



REVIEW ARTICLE

# Coparenting after marital dissolution and children's mental health: a systematic review<sup>☆,☆☆</sup>



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## Abstract

**Objective:** Research has shown that coparenting is a vital family mechanism in predicting mental health in children and adolescents. Considering the increasing prevalence of marital dissolution in Western societies, the objective of this systematic review was to summarize the key results of empirical studies that tested the association between mental health of children and coparenting after marital dissolution.

**Data source:** The studies were obtained from three databases (PsycInfo, PubMed, and Web of Knowledge), published between January 2000 and October 2014. The titles, abstracts, and key words of the generated citations were independently reviewed by two investigators to consensually select the articles that met the inclusion criteria. Articles that used psychometrically valid tools to measure at least one mental health indicator and at least one dimension of coparenting in samples with divorced parents were included in the review.

**Data synthesis:** Of the 933 screened articles, 11 met the inclusion criteria. Significant positive associations were found between coparental conflict and behavioral problems and symptoms of anxiety, depression, and somatization. Significant positive associations were also found between other specific dimensions of coparenting (coparental support, cooperation, and agreement), overall mental health, self-esteem, and academic performance.

**Conclusions:** The integrated analysis of these studies suggests that coparenting is a key mechanism within the family system for the prediction of child mental health after marital dissolution,

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**PALAVRAS-CHAVE**

Coparentalidade;  
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and thus, it is recommended that pediatricians, psychologists, and other health professionals consider coparenting as a psychosocial variable for children's mental health assessment and diagnosis.

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### Coparentalidade após a dissolução conjugal e saúde mental das crianças: uma revisão sistemática

#### Resumo

**Objetivo:** A investigação tem demonstrado a coparentalidade como um dos mecanismos familiares centrais na predição da saúde mental em crianças e adolescentes. Considerando o aumento da prevalência da dissolução conjugal nas sociedades ocidentais, o objetivo desta revisão sistemática foi sumarizar os resultados-chave de estudos empíricos que testaram a associação entre a saúde mental das crianças e a coparentalidade pós-dissolução conjugal.

**Fontes dos dados:** Foram triados estudos de três bases de dados (PsycInfo, Pubmed e Web of Knowledge), publicados entre janeiro de 2000 e outubro de 2014. Os títulos, resumos e palavras-chave das citações geradas foram independentemente analisados por dois investigadores para selecionar consensualmente os artigos que cumpriam os critérios de inclusão. Foram incluídos artigos que utilizassem instrumentos psicometricamente válidos para medir pelo menos um indicador de saúde mental e pelo menos uma dimensão da coparentalidade em amostras com pais divorciados.

**Síntese dos dados:** Dos 933 artigos triados, 11 cumpriram os critérios de inclusão. Foram encontradas associações significativamente positivas entre o conflito coparental e problemas de comportamento e sintomas de ansiedade, depressão e somatização. Foram também encontradas associações significativamente positivas entre outras dimensões específicas da coparentalidade (suporte, cooperação e acordo coparentais) saúde mental global, autoestima e rendimento acadêmico.

**Conclusões:** A análise integradora destes estudos sugeriu que a coparentalidade é um mecanismo-chave dentro do sistema familiar para a predição da saúde mental infantil pós-dissolução conjugal, sendo recomendado que pediatras, psicólogos e outros profissionais de saúde considerem a coparentalidade como uma variável psicossocial na avaliação e diagnóstico da saúde mental em crianças.

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## Introduction

The impact of life events on the psychological functioning of human beings has aroused significant interest in psychology literature, as shown by the diversity of conceptual definitions and explanatory models developed over the past decades.<sup>1,2</sup> In this context, given its high prevalence in Western countries, the impact of marital dissolution on psychological function has been the target of systematic cross-sectional and longitudinal research. The dissolution of the family's marital subsystem appears to have significant implications for psychological function, not only for the adults who experience it, but also for the children. Research has attempted to describe and understand the individual, family, social, and contextual variables that predict mental health after marital dissolution, either in adults or in the children whose parents ended their intimate relationship.

