 1973), Root Mean Square Error of Approximation (RMSEA; Steiger, 1990) and Root Mean Square of Residuals (RMSR). For RMSEA and SRMR values < 0.050 represent a *close fit*, values between 0.050 and 0.080 a *reasonable close fit*, and values > 0.080 an *unacceptable model* (Browne & Cudeck 1993; Hu & Bentler, 1999), while CFI and TLI > 0.900 represents an *adequate* model fit and CFI and TLI > 0.950 a *good* model fit (Hu & Bentler, 1999). Nested invariance models were compared using the Chi-square difference (ΔX^2) tests with a non-significant test ($p > 0.05$) suggesting that invariance was met. As this measure is sensitive to sample size (Bentler & Bonett, 1980) and inflated Type I error rate (Yuan & Chan, 2016), we also examined changes in model fit indices between nested models with cut-offs for ΔCFI ≤ 0.010 and ΔRMSEA < 0.015 suggesting that invariance was met (Chen, 2007; Rutkowski & Svetina, 2017; Svetina et al., 2020).

Short Form Development, Model Fit and Measurement Invariance of the Short Form in Sample 1 and Sample 2

Development of the Conflict Resolution short form was performed taking into consideration the following: (1) the short form should comprise both positive and negative

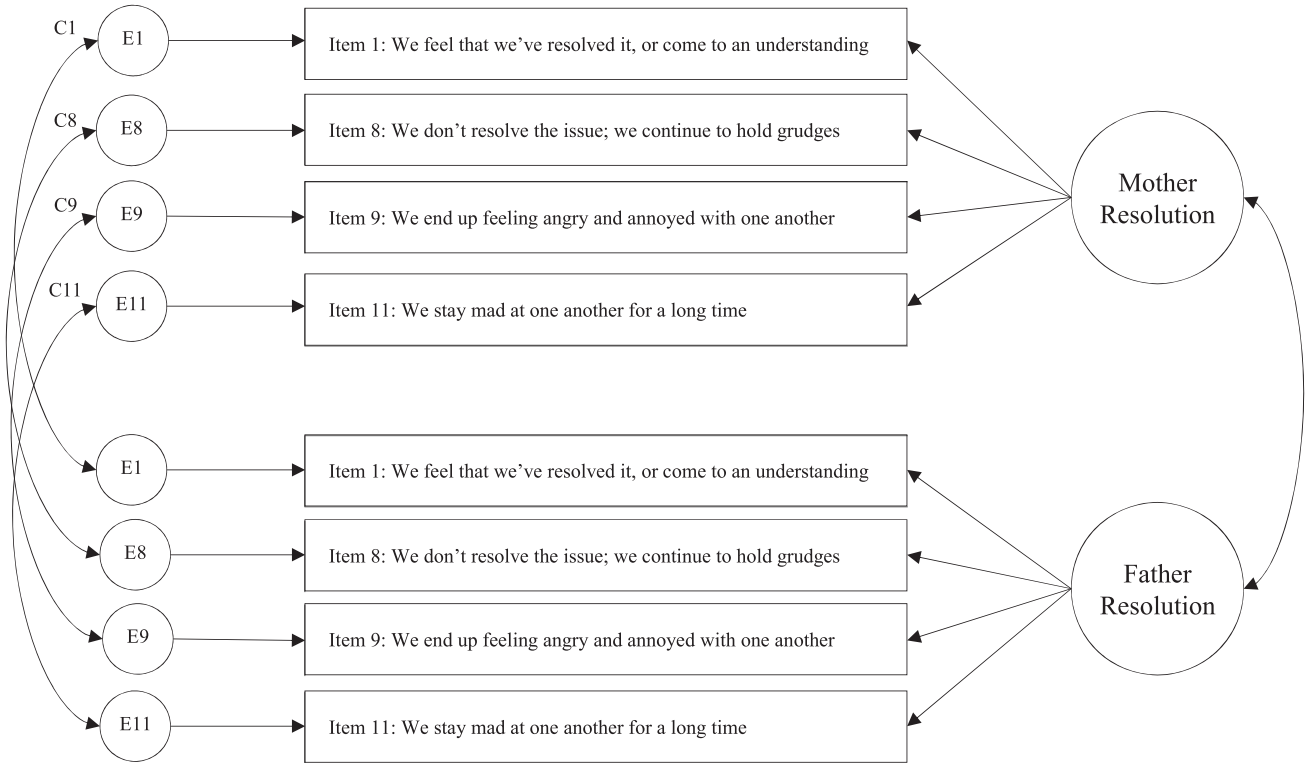

Fig. 2 Baseline model for determining the level of non-nndependence to model when testing for measurement invariance in the short form. The baseline model has separate latent factors for conflict resolution for mothers and fathers, covariance between factors and correlated error terms between common indicators between mothers and fathers.

