Relationships between coparental triangulation, parent-adolescent conflicts and adolescent adjustment: Differences between fathers and mothers

Clarisse Pereira Mosmann. Universidade do Vale do Rio dos Sinos Mariana Rodrigues Machado. Atitus Educação Lídia Käfer Schünke. Grupo Uniftec Mariana Cunha Schneider. Consultório Particular Liana Pasinatto. Universidade Regional Integrada do Alto Uruguai e das Missões

Abstract

The involvement of the adolescent in coparental conflict through triangulation impacts the development of emotional and behavioral symptoms. This article researched direct and indirect impacts of coparental triangulation relations and conflicts between parents and their adolescent children on internalizing and externalizing problems, controlling gender and age variables. As a quantitative, cross-sectional and explanatory study, it included 238 adolescents, aged 14 to 18 years old, and used structural equation modeling analysis. As a result, internalizing and externalizing problems were associated with father, mother, and coparental dyad triangulation, mediated by conflicts between father-adolescent conflict and mother-adolescent conflict. Father triangulation had direct and indirect connections with adolescents' externalizing problems. Mother triangulation was associated with adolescents' anxiety and depression, mediated by father-adolescent conflicts. There were no distinctions for gender and age regarding the level of impact between variables. The data provide greater depth and precision in understanding these relationships for practical applications looking for a healthy development of the offspring and their families.

Keywords: family relations, adolescence, emotional development, internalizing and externalizing problems.

Resumo

Relações entre triangulação coparental, conflitos pais-filhos e ajustamento de adolescentes: Diferenças entre pais e mães. O envolvimento de adolescentes nos conflitos coparentais por meio da triangulação impacta no desenvolvimento de sintomas emocionais e comportamentais. Este artigo investigou os impactos diretos e indiretos das relações de triangulação coparental e conflitos entre pais e filhos em problemas internalizantes e externalizantes dos adolescentes, controlando variáveis de gênero e idade. De caráter quantitativo, transversal e explicativo, incluiu 238 adolescentes de 14 a 18 anos e foi utilizada análise de modelagem de equações estruturais. Problemas internalizantes e externalizantes associaram-se à triangulação do pai, da mãe e da díade coparental, mediados por conflitos entre pai e filho e conflitos entre mãe e filho. Triangulação paterna teve relação direta e indireta com problemas externalizantes dos adolescentes. Triangulação materna associou-se à ansiedade e depressão dos adolescentes, mediada por conflitos entre pai e filho. Não houve distinções no modelo para gênero e idade quanto ao nível de impacto entre as variáveis. Os dados possibilitam maior precisão na compreensão dessas relações para aplicações práticas visando o desenvolvimento saudável da prole e suas famílias.

Palavras-chave: relações familiares, adolescência, desenvolvimento emocional, problemas internalizantes e externalizantes.

Resumen

Relaciones entre la triangulación coparental, los conflictos padre/madre-hijos y el ajuste del adolescente: Diferencias entre padres y madres. La participación de adolescentes en conflictos coparentales a través de la triangulación impacta en el desarrollo de síntomas emocionales y conductuales. Este artículo investigó los impactos directos e indirectos de las relaciones de triangulación coparental, y los conflictos entre padres e hijos, en los problemas de internalización y externalización de adolescentes, controlando las variables de género y edad. Siendo de carácter cuantitativo, transversal y explicativo, incluyó 238 adolescentes de 14 a 18 años y utilizó análisis de modelos de ecuaciones estructurales. Los problemas de internalización y externalización se asociaron con la triangulación de padre, madre y díada coparental, mediada por conflictos entre padre e hijo y madre e hijo. La triangulación paterna se relacionó directa e indirectamente con problemas de externalización de los adolescentes. La triangulación materna se asoció con ansiedad y depresión de los adolescentes, mediada por conflictos entre padre e hijo. No hubo distinciones en el modelo por género y edad en cuanto al nivel de impacto entre las variables. Los datos permiten una mayor precisión en la comprensión de estas relaciones para aplicaciones prácticas dirigidas al desarrollo saludable de la prole y sus familias.

Palabras clave: relaciones familiares, adolescencia, desarrollo emocional, problemas de internalización y externalización.



In the family context, the coparental subsystem has a powerful influence on children mental health (Mosmann, Costa, Einsfeld, Silva, & Koch, 2017). Coparenting means the joint involvement of parents or caregivers in the sharing of duties and care for their offspring, also in the decision-making and well-being of their children (Feinberg, 2003).

Triangulation of the coparental subsystem is expressed when there is an intergenerational coalition between one parent and the children, which leads to the rejection of the other member of the coparental dyad (Margolin, Gordis, & John, 2001). Diffuse or fragile boundaries between individuals do not help to control the permeability of emotions among family members and fail to account for the role of protection and differentiation between members (Wagner, Tronco, & Armani, 2011).

Triangulation puts the offspring in a place of negotiation between parents, generating conflicts of loyalty (Buehler & Welsh, 2009) and making them feel pressured to choose between one of the parents (Terres-Trindade & Mosmann, 2015). The excluded parent finds it difficult to put their educational principles into practice, since the other coparental partner participates and encourages their children to disregard their authority, with this phenomenon associated with high levels of interparental conflict (Margolin et al., 2001).

The incorporation of the child or adolescent into the conflict through triangulation impacts differently on their development. The first possibility is related to the impact on the relationship between the parental figures and the children caused by an unavailability of the parents for this relationship in the face of conflict with the spouse. The second, on the other hand, relates to the consequences for the children when they witness the conflict between the coparental pair (Davies & Cummings, 1994). Overworked parents facing conflicts with each other increase their emotional burden and decrease their level of availability for parenting. This process can appear in the form of severe or inconsistent discipline, neglect, psychological control of the children, excessive attention and subsequent withdrawal when the conflict is resolved, insecure attachment, and emotional unavailability on the part of the parents (Reynolds, Houlston, Coleman, & Harold, 2014). In this context it is noteworthy that coparenting has a significant influence on the individual interaction with the child, that is, on parenting (Teubert & Pinquart, 2011).

