

The Pennsylvania State University
The Graduate School
College of Health & Human Development

**DETERMINANTS OF ADOLESCENT TRIANGULATION INTO INTERPARENTAL
CONFLICT: EVALUATING RISK AND PROTECTIVE FACTORS**

A Thesis in
Human Development and Family Studies

by
Devin M. McCauley

© 2019 Devin M. McCauley

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Master of Science

August 2019

The thesis of Devin McCauley was reviewed and approved* by the following:

Gregory M. Fosco

Associate Professor of Human Development and Family Studies
Associate Director, Edna Bennet Pierce Prevention Research Center
Thesis Adviser

Susan M. McHale

Distinguished Professor of Human Development and Family Studies and Professor of
Demography
Associate Director, Penn State Clinical and Translational Science Institute

Lisa Gatzke-Kopp

Associate Professor of Human Development and Family Studies
Professor-in-Charge of the Graduate Human Development and Family Studies Program

*Signatures are on file in the Graduate School.

Abstract

Adolescents who are triangulated into interparental conflict are at increased risk for psychological maladjustment. However, little is known about factors which place families at risk for involving adolescents in interparental conflict. One hundred eighty female caregivers and adolescents (57% female) participated at two time points approximately six months apart. All adolescents were in 9th or 10th grade at T1 ($M_{\text{age}} = 14.75$ years) and lived in two-caregiver families. Hierarchical linear regression models were used to evaluate family, parent, and adolescent risk factors for triangulation into interparental conflict. Parent emotion coaching was then evaluated as a potential buffer for triangulation, and adolescent gender was explored as a potential moderator of links between risk factors and triangulation. Findings revealed that low interparental warmth, parent depression, and adolescent dysregulated emotion all represented risks for triangulation. Parent emotion coaching moderated the association between low interparental warmth and triangulation, representing a buffer. Gender analyses revealed differences in this interaction for adolescent girls vs. boys. Implications for family-based intervention programs are discussed.

TABLE OF CONTENTS

List of Tables.....	v
List of Figures.....	vi
Chapter 1. INTRODUCTION.....	1
Family Risk and Protective Factors for Triangulation.....	2
Individual Risk Factors for Triangulation.....	4
Emotion Coaching as a Buffer for Triangulation.....	6
Gender, Emotion Coaching, and Triangulation.....	7
The Current Study.....	8
Chapter 2. METHOD.....	10
Procedure.....	10
Participants.....	11
Measures.....	12
Data Analysis.....	14
Chapter 3. RESULTS.....	16
Family Risk and Protective Factor Models.....	16
Parent Risk and Protective Factor Models.....	17
Adolescent Risk and Protective Factor Models.....	18
Chapter 4. DISCUSSION.....	19
Key Predictors of Triangulation.....	19
Emotion Coaching as a Protective Factor.....	21
Implications for Intervention.....	24
Limitations and Future Directions.....	25
Conclusions.....	26
References.....	27
Appendix A: Tables.....	38
Appendix B: Figures.....	44
Appendix C: Model Equations.....	47

List of Tables

Table 1. <i>Correlations, Means, and Standard Deviations</i>	39
Table 2. <i>Descriptive Statistics by Adolescent Gender</i>	40
Table 3. <i>Family Risk and Protective Factors for Triangulation</i>	41
Table 4. <i>Parent Risk and Protective Factors for Triangulation</i>	42
Table 5. <i>Adolescent Risk and Protective Factors for Triangulation</i>	43

List of Figures

Figure 1. <i>Three-way interaction between interparental warmth, emotion coaching, and adolescent gender</i>	45
Figure 2. <i>Two-way interaction between parent emotion coaching and adolescent gender</i>	46

Acknowledgments

Collection of data and participant compensation were supported by the Karl R. and Diane Wendle Fink Early Career Professorship for the Study of Families. The opinions expressed in this paper are those of the authors, and do not reflect the views of funding sources. Thank you to all participant families who made this study possible, as well as the members of the Penn State P.O.W.E.R. lab who helped collect and prepare the data used in this study.

Finally, thank you to Gregory Fosco and Susan McHale for the invaluable support and feedback offered throughout the duration of this master's thesis.