Marital dissolution, while a family life transition characterized by structural, processual, and socio-emotional reorganizations, appears to be empirically associated with

the adjustment levels of all family members. One of the most often studied topics in psychology literature about families with separated parents is the impact of marital dissolution on mental health indicators and children's psychological development. Although the association between marital dissolution and problems in the psychological function of children is not linear,<sup>3-6</sup> cross-sectional and longitudinal results have shown that children of divorced parents are at increased risk for maladaptive outcomes.<sup>4,5</sup>

However, some authors have stated that the psychological functioning of children after their parents' marital dissolution is not precisely associated with the end of the marital relationship itself, but with the family functioning after this transition.<sup>3,7,8</sup> Although the investigation has traditionally focused on the study of how parenting and parents' mental health influence the mental health of children, a systematic body of research has also suggested that the quality of interaction between parents after marital dissolution – either while performing joint parental responsibilities, or as former couple – is a strong predictor of mental health

and psychological well-being of children living in this type of family structure.

Although all recent coparenting models suggest the effect, either direct or indirect, of coparenting on the mental health of children,<sup>9,10</sup> no systematic review has summarized the scientific studies that assessed this association in samples of divorced or separated parents. This article aims to identify and summarize the main results of empirical studies published in scientific journals with peer review that assessed the associations between coparenting after marital dissolution, mental health, and social adjustment of children.

## Definition of coparenting

Conceptually, coparenting focuses on interparental interactions regarding the functions and expectations of adults when performing their role as parents.<sup>11</sup> Therefore, coparenting is not characterized by how each individual parent practices childcare, but rather the dynamic synchronization of adults when caring for a particular child.<sup>12,13</sup> McHale<sup>14</sup> defined coparenting as "a contract placed on those [that are] mutually responsible for the care and upbringing of a child". In a previous contribution, Feinberg<sup>10</sup> stated that coparenting refers to the ways parents – and other adults who take on parental responsibilities – interact with each other when performing parenting functions.

Coparenting is not defined, according to this line of thought, as a substrate or ramification of the marital relationship, but as an autonomous subsystem with idiosyncratic and differentiable mechanisms and characteristics from processes related to the marital and parental subsystems.<sup>10</sup> While parenting conceptually describes the styles and practices that each parent individually brings in their interaction with their child, coparenting focuses on interparental relational dynamics when caring for children.<sup>9</sup> In other words, parenting focuses on vertical exchanges (father/mother–child) between two distinct family subsystems (the parental subsystem and the fraternal subsystem), while the coparental subsystem refers to horizontal exchanges between two adults socially responsible for the care and development of one or more children. Throughout the article, the coparental subsystem is considered as consisting of mother and father. One should observe, however, that the coparental subsystem can consist of two or more adults who undertake shared functions in the child's education, regardless of gender, sexual orientation, or biological ties to the child.<sup>10,14</sup>

As this is a relatively recent construct in psychology, the existence of an extensive number of proposals to define coparenting as a study object is noticeable.<sup>10,15,16</sup> However, most of the advanced definitions by researchers seem to converge to a common denominator. Coparenting is operationalized by the degree of coordination of adults in providing care and education to at least one child, as well as the way each of the adults supports the other's parenting.<sup>10,17,18</sup>

Thus, in the last 20 years, several researchers have presented proposals to define coparenting, the identification of its components, and the analytical understanding of its relevance in family dynamics and the explanation of the

developmental outcomes of family members. Teubert & Pinquart,<sup>9,19</sup> in an attempt to integrate the several proposals for coparenting components described in previous literature, suggested a multidimensional construct system that attempts to match and integrate the components of coparenting advocated by previous models. Therefore, these authors claim that coparenting consists of four dimensions: cooperation, agreement in care and education of the children, conflict, and triangulation. The *cooperation* component was defined as the degree of information exchange between the parents about the child, and the existence of a context of respect and mutual loyalty between them.

The *agreement in care and education of the children* component refers to the extent of agreement between the adults in matters related to the child. In turn, the *conflict* component reflects the degree of parenting sabotage by the other parent through the use of guilt, criticism, and belittlement. Finally, according to these authors, the *triangulation* component refers to the development of coalitions between a member of the coparental team and the child, which puts the child at the center of interparental conflicts.<sup>9</sup>

## Coparenting and children's mental health

Coparenting refers to coordination of adults in the care and education of children. This coordination is not limited to merely instrumental issues in providing care. Cooperative parents give priority to the well-being of their children, as they create and maintain a constructive relationship, with more flexible and workable boundaries between them.<sup>10</sup>

Relying on the organization of four components of coparenting, Teubert & Pinquart<sup>9</sup> published the first meta-analysis to assess the association between the quality of coparenting relationships and the child's psychological adjustment. This study has the specific advantage of quantifying the effect of coparenting in the explanation of children's mental health and social adjustment. Previous studies have consistently reported a statistically significant association between these two variables. For instance, high levels of coparental conflict and low levels of interparental cooperation predicted externalizing problems, regardless of their age range.<sup>20</sup> The difficulties of coparental cooperation are also associated with internalizing problems, attentional difficulties, poor academic performance, and decreased quality of parental relationship established individually by each parent with the child.<sup>21</sup>

In a pioneering study on the association between the quality of coparenting and the health status of the children, Barzel and Reid<sup>22</sup> demonstrated that the coparental conflict was associated not only with internalizing and externalizing problems, but also with worse behavior regarding the management of diabetes and a lower perception of quality of life related to this disease, in a sample of schoolchildren.

