

THE COPARENTING RELATIONSHIP SCALE: THE FIRST CONTRIBUTION TO THE VALIDATION OF THE MEASURE IN ITALIAN MOTHERS AND FATHERS

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This paper investigates the validity of the Coparenting Relationship Scale (CRS) among Italian parents. Moreover, we explored the role of coparenting as a mediator of the association between marital satisfaction on children's adjustment. Specifically, the first study aims to test the reliability and validity of the Italian translation of the CRS among Italian parents. A total of 529 mothers and 529 fathers of children (49.3% males) aged 1-13 completed the questionnaire. Confirmatory factor analyses showed that the theoretically grounded 7-factor structure of the original instrument was valid in explaining the structure of the Italian data. The 7-factor model also fits well across parents' gender, as there is configural invariance. Besides, the likelihood ratio tests proved that the goodness of fit of the metric model did not significantly change from the configural model. Convergent validity was also tested, and results of correlations and regression analyses showed theoretically coherent links between the participants' scores on the CRS, marital adjustment, parenting stress, and children's internalizing and externalizing behaviors. The second study explores the indirect effects of marital satisfaction on children's adjustment by considering negative coparenting and parenting stress as mediators. Participants were 371 mothers and 371 fathers. Results showed a pathway from marital satisfaction to children's behavioral problems, with negative coparenting (M1) affecting parenting stress (M2), directly associated with children's behavioral problems. (M1) affecting parenting stress (M2), directly associated with children's behavioral problems.

Keywords: Validation; Coparenting Relationship Scale; Marital adjustment; Parenting stress; Adjustment.

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Coparenting is a conceptual term that describes the ways parental figures coordinate their respective responsibilities and contributions in bringing up their children (Feinberg, 2003; McHale et al., 2000; McHale & Lindahl, 2011). The coparenting relationship includes supportive or hostile-competitive dimensions (Feinberg, 2003; McHale, 1995). Positive coparenting may include such aspects as affirming each other's competency as a parent, acknowledging and respecting each other's contributions, and upholding each other's parenting decisions and authority. Conversely, negative coparenting arises when parents are intrusive, undermining, or actively competing for the child's love and attention (Solmeyer & Feinberg, 2011). Consistent with family systems theory, a significant hypothesis in the literature, the *spillover hypothesis* (Erel & Burman, 1995) suggested that the emotions and behavioral patterns that typify the marital relationship may spillover into the triadic interactions by interfering with effective coparenting (Stroud et al., 2015). In turn, some studies demonstrated how negative aspects of coparenting (e.g., conflict or undermining) were found to be associated with lower levels of parental efficacy, feelings of helplessness, dysfunctional parenting practices, and parenting stress (Merrifield & Gamble, 2013; Miragoli et al., 2018; Solmeyer & Feinberg, 2011).

In the past 25 years, many studies have examined links between dimensions of coparenting and children's adjustment. Most of these studies investigated toddlers and preschoolers and their parents, even though recent research outlined how coparenting is an important factor for school-aged children and adolescents (Camisasca, Miragoli, Di Blasio, & Feinberg, 2019; Teubert & Pinquart, 2010, 2011b; Zimmermann et al., 2020). In this regard, in literature, several studies explored also outlined how coparenting conflict is a significant risk factor that predicts psychological maladjustment from early toddlerhood to late adolescence (Teubert & Pinquart, 2010). Indeed, coparenting conflict was associated with: 1) children's behavioral problems (Camisasca, Miragoli, Di Blasio, & Feinberg, 2019; Camisasca et al., 2016; Choi & Becher, 2019; Parkes et al., 2019), 2) adolescents' risky behaviors (Baril et al., 2007), and 3) children and adolescent attachment and social competence (Zou et al., 2020). Due to the evidence on the significant role of coparenting in family dynamics, several instruments have been developed to evaluate the coparenting relationship in the literature. In the early 2000s, researchers developed both measures to assess coparenting through observational methods, such as the Coparenting and Family Rating System (CFRS; McHale et al., 2000) and the Triadic Coordination Frequency (TCF; Westerman, 2001), and self-report measures such as the Coparenting Scale (CS; McHale, 1997), the Coparenting Questionnaire (CQ; Margolin, 1992), the Parenting Alliance Inventory (PAI; Abidin & Brunner, 1995), and the Coparenting Inventory for Parents and Adolescents (CI-PA; Teubert & Pinquart, 2011a).

More recently, Feinberg and colleagues (2012) designed and validated the Coparenting Relationship Scale (CRS), a more comprehensive measure able to capture the multidimensional aspects of coparenting. This measure relies on Feinberg's (2003) framework that consists of four components: 1) Agreement (i.e., how much parental figures agree on a range of child-related topics); 2) Support versus Undermining the partner's parenting (i.e., how much a parent supports the other, affirms other's competency as a parent or, conversely, undermines the other parent through criticism, disparagement, and blame); 3) Division of labor (i.e., the division of duties, tasks, and responsibilities about daily routines involved in child care); and 4) Joint family management (i.e., the way parents manage family interactions). The CRS can be used for families with children from infancy to adolescence and it consists of 35 items, scored on a 7-point Likert scale, measuring seven subscales: (1) coparenting agreement (four items) assesses the degree of agreement about matters related to the child's care and education; (2) coparenting closeness (five items) assesses the degree to which coparenting enhanced intimacy and strengthened the couple's relationship; (3) coparenting support (six items) assesses one's perception of coparental support from the partner; (4) endorsement of partner's

parenting (seven items) assesses one's positive attitude toward the partner's parenting; (5) coparenting undermining (six items) assesses the perception that the coparental relationship is regulated by criticism, guilt, and competition between the parents; (6) exposure to conflict (five items) focused on whether the parents exposed the child to their conflicts; (7) division of labor (two items) measured satisfaction with partner's contributions and involvement in childrearing. Feinberg and colleagues (2012) evaluated the CRS longitudinally at three different time points: when children were six months of age, one year old, and three years of age. The internal consistency analyses for the seven subscales led to the following results: coparenting agreement (α ranging between .66 and .74), coparenting closeness ($.75 < \alpha < .83$), coparenting support ($.86 < \alpha < .89$), endorsement of partner's parenting ($.61 < \alpha < .88$), coparenting undermining ($.80 < \alpha < .85$), exposure to conflict ($.81 < \alpha < .90$), and division of labor ($.33 < \alpha < .59$). Confirmatory factor analysis illustrated a 7-factor solution and the external validity of CRS was validated with relevant couple constructs.

Recently, some studies have validated CRS in different languages, such as Portuguese (Carvalho et al., 2018; Lamela & Jongenelen, 2018; Pinto et al., 2019), Swedish (Lee et al., 2020), and French (Favez et al., 2021). Lamela and Jongenelen (2018) adapted and validated the CRS in a sample of Portuguese mothers of children under 18 years. Confirmatory factor analysis revealed a satisfactory adjustment, suggesting the construct validity of the CRS. The scale also showed satisfactory or elevated coefficients of internal consistency in all subscales (Cronbach's α between .70 and .94). They did not test for the measurement of invariance of the scale, while good convergent and divergent validity values were obtained through correlational analysis of CRS with other theoretically selected constructs (parenting alliance and marital satisfaction). Conversely, Lee and colleagues (2020) tested the reliability and validity of the Swedish translation of the Brief Coparenting Relationship Scale (B-CRS) among Swedish fathers of infants. Their study showed good internal consistency with the B-CRS (Cronbach's $\alpha = .86$). Confirmatory factor analyses demonstrated that the B-CRS for Swedish fathers consisted of six subscales: coparenting agreement, endorsement of the partner's parenting, coparenting closeness, coparenting support, coparenting undermining, and coparenting conflict. Further results indicated that better coparenting quality was linked to lower depressive symptoms and higher father-infant bonding levels. The French adaptation of the CRS (Favez et al., 2021) with both mothers and fathers showed a good internal consistency (Cronbach's $\alpha = .85$) and indicated that the 7-factor structure of the original instrument was valid to explain the structure of their data.

Moreover, conversely, from the study of Lee and colleagues (2020), which did not test for the measurement of invariance of the scale, the authors found a metric invariance according to parents' gender. Again, they also found a convergent validity of the measure with the motivation for task sharing and health-related issues in children. In summary, to date, the CRS is a valid measure, able to detect the multidimensional nature of coparenting, which was just validated in different languages.

According to the above-cited literature, we expected that the 7-factor structure of the measure could also be valid for the Italian version and we also expected a convergent validity of the questionnaire with marital adjustment, parenting stress, and children's adjustment. However, to our knowledge, in the literature no validation study of an Italian version of the CRS has yet been published. The first study was, therefore, aimed to validate the Italian version of the CRS by testing the factorial structure of a translated version and its convergent validity with marital adjustment, parenting stress, and children's adjustment.

Moreover, by considering the above-cited literature about the role of coparenting in family dynamics, we were interested in exploring, with a second study, a topic not fully considered in the literature. More specifically, the second study aimed to investigate the effects of marital satisfaction on children's adjustment by considering coparenting and parenting stress as serial mediators. The possibility that negative coparenting

and parenting stress could be serial mediators stems from the empirical evidence that demonstrated how negative aspects of coparenting (e.g., conflict or undermining) were found to be associated with dysfunctional parenting and parenting stress (Camisasca et al., 2022; Merrifield & Gamble, 2013; Solmeyer & Feinberg, 2011).