conflict resolution items, (2) comprise four items to allow for agility in administration and to ensure accurate parameter estimates (Marsh et al., 1998), (3) have a combination of items that result in a good coefficient alpha (i.e., $\alpha > 0.70$), and (4) correlate strongly with the original Conflict Resolution Scale (i.e., $r > 0.90$). To achieve this, we utilized the OMEGA macro for SPSS (Hayes & Coutts, 2020). The analysis was performed separately for mothers and fathers. We then tested the model fit of the selected short form using CFA and conducted a test of measurement invariance across genders (same procedure as outlined above) using Sample 1 and subsequently Sample 2. See Fig. 2, for a graphical representation of the tested short form.

Internal Consistency and Validity of the Original Scale and the Short Form

In the last step of the analyses, we assessed internal consistency and validity of the original Conflict Resolution Scale and the new short form in both samples. To evaluate concurrent validity, we performed a series of regression analyses investigating the association between conflict resolution total score and parental relationship satisfaction assessed with a single item from CPS, general life satisfaction assessed with SWLS, and parent-reported child adjustment assessed with SDQ-P. We assessed incremental validity of the short form in Sample 2 using stepwise regression with the same outcomes. Frequency/intensity of parental conflict was added in step one and conflict resolution was added in step two, thereby testing if conflict resolution adds significantly to the explained variance of each investigated outcome.

Results

Descriptive Statistics

Table 1 presents descriptive statistics for the original Conflict Resolution Scale for mothers and fathers separately. We did not include Item 13 ("We break up with each other for a time") in subsequent analyses due to the item's low variability; no mothers and only three fathers responded something other than *Never* to this item. Inter-item polychoric correlations for mothers and fathers are presented in Table 2.

Unidimensionality of the Original Scale

The initial single-factor model for mothers and fathers had a sub-optimal fit to the data (mothers: RMSEA = 0.125, 90% CI [0.112, 0.138], SRMR = 0.091, CFI = 0.917, TLI =

Table 2 Bivariate Polychoric Correlations for Conflict Resolution Items (Sample 1)

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12
Item 1	0.550	0.502	0.384	−0.282	0.483	−0.502	−0.549	−0.698	−0.626	−0.488	−0.655	−0.493
Item 2	0.457	0.295	0.557	0.022	0.286	−0.313	−0.296	−0.284	−0.339	−0.260	−0.255	−0.126
Item 3	0.331	0.463	0.359	0.135	0.218	−0.287	−0.246	−0.276	−0.281	−0.162	−0.221	−0.148
Item 4	−0.225	−0.006	0.058	0.123	0.053	0.194	0.235	0.226	0.147	0.201	0.122	0.106
Item 5	0.425	0.212	0.110	0.085	0.301	−0.171	−0.255	−0.247	−0.248	−0.147	−0.288	−0.244
Item 6	−0.440	−0.259	−0.230	0.303	−0.028	0.299	0.621	0.640	0.703	0.576	0.567	0.377
Item 7	−0.482	−0.273	−0.174	0.216	−0.188	0.542	0.439	0.712	0.616	0.532	0.611	0.432
Item 8	−0.693	−0.266	−0.300	0.275	−0.248	0.651	0.650	0.469	0.759	0.604	0.754	0.470
Item 9	−0.656	−0.252	−0.251	0.296	−0.211	0.645	0.557	0.803	0.349	0.682	0.726	0.513
Item 10	−0.516	−0.237	−0.134	0.193	−0.103	0.555	0.537	0.547	0.716	0.332	0.673	0.419
Item 11	−0.579	−0.226	−0.174	0.169	−0.265	0.595	0.499	0.705	0.725	0.685	0.452	0.801
Item 12	−0.464	−0.108	−0.116	0.246	−0.162	0.471	0.400	0.554	0.623	0.522	0.767	0.433