Chapter 1: INTRODUCTION

Research on interparental conflict has provided key insights into how distress experienced within the interparental relationship has far reaching consequences for child and adolescent psychological maladjustment (e.g., Buehler, Anthony, Krishnakumar, Stone, Gerard, & Pemberton, 1997; Cummings & Davies, 1994; Grych & Fincham, 1990; Grych & Fincham, 2001). Evaluation of mechanisms explaining these associations suggests that interparental conflict is disruptive to relationships throughout the family, accounting for diminished parenting quality (Krishnakumar & Buehler, 2000; Schoppe-Sullivan, Schermerhorn, & Cummings, 2007), as well as poorer parent-child relationships (Cox, Paley, & Harter, 2001; Erel & Burman, 1995). In addition to undermining parenting and parent-adolescent relationships, interparental conflict may directly involve children, resulting in a triadic process referred to as triangulation (Buchanan & Waizenhofer, 2001; Minuchin, 1974). By involving a third party (i.e., the child) into interparental conflict, triangulation is thought to diffuse conflict tension between the parents (Minuchin, 1974; Nichols & Everett, 1986).

Adolescents who are triangulated into parental conflicts are at elevated risk for a host of problem outcomes, including internalizing problems (Buehler & Welsch, 2009; Franck & Buehler, 2007), externalizing problems (Fosco & Grych, 2008; Fosco, Lippold, & Feinberg, 2014; Gerard, Buehler, Franck, & Anderson, 2005) as well as greater conflict and reduced closeness in parent-adolescent relationships (Fosco & Grych, 2010; Fosco et al., 2014). Triangulation also mediates the association between interparental conflict and psychological maladjustment in adolescents (Buchanan & Waizenhofer, 2001; Franck & Buehler, 2007; Grych, Raynor, & Fosco, 2004), and exacerbates the association between emotional reactivity to interparental conflict and psychological maladjustment in adolescents (Davies, Coe, Martin,

Sturge-Apple, & Cummings, 2015), suggesting that direct involvement in conflict is a crucial mechanism through which risk from interparental conflict is conferred to adolescent children.

Although triangulation into interparental conflict is a robust risk for adolescent psychological maladjustment, little is known about factors that place families at risk for triangulation. Extant research suggests chronic, hostile, and poorly resolved interparental conflict is associated with triangulation (Grych, Raynor, & Fosco, 2004; Fosco & Grych, 2010, Minuchin, 1974), as is parenting stress (Camisasca, Miragoli, & Di Blasio, 2019), and alliances between parents and adolescents (Grych et al., 2004). Beyond these risks there are likely a variety of unidentified factors throughout various domains of the family, from family-level functioning to individual characteristics of parents and adolescents, which increase a family's tendency to involve adolescents during interparental conflict. Improved understanding of these risk factors is necessary to facilitate investigation of key protective factors, which could in turn be promoted within family prevention contexts. In order to address the aforementioned gaps in triangulation research, this study seeks to a) investigate potential determinants of triangulation in multiple domains of family, b) evaluate parent emotion coaching as a potential protective factor, and c) explore gender differences in risk and protective factors for triangulation.

Family Risk and Protective Factors for Triangulation

Dimensions of global family functioning may be key indicators of whether interparental conflict is likely to be effectively managed within the interparental relationship or expand beyond the dyad to involve adolescent children.

Risk from poor interparental warmth. Within two-caregiver families, the couple relationship serves a key leadership role in guiding overall family functioning, leading many to describe it as the “executive subsystem” of the family (Feinberg, 2003; Fosco & Grych, 2013; Minuchin,

1974). Vulnerabilities within this relationship, including low warmth, positivity, and commitment, may place the broader family at risk during interparental conflict. Warmth within the couple relationship is a key predictor of both marital quality and stability (Cutrona, Russell, Hessling, Brown, & Murry, 2000; Gottman, Coan, Carrere, & Swanson, 1998), while positivity buffers the association between interparental conflict and marital dissatisfaction (Johnson et al., 2005). Low levels of positive qualities within the interparental relationship may undermine effective conflict management, increasing the likelihood of verbal hostility, withdrawal, or submission. Without adequate resolution, conflict between parents may be more likely to displace hostility toward adolescents (Cox et al., 2001; Erel & Burman, 1995), or lead parents to recruit adolescents for support not adequately provided within the marital relationship (Kerig, 2005; Peris, Goeke-Morey, Cummings, & Emery, 2008).