To our knowledge, no studies have investigated the indirect effects of mothers' and fathers' marital satisfaction (the predictor) on the children's behavioral problems (the outcome) by considering that negative coparenting (M1) could affect parenting stress (M2), directly associated to children's adjustment. Consistently with previous literature, we supposed that: a) marital satisfaction could be negatively associated with children's behavioral problems (Camisasca et al. 2013, 2014, 2022; McCoy et al. 2013; Pendry & Adam, 2013); b) marital satisfaction could be negatively associated with negative coparenting (Baril et al., 2007; Camisasca et al., 2014, 2015) and parenting stress (Camisasca, Miragoli, & Di Blasio, 2019; Huth-Bocks & Hughes, 2008; Wieland & Baker, 2010); c) the negative coparenting relationship could be linked to both parenting stress (Choi & Becher, 2019; Lau & Power, 2020) and children's adjustment (Camisasca, Miragoli, Di Blasio, & Feinberg, 2019; Choi & Becher, 2019; Parkes et al., 2019); d) parenting stress could also be associated with children's behavioral problems (Costa et al., 2006).

STUDY 1

Method

Participants

Families were recruited through a network of daycare centers, preschools, primary and secondary schools located in the North of Italy. The participating centers and schools ($N = 13$) were recruited through a standard procedure that included introductory meetings with school principals. They helped us send letters to the parents that described the study's goals, methodology, and consent forms. Parents signed consent forms that described the project and its goals, the voluntary nature of participation, and the data's confidentiality. Then, to parents who agreed to participate, we delivered packets consisting of self-report measures. Mothers and fathers were also asked to fill out the forms independently, without revealing their answers to each other, and return all the measures to the schools within two months. All participants returned the measures in time and placed them in a box at the school's entrance. Ethical approval was obtained from the Ethics Committee of the Catholic University of Milano for the project titled "Coparenting and Child Adjustment."

Participants were 529 Italian mothers and 529 fathers of children (49.3% males) aged 1-13 years ($M = 7.84$, $SD = 2.59$). The mothers averaged 40.83 years of age ($SD = 5.35$), and the fathers averaged 42.85 years of age ($SD = 5.55$). Participating parents were required to be married or cohabiting together (years of cohabitation: $M = 11.70$, $SD = 5.82$) with the focal child. All mothers and fathers were the biological parents of the children. The children were noted as being the only child (37.3%), the first-born (33.8%), the second-born (23.2%), and the third or fourth-born (5.7%). We asked for participants' qualifications and jobs to assess their socioeconomic status (SES): 27% of participants were from the middle-lower class, 48% from the middle class, and 25% from the middle-upper class. About half of the participants (45% of the mothers and 49% of the fathers) had completed higher education. Moreover, 31% of the mothers and 3.7% of the fathers had a university education.

Measures

Mothers and fathers completed the following questionnaires:

Coparenting Relationship Scale (CRS; Feinberg et al., 2012). The Italian translation of the items of the original version was done by two researchers (Camisasca and Feinberg). The translation was also verified through the back-translation procedure that Feinberg checked. It was ensured that the meaning and phraseology of the original CRS were retained in the Italian version. As described above, the measure consists of 35 items on a 7-point scale ranging from 0 (*not true of us*) to 6 (*very true of us*), except for items in the exposure to conflict dimension, for which items are assessed on a 7-point scale ranging from 0 (*never*) to 6 (*very often/several times a day*). The original version of CRS contains the seven dimensions of coparenting in the above description. Missing data were managed as follows: when no more than one item was missing within the responses given by a participant, the following procedure was carried out: a) the average score of the items within the subscale with the missing data was computed and rounded to the nearest integer; b) the rounded score was assigned to the missing item. Such a procedure was applied for 36 mothers and 30 fathers. Conversely, when more than one item did not receive any response from the participant, data from that participant were not considered in the subsequent analyses. Specifically, data from 15 mothers and 28 fathers were deleted.

Dyadic Adjustment Scale (DAS; Spanier, 1976; Gentili et al., 2002, Italian Trans. & Validation). It is a widely used 32-item self-report measure assessing the quality of the marital relationship. This scale consists of four subscales: 1) dyadic consensus (13 items), measuring the degree to which the couple agrees on matters of importance to the relationship ($\alpha = .88$ mothers; $\alpha = .86$ fathers); 2) dyadic satisfaction (10 items), which evaluates the degree to which the couple is satisfied with their relationship ($\alpha = .78$ mothers; $\alpha = .79$ fathers); 3) affective expression (four items), which evaluates the degree of demonstrations of affection ($\alpha = .69$ mothers; $\alpha = .65$ fathers); 4) dyadic cohesion (five items), which assesses the frequency of shared activities that are experienced by the couple ($\alpha = .77$ mothers; $\alpha = .78$ fathers). The lower reliability of the affective expression subscale was discussed in the meta-analysis of Grahm et al. (2006). The authors outlined how it can likely be attributed to a combination of three factors. First, this subscale consists of only four items, and it is not surprising that the shortest subscale of the DAS also produces scores with the least reliability. Second, the authors outlined that it is highly likely that the affective expression subscale violates the assumption of tau-equivalence required by Cronbach's α . They suggested that because the affective expression subscale consisted of items measured on two different scales (two dichotomous items and two items scored on 6-point scales), it is likely that Cronbach's α is an underestimate of the scores' true reliability. Finally, it is possible that the construct underlying what Spanier (1976) called affective expression takes on different meanings. This notion is particularly interesting when one notes that two items comprising the affective expression subscale refer explicitly to sex, and the other two could be interpreted as not referring to sex, but rather to affection and love.

Parenting Stress Index-Short Form (PSI-SF; Abidin, 1995; Guarino et al., 2008, Italian Trans. & Validation). It is a measure aimed at gaining information about maternal and paternal stress. The questionnaire's 36 items are rated on a 5-point scale, ranging from *strongly agree* to *strongly disagree*. It consists of the following subscales: parental distress (PD, 12 items), parent-child dysfunctional interaction (P-CDI, 12 items), and difficult child (DC, 12 items). The PD subscale focuses on the sense of competence/incompetence in rearing the child. The P-CDI subscale measures parents' perceptions of the emotional quality of their relationship with their children. The DC subscale focuses on the parent's perception of the child regarding temperament, requesting and provoking behaviors, and demanding behaviors. The sum of the three subscale

(PD + P-CDI + DC) scores enables us to obtain the value of *total stress*. In this study, the internal consistency (α) values ranged from .81 to .90.

Child Behavior Checklist (CBCL; CBCL 1½-5 and 4-18; Achenbach & Rescorla, 2001; Frigerio, 2001, Italian Trans.). It is one of the most extensively used measures of children's internalizing and externalizing problems. The 113 items of this scale describe possible child's problem behaviors and are rated on a 3-point scale for the target child: 0 = *not true*, 1 = *sometimes or somewhat true*, and 2 = *very or often true*. As assessed by the CBCL, total children's problems are clustered in the two broader categories of externalizing and internalizing problems. Achenbach and Rescorla provided two equivalent versions of this scale for two different age samples: the CBCL 1½-5 for children from 1.5 to 5 years and the CBCL 4-18 for children from 4 to 18 years. Both versions of this scale have been used in the current study. In this study, the values of internal consistency (α) ranged from .83 to .85.

Procedure

We delivered packets consisting of self-report measures to parents. Measures were accompanied by a letter describing self-administration, in which mothers and fathers were asked to fill out the forms independently, without revealing their answers to each other, and to return all the questionnaires within two months to the schools. All parents enrolled in the study returned the measures by the due time. One thousand and fifty-eight parents (529 mothers and 529 fathers) completed the Coparenting Relationship Scale. To a subgroup of 371 parents subsequently recruited for the initial data collection, we also administered the Dyadic Adjustment Scale (DAS), the Parenting Stress Index-Short Form (PSI-SF), and the Child Behavior Checklist (CBCL).