The occurrence of triangulation involves different levels of conflict between the coparental dyad, but also between parents and children. Conflicts between parents and children are common in adolescence and young adulthood, with family everyday issues as their main theme, with more frequent ones related to domestic chores, time to return home and studies (Bernal, 2012). Terres-Trindade and Mosmann (2015) found that household chores had the highest means of conflict between young people and their mothers, followed by disagreements about money and the internet use. With the fathers, there were more frequently conflicts over money, which obtained a higher mean than in relation to household chores. The internet use also was identified as a reason for disagreement between fathers and their offspring, being the third one most frequent.

The terminology Parent-Adolescent Conflict describes a multidimensional construct of a dyadic relationship, which can comprise issues ranging from differences of opinion to aggressions (Weymouth, Buehler, Zhou, & Henson, 2016). The existence of conflicts does not translate into a risk factor, but rather their intensity and frequency. Opposition situations between adolescents and their parents can have positive effects, such as the possibility of learning conflict resolution strategies or the promotion of adolescent autonomy within the family system (Bernal, 2012). However, high degrees of tension between parents and adolescents can cause distance between the adolescent and the family, and environments permeated by aggressiveness increase the situation of vulnerability (Guimarães, Hochgraf, Brasiliano, & Ingberman, 2009). Otherwise, affection, a close bond between the offspring and the caregivers, is a protective condition considering the children's mental health (Cerutti & Argimon, 2015).

Thinking about the association between family conflict and triangulation, Brazilian and international studies show the significant impact of triangulation on the development of externalizing and internalizing problems in children (Buehler & Welsh, 2009; Etkin., Koss, Cummings, & Davies, 2014; Machado & Mosmann, 2020), with a deleterious and longitudinal impact on their lives. Externalization problems are understood as hyperactive, aggressive, and rule-breaking behaviors, which may be common and appear during adolescence in a transitory way or evolve into more complex personality disorders over time (Silva, Boff, Wendling, & Silva-Oliveira, 2016). Historically, externalization problems have been understood as those that concerned only behavioral conducts. It is well known today that these are processes closely related to the individual's emotional issues, and, in the medium and long term, can cause damage to different areas of their lives (Barros & Silva, 2006).

On the other side, emotional problems in the internalization dimension are expressed in relation to the individuals themselves, being more centered on affections and the internal psychological environment. They are characterized by withdrawal, sadness, somatic complaints, and fear (Achenbach & Rescorla, 2003). There is evidence that Brazilian children and adolescents characterize a risk sample for the development of internalizing problems, as well as for possible long-term damage (Oliveira & Alvarenga, 2015). Internalizing problems deserve special attention, as they are emotional problems that are not so easily identified and, for this reason, undertreated (Bolsoni-Silva, Loureiro, & Marturano, 2016).

Regarding the development and maintenance of problems within family relationship, studies suggest that boys and girls develop internalizing and externalizing problems differently as result of coparenting issues (Margolin et al., 2001). These differences are maintained throughout the development. Boys have more externalizing behavioral problems and girls show more internalizing emotional problems in adolescence (Buehler & Gerard, 2002). This scenario points out to the need to consider the impact of personal variables such as the adolescent's gender and the father's and the mother's contributions on coparenting.

Buehler and Welsh (2009) carried out a longitudinal study about the influence of coparental triangulation on internalizing and externalizing problems in adolescents, evaluating 320 North American families annually, for four years. The results showed that triangulation was associated with an increase in internalization and externalization problems and with difficulty to control hostility between the couple, suggesting that adolescents' social and relational functioning may be negatively affected by coparental triangulation, even when observed parental harshness and marital hostility were controlled in the model.

Data from Brazilian literature suggest that the coparental triangulation has greater impact on both internalizing and externalizing problems (Machado & Mosmann, 2020), comparing to coparental conflict. This outcome can occur due to difficulties in supporting the parental pair, the misunderstanding of educational practices, and the involvement of the offspring in these conflicts. These studies, however, present internalization and externalization problems separately, independently of each other. It is necessary to review this perspective considering that the symptoms can be expressed jointly in the same child or adolescent (Bolsoni-Silva & Loureiro, 2019).

Another relevant aspect in this dynamic is that the literature shows that there are differences in the adolescents' perceptions regarding the coparenting of the father, of the mother and of both as a couple (Teubert & Pinguart, 2011). Added to this is the fact that the gender of the parents also can be a moderator between coparental conflicts and psychological control of the parents, as well as insensitivity to the children's negative affect (Davies, Sturge-Apple, Woitach, & Cummings, 2009). These data advance the Spillover hypothesis (Hameister, Barbosa, & Wagner, 2015) showing that there are specificities of spillovers that are related to the parents' gender, however, they need to be better explored. These findings support a hypothesis of a paternal vulnerability, once the father parenting practices are more likely to be harmed when there is interparental conflict than maternal ones (Davies et al., 2009; Zemp, Johnson, & Bodenmann, 2018).

The age of the offspring can also impact differently on these variables. Mosmann et al. (2017), to evaluate the associations of conjugality, parenting, and coparenting with children's internalizing and externalizing symptoms, carried out an explanatory, quantitative and cross-sectional study with 200 individuals (100 men and 100 women), who lived with their children (4 to 18 years old). In the comparison between the symptoms and the age groups (children and adolescents), the authors found a statistically significant difference only between age and externalizing problems, with the highest means of these symptoms being presented by the group of children of up to 7 years old and by the group of adolescents between 11 and 15 years old, supporting the interdependence of symptoms and the offspring's age.

As the existence of conflicts is inherent to human relationships, the way disagreements are addressed it is important to understand their repercussions in the family context (Cummings & Davies, 2010). In this sense, coparenting presents itself with a predominant impact on the children and adolescent's adjustment. From a systemic perspective, it is understood that coparenting is modified and produces changes over time, acting on different stages of human development (Yan, Oslavsky, Schoppe-Sullivan, & Dusch, 2018). In this study, we are interested in investigating the impact caused by coparental triangulation in a more specific way, such as mediated by the parent-adolescent conflicts.