Furthermore, children experience heightened distress during interparental conflict when concerned about potential marital dissolution (Atkinson, Dadds, Chipuer, & Dawe, 2009; Grych, 1998), especially when conflict includes parents' verbal threats to leave the marriage (Laumakis, Margolin, & John, 1998). Low levels of warmth, positivity and commitment within the couple relationship may contextualize adolescents' interpretations of interparental conflict, increasing concerns that conflict may further jeopardize marital integrity. Such concerns may motivate adolescents to intervene during interparental conflict in an effort to mitigate further risk to their parents' tenuous relationship.

Risk from poor family cohesion. Family cohesion refers to the quality of support, connectedness, and emotional bonding within the family unit (Barber & Buehler, 1996; Olson, Sprenkle, & Russell, 1979). Low family cohesion is associated with family member disengagement, increased relational tension, and poor global family functioning (Baer, 2002),

factors which may elicit adolescent concerns about overall family integrity. Such concerns may contextualize adolescent's perceptions of interparental conflict (Grych, 1998), prompting intervention in an attempt to prevent further dissolution of family connectedness. Conversely, interparental conflict may be less distressing to adolescents within families characterized by high cohesion, as norms of supportiveness and connectedness may mitigate conflict intensity and facilitate healthy conflict resolution within the interparental dyad (Billings, 1979; Driver & Gottman, 2004; Schneewind & Gerhard, 2002). In such households, adolescents may come to expect that conflict will reach positive resolution, reducing the necessity of intervention or mediation.

Individual Risk Factors for Triangulation

Individual characteristics of parents and adolescents are likely to place families at risk for triangulation, particularly by shaping properties of interparental conflict and adolescents' responses.

Parent risk factors. Parent depression is associated with reduced marital satisfaction (Gabriel, Beach, & Bodemann, 2010; Kronmüller et al., 2011), as well as increased negativity and criticism during marital interactions (Benazon & Coyne, 2000; Johnson & Jacob, 2000; McCabe & Gotlib, 1993). Furthermore, depressed parents within distressed marital relationships are at a higher risk for withdrawal, avoidance, and verbal hostility during marital disputes (Christensen & Heavey, 1990; Eldridge & Christensen, 2002; Klinetob & Smith, 1996; Marchand & Hock, 2000), reducing the likelihood of successful conflict resolution (Goeke-Morey, Cummings, & Papp, 2007). Furthermore, adolescents may take on the role of tending to their depressed parent's emotional needs (Van Parys & Rober, 2013). These patterns of marital dissatisfaction, conflict avoidance, and adolescent support may in turn increase the risk for formation of coalitions

between parents and adolescents (Kerig, 2005), a process which places adolescents at risk for involvement in interparental conflict (Grych et al., 2004; Peris et al., 2008). Parent-adolescent coalitions may also perpetuate dysfunction by preventing healthy and effective conflict resolution between parents (Minuchin, 1985; Minuchin, 1974).

A parent's general angry mood may also increase risk for adolescent triangulation by shaping properties of interparental conflict. Unresolved parent anger is a salient feature of interparental conflict associated with negative emotional reactions in children (Cummings, Simpson, & Wilson, 1993). Parent anger may also escalate conflict intensity, potentially triggering concerns that verbal conflict could escalate into physical aggression between parents – a source of concern for children witnessing interparental conflict (Grych, 1998). Such factors may motivate adolescents to intervene in conflict in an effort to either provide support to one parent, or to mitigate conflict intensity.