Data Analysis Strategy

We conducted statistical analyses in three steps. In the first step, we conducted descriptive analyses, tested the internal consistency of the measure, and performed independent *t*-tests to detect differences in parents' responses by considering children's age (preschoolers or school-aged children) and gender. In the second step, we investigated the factor structure of the translated version of the CRS with confirmatory factor analyses (CFAs) and measurement invariance assessment. For the CFA, we applied aggregate analysis to consider each parent within the couples in order to adjust for standard errors in the parameters and goodness-of-fit statistics, as in Feinberg et al.'s (2012) original study. We tested the original 7-factor structure involving the 35 items of the CRS. The 7-factor model was specified as follows: Items 6, 9, 11, and 15 load on the coparenting agreement factor; Items 2, 17, 24, 28, and 30 load on the coparenting closeness factor; Items 31, 32, 33, 34, and 35 load on the exposure to conflict factor; Items 3, 10, 19, 25, 26, and 27 load on the coparenting support factor; Items 8, 12, 13, 16, 21, and 22 load on the coparenting undermining factor; Items 1, 4, 7, 14, 18, 23, and 29 load on the endorsement of partner's parenting factor; and finally, Items 5 and 20 load on the division of labor factor. Even though the reliability of this factor is low and contains only two items, thus alpha could not be computed, consistently with the other validation studies (Favez et al., 2021; Feinberg et al., 2012; Lamela et al., 2018), we decided to insert it in the following analyses, in order to test the original factorial structure. A maximum likelihood estimator with robust standard errors (MLR) was used to take into consideration the deviations of the data from the normal distribution. The following fit indexes

were used to assess model adjustment: chi-square, comparative fit index (CFI), root-mean-square error of approximation (RMSEA), and standardized root-mean-square residual (SRMR). The chi-square statistic assesses the discrepancy between the sample and fitted covariance matrices (Hu & Bentler, 1999). The sample size influences it, so some authors suggest using χ^2/df , which should be 3 or lower than 3 (Iacobucci, 2009). As for CFI, values equal to or greater than .90 suggest an acceptable fit to the data. If RMSEA and SRMR values are less than, respectively, .06 and .08 (Hu & Bentler, 1999), they can be interpreted as a close fit and a reasonable fit to data (Marsh et al., 2004). Even though these cut-off values offer useful information, they should be considered only rough guidelines (Marsh et al., 2005). Finally, measurement invariance was assessed: a) on mothers and fathers, taking into consideration the nonindependence of the data, as Claxton et al. (2015) suggested; b) on the two subsamples age groups of children (i.e., preschoolers and school-aged children). According to Claxton et al., who demonstrated how a model including correlated error terms significantly improves model fit to account for nonindependence data, we included correlated error terms for common indicators in both invariance analyses (i.e., one across parents' gender and one across children's age group). Groups were compared according to four types of measurement invariance (configural, weak, strong, and strict invariance; see Widaman et al., 2014). These invariance testing steps must be carried out from the weakest (configural) to the strongest (strict invariance). The corresponding model is compared to the least constrained model to verify whether a specific invariance has been reached. More specifically: i) configural invariance, with no equivalency constraints (i.e. the same indicator's load on the common factor for both fathers and mothers and both preschoolers and school-aged children), is a model that serves as a baseline model against which the other models were compared; ii) metric invariance was tested by constraining factor loadings to be equal by placing equality constraints on the common factor loadings (i.e., equal for fathers and mothers and for preschoolers and school-aged children); iii) scalar invariance was tested by constraining also the intercepts of the indicators (i.e., for fathers and mothers across common factors); iv) strict factorial invariance was examined by also constraining the residuals in addition to the already existing constraints of the metric and scalar invariance. Model comparison to better approximate chi-square under non-normality, was done using the Satorra-Bentler scaled χ^2 , for which statistically nonsignificant results would suggest that model fits are equivalent. In addition, we also examined the relative goodness-of-fit indices, particularly the variation of the CFI (ΔCFI) between models and, as literature suggests, where the variations in CFI are smaller than or equal to .01, the null hypothesis of invariance should not be rejected (Cheung & Rensvold, 2002). These analyses were carried out through MPLUS 7.11 software (Muthén & Muthén, 1998/2015; see Appendix for data and sample syntax). If a specific full invariance is not satisfied at one level, partial invariance can be tested to determine which parameters do not satisfy invariance across groups and the paths to start releasing parameters were selected based on the expected standardized variation of parameters reported in the output of Mplus (Saris et al., 2009). In the third step, correlational and regression analyses tested the associations among the parents' scores of the CRS and the variables marital adjustment, parenting stress, and children's internalizing and externalizing behaviors.

Results

Descriptive Statistics, Internal Consistency, and t-Test Analyses

Descriptive statistics, Cronbach's α indices, and *t*-test results are provided in Tables 1 and 2.

TABLE 1
Descriptive and internal consistency values of Coparenting Relationship Scale (CRS)

	Mothers (N = 529)					Fathers (N = 529)				
	Mean	SD	Skewness	Kurtosis	α	Mean	SD	Skewness	Kurtosis	α
Agreement	5.12	0.98	-1.45	2.37	.73	5.02	1.11	-1.41	1.81	.73
Closeness	5.01	0.90	-1.10	1.35	.71	4.93	0.96	-1.16	1.26	.71
Exposure to conflict	0.74	0.75	1.75	4.55	.81	0.73	0.81	2.46	4.52	.83
Support	4.77	1.07	-1.00	0.74	.84	4.82	1.06	-1.22	1.50	.82
Undermining	1.11	1.47	2.11	5.46	.84	1.11	1.48	1.97	3.39	.88
Endorsement	5.06	0.86	-1.17	1.43	.74	5.33	0.74	-1.74	2.58	.74
Division of labor	4.83	1.23	-1.17	1.18	.40	5.24	1.16	-1.73	2.97	.40

TABLE 2
Coparenting Relationship Scale (CRS): Descriptive and *t*-test results by considering children's age and gender

	Preschoolers (<i>N</i> = 180)		School-aged children (<i>N</i> = 349)				Males (<i>N</i> = 261)		Females (<i>N</i> = 268)			
Mothers (<i>N</i> = 529)	Mean	<i>SD</i>	Mean	<i>SD</i>	<i>t</i> (527)	<i>p</i>	Mean	<i>SD</i>	Mean	<i>SD</i>	<i>t</i> (527)	<i>p</i>
Agreement	5.24	0.94	5.08	1.00	1.725	.085	5.15	0.95	5.09	1.01	0.695	.487
Closeness	4.98	0.86	5.03	0.91	−0.612	.541	5.05	0.88	4.98	0.90	1.004	.316
Exposure to conflict	0.78	0.79	0.72	0.73	0.771	.441	0.75	0.73	0.73	0.72	0.278	.781
Support	4.81	1.06	4.76	1.08	0.476	.634	4.75	1.08	4.79	1.06	−0.463	.643
Undermining	0.61	0.80	0.61	0.84	−0.080	.931	0.60	0.80	0.61	0.80	0.538	.591
Endorsement	5.15	0.77	5.03	0.88	1.405	.161	5.10	0.82	5.03	0.89	0.833	.405
Division of labor	5.02	1.05	4.76	1.31	2.166	.061	4.85	1.33	4.82	1.15	0.361	.718
Fathers (<i>N</i> =529)												
Agreement	5.08	1.02	5.00	1.14	0.722	.471	5.11	0.99	4.95	1.21	1.666	.096
Closeness	4.86	0.91	4.96	0.98	−1.052	.293	5.03	0.94	4.85	0.98	2.155	.096
Exposure to conflict	0.79	0.81	0.70	0.81	1.154	.249	0.67	0.72	0.79	0.88	−1.692	.091
Support	4.79	1.04	4.83	1.07	−0.387	.699	4.86	1.01	4.79	1.11	0.746	.456
Undermining	0.85	0.91	1.04	1.02	−3.424	.033	1.03	1.48	1.11	1.46	−1.128	.260
Endorsement	5.28	0.73	5.35	0.75	−1.075	.283	5.38	0.67	5.29	0.81	1.475	.140
Division of labor	5.14	1.26	5.28	1.12	−1.227	.220	5.31	1.04	5.16	1.29	1.469	.163

As shown in Table 2, starting from the whole sample we consider two subsamples based on: i) age groups of children (i.e., preschoolers $N = 180$, and school-aged children $N = 349$); ii) children's gender (i.e., males $N = 261$, and females $N = 268$). Regarding the values of internal consistency, results showed that α indices were adequate. Regarding *t*-test results, we did not find significantly different scores in CRS subscales when considering

children's gender. Conversely, we found a significant difference in fathers' undermining subscale when considering children's age. Specifically, fathers raising school-aged children reported higher scores than fathers raising preschoolers children. Furthermore, to assess the degree of nonindependence, we ran the bivariate Pearson correlation (Claxton et al., 2015; Kenny et al., 2006), which showed that the variables (i.e., the items) were significantly related in the case of both fathers and mothers.¹

Factor Structure

Figure 1 presents the confirmatory factor analysis structural equation model that was performed in order to test the CRS dimensionality. A model with a 7-factor structure, replicating the original factor structure of Feinberg et al.'s (2012) study, was assessed on the total sample of mothers and fathers. The fit of the 7-factor model was acceptable but not outstanding: comparative fit index was sufficient, but the chi-square model fit index was significant, indicating that the model does not precisely replicate the covariance matrix — $\chi^2 = 1087.44$, $p < .001$, $df = 539$; $\chi^2/df = 2.02$; CFI = .901; RMSEA = .042 [.039, .046]; SRMR = .056) —, in line with Feinberg and colleagues' (2012) study.

The correlations within the seven factors are all significant: exposure to conflict and coparenting undermining are positively correlated with each other and negatively correlated with the other factors, as expected; the five positive factors (agreement, closeness, support, endorsement, and division of labor) are all positively correlated with each other.

Two measurement invariance analyses were carried out, including correlated error terms: a) on mothers and fathers and b) on the two age groups of children (preschoolers and school-aged children). We compared the model to a model including correlated error terms both for fathers and mothers and preschoolers and school-aged children. Results (see Table 3) showed that the 7-factor model fits well across parents' gender, as there is configural invariance — $\chi^2 = 2208.293$, $p < .001$, $df = 1078$; $\chi^2/df = 2.04$; CFI = .883; RMSEA = .045 [.042-.047]; SRMR = .056. Moreover, the likelihood ratio tests proved that the goodness of fit of the metric model did not significantly change from the configural model, that is, setting the same factor loadings in both subsamples did not influence the model adjustment, nor did the model fits change (S-BA $\chi^2 = 31.44$, $df = 1106$, $p = .298$; $\Delta CFI = .002$) also by comparing the models through an *absolute* fit index, the ΔCFI , being below or equal to .01. Hence, imposing equality constraints on factor loading did not worsen model fit (weak invariance). Subsequently, equality constraints on intercepts of the manifest variables were added; when the scalar model was considered, a statistically significant Satorra-Bentler χ^2 scaled was obtained (S-BA $\chi^2 = 8.14$, $df = 28$, $p < .001$; $\Delta CFI = .003$). These results showed that the fit indexes significantly worsened, especially in the strict model, suggesting that the relations between self-reported coparenting relationships were not equivalent for mothers and fathers at a level of strict invariance that is a very constrained model rarely reached (Van De Schoot et al., 2015).