Some correlations are negative as items have not been reverse coded. Values in the upper triangle are correlation coefficients for mothers and values in the lower triangle are correlation coefficients for fathers. Values on the diagonal are mother-father correlations. Item 13 not included due to low variance

0.899; fathers: RMSEA = 0.112, 90% CI [0.099, 0.124], SRMR = 0.085, CFI = 0.933, TLI = 0.918). However, the unidimensional structure suggested by Kerig (1996) was supported once item residuals between Items 2 and 3, and Items 11 and 12, respectively, were allowed to correlate, as suggested by the modification indices (mothers: RMSEA = 0.076, 90% CI [0.062, 0.090], SRMR = 0.067, CFI = 0.971, TLI = 0.963; fathers: RMSEA = 0.075, 90% CI [0.061, 0.089], SRMR = 0.067, CFI = 0.971, TLI = 0.963). However, these residual correlations suggested that some items may be suboptimal in the original scale.

Measurement Invariance of the Original Scale

Results presented in Table 2 (on the diagonal), show moderate correlations between mothers' and fathers' scores on the conflict resolution items. Further, a canonical correlation with mother data predicting father data was significant, Wilk's $\lambda = 0.37$, $F(144, 2620.83) = 2.24$, $p < 0.001$, suggesting a multivariate relationship between mothers' and fathers' scores. Thus, the analyses confirmed non-independence in the data and justifies our dyadic invariance testing approach.

Results reported as robust measures from the CFAs (see Table 3), showed that a baseline model allowing for covariance between latent factors (i.e., mother and father conflict resolution, respectively; Model 1) was a reasonable fit to the data. This model was compared to a baseline model that additionally included correlated error terms between common indicators for mothers and fathers (Model 1a). This model had a significantly better fit to the data, which confirms the need to control for non-independence in the data at the factor and factor indicator level. We therefore used this model (i.e., Model 1a) as the baseline for fitting subsequent models. A thresholds model (Model 2) was fitted by additionally constraining thresholds to be equal for mothers and fathers (e.g., thresholds for the first factor indicator is equal for mothers and fathers, same for the second factor indicator and so on). We observed a significant Chi-square difference test when this model was compared to the previous (i.e., Model 1a), which suggests an improvement in model fit. Our relative goodness-of-fit statistics were within the cut-off. As the test statistic is sensitive to sample size, it is fair to assume that under these conditions and with these results, thresholds invariance was met. We then fitted a thresholds and loadings model (Model 3) by additionally constraining factor indicator loadings to be equal (e.g., factor loading for the first factor indicator is equal for mothers and fathers, same for the second factor indicator and so on). We observed a non-significant Chi-square difference test along with differences in RMSEA and CFI well within cut-off. Failing to reject the null hypothesis, results support the original Conflict Resolution Scale as invariant across parent dyad members at the stricter level of equal thresholds and loadings. See Table S1 of the online supplementary material for an overview of the results at the indicator level.

Short Form Development and Model Fit of the Short Form in Sample 1 and Sample 2

Based on our selection criteria, results from the analyses using the OMEGA macro showed that the optimal short form include Item 1 (*We feel that we've resolved it, or come to an understanding*), Item 8 (*We don't resolve the issue; we continue to hold grudges*), Item 9 (*We end up feeling*

Table 3 Tests of Measurement Invariance for Gender with the Original Conflict Resolution Scale (Sample 1)

Model	Model fit							Difference between models				
	X^2	*df*	X^2/df	CFI	TLI	RMSEA [90% CI]	SRMR	Δ X^2 [a]	ΔCFI	ΔRMSEA	Model comparison	Invariance met
1. Baseline model	455.214	247	1.843	0.964	0.96	0.051 [0.043:0.058]	0.071	-	-	-	-	-
1a. Baseline model + correlated error terms	366.306	235	1.559	0.977	0.973	0.041 [0.033:0.049]	0.063	125.26***	0.013	−0.010	1a - 1	-
2. Thresholds	424.852	269	1.579	0.973	0.972	0.042 [0.034:0:050]	0.063	67.416***	−0.004	0.001	2 - 1a	Yes
3. Thresholds and loadings	405.976	281	1.445	0.978	0.979	0.037 [0.029:0.045]	0.066	12.754	0.005	−0.005	3 - 2	Yes