Adolescent risk factors. Interparental conflict has been shown to elicit emotional distress in both children and adolescents (Cummings & Davies, 1994; Fosco & Grych, 2008; Schermerhorn, Cummings, DeCarlo, & Davies; 2007), with emotional reactivity predicting attempts at conflict intervention in kindergarten-aged children (Schermerhorn et al., 2007). Similar patterns may hold true for adolescents. Adolescents experiencing general emotion dysregulation may experience greater levels of dysregulation during conflict episodes, which, in turn, may motivate their intervention in marital conflict as a means to mitigate the source of their own distress. Additionally, given that adolescents with difficulty regulating emotion are prone to externalizing problems (Cui, Morris, Criss, Houlberg, & Silk, 2014; Silk, Steinberg, & Morris, 2003), these adolescents may be more likely to exhibit dysregulated behavior during conflict

episodes (e.g., acting out, yelling at parents, slamming doors), which may cause parents to redirect frustration or hostility toward the adolescent.

Similarly, adolescents high in dispositional anxiety may be more prone to intervening in interparental conflict. Adolescents become further sensitized to interparental conflict with increased exposure, experiencing greater emotional distress and worry about resolution (Davies, Myers, Cummings, & Heindel, 1999; Goeke-Morey, Papp, & Cummings, 2013). Adolescents high in dispositional anxiety may experience a lower threshold for sensitization, given that anxious mood increases the likelihood of interpreting ambiguous events and scenarios as threatening (Eysenck, Mogg, May, Richard, & Mathews, 1991). Anxious adolescents sensitized to interparental conflict may be particularly concerned about resolution outcomes during conflict episodes, choosing to intervene in conflict in order to facilitate productive resolution.

Emotion Coaching as a Buffer for Triangulation

In this study we also considered whether emotion coaching might buffer risk factors for triangulation. Emotion coaching describes a parent's positive and constructive orientation toward their child's expression of emotions (Gottman, Katz, & Hooven, 1997), and may serve as a key buffer for triangulation by a) increasing parent awareness of family member emotions during interparental conflict and b) providing resilience factors to adolescents who may be at risk for being drawn into interparental conflict.

Parents high in emotion coaching are more aware of their own emotions (Gottman, Katz, & Hooven, 1996), and better able to differentiate between their own emotions and those of their child (Gottman et al., 1997). Such parents may be better equipped to express their emotions directly toward their partner during interparental conflict while concurrently recognizing that witnessing conflict may be distressing for their adolescents, a phenomenon hypothesized to

reduce risk for triangulation (Schermerhorn et al., 2007). These characteristics may promote effective conflict management within the interparental relationship in a way that mitigates adolescent exposure. In this way, parents may instill confidence that conflict resolution is typically reached within the dyad, reducing the necessity of adolescent involvement.

Higher levels of emotion coaching are also associated with adolescents' higher awareness and regulation of emotions (Cunningham, Kliewer, & Garner, 2009; Gottman, Katz, & Hooven, 1996; Ramsden & Hubbard, 2002), fewer externalizing problems (Katz & Hunter, 2007), as well as reduced reciprocation of aversive affect during family interactions (Katz & Hunter, 2007). Emotion coaching also buffers the association between interparental conflict and negative adjustment outcomes (Katz & Gottman, 1997). Collectively, these positive outcomes suggest that high levels of emotion coaching may grant adolescents emotion regulation skills that serve to mitigate associations between potential risk characteristics (i.e., difficulty in emotion regulation, anxiousness) and involvement in interparental conflict.

Gender, Emotion Coaching, and Triangulation

Generally speaking, the triangulation literature does not suggest gender differences for sons and daughters in these processes. Prior work has failed to find differences in rates of triangulation for sons and daughters (e.g., Buehler & Welsh, 2009; Fosco & Grych, 2010; Gerard, Buehler, Franck, & Anderson, 2005), and the association between interparental conflict and triangulation typically does not differ for sons and daughters (e.g., Fosco & Grych, 2010; Grych, Fosco, & Raynor, 2004). Additionally, some studies have shown non-significant differences in the impact of triangulation on adolescent outcomes based on gender (e.g., Buehler & Welsh, 2009; Gerard et al., 2005). Nonetheless, we considered the possibility that the hypotheses tested in the current study might differ for sons and daughters. Although inconsistent,