As shown in Table 4, results revealed that the 7-factor model fits well across age groups, as there is configural invariance, while metric invariance was not reached, prompting the testing for partial metric invariance. Hence, imposing equality constraints on factor loading worsens model fit. More specifically, through a step-by-step process, we freed the items that were different across groups; we found that Item 12 ("My partner sometimes makes jokes or sarcastic comments about the way I am as a parent"), Item 21 ("When all three of us are together, my partner sometimes competes with me for our child's attention"), Item 22 ("My partner undermines my parenting"), Item 25 ("My partner appreciates how hard I work at being a good parent"), and Item

26 (“When I’m at my wits end as a parent, partner gives me the extra support I need”) were different across age groups. These items refer to the support and the undermining dimensions.

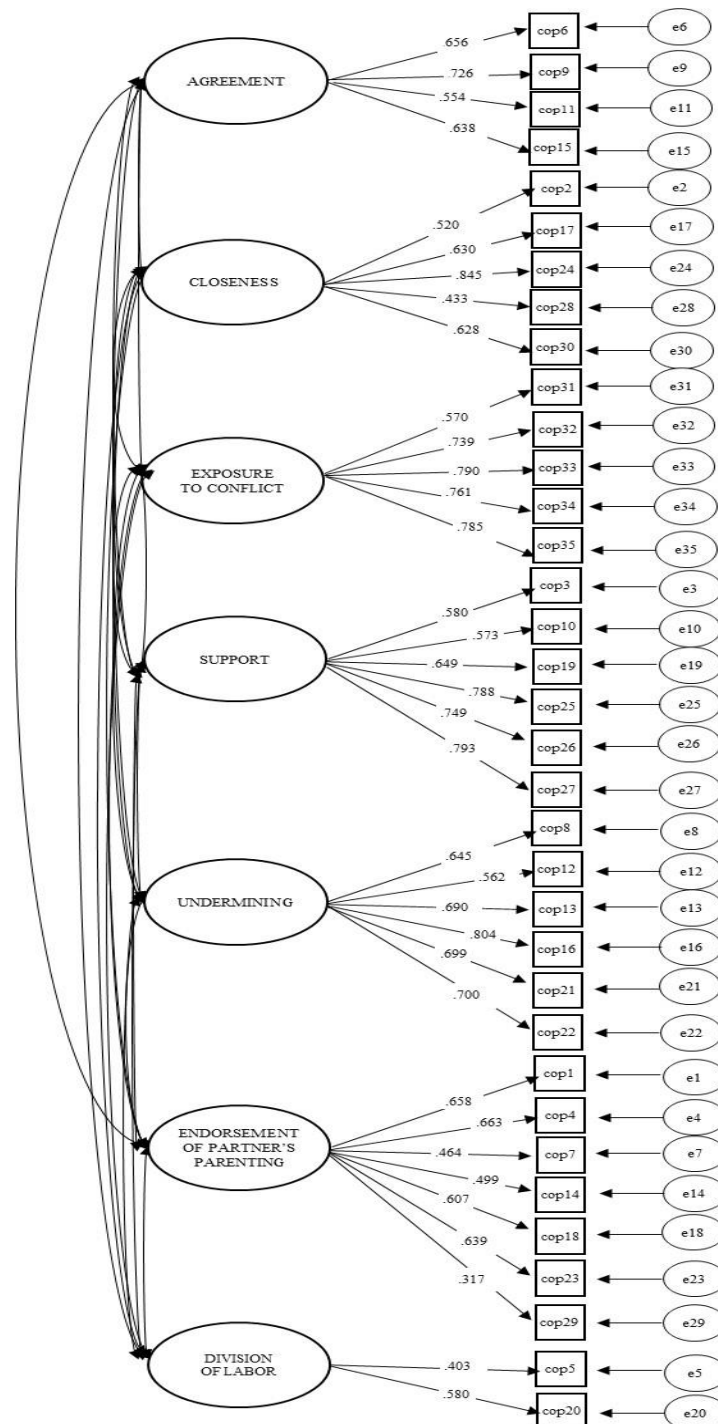


FIGURE 1
Confirmatory factor analysis of the Italian Coparenting Relationship Scale (CRS)
in Italian parents (with standardized regression weights)

TABLE 3
Measurement invariance between fathers and mothers

RMSEA										
	<i>df</i>	χ^2	CFI	Estimate	95% CI	SRMR	Δdf	S-B $\Delta\chi^2$	<i>p</i>	ΔCFI
Configural	1078	2208.29	.883	.045	[.042, .047]	.056				
Metric (vs. configural)	1106	2228.97	.881	.044	[.041, .046]	.058	28	31.44	.298	.002
Scalar (vs. metric)	1134	2305.66	.878	.044	[.042, .047]	.059	28	8.14	< .001	.003
Strict (vs. scalar)	1168	2449.28	.867	.046	[.043, .048]	.074	34	10.2	< .001	.011

Note. RMSEA = root-mean-square error of approximation; CFI = comparative fit index; CI = confidence interval; SRMR = standardized root-mean-square residual.

TABLE 4
Measurement invariance for age groups of children (preschoolers vs. school-aged children)

RMSEA										
	<i>df</i>	χ^2	CFI	Estimate	95% CI	SRMR	Δdf	S-B $\Delta\chi^2$	<i>p</i>	ΔCFI
Configural	1078	1806.95	.894	.043	[.042, .048]	.056				
Metric (vs. configural)	1113	1871.56	.861	.050	[.046, .054]	.059	35	31.44	.003	.03
Metric (vs. configural, freeing items 12, 21, 22, 25, 26)	1108	183.33	.884	.045	[.043, .048]	.057	30	32.73	.335	.01
Scalar (vs. metric)	1136	1869.24	.872	.049	[.046, .054]	.058	28	37.37	.111	.01
Strict (vs. scalar)	1167	1937.57	.856	.051	[.047, .054]	.060	31	59.53	.002	.02

Note. RMSEA = root-mean-square error of approximation; CFI = comparative fit index; CI = confidence interval; SRMR = standardized root-mean-square residual.

Changes in CFI, when the configural invariance model is compared to the metric invariance model with freeing items, were within good values ($\Delta CFI = .01$). This suggests that the factor score measure was invariant across age groups of children, that is, the items used to estimate the factor loadings have the same meaning both for parents of preschoolers and school-aged children. Subsequently, equality constraints on intercepts of the manifest variables were added; the scalar invariance model also provided the change of the CFI index within the recommended values, as shown in Table 4, indicating that both factor loadings and item intercept are invariant between two groups. For strict invariance, the more restrictive model, which constrained the factor loadings, item intercept, and residual variances to produce the model, the change in CFI also shows a worsening of the model ($\Delta CFI = .02$). Regarding the last step of invariance measurement, strict invariance was not reached, fit indexes significantly worsened in comparison to the strong model suggesting that the relations between self-reported coparenting relationship were not fully equivalent for

parents of preschoolers and school-aged children. It should be noted, however, that strict invariance represents a highly constrained model and is rarely reached (Van De Schoot et al., 2015).

Correlational and Regression Results

Pearson's r correlations were used to investigate the associations between mothers' and fathers' coparenting relationship (CRS) and marital adjustment (DAS), parenting stress (PSI-SF), and children's internalizing and externalizing behaviors (CBCL). Specifically, correlational analyses were performed with: 1) all the dimensions of marital adjustment (DAS: dyadic consensus, dyadic satisfaction, dyadic cohesion, and affective expression); all the dimensions of the coparenting relationship (CRS: agreement, closeness, support, endorsement, undermining, division of labor, and exposure to conflict); all the dimensions of parenting stress (PSI-SF: parental distress, parent-child dysfunctional interaction, and difficult child); and also children's internalizing and externalizing behaviors (CBCL). Regression analyses were also performed to assess the predictive role of the coparenting dimensions on parenting stress and children's internalizing and externalizing behaviors.

Coparenting Relationship and Marital Adjustment

Correlational results showed significant associations between coparenting relationships (CRS) and marital adjustment (DAS) for both mothers and fathers: for mothers (see Table 5), all the dimensions and the total scale of marital adjustment were correlated with the dimensions of the coparenting relationship (agreement = r from .24 to .37; closeness = r from .42 to .59; exposure to conflict = r from -.25 to -.46; support = r from .40 to .59; undermining = r from -.20 to -.36; endorsement = r from .31 to .45; division of labor = r from .19 to .25).