In the Baseline model there were no model constraints and latent factors for mother and father conflict resolution was allowed to covary

Statistics are reported as robust statistics

X^2 chi-square statistic, *df* degrees of freedom, *CFI* Comparative fit index, *TLI* Tucker-Lewis index, *RMSEA* Root mean square error of approximation, *SRMR* Standardised root mean square of residuals

[a]The robust chi-square difference test is based on standard chi-square test statistics (not reported in the table)

***$p < 0.001$

angry and annoyed with one another), and Item 11 (*We stay mad at one another for a long time*). The result was the same for mothers and fathers. The short form had good internal consistency ($\alpha = 0.82$ for both mothers and fathers) and showed a high correlation with the original Conflict Resolution Scale ($r = 0.91$ for both mothers and fathers) suggesting that by using the short form there is no critical information loss. CFAs performed to validate the short form showed an excellent fit in Sample 1 (development sample; mothers: RMSEA = 0.000, 90% CI [0.000, 0.089], SRMR = 0.008, CFI = 1, TLI = 1; fathers: RMSEA = 0.000, 90% CI [0.000, 0.093], SRMR = 0.011, CFI = 1, TLI = 1). In Sample 2 weaker RMSEA values indicate a slightly weaker fit, but CFI and TLI values remained excellent (mothers: RMSEA = 0.100, 90% CI [0.061, 0.146], SRMR = 0.018, CFI = 0.997, TLI = 0.992; fathers: RMSEA = 0.101, 90% CI [0.061, 0.146], SRMR = 0.019, CFI = 0.997, TLI = 0.992).

Measurement Invariance of the Short Form in Sample 1 and Sample 2

We then applied the same invariance procedure to test for measurement invariance across gender on the Conflict Resolution short form within Sample 1 and Sample 2. Non-independence of the data in Sample 2 was confirmed with a statistically significant and moderately strong bivariate correlations (r range: 0.363–0.463) and a significant canonical correlation (Wilk's $\lambda = 0.76$, $F(16, 2288.87) = 13.48$, $p < 0.001$). Results were similar across samples and showed that the baseline model with covariance between latent factors and correlated error terms between common indicators for mothers and fathers (Model 1a), had a significantly better fit to the data than the baseline model allowing for covariance only between latent factors (Model 1). Subsequent nested models were not significantly different (except for a significant Chi-square difference test for threshold (Model 2) versus baseline model (Model 1a) in Sample 2) and differences in CFI and RMSEA were within cut-off criteria. Taken together, this supports invariance across parent dyad members on the Conflict Resolution short form in both samples. See Table 4 for an overview of the results and Table S2 of the online supplementary material for an overview of the results at the indicator level.

Internal Consistency and Validity

Internal consistency of the Conflict Resolution Scale in Sample 1 was good for the original scale (mothers: $\alpha = 0.83$ and ordinal $\alpha = 0.88$; fathers: $\alpha = 0.82$ and ordinal $\alpha = 0.88$) and the short four-item scale (mothers and fathers: $\alpha = 0.82$ and ordinal $\alpha = 0.90$). In Sample 2, internal

Table 4 Tests of Measurement Invariance for Gender with the Conflict Resolution Scale Short Form (Samples 1 and 2)