some evidence suggests that during adolescence, interparental conflict poses a greater risk for adjustment outcomes in girls relative to boys (e.g., Davies & Windle, 1997; Davies & Lindsay, 2001), and that girls are more sensitive than boys to hostile interparental conflict endings (Davies et al., 1996). Parents may also be more likely to pressure daughters to take sides during conflict relative to sons (Amato & Afifi, 2006). Furthermore, parents often socialize emotion differently based on child gender (Brody, 2000; Chaplin, Cole, & Zahn-Waxler, 2005; Garside & Klimes-Dougan, 2002), with benefits of emotion coaching also differing by adolescent gender; evidence suggests boys experience decreased internalizing problems while girls experience increased social skills (Cunningham et al., 2009).

The Current Study

Despite ample empirical evidence linking triangulation with adolescent maladjustment outcomes (e.g., Buchanan & Waizenhofer, 2001; Buehler & Welsh, 2009; Fosco & Bray, 2016; Fosco & Grych, 2008; Fosco & Grych, 2010; Gerard et al., 2005), research has yet to sufficiently investigate the factors beyond interparental conflict that place families at risk for triangulation. The present study addresses this gap by evaluating potential family, parent, and adolescent risk factors for triangulation, as well as the role of parent emotion coaching as a possible buffer. Additionally, gender-based differences in risk and protective factors for triangulation are evaluated.

Hypotheses include the following:

H₁: Family Risk and Protective Hypotheses

1a) Lower levels of *family cohesion*, *interparental warmth*, as well as higher levels of *interparental conflict* will be associated with increases in T2 triangulation, representing family risk factors.

1b) Parent *emotion coaching* will buffer the association between significant family risk factors and T2 triangulation.

1c) The role of adolescent *gender* as a moderator of associations between family risk and protective factors for T2 triangulation will be evaluated in an exploratory fashion.

H2: Parent Risk and Protective Hypotheses

2a) Higher levels of parent *angry mood* and *depression* will be associated with increases in T2 triangulation, representing parent specific risk factors.

2b) Parent *emotion coaching* will buffer the association between significant parent risk factors and T2 triangulation.

3c) The role of adolescent *gender* as a moderator of associations between parent risk and protective factors for T2 triangulation will be evaluated in an exploratory fashion.

H3: Adolescent Risk and Protective Hypotheses

3a) Higher levels of adolescent *dysregulated emotion* and *anxious mood* will be associated with increases in T2 triangulation, representing adolescent specific risk factors.

3b) Parent *emotion coaching* will buffer the association between significant adolescent risk factors and T2 triangulation.

3c) The role of adolescent *gender* as a moderator of associations between adolescent risk and protective factors for T2 triangulation will be evaluated in an exploratory fashion.

Chapter 2: METHOD

Procedure

This study utilizes two waves of data from the Penn State Family Life Optimizing Well-being (FLOW) study, in which adolescents in 9th and 10th grade and their primary caregiver completed assessments about family functioning and emotions. Families were recruited through email contacts sent by school principals to parents of 9th and 10th grade students. Parents interested in participating could then access a web page with detailed study information, and then provide contact information, eligibility information, and consent to participate. In order to be eligible for participation, families had to meet the following criteria: a) two-caregiver household b) adolescents lived in a single household c) fluency in English d) participating adolescent was in 9th or 10th grade when beginning the study e) both the parent and adolescent agreed to participate (via consent, and assent, respectively). After research staff reviewed family eligibility information and determined that the family met all inclusion criteria, adolescents were then emailed a study description and instructions for either agreeing or declining to participate. If the adolescent assented to participation, they were provided a link to complete a T1 questionnaire. Once completed, parents were provided a separate link to complete their own T1 questionnaire. Approximately six months after completion of the parent's T1 questionnaire, adolescents and parents were emailed a link to complete T2 follow-up questionnaires. Participants also received text-message alerts or phone call reminders when the links were available, and research staff made weekly reminder calls until surveys were completed to promote T2 participation. The average time between completion of T1 and T2 surveys was 216.5 days for adolescents (SD = 18.6; range = 179 to 312 days), and 210.5 days for parents (SD = 11.3; range = 117 to 305 days). Parents and adolescents each were compensated with a \$25 gift card after completion of T1 surveys, and a \$35 gift card after completion of T2 follow-up surveys.