For fathers (see Table 6), the total scale of the DAS and its subscale dyadic satisfaction were correlated with the seven dimensions of coparenting: agreement (r from .17 to .31); closeness (r from .24 to .48); exposure to conflict (r from -.21 to -.38); support (r from .23 to .40); undermining (r from -.09 to -.24); endorsement (r from -.04 to .24); and division of labor (r from -.02 to .13). The other subscales of the DAS (dyadic consensus, dyadic cohesion, and emotional expression) were correlated to the following dimensions of coparenting: agreement, closeness, and support (r from .16 to .21), and exposure to conflict (r from -.21 to -.28).

Coparenting Relationship and Parenting Stress

Regarding parenting stress (PSI-SF), all the dimensions of the coparenting relationship (CRS) were significantly associated with the dimensions (PD, P-CDI, and DC) of parenting stress (see Tables 7 and 8). Specifically, all the CRS subscales were significantly associated with both mothers' (r from -.15 to -.42), and fathers' parenting stress (r from -.10 to -.39).

Moreover, regression analyses were performed with the dimensions of coparenting as predictors of maternal and paternal parenting stress (PSI total score). For mothers, results showed that the dimensions closeness ($\beta = -.26$, $p < .01$, $VIF < 2$), endorsement ($\beta = -.16$, $p < .05$, $VIF < 2$), and exposure to conflict ($\beta = .17$, $p < .001$, $VIF < 2$) predicted maternal parenting stress ($R^2 = .23$, $F = 15.85$, $p < .001$). For fathers, the dimensions support ($\beta = -.16$, $p < .05$, $VIF < 2$) and endorsement ($\beta = -.15$, $p < .01$, $VIF < 2$) predicted paternal parenting stress ($R^2 = .22$, $F = 14.99$, $p < .001$).

TABLE 5
Correlational analyses: Mother's marital adjustment and coparenting subscales ($N = 371$)

	1	2	3	4	5	6	7	8	9	10	11	12
1. Dyadic consensus (DAS)	1											
2. Dyadic satisfaction (DAS)	.54**	1										
3. Affective expression (DAS)	.55**	.52**	1									
4. Dyadic cohesion (DAS)	.44**	.51**	.41**	1								
5. Marital adjustment (DAS)	.84**	.83**	.69**	.75**	1							
6. Agreement (CRS)	.34**	.30**	.25**	.24**	.37**	1						
7. Closeness (CRS)	.43**	.55**	.42**	.45**	.59**	.38**	1					
8. Conflict (CRS)	-.32**	-.46**	-.34**	-.25**	-.43**	-.40**	-.29**	1				
9. Support (CRS)	.50**	.49**	.40**	.42**	.59**	.44**	.66**	-.37**	1			
10. Undermining (CRS)	-.26**	-.36**	-.23**	-.20**	-.33**	-.38**	-.25**	.47**	-.37**	1		
11. Endorsement (CRS)	.38**	.39**	.35**	.31**	.45**	.35**	.53**	-.20**	.64**	-.32**	1	
12. Division of labor (CRS)	.24**	.19**	.19**	.15**	.25**	.29**	.26**	-.13*	.34**	-.31**	.36**	1

Note. DAS = Dyadic Adjustment Scale; CRS = Coparenting Relationship Scale.
* $p < .05$; ** $p < .01$.

TABLE 6
Correlational analyses: Father's marital adjustment and coparenting subscales ($N = 371$)

	1	2	3	4	5	6	7	8	9	10	11	12
1. Dyadic consensus (DAS)	1											
2. Dyadic satisfaction (DAS)	-.17**	1										
3. Affective expression (DAS)	.42**	-.32**	1									
4. Dyadic cohesion (DAS)	.23**	.24**	.30**	1								
5. Marital adjustment (DAS)	.75**	.42**	.39**	.63**	1							
6. Agreement (CRS)	.17**	.20**	.16**	.21**	.31**	1						
7. Closeness (CRS)	.24**	.25**	.30**	.46**	.48**	.49**	1					
8. Conflict (CRS)	-.22**	-.24**	-.28**	-.21**	-.38**	-.43**	-.36**	1				
9. Support (CRS)	.16**	.23**	.23**	.40**	.39**	.49**	.68**	-.31**	1			
10. Undermining (CRS)	-.09	-.21**	-.12*	-.19**	-.24**	-.57**	-.36**	.51**	-.36**	1		
11. Endorsement (CRS)	-.04	.22**	.05	.24**	.17**	.38**	.45**	-.23**	.53**	-.32**	1	
12. Division of labor (CRS)	-.05	.13*	-.02	.07	.05	.27**	.17**	-.20**	.16**	-.35**	.35**	1

Note. DAS = Dyadic Adjustment Scale; CRS = Coparenting Relationship Scale.
* $p < .05$; ** $p < .01$.

TABLE 7
Correlational analyses: Mothers' parenting stress and coparenting subscales ($N = 371$)

	1	2	3	4	5	6	7	8	9	10	11
1. Agreement (CRS)	1										
2. Closeness (CRS)	.37**	1									
3. Conflict (CRS)	-.39**	-.28**	1								
4. Support (CRS)	.44**	.65**	-.36**	1							
5. Undermining (CRS)	-.38**	-.24**	.46**	-.37**	1						
6. Endorsement (CRS)	.34**	.53**	-.19**	.63**	-.32**	1					
7. Division of labor (CRS)	.29**	.25**	-.12*	.33**	-.30**	.35**	1				
8. (PD-PSI)	-.24**	-.42**	.30**	-.33**	.27**	-.34**	-.19**	1			
9. (P-CDI-PSI)	-.21**	-.30**	.20**	-.28**	.18**	-.26**	-.15**	.48**	1		
10. (DC-PSI)	-.20**	-.28**	.25**	-.26**	.19**	-.27**	-.16**	.52**	.69**	1	
11. (Total stress-PSI)	-.26**	-.40**	.30**	-.34**	.25**	-.35**	-.20**	.81**	.82**	.88**	1

Note. CRS = Coparenting Relationship Scale; PD-PSI = parental distress-Parenting Stress Index; P-CDI-PSI = parent-child dysfunctional interaction-Parenting Stress Index; DC-PSI = difficult child-Parenting Stress Index.

* $p < .05$; ** $p < .01$.

TABLE 8
Correlational analyses: Fathers' parenting stress and coparenting subscales ($N = 371$)

	1	2	3	4	5	6	7	8	9	10	11
1. Agreement (CRS)	1										
2. Closeness (CRS)		1									
3. Conflict (CRS)	-.43**	-.36**	1								
4. Support (CRS)	.49**	.67**	-.30**	1							
5. Undermining (CRS)	-.57**	-.35**	.51**	-.36**	1						
6. Endorsement (CRS)	.37**	.44**	-.23**	.53**	-.32**	1					
7. Division of labor (CRS)	.27**	.17**	-.19**	.16**	-.34**	.34**	1				
8. (PD-PSI)	-.31**	-.39**	.29**	-.37**	.31**	-.31**	-.12*	1			
9. (P-CDI-PSI)	-.34**	-.22**	.19**	-.33**	.31**	-.34**	-.20**	.57**	1		
10. (DC-PSI)	-.28**	-.26**	.23**	-.28**	.22**	-.27**	-.10*	.60**	.67**	1	
11. (Total stress-PSI)	-.35**	-.33**	.27*	-.38**	.31**	-.35**	-.15**	.84**	.84**	.87**	1

Note. CRS = Coparenting Relationship Scale; PD-PSI = parental distress-Parenting Stress Index; P-CDI-PSI = parent-child dysfunctional interaction-Parenting Stress Index; DC-PSI = difficult child-Parenting Stress Index.

* $p < .05$; ** $p < .01$.

Coparenting Relationship and Children's Internalizing and Externalizing Behaviors

Correlational data showed that, except for the division of labor subscale, for both mothers and fathers, the other dimensions of the coparenting relationship were associated with internalizing and externalizing

behaviors. Specifically, results showed that for mothers the dimensions agreement, closeness, exposure to conflict, undermining, and endorsement were significantly associated with the internalizing behaviors (r values from $-.10$ to $.21$). Moreover, the dimensions exposure to conflict, support, and undermining were correlated to the externalizing behaviors (r values from $-.11$ to $.20$). Regarding fathers, the dimensions agreement, exposure to conflict, support, and undermining were significantly associated with the internalizing behaviors (r values from $-.11$ to $.22$). Moreover, all the dimensions agreement, closeness, exposure to conflict, support, undermining, and endorsement were correlated to the externalizing behaviors (r values from $-.11$ to $.18$) (these data are available from the corresponding author upon request).

Moreover, regression results showed that, for the mothers, the exposure to conflict predicted the internalizing symptoms ($R^2 = .08$, $F = 4.35$, $p < .001$; $\beta = .13$, $p < .01$; VIF < 2), while undermining predicted the externalizing behaviors ($R^2 = .05$, $F = 2.76$, $p < .01$; $\beta = .17$, $p < .05$; VIF < 2). For the fathers, the exposure to conflict predicted both internalizing and externalizing behaviors (internalizing: $R^2 = .06$, $F = 3.10$, $p < .01$; $\beta = .20$, $p < .05$; VIF < 2 ; externalizing: $R^2 = .05$, $F = 2.182$, $p < .01$; $\beta = .12$, $p < .05$, VIF < 2).