Model	Model fit							Difference between models				
	X^2	*df*	X^2/df	CFI	TLI	RMSEA [90% CI]	SRMR	ΔX^2 [a]	ΔRMSEA	ΔCFI	Model comparison	Invariance met
Sample 1												
1. Baseline model	37.682	19	1.983	0.994	0.991	0.052 [0.027:0.077]	0.050	–	–	–	–	–
1a. Baseline model + correlated error terms	18.633	15	1.242	0.998	0.998	0.026 [0.000:0.059]	0.034	22.423***	−0.026	0.005	1a - 1	–
2. Equal thresholds	35.492	26	1.365	0.997	0.997	0.032 [0.000:0.056]	0.034	16.626	0.006	−0.002	2 - 1a	Yes
3. Equal thresholds and loadings	35.716	30	1.191	0.998	0.998	0.023 [0.000:0.048]	0.036	2.4984	−0.009	0.001	3 - 2	Yes
Sample 2												
1. Baseline model	69.980	19	3.683	0.994	0.991	0.060 [0.045:0.075]	0.032	–	–	–	–	–
1a. Baseline model + correlated error terms	48.704	15	3.247	0.996	0.993	0.055 [0.038:0.072]	0.025	27.357***	−0.005	0.002	1a - 1	–
2. Thresholds	76.329	27	2.827	0.994	0.994	0.049 [0.036:0.062]	0.025	31.967**	−0.006	−0.002	2 - 1a	Yes
3. Thresholds and loadings	68.457	31	2.208	0.996	0.996	0.040 [0.027:0.053]	0.026	1.7056	−0.009	0.002	3 - 2	Yes

In the Baseline model there were no model constraints and latent factors for mother and father conflict resolution was allowed to covary

Statistics are reported as robust statistics

X^2 chi-square statistic, *df* degrees of freedom, *CFI* Comparative fit index, *TLI* Tucker-Lewis index, *RMSEA* Root mean square error of approximation; *SRMR* Standardised root mean square of residuals

** $p < 0.01$. *** $p < 0.00$

[a]The robust chi-square difference test is based on standard chi-square test statistics (not reported in the table)

consistency of the short form was comparable or a little better to Sample 1 (mothers and fathers: $\alpha = 0.87$ and ordinal $\alpha = 0.91$).

Regression analyses were used to investigate the association between conflict resolution and parental relationship satisfaction (assessed with a single item from CPS), life satisfaction (assessed with SWLS), and parent-reported child adjustment (assessed with SDQ-P). Results supported the concurrent validity of the original scale in Sample 1 and the short form in both samples (see Table 5). Conflict resolution evidenced significant associations with all outcomes, except the association between fathers' short form conflict resolution score and child adjustment ($\beta = -0.08$, $p = 0.16$) in Sample 1. Regression coefficients were of similar magnitude across the original scale and the short form in Sample 1, suggesting no critical loss of information by using the short form. Associations in Sample 2 were significant, and were stronger for relationship satisfaction, but weaker for fathers' life satisfaction relative to Sample 1. This confirms the concurrent validity of the short form in Sample 2 as well.

When we tested for incremental validity of the short form in Sample 2 by stepwise regression, using the same outcomes but entering frequency/intensity of interparental conflict in step one and adding interparental conflict resolution in step two, we found that conflict resolution added significantly to the explained variance of relationship satisfaction and life satisfaction, but not mother-reported child adjustment ($p = 0.09$) (see Table 6, ΔR^2 from Step 2). Conflict resolution is therefore an important dimension of interparental conflict explaining differences in parental wellbeing over and above the frequency/intensity of interparental conflict.

Discussion

The aims of this paper were to investigate the psychometric properties of the Conflict Resolution Scale from the CPS (Kerig, 1996) and to develop a short form to increase the utility of the scale, as conflict resolution is repeatedly highlighted as an important factor in reducing the negative effects of interparental conflict on children (Zemp et al., 2016) and on the family more broadly (Bergman et al., 2016). Addressing these aims, we confirmed the robustness of both the original scale and the new four-item short form by establishing unidimensionality, measurement invariance across gender, and high reliability. Moreover, the validation analyses lend further support to the importance of addressing conflict resolution in research and practice through the consistent finding that conflict resolution explained variance in relationship satisfaction and life satisfaction over and above what was accounted for by conflict frequency/

Table 5 Regression Analyses for Mothers and Fathers Investigating Concurrent Validity of the Conflict Resolution Scale in Sample 1 and Sample 2