Participants

At T1, participants included one adolescent and one parent from 201 families, with all adolescents in 9th or 10th grade and living in a single household with two parents. Since a small number of participating caregivers were male ($n = 11$; 5%) and adolescent gender was a moderator in study analyses, the sample was then trimmed to include only families in which the participating parent was female ($n = 190$). Attrition for adolescents at T2 was 5.3%, with 10 missing cases, yielding a final study sample of 180 families ($N = 180$). We conducted Little's MCAR test to examine the data for patterns of missingness. Data were found to be missing completely at random ($\chi^2(35) = 42.70, p = .174$). Therefore, no bias is expected due to differential attrition.

The analytic sample included 57% female ($n = 102$) and 43% male ($n = 78$) adolescents who identified themselves as White/European American (87%; $n = 156$), Black/African American (2%; $n = 4$), Asian American (3%; $n = 6$), Native American (<1%; $n = 1$), other race or ethnicity not listed (2%; $n = 3$), and multiple races (5%; $n = 9$). Ages ranged from 12 to 17 ($M_{\text{age}} = 14.75, SD_{\text{age}} = 0.80$). Most adolescents lived with at least one sibling in the household (76%; $n = 137$). In this sample, parents reported their race as White/European American (90%; $n = 162$), Black/African American (3%; $n = 6$), Asian American (2%; $n = 3$), Native American (<1%; $n = 1$), Latino (<1%; $n = 1$), other race or ethnicity not listed (<1%; $n = 1$), and multiple races (3%; $n = 6$). Parent ages ranged from 30 to 67 ($M_{\text{age}} = 43.05, SD_{\text{age}} = 6.37$). Most parents reported they were the mother of the adolescent in the study ($n=176$), with other parents reporting they were either a stepmother ($n=2$), aunt ($n=1$), or foster mother ($n=1$). Most parent participants reported being married ($n = 162$), or living with their partner ($n = 11$), and reported living with their partner for an average of 17.9 years ($SD = 6.7$). For parent's highest education level, 21% had

earned a graduate degree (n = 37), 27% had earned a 4-year college degree (n = 49), 15% had earned an associates' degree (n = 28), 19% had completed some college (n = 34), 14% had graduated high school only (n = 25), and three percent had not completed high school (n = 6). The median household income was \$70,000-\$79,000.

Measures

Triangulation. At T1 and T2, adolescent triangulation into interparental conflict was measured using five items from the Children's Perceptions of Interparental Conflict Scale, a commonly used scale with sound psychometric properties with adolescents (Grych et al., 1992; Grych et al., 2004). Adolescents indicated their agreement with statements describing patterns of triangulation into interparental conflict on a 5-point scale (1 = *Strongly Disagree* to 5 = *Strongly Agree*), with item scores averaged to create a composite variable for triangulation. Item statements were contextualized as occurring during conflict, allowing measurement of general patterns of interparental conflict. A sample item was "I feel caught in the middle when my parents argue". Cronbach's alphas were 0.86 and 0.90 at T1 and T2, respectively.

Interparental conflict. At T1, a composite score reflecting overall interparental conflict was created by averaging adolescents' responses to nine items from the Children's Perceptions of Interparental Conflict Scale (CPIC; Grych et al., 1992). Items were on a 5-point scale (1 = *Strongly Disagree* to 5 = *Strongly Agree*), with item statements contextualized as occurring during conflict, allowing measurement of general patterns of interparental conflict. A sample item was "My parents get really mad when they argue". Four items were reverse coded so that higher values indicated higher levels of interparental conflict. Cronbach's alpha was 0.89.

Interparental warmth. At T1, parents indicated the level of warmth felt toward their partners during the last two months by responding to the 5-item Love subscale adapted from the

Love and Relationships scale (Braiker & Kelley, 1979). Items were on a 5-point scale from (1= *Not at All* to 5 = *Very Much*) and were averaged to create a composite score reflecting overall interparental warmth. A sample item was “to what extent do you love your partner at this stage?” Cronbach’s alpha was 0.96 at T1.