Teubert & Pinquart,<sup>9</sup> in their analysis of 59 studies, concluded that coparenting predicted changes in children's mental health and that the effect of coparenting was influenced, among other factors, by the children's age – the younger the children, the higher the predictive power of coparenting. Each of the dimensions of coparenting individually explained 1–9% of the variance of the children's adjustment. Although in general the effect size of

coparenting was low, but significant, such effects remained statistically significant even after parenting and quality of marital relations were controlled.<sup>9</sup>

### Coparenting in families with separated and divorced parents

Marital dissolution does not dissolve the family. The family system remains, requiring, however, a processual and structural reorganization of the remaining family subsystems, with implications for the individual and systemic development. Over the past decades, research has consistently shown that the quality of coparental relationship after marital dissolution is one of the main predictors of children's development.<sup>3,5</sup> In other words, mental health problems in children do not seem to be caused by marital dissolution *itself*, but by the degree and type of interparental and coparental conflict occurring after this family transition.

In fact, some authors argue that coparental conflict is the result of diffuse boundaries between the subsystems, characterized by the parent's weak capacity to separate the romantic past and the possible ensuing litigious issues from current coparental relationships.<sup>17,23,24</sup> More specifically, clinical investigations suggest that the coparental conflict may reflect the transfer of marital conflicts into the coparental relationship, which, in most cases, becomes the only contact between parents, and the difficulty in establishing new relational boundaries between parents emerges as one of the main factors for the coparental conflict.<sup>23,25</sup>

As in families with married parents, the coparental alliance is not synonymous with absence of interparental conflict. The coparental alliance results from an active commitment between parents on cooperation and sharing of childcare and education. This cooperative commitment becomes even more important in families with divorced or separated parents. Empirical data suggest that a positive coparental alliance promotes greater involvement of the nonresident parent in the daily lives of children and acts as a protective factor for the academic performance and psychosocial well-being of these children.<sup>26-31</sup> In addition, secure attachment, the quality of the marital relationship prior to its dissolution, level of education, the parents' financial stability, parental mental health, and the existence of new intimate relationships are important predictors of coparental relationship quality after marital dissolution.<sup>32-37</sup>

### Coparenting after marital dissolution and children's mental health

Coparenting is a dyadic construct with a triadic manifestation. In other words, the conceptual models of coparenting defend that the coparental subsystem structure and process constitute a previous explanatory mechanism of individual performances of each parent and each child that makes up this triadic interaction.<sup>10,14</sup> Thus, empirical research has focused mainly on studying the associations between the quality of coparenting and parenting and the psychological function of each parent. Overall, the research has aimed, over the last decade, to understand how the quality of the coparental alliance between parents after marital dissolution is associated with the psychopathology levels of

parents, the nonresident father's involvement in the children's lives, and the quality of and satisfaction with new intimate relationships.

Surprisingly, the empirical data on the association between coparenting and children's mental health after the parents' marital dissolution appears to be reduced, when compared to the available empirical data on the psychological function of children with married parents and even when compared to studies that focus on the impact of coparenting on mental health indicators and social adjustment of parents after marital dissolution.

This systematic review aimed to identify empirical studies that have assessed associations between coparenting components in divorced parents and different areas of the children's mental health domains, aiming to summarize the key findings and critically assess their implications for future research. Thus, this review discusses which coparenting components exercised by divorced parents have been empirically tested to explain the variation in children's mental health indicators.