Predictors	Short Form			Original Scale		
	Relationship Satisfaction (CPS) B/β	Life Satisfaction (SWLS) B/β	Child Adjustment (SDQ-P) B/β	Relationship Satisfaction (CPS) B/β	Life Satisfaction (SWLS) B/β	Child Adjustment (SDQ-P) B/β
Sample 1						
Mother						
Constant	2.79***	21.13***	6.86***	2.23***	19.97***	6.92***
Conflict resolution	0.17/0.22***	0.84/0.35***	−0.25/−0.15**	0.08/0.26***	0.35/0.34***	−0.09/−0.13*
Adj. R^2	0.05	0.11	0.02	0.06	0.11	0.01
ΔR^2	0.05***	0.12***	0.02***	0.07***	0.12***	0.02*
Father						
Constant	2.79***	19.12***	6.60***	2.90***	16.52***	7.79***
Conflict resolution	0.18/0.23***	0.99/0.45***	−0.14/−0.08	0.06/0.18**	0.47/0.48***	−0.10/−0.12*
Adj. R^2	0.05	0.20	0.00	0.03	0.26	0.01
ΔR^2	0.05***	0.21***	0.01	0.03***	0.23***	0.01*
Sample 2						
Mother						
Constant	1.21***	18.86***	8.54***			
Conflict resolution	0.25/0.50***	0.61/0.27***	−0.17/−0.11*			
Adj. R^2	0.25	0.07	0.01			
ΔR^2	0.25***	0.08***	0.01*			
Father						
Constant	1.34***	18.90***				
Conflict resolution	0.24/0.47***	0.57/0.25***				
Adj. R^2	0.22	0.06				
ΔR^2	0.22***	0.06***				

No other predictors were included in the models apart from Conflict Resolution. The upper part of the table represents the results from Sample 1 and the lower part from Sample 2, where concurrent validity was only assessed for the Conflict Resolution Scale short form. Moreover, only mothers reported on Child Adjustment in Sample 2

Adj. R^2 Adjusted R square. ΔR^2 = R square change. *CPS* Conflicts and Problem-Solving Scales; *SWLS* Satisfaction with Life Scale; *SDQ-P* Strength and Difficulties Questionnaire – Parent report

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$

intensity alone. We therefore recommend increased use of the scale, particularly the short form, in family research where interparental conflict is the primary focus, as well as in large-scale epidemiological studies where interparental conflict may be one of several important constructs under investigation.

The dimensionality of the Conflict Resolution Scale from the CPS (Kerig, 1996) has never been tested, nor has the scale been validated since its development 25 years ago. The confirmation of unidimensionality established in Sample 1, after allowing the residuals to covary for two item pairs, was therefore called for. There is some disagreement about the use of the kind of data driven model modification we used here (Kaplan (2008); Saris et al., 2009). However, in our case, the items (within each item pair) were closely related semantically and in wording (e.g., Item 11: "We stay mad at one another for a long time" and Item 12: "We don't speak to one another for a while"), a condition under which covarying residuals can occur. Therefore, we deemed it permissible to add residual covariances between related items to our model.

There is a need for short form questionnaires, both in research and clinical settings (Hayes & Coutts, 2020; Ziegler et al., 2014). In our endeavour to develop a short form of the Conflict Resolution Scale, we used the recommended OMEGA macro (Hayes & Coutts, 2020). There may be other approaches to developing questionnaire short forms, including qualitative approaches focusing on content analysis of individual items. However, despite the potential merit of such approaches, a resultant short form would still have to undergo psychometric evaluation. Based on the presented method, our findings demonstrate that parental conflict resolution may be assessed with a smaller number of questionnaire items from the Conflict Resolution Scale without a critical loss of information relative to the full scale. A qualitative examination of the statistically derived

Table 6 Regression Analyses for Mothers and Father Investigating Incremental Validity of the Conflict Resolution Short Form in Sample 2

Predictors	Relationship Satisfaction (CPS)			Life Satisfaction (SWLS)			Child Adjustment (SDQ-P)		
	B/β	Adj. R^2	ΔR^2	B/β	Adj. R^2	ΔR^2	B/β	Adj. R^2	ΔR^2
Mother									
Step 1		0.04	0.04***		0.03	0.03***		0.00	0.01*
Constant	3.44***			25.43***			6.42***		
Freq/intensity	−0.08/−0.19***			−0.30/−0.17***			0.13/0.10*		
Step 2		0.25	0.21***		0.08	0.05***		0.02	0.01
Constant	1.17***			20.36***			7.50***		
Freq/intensity	0.00/0.01			−0.12/−0.07			0.09/0.07		
Conflict resolution	0.25/0.50***			0.55/0.25***			−0.12/−0.08		
Father									
Step 1		0.02	0.02***		0.02	0.02***			
Constant	3.44***			24.78***					
Freq/intensity	−0.06/−0.15***			−0.25/−0.14***					
Step 2		0.22	0.20***		0.06	0.04***			
Constant	1.15***			19.98***					
Freq/intensity	0.02/0.05			−0.09/−0.05					
Conflict resolution	0.25/0.49***			0.52/0.22***					