Discussion

The first study aimed to offer a first contribution to the validation of the Italian version of the Coparenting Relationship Scale (CRS; Feinberg et al., 2012) and to explore its dimensionality in a group of Italian mothers and fathers. Firstly, we tested the internal consistency of the CRS subscales. Results showed satisfactory reliability (α from $.71$ to $.88$) for the subscales, except for the division of labor subscale ($\alpha = .40$). This low value is similar to those found in the US version (Feinberg et al., 2012), the Portuguese version (Lamela et al., 2018), and the French version (Favez et al., 2021). According to Lamela and colleagues (2018), this low value seems to corroborate the assumption of some researchers who advocate that the nature, frequency, and reciprocity division of tasks in childcare do not contribute to the conceptual definition of coparenting. For example, McHale (2007) emphasized that the coparenting relationship should not primarily focus on how adults share the division of work in childcare since this division is culturally situated, and existing marked differences depend on cultural and social factors. McHale (2007), therefore, suggested that the division of tasks could be considered a distinct construct and not part of a coparenting relationship.

Then we performed t -test analyses to see whether there were significant differences in mothers' and fathers' responses by considering children's age and gender. t -Test results showed that fathers indicated higher levels of undermining when raising school-aged children ($N = 349$) than preschoolers ($N = 180$). We try to explain this result by considering that the increased fathers' involvement with childcare in the case of their older children, $t(527) = -2.53$, $p < .05$, could foster the gatekeeping tendencies of some mothers aimed to limit the fathers' participation in family work (Allen & Hawkins, 1999). Confirmatory analyses tested the 7-factor dimensionality found in the original study by Feinberg to verify its validity for the Italian population. Results indicated that the 7-factor model also adequately fitted the data in the Italian population and that the factor structure of the Italian version showed a configural invariance and metric invariance.

Convergent validity analyses showed significant associations of the CRS with marital adjustment, parenting stress, and children's internalizing and externalizing behaviors. For both mothers and fathers, according to literature (Baril et al., 2007; Camisasca et al., 2022), higher levels of marital adjustment were significantly associated with the seven dimensions of the coparenting relationship. Furthermore, according to the literature that assumes that coparenting could foster parenting stress (Camisasca et al., 2022), our results showed that all seven dimensions of coparenting were correlated to both maternal and paternal parenting stress. Again, regression

analyses indicated that higher levels of coparenting conflict and lower levels of coparenting closeness predicted maternal parenting stress. Lower levels of coparenting support and endorsement predicted paternal parenting stress. Finally, according to literature (Teubert & Pinquart, 2010), data indicated that negative coparenting (conflict and undermining) was the best predictor of children's internalizing and externalizing behaviors.

STUDY 2

Participants and Measures

The hypotheses were tested using the subgroup of 371 mothers and 371 fathers of Study 1. To this subgroup, we administered the Coparenting Relationship Scale (CRS), the Dyadic Adjustment Scale (DAS), the Parenting Stress Index-Short Form (PSI-SF), and the Child Behavior Checklist (CBCL).

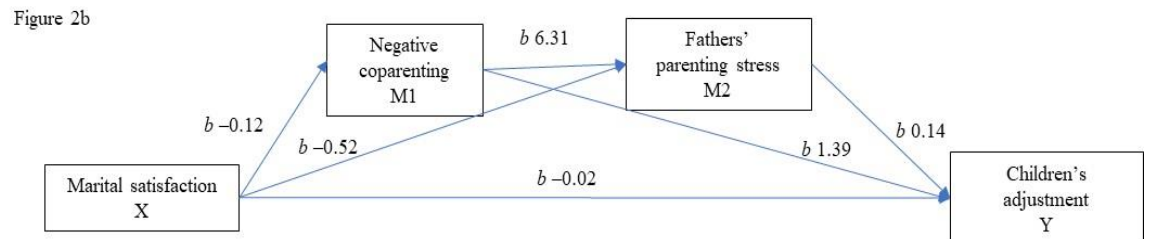
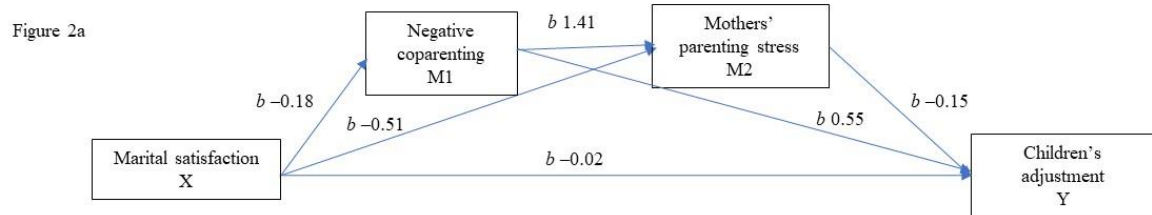
Data Analysis Strategy

To explore the dynamic pathways linking marital satisfaction (predictor: X) to children's adjustment (Y), we performed three mediation models (one for mothers, one for fathers, and the last one with both mothers' and fathers' data). In these models, negative coparenting (undermining and conflict behaviors: M1) and parenting stress (M2) were considered as serial mediators. We used the Process Macro for SPSS (Hayes, 2012), applying Model 6 and Model 82 with 5000 bias-corrected bootstrap samples (Hayes, 2018). The bias-corrected bootstrapping resampling method is particularly suitable for small samples (Hayes, 2012). In the first set of mediation models (Model 6), mothers' marital satisfaction was the predictor (X), and the children's total behavioral problems were the outcome (Y). The perceived negative coparenting relationship was used as the first mediator (M1) with the maternal parenting stress (M2) as the second mediator (see Figure 2a). Fathers' variables were used in the second set of mediation models (Model 6). Fathers' marital dissatisfaction was the predictor (X), and children's total behavioral problems were the outcome (Y). Again, the perceived negative coparenting relationship was used as the first mediator (M1) with paternal parenting stress (M2) as the second mediator (see Figure 2b). The third set of mediation models (Model 82) used both mothers' and fathers' variables. The marital dissatisfaction index (measured by considering the perceptions of both partners) was the predictor (X), and children's total behavioral problems were the outcome (Y). Again, the mothers' perceived negative coparenting relationship was used as the first mediator (M1), with maternal parenting stress (M2) as the second mediator. Moreover, the fathers' perceived negative coparenting relationship was used as the third mediator (M3), with paternal parenting stress (M4) as the fourth mediator (see Figure 2c).

In these mediation models, X is modeled as affecting Y through a series of pathways. One pathway is indirect and runs from X to Y through M1 or M3 only, a second indirect path runs through M2 or M4 only, and a third indirect influence passes through both M1 and M2 in serial, with M1 or M3 affecting M2 or M4. The remaining effect of X is direct from X to Y without passing through either M1 and/or M3 and M2 and/or M4 (Hayes, 2018, p. 168).

Results

In the first mediation model, the mothers' marital satisfaction was added as the predictor (X), the negative coparenting and parenting stress as serial mediators (M1 and M2), and children's total behavioral



FIGURES 2A AND 2B
The negative coparenting and parenting stress as parallel and serial mediators
(mediaton Model 6)

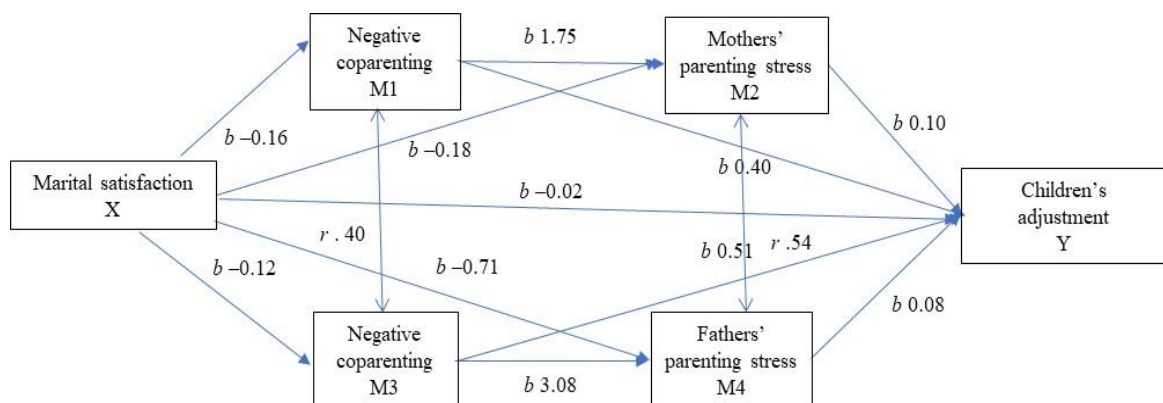


FIGURE 2C
The negative coparenting and parenting stress as parallel and serial mediators
(mediaton Model 82)

problems as the outcome (Hayes, 2012, Model 6). Results showed that the total effect of mothers' marital satisfaction on children's behavioral problems was significant ($b = -0.19, p < .05$). The direct effects of marital dissatisfaction on children's behavioral problems were not significant ($b = -0.02, p = .72$). Additionally, results indicated the existence of three significant indirect effects ($R^2 = .15, F = 22.19, p < .001$). The first indirect pathway passed from X to Y through M1 negative coparenting, $b = -0.10 [-0.18, -0.03]$; the second indirect pathway passed from X to Y, through maternal parenting stress, M2, $b = -0.07 [-0.15, -0.01]$; the third indirect pathway passed from X to Y, with negative coparenting affecting maternal parenting stress, M1 to M2, $b = -0.04 [-0.07, -0.01]$.