## Methods

### Research strategy and data extraction

In order to understand the methodological trends, objectives, and results, the authors performed a systematic survey of the scientific literature from January 2000 to October 2014, aiming to identify empirical studies on the target variables of this review. Empirical studies that had as one of their research aims the assessment of the association between coparenting – or at least one of its components – and psychological development and/or function indicators in children with divorced parents were systematically reviewed. As the conceptual definition of coparenting is recent in the psychological literature, concepts that are traditionally used to describe the dimensions of interparental coordination, both regarding decision-making in the lives of their children and the children's care, were considered in this survey. Consequently, concepts such as parental alliance, interparental conflict, triangulation, and parenting were considered in this review. Observe that these concepts are not conceptually synonymous with coparenting. Similarly, only empirical studies published in scientific journals with a peer-review system indexed to selected databases were included and, therefore, empirical studies published in chapters of books, doctoral theses, master's degree dissertations, and those in scientific journals without a peer-review system were excluded from the analysis.

The authors searched for scientific articles indexed between January 1, 2000 and October 1, 2014 in the PsycInfo, PubMed, and Web of Knowledge databases. The following keywords were used: divorce, coparenting, parenting alliance, interparental conflict, triangulation, parenting, adjustment, mental health, and psychopathology. The search strategy was to individually cross the keyword 'divorce' with each of the other selected keywords.

The literature search was restricted to articles published in English, Portuguese, and Spanish. The titles, abstracts, and keywords of all citations generated by this search strategy were carefully considered, aiming to identify potentially

eligible articles for the review. The full articles were analyzed when it was not possible to decide upon the inclusion or exclusion of the publication according to these indicators. All studies that appeared to meet the criteria were independently reviewed by two investigators regarding their inclusion and data extraction. Disagreements between the researchers were resolved through discussion to reach a consensus.

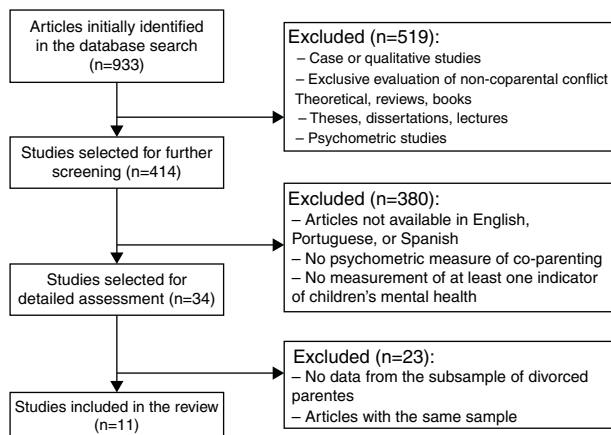
### Inclusion and exclusion criteria

The inclusion criteria to select articles for this review were: being a quantitative empirical study; publication in a journal with a peer-review system; having at least one measure of coparenting evaluation, or one of its components or associated concepts; measurement of coparenting with former spouse (parental remarriage was not considered an exclusion criterion); having at least one psychometric evaluation measure of an indicator of the child's mental health or development, including reports of inferential statistics (e.g., correlations, regressions, structural models) between the coparenting measure and mental health measure of the children assessed in the study; and, finally, having a sample that also included children of parents with other marital status rather than divorced and having independent data for families with divorced parents regarding the considered variables.

Studies that measured non-coparental conflict between parents (e.g., studies evaluating the inter-adult conflict through marital conflict and/or operating scales, such as the Conflict Tactics Scale)<sup>38</sup> were not included. Studies that reported results on the same variables in the same sample were excluded, considering for inclusion only the most recently published study.

## Results

The research and exclusion process is summarized in Fig. 1. Of the 933 articles identified in the selected databases, 11 met the inclusion criteria and were included in this review. The main results of the included studies on the impact of



**Figure 1** Flowchart of the selection process of empirical studies.

coparenting on children's psychological function are summarized in Table 1.

### Study characteristics

From the methodological point of view, the 11 selected studies show considerable variability among them regarding the sample size, the children's ages, and the tools used to measure coparenting and mental health and psychological adjustment indicators. More specifically, the results reported in the studies considered in this review were generated from samples of children in early childhood, school age, adolescence, and emerging adulthood, used cross-sectional and longitudinal designs, evaluated coparenting using the parents' and/or children's self-report, and assessed psychological function indicators using different tools.<sup>39–49</sup>

### Coparenting and overall mental health

The results demonstrate a significant association between coparenting (or its components) and overall mental health indicators of children, adolescents, and young adults with divorced parents. More specifically, some studies show that coparenting explains a substantial proportion of the variance in the overall psychological adjustment. For instance, in the study of Macie and Stolberg,<sup>40</sup> the coparental behavior explains 46% of the variance of the overall mental health of adolescents, while Trinder et al.<sup>45</sup> showed that parental concerns about the parenting skills of the former spouse explained 31% of mental health problems of children two years after the mediation session that regulates parental power.