This article explores the two forms of impact to understand effects caused by triangulation, specifically that mediated by parent-adolescent conflict, and the impact on the development of emotional and behavioral symptoms in the offspring from the adolescents' perception. Therefore, the aim of the study was to investigate the relationships between the coparental triangulation, the parent-adolescent conflicts (specifically the conflicts with the father and the conflicts with the mother), and internalizing and externalizing problems in adolescents, through a structural model. As a first hypothesis, it is conjectured that parent-adolescent conflicts mediate the relationship between coparental triangulation and adolescents' externalizing and internalizing problems (Davies & Cummings, 1994; Reynolds et al., 2014). The second hypothesis is that conflicts with the father and conflicts with the mother mediate this relationship differently (Cummings, Merrilees, & George, 2010). The third hypothesis assumes that there is a direct impact of coparental triangulation on the adolescents' problems (Buehler & Welsh, 2009; Etkin et al., 2014; Machado & Mosmann, 2020). Finally, as a fourth hypothesis, it is assumed that the age and gender of adolescents can modify the levels of impact between the variables (Oliveira-Monteiro, Nascimento, Montesano, & Aznar-Farias, 2013).

Method

Sample

It is a quantitative, cross-sectional and explanatory study (Creswell, 2010). The sample consisted of 238 adolescents who live in Rio Grande do Sul, selected by convenience. The adolescents should be at least 14 years old and a maximum of 18 years old (average age = 15.46; *SD* = 1.25). The number of participants was determined according to Hair, Black, Babin, Anderson, and Thatam (2009), who pointed a minimum number of 200 individuals to calculate structural equation modeling. Boys formed 46.2% (n = 110) of the sample, and girls 53.8 (n = 128). The adolescents were inserted in nuclear families, and 86.6% (n = 206) had siblings. As for the adolescents' level of education, 30.8% were in elementary school, 65.4% in high school, and 3.8% in higher education. Moreover, 70.6% (n = 168) of the adolescents were enrolled in public schools, 25.6% (n = 61) in private schools, whereas the remaining 3.8% (n = 9) did not answer this question.

The adolescents indicated the family's socioeconomic situation. According to this, 81.9% (n = 195) of the fathers and 73% (n = 174) of the mothers were employed. Regarding the social class, adolescents perceived their families as middle class (55.9%; n = 133), lower middle class (24.8%, n = 59), upper middle class (15.5 %, n = 37), upper class (1.7%, n = 4), and lower social class (0.8%, n = 2), and 1.3% (n = 3) did not answer this question.

Instruments

Socio-demographic Questionnaire. Containing 24 questions, which refer to socio-demographic data such as gender, age, education, place of residence, number of siblings, etc.

The Coparenting Inventory for Parents and Adolescents - CI-PA (Teubert & Pinguart, 2011) Adapted by Mosmann, Machado, Costa, Gross, & Abs (2018). We used the version for adolescents, in which the coparental dyad is evaluated, as well as the mother's and the father's contributions from three subscales (cooperation, conflict and triangulation), with four items each. Items are scored on a four-point Likert scale. For the present study, the scale was translated to Portuguese and back translated to English. Subsequently, it was evaluated by three bilingual translators who compared their versions to identify discrepancies, and with the original document to verify the adequacy of the translation. In this study, Cronbach's Alpha was 0.757 for the mother's coparental conflict, 0.833 for the mother's coparental triangulation, 0.773 for the father's coparental conflict, 0.892 for the father's coparental triangulation, 0.714 for dyad coparental conflict and, finally, 0.819 for coparental triangulation of the family.

Assessment of Problems. - Self-Assessment Inventory for 11 to 18-year-olds (YSR, Youth Self-Report, Achenbach & Rescorla, 2001). Developed by Achenbach and Rescorla (2001) and validated for use in Brazil by Rocha (2012), the YSR comprises eight scales of problems and behaviors. This instrument allows the classification of these problems and behaviors into three dimensions: Internalizing Problems (include anxiety and depression scales, somatic complaints, and withdrawal), Externalizing Problems (including aggressive behavior and rule-breaking scales) and Total Problems (including all the scales analyzed and the topic Other Problems). In this study, Cronbach's Alpha was 0.880 for anxiety and depression, 0.750 for somatic complaints, 0.680 for withdrawal, 0.840 for aggressive behavior and 0.740 for rule breaking.

Parent-Child Conflict Scale (PCCS) (Buehler & Gerard, 2002, adapted by Terres-Trindade, 2014). The scale consists of nine items and is divided into two sub-scales called "conflict-disagreements" and "conflictaggression". The first consists of six items referring to the frequency with which the individuals disagreed with their father and mother in the last year and is measured on a six-point Likert scale. The second subscale has three items, scored on a five-point Likert scale. One item measures the frequency with which the young person calmly faces conflicts (reverse coded) and two items assess the frequency of arguments and aggressions. Higher scores on the scale represent high levels of conflict (Buehler & Gerard, 2002). The Terres-Trindade study (2014) presented a Total Cronbach's Alpha coefficient of 0.75. In this study, Cronbach's Alpha was 0.780 for conflicts-disagreements with the mother, and 0.820 for conflicts-disagreements with the father.

Data Collection Procedures

Data collection took place in nine public and one private schools in different regions of Rio Grande do Sul. Contact was made with the direction of the schools, chosen by convenience, requesting authorization for the data collection. After the school's authorization, the research team selected classes according to the age of the study participants. In the first moment, the researchers explained to the students the procedures and objectives of the research and sent home the Informed Consent Form (ICF) to the guardians. In another day interested students signed an Assent Form about their agreement to participate and returned the Informed Consent Form (ICF) signed by their guardians, authorizing the adolescents to participate in the study. The participants answered the instruments collectively in the classes, in a meeting lasting approximately 90 minutes.

Data Analysis

The first stage of analysis consisted of a descriptive one and Pearson's bivariate correlations as the normality of the data was confirmed. To test the hypothesis that the conflict between parents and adolescents is a mediating variable between coparenting and emotional and behavioral problems in adolescents, structural equation modeling (SEM) was used. The estimation method employed was Maximum Likelihood using the AMOS software. As a second hypothesis, it was also tested whether triangulation had a direct impact on adolescents' internalizing and externalizing problems.

The model variables were composed according to Byrne (2010). The model fit analysis of the structural equation model was performed using the main fit measures: chi-square (χ^2); Root Mean Square Error of Approximation (RMSEA); Normed Fit Index (NFI); Comparative Fit Index (CFI), and Tucker Lewis index (TLI). To adjust the model, the Root Mean Square Error of Approximation (RMSEA) value was less than 0.08. For the Normed Fit Index (NFI), Comparative Fit Index (CFI), and Tucker Lewis Index (TLI) values greater than 0.9 were considered satisfactory (Hair et al., 2009).