In the second mediation model, the fathers' variables were added. Also, for fathers, results showed that the total effect of marital satisfaction on children's behavioral problems was significant ($b = -0.15, p < .01$). The direct effects of marital satisfaction on children's behavioral problems were not significant ($b = 0.02, p = .55$). Additionally, as for mothers, results indicated three significant indirect effects ($R^2 = .13, F = 18.53, p < .001$). The first indirect pathway passed from X to Y through M1 negative coparenting, $b = -0.12 [-0.18, -0.07]$; the second indirect pathway passed from X to Y, through maternal parenting stress, M2, $b = -0.07 [-0.11, -0.03]$; the third indirect pathway passed from X to Y with negative coparenting affecting maternal parenting stress, M1 to M2, $b = -0.02 [-0.03, -0.00]$.

In the third mediation model (Model 82), results showed that the total effect of marital satisfaction on children's behavioral problems was significant ($b = -0.26, p < .01$). The direct effects of marital satisfaction on children's behavioral problems were not significant ($b = -0.02, p = .56$). Additionally, results indicated three significant indirect effects ($R^2 = .18; F = 16.03; p < .001$). The first indirect pathway passed from X to Y through M1 mothers' perceived negative coparenting, $b = -0.06 [-0.14, -0.00]$; the second indirect pathway passed from X to Y with maternal negative coparenting affecting maternal parenting stress, M1 versus M2, $b = -0.02 [-0.05, -0.00]$. The third indirect pathway passed from X to Y with fathers' negative coparenting affecting paternal parenting stress, M3 versus M4, $b = -0.02 [-0.04, -0.00]$. Moreover, this model also showed correlations between mothers' and fathers' negative coparenting and parenting stress.

Discussion

Our second study aimed to advance knowledge about the role of coparenting in family dynamics. Specifically, we were interested in exploring if negative coparenting and parenting stress could explain the effects of marital satisfaction on children's adjustment.

Results showed, for both mothers and fathers, a series of indirect effects of marital satisfaction on children's adjustment. Expressly, data indicated three significant indirect effects. The first indirect pathway was through negative coparenting; the second indirect pathway was through maternal and paternal parenting stress; the third indirect pathway passed from marital satisfaction to parenting stress, with negative coparenting affecting maternal parenting stress.

Consistently with the spillover hypothesis (Erel & Burman, 1995), results indicated a series of spillover effects precisely from the marital realm to coparenting, from the marital domain to parenting behaviors, and from coparenting to parenting stress. In other words, the negative affect and mood (anger, distress, and frustration) created by marital dissatisfaction may spillover both into the coparenting relationship (resulting in conflictual and undermining coparenting behaviors) and into the parent-child relationship by promoting higher levels of parenting stress.

Moreover, data also confirmed the existence of a spillover effect from the coparenting relationship to parenting behaviors, demonstrating how a deteriorated coparenting relationship could affect the parent's ability to cope with parental demands successfully. Indeed, consistent with the literature (Merrifield & Gamble, 2013; Miragoli et al., 2018; Solmeyer & Feinberg, 2011), results showed how conflictual and undermining coparenting interactions could be associated with higher levels of parenting stress, denoted by parental inefficacy, feelings of helplessness, dysfunctional parent-child interaction, and negative perceptions of the children's behaviors.

Finally, data indicated that maternal and paternal parenting stress (separately considered) were directly associated with children's adjustment. This result is consistent with the literature (Anthony et al., 2005; Camisasca et al., 2016; Crnic et al., 2005), highlighting the direct impact of parenting stress on child adjustment. This direct effect of parenting stress could be explained by considering the chronic levels of stress

experienced by parents that determine a pervasive hostile emotional environment. This emotional climate, characterized by uncontrolled and adverse parental emotional reactions, could affect children's emotional responses with dysregulating effects through some contagion of affections (Denham et al., 2000). In turn, the emotional dysregulation of children exposed to chronic levels of parenting stress could make them particularly vulnerable to the consequent onset of behavioral problems.

GENERAL DISCUSSION

The first study was the first contribution to validating the Italian version of the Coparenting Relationship Scale (CRS; Feinberg et al., 2012) and aimed to explore its dimensionality in a group of Italian mothers and fathers. Results showed that CRS is a valuable instrument that can assist researchers and mental health professionals in detecting the multidimensional aspects of coparenting. Moreover, the data indicated that the 7-factor model (coparenting agreement, coparenting closeness, coparenting support, endorsement of partner's parenting, coparenting undermining, exposure to conflict, division of labor) fitted the data adequately also in the Italian population. In addition, the factor structure of the Italian version showed a configural and metric invariance. The findings suggest that results obtained in previous studies in the United States, France, Portugal, and Sweden are also generalizable to Italy.

The second study was the first to explore the mechanism explaining the indirect effects of marital satisfaction on children's adjustment by considering the serial mediation of coparenting and parenting stress. The results suggested that the negative coparenting caused by marital dissatisfaction is important in predicting maternal and paternal parenting stress. In other words, the coparenting relationship could be considered a crucial intermediary mechanism in family dynamics, explaining the pathway from the marital domain to children's psychological adjustment. In line with the literature (Camisasca Miragoli, Di Blasio, & Feinberg, 2019; Choi & Becher, 2019; Parkes et al., 2019; Stroud et al., 2015), it is possible to assume that a harmonious coparenting relationship has a positive impact on parenting and children's psychological adjustment. Conversely, a dysfunctional coparenting relationship could deteriorate parenting competencies, leading to higher levels of parenting stress. Finally, regarding the direct impact of parenting stress on children's adjustment, we could argue that the family's pervasive hostile emotional environment could affect children's emotional reactions with dysregulating effects. Moreover, the result concerning the exact effects of maternal and paternal parenting stress supported the idea that fathers exert a significant role in the emotional and psychological development of their children.

There are several limitations to this study. First, our participants are a low-risk sample of the middle to upper-class population. Second, our sample consisted of only couples of parents in the towns and provinces of North Italy and did not include separated or divorced parent couples. Focal children were also all biological children of parents participating in the study. Further studies are needed to explore the validity of CRS with couples of parents living in other parts of Italy and including in samples nonintact or adoptive families. Replicating our findings with a more heterogeneous sample would foster a generalization of findings to a broader population.

Moreover, this study has further limitations. First, the causal direction of relations among variables examined in this study cannot be empirically evaluated because the research design of this study is cross-sectional. Second, the use of only self-reported data can be subject to social desirability and inflate some of the associations among variables. Future research should use a multiinformant and multimethod approach, including observational methods, teacher reports, and interviews, which could foster a more accurate evaluation of the investigated variables. Specifically, in evaluating children's psychological adjustment,

multiinformant data collection could help gain a more objective view of children's internalizing and externalizing behaviors.

Despite these limitations, the present study is the first contribution to the validation of the Italian version of CRS. This work also provides evidence of the measure's convergent validity with marital adjustment, parenting stress, and child adjustment.

NOTE

1. The correlation matrix between variables (i.e., items) is available from the corresponding author upon request.

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APPENDIX

CFA coparenting
Metric invariance — Free

DATA:

FILE is iom.dat;

VARIABLE:

NAMES ARE cop01 cop02 cop03 cop04 cop05 cop06 cop07 cop08 cop09 cop10 cop11 cop12 cop13 cop14
cop15 cop16 cop17 cop18 cop19 cop20 cop21 cop22 cop23 cop24 cop25 cop26 cop27 cop28 cop29
cop30 cop31 cop32 cop33 cop34 cop35 ses eta;

MISSING ARE ALL (999);

USEVARIABLES ARE

cop01 cop02 cop03 cop04 cop05 cop06 cop07 cop08 cop09 cop10 cop11 cop12 cop13 cop14 cop15 cop16
cop17 cop18 cop19 cop20 cop21 cop22 cop23 cop24 cop25 cop26 cop27 cop28 cop29 cop30 cop31 cop32
cop33 cop34 cop35 eta;

grouping is eta (0 = *prescolare* [preschooler] 1 = *scolare* [school-aged]);

ANALYSIS:

ESTIMATOR = MLR;

MODEL:

agree BY cop06* cop09 cop11 cop15;
closen BY cop02* cop17 cop24 cop28 cop30;
confli BY cop31* cop32 cop33 cop34 cop35;
supp BY cop03* cop10 cop19 cop25 cop26 cop27;
undermi BY cop08* cop12 cop13 cop16 cop21 cop22;
endor BY cop01* cop04 cop07 cop14 cop18 cop23 cop29;
labor BY cop05* cop20;

[agree@0];agree@1;[closen@0]; closen@1;[confli@0];confli@1;[supp@0];supp@1; [undermi@0];un-
dermi@1;[endor@0];endor@1;[labour@0];labour@1;
agree with closen; agree with confli; agree with supp; agree with undermi; agree with endor; agree with
labour; closen with confli; closen with supp; closen with undermi; closen with endor; closen with la-
bour; confli with supp; confli with undermi; confli with endor; confli with labour; supp with undermi; supp
with endor; supp with labour; undermi with endor; undermi with labour; endor with labour;
[cop06];[cop09]; [cop11]; [cop15]; [cop02];[cop17]; [cop24]; [cop28]; [cop30]; [cop31];[cop32];
[cop33]; [cop34]; [cop35];[cop03];[cop10]; [cop19]; [cop25]; [cop26]; [cop27];[cop08];[cop12]; [cop13];
[cop16]; [cop21]; [cop22]; [cop01];[cop04]; [cop07]; [cop14]; [cop18]; [cop23]; [cop29];[cop05];[cop20];
cop06;cop09; cop11; cop15; cop02;cop17; cop24; cop28; cop30; cop31;cop32; cop33; cop34; cop35;
cop03;cop10; cop19; cop25; cop26; cop27; cop08;cop12; cop13; cop16; cop21; cop22; cop01;cop04;
cop07; cop14; cop18; cop23; cop29; cop05;cop20;