### Coparenting and externalizing and internalizing problems

Exposure to coparental conflict, generally defined as expression of anger and use of reduced assertiveness strategies to solve coparental problems, appears to be the coparenting dimension with the most robust associations with externalizing problems.<sup>47</sup> For instance, Amato et al.<sup>47</sup> found that children whose parents had a conflicting coparental pattern, characterized by high levels of latent conflict and negative affect expression and low levels of coparental support and agreement, had more behavioral problems in adolescence (e.g., absenteeism and school failure, substance use, or oppositional behavior), when compared to parents with a cooperative coparental pattern (i.e., high levels of support and agreement and low levels of negative affect and conflict expression) and parents with parallel coparenting (i.e., low levels of conflict, coparental support, and agreement).

### Coparenting and internalizing problems

The coparenting effect after marital dissolution on children's internalizing symptoms appears to be little studied in the literature, given that only one study shows correlational data between the two variables. More specifically, Macie and Stolberg<sup>40</sup> found that the children's perception about

**Table 1** Summary of study characteristics and main results.

Study (year) Country	Design	Participants	Coparental measurement	Children's mental health measurement	Results
Hilton & Desrochers <sup>39</sup> (2002) USA	PCS	120 parents (60 divorced and 60 married) M age children with divorced parents = between 7.3 and 9.6 years (SD = NA)	- Coparental conflict ( <i>Quality of Coparental Communication Scale</i> )	- Externalizing problems (SR-P) ( <i>Child Behavior Checklist</i> )	Coparental conflict, among other variables, was shown to be a mediating mechanism between the negative and significant association of the divorced parents' marital status and children's externalizing symptoms
Macie & Stolberg <sup>40</sup> (2003) USA	PCS	68 dyads (parent-child) 72% children aged between 10 and 15 years. 28% between 16 and 17 years	- Perception of parents' coparenting behavior ( <i>Coparenting Behavior Questionnaire</i> )	- Psychological adjustment (SR-P and SR-C) ( <i>Behavior Problems Index</i> ) - Self-esteem (SR-C) ( <i>Hare Self-esteem Scale</i> )	Children's perception of parents' coparenting behavior predicted the global mental health and self-esteem of children. The coparenting behavior perceived by children was not statistically associated with symptoms of hyperactivity or symptoms of depression and anxiety, when assessed by parents. Dimensions of coparenting behavior, such as conflict, triangulation, respect/cooperation, and communication, are negatively and significantly correlated with the children's psychological function measures
Fabricius & Luecken <sup>41</sup> (2007) USA	RCS	266 university students, whose parents divorced before their children were 16 years old	- Coparental conflict (Single question created by the study authors)	- Psychosomatic symptoms ( <i>Somatization Subscale, Symptom Checklist - 90-R</i> )	Overall, in a structural model, parental conflict predicted greater current distress about the parents' divorce, and in turn, the distress significantly predicted the participants' physical health levels More specifically, a statistically significant association of low magnitude was found between coparental conflict and the current levels of psychosomatic symptoms
Lau <sup>42</sup> (2007) Hong-Kong	PCS	62 dyads (resident father and child) M age of child = 11.6 years (SD = NA)	- Parental agreement in decision making ( <i>Coparental Interaction Scale</i> ) - Coparental support and cooperation ( <i>Parenting Support Scale</i> )	- Self-esteem (SR-C) ( <i>Self-perception Profile for Children Scale</i> )	The children's overall self-esteem was negative and significantly associated with conflicted coparenting reported by resident parents, characterized by low levels of coparental agreement or support

Table 1 (Continued)