Only mothers reported on Child Adjustment in Sample 2

Adj. R^2 Adjusted R square, ΔR^2 R square change, *CPS* Conflicts and Problem-Solving Scales, *SWLS* Satisfaction with Life Scale, *SDQ-P* Strength and Difficulties Questionnaire – Parent report

*$p < 0.05$. *** $p < 0.001$

short form items also supports the merit of the included items. The selected items use clear and precise language that is well defined in terms of the conflict resolution. For instance, the included Item 1: "… come to an understanding" is more specific in terms of the conflict resolution outcome than some of the excluded items, such as Item 7: "… a big waste of time" or Item 4: "… agree to disagree". Among the excluded items, some have more vague language (e.g., Item 12: "… for a while"), or are semantically unclear or ambiguous (e.g., Item 3: "We have fun making up with one another").

Moreover, our derived short form had fit indices within our CFA cut-off criteria in both samples. We note that the RMSEA was suboptimal in Sample 2, but the RMSEA may be less suitable to assessing model fit when the tested model has small degrees of freedom (Kenny et al., 2015), as was the case for our models. Thus, we conclude that the four-item short form had a good to excellent fit to the data in both samples.

A key point of this study was to test for invariance across mothers and fathers to ensure that the Conflict Resolution Scale works the same way for both parents. We first established the level of non-independence to model due to the dyadic nature of our data and as such, avoiding model bias due to the interdependence in scores from mothers and fathers (Kenny et al., 2020; Lubke & Muthén, 2004). Results from the first of our invariance models, in which we constrained thresholds to be equal across mothers and fathers, was supported for the original full scale and the short form in both samples. Encouragingly our stricter model, in which we constrained both thresholds and factor indicator loadings to be equal across mothers and fathers, was also supported for the original scale and for the short form in both samples. The demonstrated measurement invariance at the stricter level of thresholds and factor loadings is important evidence of the robustness of the Conflict Resolution Scale, and means that scores may be reliably compared (e.g., item scores, group mean scores, factor loadings). This also means that the measure is meaningful even in situations where only a score from either the mother or father is available.

Finally, we established the internal consistency of the original scale and the short form, which was found to be good (all αs > 0.82). In accordance with previous research (e.g., Shelton & Harold, 2018; Zemp et al., 2016), the initial regression analyses revealed that for both mothers and fathers, better conflict resolution was associated with better self-reported relationship satisfaction and general life satisfaction. For mothers, better conflict resolution also predicted better parent-reported child adjustment, while for fathers the association between conflict resolution and parent-reported child adjustment (assessed only in Sample 1) only reached statistical significance for the original Conflict Resolution Scale. These associations confirm the validity of the conflict resolution scales' (original and short form). The similarity of associations across the original and the short form demonstrate that the short form is as useful as the original scale to include in studies where several constructs are being investigated together.

Importantly, the incremental validity over and above conflict frequency/intensity was established for relationship satisfaction and life satisfaction, respectively, when adding

conflict resolution in a second step in the second set of regression models. This supports the unique contribution of the conflict resolution scale. Somewhat surprising this effect was not significant for mother-reported child adjustment. This may in part be due to the moderate correlation between conflict resolution and conflict frequency/intensity for mothers ($r = -0.40$, $p < 0.001$), and a weak bivariate association between conflict resolution and mother-reported child adjustment. Reduced bivariate correlations between conflict resolution and life satisfaction relative to conflict resolution and relationship satisfactions may also help to explain why we observed reduced effect sizes when predicting life satisfaction in the stepwise regression analyses.