MODEL *scolare* [school-aged]:

agree BY cop06* cop09 cop11 cop15;
closen BY cop02* cop17 cop24 cop28 cop30;

confli BY cop31* cop32 cop33 cop34 cop35;
supp BY cop03* cop10 cop19 cop25 cop26 cop27;
undermi BY cop08* cop12 cop13 cop16 cop21 cop22;
endor BY cop01* cop04 cop07 cop14 cop18 cop23 cop29;
labour BY cop05* cop20;
[agree@0];agree@1;[closen@0]; closen@1;[confli@0];confli@1;[supp@0];supp@1; [undermi@0];un-
dermi@1;[endor@0];endor@1;[labour@0];labour@1;
agree with closen; agree with confli;agree with supp; agree with undermi; agree with endor; agree with la-
bour;closen with confli; closen with supp; closen with undermi;closen with endor;closen with labour;confli
with supp;confli with undermi;confli with endor;confli with labour;supp with undermi;supp with en-
dor;supp with labour;undermi with endor;undermi with labour;endor with labour;
[cop06];[cop09]; [cop11]; [cop15]; [cop02];[cop17]; [cop24]; [cop28]; [cop30]; [cop31];[cop32]; [cop33];
[cop34]; [cop35];[cop03];[cop10]; [cop19]; [cop25]; [cop26]; [cop27];[cop08];[cop12]; [cop13]; [cop16];
[cop21]; [cop22]; [cop01];[cop04]; [cop07]; [cop14]; [cop18]; [cop23]; [cop29];[cop05];[cop20];
cop06;cop09; cop11; cop15; cop02;cop17; cop24; cop28; cop30; cop31;cop32; cop33; cop34; cop35;
cop03;cop10; cop19; cop25; cop26; cop27; cop08;cop12; cop13; cop16; cop21; cop22; cop01;cop04;
cop07; cop14; cop18; cop23; cop29; cop05;cop20;
cop01 WITH cop01; cop02 WITH cop02;cop03 WITH cop03; cop04 WITH cop04; cop05 WITH cop05;
cop06 WITH cop06; cop07 WITH cop07; cop08 WITH cop08; cop09 WITH cop09; cop10 WITH cop10;
cop11 WITH cop11; cop12 WITH cop12; cop13 WITH cop13; cop14 WITH cop14; cop15 WITH cop15;
cop16 WITH cop16; cop17 WITH cop17; cop18 WITH cop18; cop19 WITH cop19; cop20 WITH cop20;
cop21 WITH cop21; cop22 WITH cop22; cop23 WITH cop23; cop24 WITH cop24; cop25 WITH cop25;
cop26 WITH cop26; cop27 WITH cop27; cop28 WITH cop28; cop29 WITH cop29; cop30 WITH cop30;
cop31 WITH cop31; cop32 WITH cop32; cop33 WITH cop33; cop34 WITH cop34; cop35 WITH cop35;
OUTPUT: stand (STDYX) samp cint patterns mod(4) TECH1;

MODEL:

agree BY cop06* (1); agree BY cop09* (2); agree BY cop11* (3); agree BY cop15* (4);
closen BY cop02* (5); closen BY cop17* (6); closen BY cop24* (7); closen BY cop28* (8); closen BY
cop30* (9);
confli BY cop31* (10); confli BY cop32* (11); confli BY cop33* (12) ; confli BY cop34* (13); confli BY
cop35* (14);
supp BY cop03* (15); supp BY cop10* ;supp BY cop19* (17);supp BY cop25* ; supp BY cop26* ; supp
BY cop27* (20);
undermi BY cop08* (21); undermi BY cop12* ; undermi BY cop13* (23); undermi BY cop16* (24); un-
dermi BY cop21* ; undermi BY cop22* ;
endor BY cop01* (27); endor BY cop04* (28); endor BY cop07* (29); endor BY cop14* (30); endor BY
cop18* (31); endor BY cop23* (32); endor BY cop29* (33);
labour BY cop05* (34); labour BY cop20* (35);
[agree@0]; agree@1;[closen@0]; closen@1;[confli@0];confli@1;[supp@0];supp@1; [undermi@0];un-
dermi@1;[endor@0];endor@1;[labour@0];labour@1;
agree with closen; agree with confli; agree with supp; agree with undermi; agree with endor; agree with
labour; closen with confli; closen with supp; closen with undermi; closen with endor; closen with labour;
confli with supp; confli with undermi; confli with endor; confli with labour; supp with undermi; supp with
endor;supp with labour; undermi with endor; undermi with labour; endor with labour;
[cop06](67);[cop09](68); [cop11](69);[cop15](70);[cop02](36);[cop17](37);[cop24](38);[cop28](39);
[cop30](40);[cop31](41);[cop32](42);[cop33](43);[cop34](44);[cop35](45);[cop03](46);[cop10](47);[cop1
9](48);[cop25]; [cop26];[cop27](51);[cop08](52);[cop12]; [cop13](54);[cop16](55);[cop21];
[cop22];[cop01](58);[cop04](59); [cop07](60);[cop14](61); [cop18](62);[cop23](63);
[cop29](64);[cop05](65);[cop20](66);

MODEL scolaire [school-aged]:

agree BY cop06* (1); agree BY cop09* (2); agree BY cop11* (3); agree BY cop15* (4); closen BY
cop02* (5); closen BY cop17* (6); closen BY cop24* (7); closen BY cop28* (8); closen BY cop30* (9);
confli BY cop31* (10); confli BY cop32* (11); confli BY cop33* (12) ; confli BY cop34* (13); confli BY
cop35* (14); supp BY cop03* (15); supp BY cop10* ;supp BY cop19* (17);supp BY cop25* ; supp BY

cop26*; supp BY cop27* (20); undermi BY cop08* (21); undermi BY cop12*; undermi BY cop13* (23);
undermi BY cop16* (24); undermi BY cop21* ; undermi BY cop22* ; endor BY cop01* (27); endor BY
cop04* (28); endor BY cop07* (29); endor BY cop14* (30); endor BY cop18* (31); endor BY cop23*
(32); endor BY cop29* (33);labour BY cop05* (34); labour BY cop20* (35); [agree@0]; agree@1;[clo-
sen@0]; closen@1;[confli@0];confli@1;[supp@0];supp@1; [undermi@0];undermi@1;[endor@0];en-
dor@1;[labour@0];labour@1;

agree with closen; agree with confli; agree with supp; agree with undermi; agree with endor; agree with
labour; closen with confli; closen with supp; closen with undermi; closen with endor; closen with labour;
confli with supp; confli with undermi; confli with endor; confli with labour;
supp with undermi; supp with endor;supp with labour; undermi with endor;
undermi with labour; endor with labour;

[cop06](67);[cop09](68); [cop11](69);[cop15](70);[cop02](36);[cop17](37);[cop24](38);[cop28](39);
[cop30](40);[cop31](41);[cop32](42);[cop33](43);[cop34](44);[cop35](45);[cop03](46);[cop10](47);[cop1
9](48);[cop25]; [cop26];[cop27](51);[cop08](52);[cop12]; [cop13](54);[cop16](55);[cop21];
[cop22];[cop01](58);[cop04](59); [cop07](60);[cop14](61); [cop18](62);[cop23](63);
[cop29](64);[cop05](65);[cop20](66);

cop06;cop09; cop11; cop15; cop02;cop17; cop24; cop28; cop30; cop31;cop32; cop33; cop34; cop35;
cop03;cop10; cop19; cop25; cop26; cop27; cop08;cop12; cop13; cop16; cop21; cop22; cop01;cop04;
cop07; cop14; cop18; cop23; cop29; cop05;cop20;

cop01 WITH cop01; cop02 WITH cop02;cop03 WITH cop03; cop04 WITH cop04; cop05 WITH cop05;
cop06 WITH cop06; cop07 WITH cop07; cop08 WITH cop08; cop09 WITH cop09; cop10 WITH cop10;
cop11 WITH cop11; cop12 WITH cop12; cop13 WITH cop13; cop14 WITH cop14; cop15 WITH cop15;
cop16 WITH cop16; cop17 WITH cop17; cop18 WITH cop18; cop19 WITH cop19; cop20 WITH cop20;
cop21 WITH cop21; cop22 WITH cop22; cop23 WITH cop23; cop24 WITH cop24; cop25 WITH cop25;
cop26 WITH cop26; cop27 WITH cop27; cop28 WITH cop28; cop29 WITH cop29; cop30 WITH cop30;
cop31 WITH cop31; cop32 WITH cop32; cop33 WITH cop33; cop34 WITH cop34; cop35 WITH cop35;
OUTPUT: stand (STDYX) samp cint patterns mod(4) TECH1;