Study (year) Country	Design	Participants	Coparental measurement	Children's mental health measurement	Results
Schrodt & Afifi <sup>43</sup> (2007) USA	RCS	1170 young adults (484 with divorced parents) M age total sample = 20.2 years (SD = 5.4)	- Triangulation and coparenting sabotage (SRC) ( <i>Feeling Caught Scale</i> )	- Mental health ( <i>Mental Health Subscale</i> , <i>Adolescent Health Scale</i> )	Young adults with divorced parents had significantly higher values of triangulation and coparenting sabotage than young adults with married parents. In the group of young individuals with divorced parents, triangulation and coparenting sabotage were shown to be a mediating variable between marital dissatisfaction in the past and current mental health levels
Gasper et al. <sup>44</sup> (2008) USA	PCS	389 university students M age = 19.6 years (SD = 2.0)	- Perception of parents' coparenting behavior (SR-C) ( <i>Coparenting Behavior Questionnaire</i> )	- Overall mental health ( <i>Brief Symptom Inventory</i> ) - Problems with intimacy ( <i>Fear of Intimacy Scale</i> ) - Delinquency ( <i>Delinquency Syndrome Subscale, Young Adult Self-Report</i> )	In a structural model, the parents' divorced status was related to higher coparental hostility and lower coparental cooperation which, in turn, were associated with lower levels of mental health and self-esteem and higher delinquency levels and problems with intimacy. These results suggest the mediating effect of these coparenting dimensions of the parents' marital status and mental health indicators of children
Trinder et al. <sup>45</sup> (2008) United Kingdom	L	117 divorced fathers and mothers (moment 3 of the evaluation) residents and non-residents. High litigation sample	- Coparenting concerns ( <i>Parenting Concerns Scale</i> ) - Division of tasks according to coparenting ( <i>Coparental Decision-making scale</i> )	- Emotional and behavioral well-being ( <i>Strength and Difficulties Questionnaire [SDQ] - parents' version</i> )	Higher concerns about the quality of parenting by the other parent predicted psychological well-being (total SDQ) of the children two years after the court session of mediation regulating parental power. The age and gender of the child were not statistically significant predictors of their psychological well-being at the moment of the assessment
Altenhofen et al. <sup>46</sup> (2010) USA	PCS	24 dyads (resident mothers and their children) M age of child = 37 months (SD = 13.4)	- Coparental communication ( <i>Quality of Coparental Communication Scale</i> )	- Secure attachment ( <i>Waters' Attachment Q-Set</i> )	No significant associations were found between parental communication and the children's secure attachment

Table 1 (Continued)

Study (year) Country	Design	Participants	Coparental measurement	Children's mental health measurement	Results
Amato et al. <sup>47</sup> (2011) USA	L	784 divorced and/or separated resident parents, 455 children evaluated in adolescence, and of these, 296 were reassessed at emerging adulthood M age of children at the moment 2 of evaluation = 12.4 years (SD = NA) M age of children at moment 3 = 22.7 years (SD = NA)	- Coparental function (Questions developed within the research project context on the division of coparental tasks, support, conflicts and agreement. Questions non-subject to psychometric validation)	- Problems with behavior, use of substances, self-esteem and life satisfaction (Questions developed by researchers. No psychometric validity indicator of the items administered by telephone interview is reported)	Adolescents with parents that had a conflicted coparenting pattern showed more behavioral problems than adolescents whose parents were characterized by a cooperative or parallel coparenting pattern No differences were found regarding other mental health indicators of children due to the parents' coparental pattern, either in adolescence or in emerging adulthood
Shimkowski & Schrodtt <sup>48</sup> (2012) USA	RCS	493 young adults (129 with divorced parents) M total sample age = 20.3 years (SD = 2.9)	- Coparental communication (SR-C) ( <i>Quality of Coparenting Questionnaire</i> )	- Mental health ( <i>Adolescent Health Scale Subscale</i> )	When compared with young adults with married parents, young adults with divorced parents showed higher levels of antagonist coparental communication and lower levels of coparental support and mental health communication. In a structural model, the effect of marital conflict exercised at current levels of the children's mental health was exercised through antagonistic coparental communication. No multi-group differences were found (married parents <i>versus</i> divorced parents) in this model
Yárnoz-Yaben et al. <sup>49</sup> (2012) Spain	PCS	223 divorced parents and 160 of their children M age of child = 11.0 years (SD = 6.7)	- Willingness to coparent (SR-P) ( <i>Subescala Coparentalidad, Cuestionario de Adaptación al Divorcio-Separación</i> ) - Coparental support (SR-P) ( <i>Cuestionario de Apoyo Recibido de la Ex-pareja</i> )	- Internalizing and externalizing symptoms (SR-P) ( <i>Child Behavior Checklist [CBCL]</i> )	Willingness to coparent and coparental support were not significantly associated with of internalizing and externalizing symptoms and total CBCL

NA, not available; PCS, prospective cross-sectional; RCS, retrospective cross-sectional; L, Longitudinal; SR-P, self-report tool administered to parents; SR-C, self-report tool administered to the children.



the coparental behavior of parents significantly predicted their symptoms of anxiety and depression, explaining 37% of the variance in this internalizing indicator. Additionally, that study showed that specific dimensions of coparenting, such as conflict, communication, triangulation, and coparental respect/cooperation, were associated with symptoms of anxiety and depression assessed either by the parents or by the children's self-report.<sup>40</sup>