Finally, as a last hypothesis, multigroup factor analyses were performed to verify the moderating effect of sex and age of the adolescents for the relationships between the variables of the structural model. Initially, the relationships between the variables were first freely estimated in all the groups to later receive a constraint that fixes the values between the variables. The CFI and the NFI indices are used as a basis for analyzing the veracity of the moderation. Therefore, it is considered that the difference greater than 0.01 between the unrestricted and the restricted model confirms the hypotheses of moderation (Hair et al., 2009).

Ethical Considerations

The study met the regulations of the Brazilian Ministry of Health to research involving human beings and was approved by the ethics committee. Parents/guardians and adolescents were granted complete confidentiality regarding the data provided to research by signing the Informed Consent Form (signed for the guardians) and the Assent Term, signed by the adolescents themselves, assuring their participation. The researchers were aware of any adolescents' discomfort or demands arising from participation in the research. In case of adolescent's needs, any referral would be articulated with the school team and the families.

Results

Means, standard deviations and correlations for all study variables are shown in Table 1. As expected, positive correlations were found between variables. Relationships between coparental triangulation, parent-adolescent conflicts and adolescent adjustment

	1	2	3	4	5	6	7	8	9	10
1 Anx. and Dep.	1.0									
2 Withdrawal	.62**	1.0								
3 Somatic Complaints	.55**	.42**	1.0							
4 Rule Breaking	.21**	.13*	.28**	1.0						
5 Aggressive Behavior	.47**	.30**	.45**	.65**	1.0					
6 Mother CFT	.24**	.16**	.32**	.39**	.44**	1.0				
7 Father CFT	.22**	.17**	.32**	.40**	.47**	.76**	1.0			
3 Dyad TRG	.31**	.20**	.28**	.28**	.33**	.51**	.48**	1.0		
9 Mother TRG	.26**	.20**	.21**	.22**	.25**	.27**	.20**	.37**	1.0	
10 Father TRG	.18**	.08	.19**	.29**	.34**	.39**	.37**	.35**	.59**	1.0
Means	7.98	4.70	4.88	4.81	4.81	14.58	13.04	3.54	3.68	3.05
SD	4.67	2.87	3.39	3.39	3.71	6.27	6.57	2.15	2.78	1.75

Table 1. Means and standard deviations and correlations between the model variables

Note. Anx. and Dep. = Anxiety and Depression; Mother CFT = Mother Conflict; Father CFT = Father Conflict.; Dyad TRG = Coparental Dyad Triangulation; Mother TRG = Mother Coparental Triangulation; Father TRG = Father Coparental Triangulation.

The structural equations were conducted to examine the impact of triangulation on the level of parent-adolescent conflict and the development of internalizing or externalizing problems, in addition to the direct impact of triangulation on this outcome. The initial model proposed, based on our hypothesis, did not show an adequate fit, presenting the following indices $\chi^2 = 454.35$ (p < 0.001); $\chi^2 / gl = 41.30$; Comparative Fit Index - CFI = 0.534; Normed Fit Index NFI = 0.544 and Root Mean Square Error of Approximation - RMSEA = 0.41.

Adjustments were made between the covariance of coparenting and adolescents' problems, according to the modification indices produced, in addition to excluding relations that were not significant. Figure 1 presents the final model with normed coefficients of the direct effects of the model. The final fit indices, for the structural model, were satisfactory: $\chi^2 = 62.420$ (p < 0.01); $\chi^2 / \text{gl} = 2.84$; Comparative Fit Index - CFI = 0.96; Normed Fit Index NFI = 0.94 and RMSEA 0.08 with a 90% confidence interval between 0.063 and 0.11.

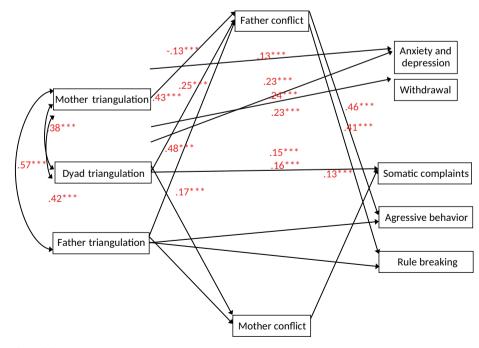


Figure 1. Final structural model.

Estudos de Psicologia, 27(2), maio a agosto de 2022, 155-166

Analyses of indirect effects were performed to specifically verify the hypothesis of conflict mediation between parents and their adolescent offspring. As an approach to check the indirect effects of the structural model, the bias-corrected accelerated bootstrap (BCa) was used, according to the guidelines by Falk & Biesanz (2016), as shown in Table 2.

It is possible to observe that the mediation of the parent-adolescent conflicts is not sustained by the following relationships: coparental dyad triangulation, mother-adolescent conflict and somatic complaints; father triangulation, mother-adolescent conflict and somatic complaints; mother triangulation, father and son conflict and aggressive behavior; mother triangulation, father and son conflict and rule-breaking. As a third hypothesis, triangulation was tested, directly impacting on the adolescents' problems.

Considering that age and gender were proposed as moderating variables, multigroup analyses were performed, and aimed at verifying whether there is significant variability in the perceptions of family phenomena according to adolescents' sex and age. When analyzing the invariance between groups, it is necessary to observe the appropriate fit specifically of the values of χ^2 and the CFI. These allow the verification of the extent to which the parameters operate in an equivalent way between the groups (Byrne, 2010). Multigroup analyzes for gender showed the following values: Unrestricted values χ^2 = 97.77; *df* = 44; P-Value = 0.001; CFI = 0.94 and RMSEA (90%) = 0.07, restricted values: χ^2 = 113.00; df = 58; P-Value = 0.001; CFI = 0.94 and RMSEA (90%) = 0.06. For the multigroup model for age, the unrestricted values were χ^2 = 250.66; *df* = 145; P-Value = 0.001; CFI = 0.85 and RMSEA (90%) = 0.56, and the restricted values χ² = 338.49; df = 173; P-Value = 0.001; CFI = 0.84 and RMSEA (90%) = 0.64.