Taken together, the Conflict Resolution short form demonstrated comparable validity and reliability to the original scale. In fact, the short form had slightly better internal consistency in Sample 2 and overall exhibited better model fit to the data than the original scale, something that may be explained by the short form model being more parsimonious. These results are encouraging for several reasons. The complex interplay between factors in family research and child development research often requires researchers to use long surveys that assess several different constructs. Shorter measures like the Conflict Resolution short form can be included in such surveys and be relied upon as a valid and reliable measure of conflict resolution. Moreover, studies that are not specifically focused on interparental conflict and conflict resolution, such as larger epidemiological studies, may also benefit from the Conflict Resolution short form as it can easily be included and may add an important dimension into these studies. Another possibility is the utility of the Conflict Resolution short form as an adjunct tool in clinical practice such as couples' therapy and other forms of counselling focused on improving the parental relationship even when parents live apart. Therapists may incorporate the (four) questions into the therapy sessions and it is easy for the therapist to actively use the questions during the whole therapy process. We stress however that therapists should determine, based on their clinical judgement and applicability to the individual case, whether the Conflict Resolution short form would be a justified adjunct tool in their practice.

Taken together, this study confirms the psychometric properties, including gender invariance demonstrated for the first time, of both the original full length and short form of the Conflict Resolution Scale across two samples. Working with conflict resolution is particularly important for clinicians in family and child-related services, where destructive interparental conflict is a common challenge among visiting parents. It was therefore important that the reliability and validity of the new short form was established also in a more heterogeneous sample, as our Sample 2. Importantly, Sample 2 allowed us to explore the scale both in families where parents live together and where parents live apart. This is vital as family structures today are more heterogeneous than when the CPS was originally developed. As this sample was recruited from family counselling centres, it was also more diverse in regard to levels of interparental conflicts. Establishing the validity of the new short form in this sample is important to support its use in clinical practice.

The present study has several strengths, but also some limitations that deserve mentioning. One clear strength is that both mothers and fathers completed the survey thereby allowing us to examine measurement invariance across gender as part of the psychometric evaluation. Our dyadic analytic approach is a related strength. Another strength is our use of two independent samples for development and validation of the new short form. Nevertheless, it is regrettable that we were unable to include Item 13 ("We break up with each other for a time") in our analyses due to restricted variability. However, we doubt whether the overall results would be different in another sample of parents. It is also worth noting that this item is altogether irrelevant for parents living apart. Generalization of the results to other countries with different diversity standards should be used cautiously and we encourage other researchers from these countries to replicate and extend our findings. Further, it is regrettable that only mothers in Sample 2 completed the SDQ-P. It was a practical decision to have parents report on slightly different aspects pertaining to their youngest child's development, mental health and wellbeing. Finally, we encourage future research using content analysis of individual items of the Conflict Resolution Scale, to probe our item selection for the short form. It would be particularly useful to situate such research within a clinical setting, as it would have the potential to increase the utility of the Conflict Resolution Scale. It is possible that in this particular setting, a 5- or 6-item short form could be better suited.

Conclusion

The present study reports on the validation of the Conflict Resolution Scale from the CPS (Kerig, 1996) and the development and validation of a short form of the same scale. The unidimensional structure of the original Conflict Resolution Scale was confirmed, and it demonstrated sound reliability and validity. The new short form exhibited a good fit to the data and evidenced good internal consistency across two independent samples. Both the original scale and the short form demonstrated measurement invariance across mothers and fathers. The new short form can be used without a loss of critical information and scores may be meaningfully compared between mothers and fathers. We recommend the short form for use particularly in research and encourage future research to validate the short form

using samples from different cultural contexts and diversity standards using a dyadic analytic approach. It would also be of interest to explore the applicability of the short form in a clinical setting. Moreover, the test-retest reliability of the scale should be tested to ensure its suitability in longitudinal research or as a tool to track therapeutic progress.

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Compliance with Ethical Standards

Conflict of Interest The authors have no competing interests to declare that are relevant to the content of this article. We are grateful to Professor Patricia K. Kerig for allowing us to adapt the Conflict and Problem-Solving Scales to Norwegian. We also extend our gratitude the parents who participated in the MoBa and FAMC studies and whose data the present study is based upon.

Ethical Approval The MoBa cohort is currently regulated by the Norwegian Health Registry Act. The current study is covered by approval from the Regional Committees for Medical and Health Research Ethics in Norway (project numbers: 29002 and 11680). The study was performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study. The material presented in this article has not been published previously, is not under consideration for publication elsewhere, and, if accepted, it will not be published elsewhere in substantially the same form.

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