### Coparenting and other indicators of psychological and social adjustment

In addition to testing the association between coparenting and levels of overall psychological adjustment and internalizing and externalizing symptoms, five studies assessed the effect of coparenting on other psychological health indicators of children.<sup>40-42,44,46,47</sup> In more detail, a low level of cooperation and high coparental hostility and conflict were associated with lower levels of self-esteem in emerging adult and school-age children.<sup>42,44</sup> In turn, the past coparental conflict predicted levels of somatization in emerging adulthood.<sup>41</sup>

Furthermore, specific dimensions of coparenting – *i.e.*, low support and high coparental conflict – were associated with difficulties in establishing intimate relationships in emerging adulthood,<sup>44</sup> which appears to indicate that frequent exposure to interparental interaction patterns characterized by reduced affective closeness, cooperation, and relational negotiation (*i.e.*, low coparental support) and high negative affect expression can influence the development of adaptive representations in the horizontal relationship between adults, which is in turn reflected in the capacity of children to establish secure and intimate interpersonal relations as adults. On the other hand, Althenhofen et al.<sup>46</sup> did not find a significant association between the quality of coparental communication and children's secure attachment at an early age.

## Discussion

In this systematic review, empirical studies that investigated the effect of coparenting after marital dissolution on children's mental health were identified, aiming to summarize the main results. In synopsis, the results of the investigations included in this review appear to indicate a significant association between coparenting and mental health markers of the children of divorced parents.

Most studies that assessed the associations between coparenting and externalizing problems showed that coparental conflict is significantly associated with increased symptoms of behavioral problems in the children. These results appear to be in line with empirical research that assessed the association between marital and coparental conflict in married parents and the children's externalizing levels.<sup>9,50,51</sup> In theory, some authors maintain that social learning,<sup>52,53</sup> emotional security,<sup>54</sup> cognitive distortion,<sup>55</sup> and psychophysiological deregulation<sup>56</sup> processes explain the association between the use of aggressive techniques by parents to destructively manage conflicts and the behavioral regulation dysfunction of children.

Additionally, the results of studies that assessed the association between coparenting and internalizing symptoms appear to be in line with those found in studies of children with married, separated, or never-married parents.<sup>57-59</sup> In turn, the study by Fabricius & Luecken,<sup>41</sup> which showed that past coparental conflict had predictive power on somatization levels in emerging adulthood, is in line with empirical research that has consistently shown a significant association between family conflict during childhood and psychosomatic symptoms and/or disorders in adulthood.<sup>60,61</sup>

On the other hand, contrary to what might be expected from a theoretical point of view,<sup>62,63</sup> the only study in the literature about the effect of coparenting after marital dissolution on children's attachment showed no significant association between the children's secure attachment and assessed coparenting components.<sup>46</sup> This empirical information appears to corroborate previous studies of families with married parents that systematically demonstrated positive and significant associations between positive coparenting and children's secure attachment and between interparental conflict and/or conflictual/non-supportive coparenting and children's insecure attachments.<sup>64-66</sup> However, the results of this study, in the authors' opinion, should be interpreted with caution, as the absence of significant association values may be due to the possible decreased statistical power, considering the sample size ( $n=24$ ).

Some of the studies, when comparing psychological function dimensions in children of divorced parents with children of married parents, suggested that the effect of negative coparenting in developmental outcomes appears to be observed in children, adolescents, and emerging adults regardless of their family structure.<sup>48</sup> Thus, future studies should try to replicate these results and understand whether coparental processes are qualitatively influenced by the parents' marital status or, in contrast, through other proxy variables,<sup>67</sup> which, although not a result of marital dissolution, have a higher probability of prevalence among divorced parents.

### Study limitations and future investigations

The published articles that assessed the association between coparenting and mental health of children with divorced parents are scarce and have a set of conceptual and methodological limitations that must be considered. First, none of the articles showed the assessment of coparenting based on a theoretical model to guide research objectives and the methodological choices that were made. This aspect is relevant regarding the selection of the coparenting measuring tools. Although most studies measure coparenting using previously validated tools, it is clear that there is a conceptual inaccuracy about the coparenting construct. For instance, Hilton and Desrochers<sup>39</sup> affirm they assessed coparental conflict in their study; however, the scale they used, the Quality of Coparental Communication,<sup>68</sup> measures the communication between coparental partners after marital dissolution, in which six scale items assess coparental support and four items the frequency and intensity of coparental conflict. Additionally, as the measures used are not based on a theoretical model that supports construct operationalization, there is no conceptual standardization of coparenting

components in the research, which hinders the comparability of results. Second, coparenting was assessed in all studies by self-report measures, without the inclusion of other measurement tools, which, through the triangulation of data, would increase the validity of the results.