 Table 2. Indirect effects considering the mediation of father/mother conflicts and children

Indirect Effect	Lower	Upper	P-Value	Normed Estimate
Coparental Dyad Triangulation> Mother Conflict> Somatic Complaints	0.011	0.205	0.067	0.061
Coparental Dyad> Father Conflict> Aggressive Behavior	0.315	0.764	0.000	0.195
Coparental Dyad> Father Conflict> Rule Breaking	0.189	0.737	0.001	0.176
Father Triangulation> Mother Conflict> Somatic Complaints	0.002	0.106	0.071	0.02
Father Triangulation> Father Conflict> Aggressive Behavior	0.055	0.626	0.029	0.112
Father Triangulation> Father Conflict> Rule Breaking	0.048	0.584	0.021	0.101
Mother Triangulation> Father Conflict> Aggressive Behavior	-0.410	0.035	0.210 -	-0.058
Mother Triangulation> Father Conflict> Rule Breaking	0.397	0.014	0.159 -	-0.052

Discussion

This study aimed at understanding the relationships between coparental triangulation, parent-adolescent conflicts, and the emotional and behavioral symptoms of adolescents, controlling for adolescents' age and sex. The first hypothesis questioned whether conflicts between parents and their adolescent offspring mediate the relationship between coparental triangulation and emotional and behavioral symptoms in adolescents. Tests of indirect effects were performed, and the results found partially support this hypothesis.

Conflicts with the father mediate the relationship between coparental dyad triangulation and aggressive and rule-breaking adolescents' behaviors (externalizing behaviors), as well as between father triangulation and adolescents' aggressive and rule-breaking behaviors. The results are consistent with previous studies that indicate that in families with adolescents, coparental discord is commonly expressed in punitive, contradictory, and inconsistent educational practices, which culminates in conflicts between caregivers and their offspring (Cummings & Schatz, 2012; Terres-Trindade & Mosmann, 2015). This scenario can generate an emotional unavailability of parents for parenting, resulting in higher levels of symptoms in adolescents. (Mosmann et al., 2017).

Another relevant aspect concerns the impacts of the parents' gender on the model. The effect size of the mother triangulation was significant but low only for conflict between father and son ($\beta = 0.127$, p < 0.001) compared to the triangulation effects of both parents

and of the father only. Also, when considering the mediation effects of the mother and adolescent conflict through calculations of indirect effects, the paths were not sustained, showing only mediation paths by aspects of the father's parenting. Considering both direct and indirect effects, it is possible to assume that the mother's impact is lower when compared to the effects of the father's impact and when both triangulate. Little is known about the specific impacts of the roles of fathers and mothers on coparenting, but current studies have shown constant changes in which mothers assume more responsibilities working outside the home and fathers getting more involved in childcare (Schoppe-Sullivan & Fagan, 2020).

The results allow us to conjecture that triangulation is a process in which the limits are blurred for all the members. The data confirm the father's vulnerability hypothesis: the father-adolescent relationship suffers greater losses when there are difficulties in the family environment when compared to the losses suffered in the mother-adolescent relationship (Cummings et al., 2010). Theoretically, fathers do not have their role as clearly defined as mothers do, which is intrinsically linked to pregnancy. This definition would make it easier for mothers to separate parental and coparental relationships, while fathers would not have this protective factor since they have less guidance on how to carry out this compartmentalization, so it can be complex to fathers to separate their role as father from the relationship with their partner, insofar as they insufficiently resolve conflicts between them.

From the parents' perspective, authors found that the mother has greater importance for coparenting than the father (Murphy, Gallegos, Jacobvitz, & Hazen, 2017). This study demonstrated a different perspective through the adolescents' perceptions, with the father showing a greater effect size on the model than the mother triangulation. This data confirms the differences between the perspectives of fathers and their own children and shows that the quality and quantity of involvement that the father has been performing in families has an equal or in some cases prominent impact than that of the mother, both positive and negative (Machado & Mosmann, 2020).

Surprisingly, conflicts with the mother did not have a mediating effect between triangulation and emotional and behavioral symptoms in adolescents, only direct effects on somatic complaints (internalizing symptoms) and are impacted by coparental dyad triangulation and father triangulation. Studies show that the mother still takes on a more responsible role in the face of family needs (Wagner, Predebon, Mosmann, & Verza, 2005), which might make the frequency of conflictual situations with the mother higher in relation to the father, and, thus, less relevant for adolescents. Fathers have traditionally been more concerned with external protection, providing their children with a world view, which may explain the contrasts in parentadolescent and mother-adolescent conflicts (Bögels & Perotti, 2011). This scenario suggests that the mother still has a more frequent role of guidance and discipline, and from the perception of adolescents, conflicts become trivial to the routine of the house.

The third hypothesis investigated was partially supported by the results, indicating that triangulation has a weak but significant direct effect on both internalizing and externalizing problems, which shows the existence of other variables that impact on their development. The result confirms that there is a direct impact of family difficulties on the psychological adjustment of adolescents (Davies & Cummings, 1994; Davies & Martin, 2013). Specifically, the effect sizes of the coparental dyad triangulation were weak but significant for all internalizing problems (anxiety and depression, withdrawal, and somatic complaints). The father triangulation, on the other hand, had significant relationships only with externalizing problems (aggressive behavior and rule-breaking). Finally, the mother triangulation had the lowest effect size and only with anxiety and depression (β = 0.130, p < 0.001). When considering the impact size of the regressions, the empirical model indicates that there are other variables of a different nature from coparenting, that also contribute to the emotional adjustment of adolescents. The present study did not investigate variables other than coparenting as predictor of emotional adjustment of adolescents, but findings in the literature demonstrate parental psychopathology and parenting styles play a role in this scenario (Bolsoni-Silva et al., 2016).

Namely, the results added data to the literature while, in addition to confirming that triangulation impacts externalizing problems (Murphy, Jacobvitz, & Hazen, 2016), it advances when analyzing the adolescent's relationships with each parent. Thus, the father triangulation has direct and indirect connections with externalizing problems, whereas the mother triangulation has only a significant direct relationship with internalizing problems (anxiety and depression). These data corroborate a Brazilian study by Machado and Mosmann, (2020) in which triangulation and coparental conflict showed a significant association with externalizing problems. It can be considered that in environments with significant levels of triangulation, there is an increase in uncertainties among young people regarding family limits, which might generate behavior of questioning or disobeying rules, thereby increasing conflicts with their own parents, and increasing the likelihood of problematic behaviors (Etkin et al., 2014). In addition, children tend to repeat the behavior of caregivers. Thus, when the family model is one of disagreement and devaluation of the other, adolescents tend to respond similarly.

Furthermore, different studies have been investigating the specificities of the coparenting repercussions according to children's gender and age (Buehler & Gerard, 2002; Margolin et al., 2001; Weymouth et al., 2016). The last hypothesis of the study tested differences that may exist between the variables of the model when controlling age and gender. In opposition to our initial hypothesis, the relationships between coparental dyad triangulation, parent-adolescent conflicts and internalizing and externalizing problems did not show significant differences with respect to sex. This data is not a consensus in the international literature and some research corroborates our data (Sturge-Apple, Davies, Cicchetti, & Manning, 2010; Zou, & Wu, 2019).

One explanation for this result may be that this research evaluated the adolescents' perception of family phenomena as opposed to other studies that assessed the impact of coparenting through parents' perception (Margolin et al., 2001). Therefore, when boys and girls assess family phenomena, they do not perceive them differently. Another factor that may explain this result implies considering that the analyses performed involves independent, mediating, and dependent variables simultaneously, considering divergences in the perception of the relationships between the variables, in contrast to research that verifies divergences in the levels of symptoms by sex (Buehler & Gerard, 2002).

As for the adolescents' age, the results showed that there was no difference in the relationship between triangulation, parent-conflict and the development of internalizing and externalizing problems, also contradicting the initial hypothesis of the study (Oliveira-Monteiro et al., 2013). Considering aspects of human development, adolescence is a period of maturation of different brain abilities and functions, which has impacts on the perception, understanding and way of processing the experiences to which they are exposed, as well as it causes greater emotional complexity (Newman & Newman, 2018). The results indicate that conflict and triangulation's perception from the perspective of the adolescents does not change significantly according to age, indicating that there is an adequate understanding of the family dynamics since the beginning of adolescence. This data sheds light on the relevance of family relationships for healthy and adaptive outcomes of individuals in the process of development.

This article draws attention to the harmful effects of involving adolescents in coparental conflict. Specifically, the results point out the father's role in parenting and coparenting. When considering coparental interventions, the systemic perspective of feedback from these interactions cannot be lost and the involvement and impact of the father on family processes should not be underestimated. So, it is necessary to redesign interventions to the population in a way that includes successful parents and couples (Panter-Brick et al., 2014) and the evidence from the present study supports the specificities to be worked with each one. Future research can expand the results found when assessing parents and adolescents simultaneously regarding the perception of coparenting, in addition to refining the different impacts that the maternal and paternal figures have on this context. Strategies that would make it possible to deepen understanding the specificities of this dynamic would involve jointly collecting data from fathers, mothers, and their adolescent offspring, enabling dyadic and triadic analyses, as well as comparisons between groups.

References

- Achenbach, T. M., & Rescorla, L. A. (2001). Manual for the ASEBA School-Age Forms & Profiles. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.
- Achenbach, T. M., & Rescorla, L. A. (2003). Manual for the ASEBA Adult Forms & Profiles for ages 18-59. Burlington, VT: University of Vermont, Research Center for Children, Youth & Families.
- Barros, P., & Silva, F.B.N. (2006). Origem e manutenção do comportamento agressivo na infância e adolescência. *Revista Brasileira de Terapias Cognitivas*, *2*(1), 55-66. Retrieved from http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1808-56872006000100006& lng=pt&tlng=pt
- Bernal, A. C. L. (2012). Funcionamiento familiar, conflictos con los padres y satisfacción con la vida de familia en adolescentes bachilleres. Acta Colombiana de Psicología, 15(1), 77-85. Retrived from https://actacolombianapsicologia.ucatolica.edu.co/article/view/198

Relationships between coparental triangulation, parent-adolescent conflicts and adolescent adjustment

- Bögels, S. M., & Perotti, E. C. (2011). Does father know best? A formal model of the paternal influence on childhood social anxiety. *Journal of Child and Family Studies*, 20(2), 171-181. doi: 10.1007/ s10826-010-9441-0
- Bolsoni-Silva, A. T., & Loureiro, S. R. (2019). Boys with internalizing and externalizing behavior problems: A case control study. *Temas em Psicologia*, *27*(1), 39-52. doi: 10.9788/TP2019.1-04
- Bolsoni-Silva, A. T., Loureiro, S. R., & Marturano, E. M. (2016). Comportamentos internalizantes: associações com habilidades sociais, práticas educativas, recursos do ambiente familiar e depressão materna. *Psico*, 47(2), 111-120. doi: 10.15448/1980-8623.2016.2.20806
- Buehler, C., & Gerard, J. M. (2002). Marital conflict, ineffective parenting, and children's and adolescents' maladjustment. *Journal of Marriage and Family*, 64(1), 78-92. doi: 10.1111/j.1741-3737.2002.00078.x
- Buehler, C., & Welsh, D. P. (2009). A process model of adolescents' triangulation into parents'marital conflict: The role of emotional reactivity. *Journal of Family Psychology*, 23, 167-180. doi: 10.1037/a0014976
- Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming.* New York, NY: Routledge, Taylor & Francis.
- Cerutti, F., & Argimon, I. I. L. (2015). Relacionamento pais e filhos e as implicações no uso de substâncias psicoativas: uma revisão sistemática. *Perspectivas en Psicología*, *12*(1), 57-65. Retrieved from https://repositorio.pucrs.br/dspace/bitstream/10923/9085/2/ Relacionamento_pais_e_filhos_e_as_implicacoes_no_uso_de_ substancias_psicoativas_uma_revisao_sistematica.pdf
- Creswell, J. W. (2010). Projeto de pesquisa: métodos qualitativo, quantitativo e misto. Porto Alegre, RS: Bookman.
- Cummings, E. M., & Davies, P. T. (2010). *Marital conflict and children:* An emotional security perspective. New York, NY: Guilford Press.
- Cummings, E. M., Merrilees, C. E., & George, M. W. (2010). Fathers, marriages, and families: Revisiting and updating the framework for fathering in family context. In M. E. Lamb (Ed.), The role of the father in child development (pp. 154-176). Hoboken, NJ: John Wiley & Sons Inc.
- Cummings, E. M., & Schatz, J. N. (2012). Family conflict, emotional security, and child development: Translating research findings into a Prevention Program for community families. *Clinical Child* and Family Psychology Review, 15(1), 14-27. doi: 10.1007/ s10567-012-0112-0
- Davies, P.T., & Cummings, E. M. (1994). Marital conflict and child adjustment: An emotional security hypothesis. *Psychological Bulletin*, *116*(3), 387-411. doi: 10.1037/0033-2909.116.3.387
- Davies, P. T., & Martin, M. J. (2013). The reformulation of emotional security theory: The role of children's social defense in developmental psychopathology. *Development and Psychopathology*, 25(4pt2), 1435-1454. doi: 10.1017/S0954579413000709
- Davies, P. T., Sturge-apple, M. L., Woitach, M. J., & Cummings, E. M. (2009). A Process analysis of the transmission of distress from interparental conflict to parenting : Adult relationship security as an explanatory mechanism. *Developmental Psychology*, 45(6), 1761-1773. doi: 10.1037/a0016426
- Etkin, R. G., Koss, K. J., Cummings, E. M., & Davies, P. T. (2014). The differential impact of parental warmth on externalizing problems among triangulated adolescents. *Journal of Genetic Psychology*, 175(2), 118-133. doi: 10.1080/00221325.2013.813437