Third, there is an overrepresentation of studies whose samples consist of a small number of participants (five studies with a sample size with less than 150 participants), or participants with risk characteristics (e.g., high litigation) (one study) or young adult participants in a university context (two studies). Only one study<sup>47</sup> used a representative sample of the population; however, measures administered to evaluate coparenting and mental health were not validated using a psychometric tool, which represents a marked methodological limitation. Finally, three of the studies with larger sample sizes had retrospective characteristics, instructing participants to evoke memories of marital conflict or quality of coparenting during their childhood and/or adolescence.<sup>41,43,48</sup>

Although the results of these studies show a trend that is in line with those obtained in studies with longitudinal or prospective cross-sectional design, some research has shown, in other areas of psychology, that empirical results based on measures that require evoking past memories about potentially adverse events can show validity problems and suffer from the misinformation effect.<sup>69–71</sup> Therefore, additional precautions are advised when interpreting the results of these retrospective investigations. Fifth, the reviewed studies, except for the one by Amato et al.,<sup>47</sup> used either tools that measured isolated components of coparenting (seven studies) or *broadband* tools (three studies) that measured coparenting as a one-dimensional construct. Now, based on the conceptual premise that coparenting is multidimensional, a one-dimensional evaluation of the construct does not allow the understanding of the potential specialized effect of the dimensions of coparenting when predicting specific mental health problems, which can be seen as a significant limitation of the current generation studies in the domain.

Hence, only the study by Yárnoz-Yaben et al.<sup>49</sup> appears to be able to assemble a set of methodological characteristics that increase the external validity of the results, as it prospectively evaluates constructs, has a sample that seems to ensure adequate statistical power to test the study objectives, and uses measures with psychometric quality. However, the data reported by the authors are correlational, as the analysis of the association between coparenting and children's psychological function was not the aim of the study.

Hence, future studies in this area should respond to the methodological limitations identified in previous empirical studies. Thus, future studies using theoretically oriented coparenting assessment measures with psychometric validity, which have a prospective design and an adequate sample size to achieve statistical power, can significantly contribute to the state of the art. Additionally, future studies should also assess the potential moderating effect, among others, of the children's age, of the time since marital dissolution, and of the degree of litigation in the association between coparenting and the children's mental health, considering the lack of empirical data to date. Finally, based on the fact that coparenting is a multidimensional concept, it is

reasonable to hypothesize that the interactive combination of different components of coparenting may produce different coparental function patterns, which may be differentially associated with parenting and mental health levels of parents and their children. This theoretical hypothesis has been tested in a recent study carried out in the United States.<sup>47</sup> However, this study shows both conceptual (*i.e.*, the operationalization of coparenting and its associations with other family subsystem is not theoretically oriented) and methodological limitations (Table 1), which reduce the external validity of the results. Following this line of thought, further investigations should be carried out to replicate the results found by the authors, using a conceptual framework that will include the evaluation of coparenting components and their association with the psychological function of divorced parents and their children.

## Final considerations

Traditionally, psychological research has highlighted the impact of individual variables related to each parent on the mental health of children, such as psychopathological maladjustment, attachment patterns, personality traits, and exposure to adversities throughout life. However, as discussed in this chapter, several studies published in the last 20 years have shown that specific coparenting dimensions (agreement/disagreement with the care and sabotage of parenting) have an important explanatory weight for the child's developmental results after marital dissolution.

More concretely, research data have shown that coparenting is a robust predictor of internalizing and externalizing problems of children, mental health levels of parents, and processual characteristics within the family after this family transition. However, as shown in this review of the empirical literature, the scientific study of coparenting after marital dissolution can take on clinical importance for the planning of psychological interventions in the context of primary health care, based on evidence that promotes family and child adjustment after this family transition. More specifically, by showing which coparenting components have a differential impact on the advent of mental health problems in children, this review may contribute to the development of intervention programs that focus on more specific modules for intervention targets, in accordance with the principles of pediatric and psychological practice based on empirical evidence.<sup>72–74</sup>

## Conflicts of interest

The authors declare no conflicts of interest.

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