- Falk, C. F., & Biesanz, J. C. (2016). Two cross-platform programs for inferences and interval estimation about indirect effects in Mediational Models. SAGE Open, 6(1). doi: 10.1177/2158244015625445
- Feinberg, M. E. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting*, 3(2), 95-131. doi: 10.1207/S15327922PAR0302_01
- Guimarães, A. B. P., Hochgraf, P. B., Brasiliano, S., & Ingberman, Y. K. (2009). Aspectos familiares de meninas adolescentes dependentes de álcool e drogas. *Revista de Psiquiatria Clínica*, 36(2), 69-74. doi: 10.1590/S0101-60832009000200005
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2009). *Análise multivariada de dados*. Porto Alegre, RS: Bookman.
- Hameister, B. R., Barbosa, P. V., & Wagner, A. (2015). Conjugalidade e parentalidade: uma revisão sistemática do efeito spillover. Arquivos Brasileiros de Psicologia, 67(2), 140-155. Retrieved from http://pepsic.bvsalud.org/scielo. php?script=sci_arttext&pid=S1809-52672015000200011&Ing=pt
- Machado, M. R., & Mosmann, C. P. (2020). Coparental conflict and triangulation, emotion regulation, and externalizing problems in adolescents: Direct and indirect relationships. *Paidéia (Ribeirão Preto)*, 30(2016), 1-9. doi: 10.1590/1982-4327e3004
- Margolin, G., Gordis, E. B., & John, R. S. (2001). Coparenting: A link between marital conflict and parenting in two-parent families. *Journal* of Family Psychology, 15(1), 3-21. doi: 10.1037//0893-3200.15.1.3
- Mosmann, C. P., Costa, C. B., Einsfeld, P., Silva, A. G. M., & Koch, C. (2017). Conjugalidade, parentalidade e coparentalidade: associações com sintomas externalizantes e internalizantes em crianças e adolescentes. *Estudos de Psicologia (Campinas)*, 34(4), 487-498. doi: 10.1590/1982-02752017000400005
- Mosmann, C. P., Machado, M. R., Costa, C. B., Gross, P. R. C., & Abs, D. (2018). Propriedades psicométricas da versão brasileira do the coparenting inventory for parents and adolescents (CI-PA). *Revista Avaliação Psicológica*, 17(03), 399-406. doi: 10.15689/ ap.2018.1703.14281.13
- Murphy, S. E., Gallegos, M. I., Jacobvitz, D. B., & Hazen, N. L. (2017). Coparenting dynamics: Mothers' and fathers' differential support and involvement. *Personal Relationships*, 24(4), 917-932. doi: 10.1111/pere.12221
- Murphy, S. E., Jacobvitz, D. B., & Hazen, N. L. (2016). What's so bad about competitive coparenting? Family-level predictors of children's externalizing symptoms. *Journal of Child and Family Studies*, 25(5), 1684-1690. doi: 10.1007/s10826-015-0321-5
- Newman, B. M., & Newman, P. R. (2018). *Development through life:* A psychosocial approach (13th ed.). Boston: CENGAGE Learning.
- Oliveira, J. M., & Alvarenga, P. (2015). Efeitos de uma intervenção com foco nas práticas de socialização parentais sobre os problemas internalizantes na infância. *Revista Brasileira de Terapia Comportamental e Cognitiva*, 17(2), 16-32. doi: 10.31505/rbtcc.v17i2.747
- Oliveira-Monteiro, N. R. D., Nascimento, J. O. G., Montesano, F. T., & Aznar-Farias, M. (2013). Competência, problemas internalizantes e problemas externalizantes em quatro grupos de adolescentes. *Psico-USF*, *18*(3), 427-436. doi: 10.1590/S1413-82712013000300009
- Panter-Brick, C., Burgess, A., Eggerman, M., McAllister, F., Pruett, K., & Leckman, J. F. (2014). Practitioner review: Engaging fathersrecommendations for a game change in parenting interventions based on a systematic review of the global evidence. *Journal of Child Psychology Psychiatry*, 55(11), 1187-1212. doi: 10.1111/jcpp.12280

- Reynolds, J., Houlston, C., Coleman; L., & Harold, G. (2014). Parental conflict outcomes and interventions for children and families (Vol. 1). Chicago: Bristol University Press/Policy Press. doi: 10.2307/j.ctt1t6p6t4
- Rocha, M. M. (2012). Evidências de validade do "Inventário para Adolescentes" (YSR/2001) para a população brasileira (Doctoral Thesis, Universidade de São Paulo, São Paulo). Retrieved from http://www.teses.usp.br/teses/disponiveis/47/47133/tde-12062012-153735/en.php
- Schoppe-Sullivan, S. J., & Fagan, J. (2020). The evolution of fathering research in the 21st century: Persistent challenges, new directions. *Journal of Marriage and Family*, 82(1), 175-197. doi: 10.1111/ jomf.12645
- Silva, D. C., Boff, R. M., Wendling, M. I., & Silva-Oliveira, M. (2016). Sintomas internalizantes, externalizantes e relações interpessoais de adolescentes em tratamento para dependência química. *Estudos e Pesquisas em Psicologia*, *16*(3), 816-830. Retrieved from http://pepsic.bvsalud.org/scielo.php?script=sci_art text&pid=S1808-4281201600030009&lng=pt&tlng=pt
- Sturge-Apple, M. L., Davies, P.T., Cicchetti, D., & Manning, L. G. (2010). Mother's parenting practices as explanatory mechanisms in associations between interparental violence and child adjustment. *Partner Abuse*, 1(1), 45-60. doi: 10.1891%2F1946-6560.1.1.45
- Terres-Trindade, M. (2014). *Jovens online: praticas parentais, conflito familiar e dependencia de Internet* (Master's Dissertation, Universidade do Vale do Rio dos Sinos, São Leopoldo). Retrieved from http://www.repositorio.jesuita.org.br/handle/UNISINOS/4740
- Terres-Trindade, M., & Mosmann, C. P. (2015). Discriminant profile of young internet dependents: The role of family relationships. *Paidéia (Ribeirão Preto)*, 25(62), 353-362. doi: 10.1590/1982-43272562201509

- Teubert, D., & Pinquart, M. (2011). The Coparenting Inventory for Parents and Adolescents (CI-PA): Reliability and validity. *European Journal of Psychological Assessment*, 27(3), 206-215. doi: 10.1027/1015-5759/a000068
- Wagner, A., Predebon, J., Mosmann, C., & Verza, F. (2005). Compartilhar tarefas? Papéis e funções de pai e mãe na família contemporânea. *Psicologia: Teoria e Pesquisa*, 21(2), 181-186. doi: 10.1590/S0102-37722005000200008
- Wagner, A., Tronco, C., & Armani, A. B. (2011). Os desafios da família contemporânea: revisitando conceitos. In D. Levandowski, D. Falcke, E. P. Zordan, J. A. S. Neto, J. L. G. L. S. Puga, K. A. Demarchi, ... L. W. Rosa (Eds.), *Desafios psicossociais da família contemporânea? Pesquisas e reflexões* (pp. 19-38). Porto Alegre: Artmed.
- Weymouth, B. B., Buehler, C., Zhou, N., & Henson, R. A. (2016). A meta-analysis of parent-adolescent conflict: Disagreement, hostility, and youth maladjustment. *Journal of Family Theory & Review*, *8*(1), 95-112. doi: 10.1111/jftr.12126
- Yan, J., Olsavsky, A., Schoppe-Sullivan, S. J., & Kamp Dush, C. M. (2018). Coparenting in the family of origin and new parents' couple relationship functioning. *Journal of Family Psychology*, 32(2), 206-216. doi: 10.1037/fam0000353
- Zemp, M., Johnson, M. D., & Bodenmann, G. (2018). Within-family processes: Interparental and coparenting conflict and child adjustment. *Journal of Family Psychology*, 32(3), 299-309. doi: 10.1037/ fam0000368
- Zou, S., & Wu, X. (2019). Coparenting conflict behavior, parent adolescent attachment, and social competence with peers: An investigation of developmental differences. *Journal of Youth and Adolescence*, 49, 267-282. doi: 10.1007/s10964-019-01131-x

Clarisse Pereira Mosmann, Doutora em Psicologia pela Pontifícia Universidade Católica do Rio Grande do Sul (PUC/RS), Pós-Doutora na Universidad de Girona, Espanha, Pós-doutora pela Universidade Federal do Rio Grande do Sul (UFRGS), Especialista em Terapia de Casal e Família na Clínica Stirpe/Madrid, é Professora do Programa de Pós-Graduação e do Curso de Graduação em Psicologia da Universidade do Vale do Rio dos Sinos (UNISINOS), é Coordenadora do Núcleo de Estudos em Casais e Famílias da Unisinos (NECAF) em São Leopoldo/RS. Endereço para correspondência: Rua Dona Ondina 68 ap. 803 A, Menino Deus, Porto Alegre/RS. Cep 90.850-020. Telefone: 51 9327-3770. Email: clarissemosmann@gmail.com ORCID: https://orcid.org/0000-0002-9275-1105

Mariana Rodrigues Machado, Doutora em Psicologia Clínica pela Universidade do Vale do Rio dos Sinos (UNISINOS), é Professora do Curso de Graduação em Psicologia da Atitus Educação, em Passo Fundo/RS. Email: mariana.rmachado@yahoo.com.br ORCID: https://orcid.org/0000-0002-7111-3710

Lídia Käfer Schünke, Mestre em Psicologia Clínica pela Universidade do Vale do Rio dos Sinos (UNISINOS), é Professora do Curso de Graduação em Psicologia do Grupo Uniftec, em Novo Hamburgo/RS, é Membro do Núcleo de Estudos em Casais e Famílias da Unisinos (NECAF), em São Leopoldo/RS. Email: lidia.kafer@gmail.com ORCID: https://orcid.org/0000-0002-3770-5982 Relationships between coparental triangulation, parent-adolescent conflicts and adolescent adjustment

Mariana Cunha Schneider, Graduada em Psicologia pela Universidade do Vale do Rio dos Sinos (UNISINOS), é Psicóloga em consultório particular. Email: mari.cunha.s@hotmail.com ORCID: https://orcid.org/0000-0002-7577-1710

Liana Pasinatto, Doutora em Psicologia Clínica pela Universidade do Vale do Rio dos Sinos (UNISINOS), é Psicóloga Escolar da Escola de Educação Básica da Universidade Regional Integrada do Alto Uruguai e das Missões, em Erechim/RS. Email: lia.pasinato@yahoo.com.br ORCID: https://orcid.org/ 0000-0002-1185-9537

> Received in 01.apr.22 Revised in 01.jun.22 Accepted in 30.jul.22