Family cohesion. At T1, adolescents indicated the level of family cohesion in the last month by responding to the five-item short form of the Family Environment Scale (Bloom, 1985). Items were on a 5-point scale (1 = *Almost never* to 5 = *Almost Always*), and were averaged to create a composite score reflecting overall family cohesion. A sample item was “family members got along really well”. One scale item was reverse coded so that higher values indicated higher family cohesion. Cronbach alpha was 0.84.

Parent angry mood. At T1, parent angry mood was calculated as the mean of two items from the POMS-A (Terry, Lane, & Fogarty, 2003). Parents indicated the extent to which they felt angry during the last month on a 5-point scale (1=*None of the Time* to 5=*All of the Time*). A sample item was “How much of the time in the last month did you feel angry?” The two items were moderately correlated ($r(179) = 0.48, p < .01$).

Parent depression. At T1, parents indicated their depression during the past week by responding to the 20-item Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). Items were on a 4-point scale (1 = *Rarely* to 4 = *Almost All the Time*) and were averaged to create a composite score reflecting overall parent depression. A sample item was “I could not get going.” Cronbach’s alpha was 0.90.

Adolescent anxious mood. At T1, adolescent anxious mood was measured as the mean of two items from the POMS-A (Terry, Lane, & Fogarty, 2003). Adolescents indicated the extent to which they felt anxious during the last month on a 5-point scale (1 = *None of the Time* to 5 =

All of the Time). A sample item was “How much of the time do you feel worried?”. The two items were correlated ($r(179) = 0.50, p < .01$).

Adolescent emotion dysregulation. At T1, a composite score for adolescent emotion dysregulation was created by averaging adolescents’ responses to the 18-item short form of the Difficulties of Emotion Regulation Scale (Kaufman, Xia, Fosco, Yaptangco, Skidmore, & Crowell, 2015). Items were on a 5-point scale (1 = *Almost Never* to 5 = *Almost Always*), with three items reverse coded so that higher values reflected more frequent difficulty in regulating emotions. A sample item was “when I’m upset, I lose control over my behaviors”. Cronbach’s alpha was 0.90.

Emotion coaching. At T1, the participating parent indicated the extent to which they use emotion coaching in their relationship with their adolescent by using a six-item scale designed specifically for this study which follows previously established criteria for the construct (Gottman et al., 1996). Items were on a 5-point scale (1 = *Not at All* to 5 = *Extremely*) and were averaged to create a composite score for emotion coaching. No timeframe was specified, producing a general measure of emotion coaching. A sample item was “I look for opportunities to help my child learn about his/her emotions”. Cronbach’s alpha was 0.86.

Data Analysis

We used hierarchical multiple linear regression to evaluate the extent to which T1 predictor variables are related to changes in adolescent triangulation at T2. All models included T1 triangulation as an autoregressive control of T2 triangulation, with independent variables predicting change in triangulation from T1 to T2. All models include interparental conflict, adolescent gender, family income, and emotion coaching as covariates. Gender was coded so that 1 represents females and 2 represents males.

Family, parent, and adolescent regression models were each constructed in three hierarchical steps. In step 1, hypothesized main effects were tested in each domain (family, parent, and adolescent factors). In the second step, two-way interactions were tested; however, to minimize risk for type 2 error, we tested parent emotion coaching moderation in step 2a, and adolescent gender as a moderator in step 2b. In step 3, three-way interactions were tested between hypothesized main effect variables, emotion coaching and gender. These were computed one at a time, and identified as separate steps (e.g., 3a, 3b).

SPSS version 25 was used to clean data and build variables used in current analyses. R Studio version 1.1.463 was used to standardize variables, run descriptive statistics, and to construct all regression models. Model parameters were evaluated using an $\alpha = 0.05$.

Chapter 3: RESULTS

Correlations and descriptive statistics for all variables included in the models are reported in Table 1. Means in this table were calculated prior to variable centering. Descriptive statistics by gender are presented in Table 2. Comparison of means by gender indicate that male and female adolescents significantly differed only on T1 levels of anxious mood, with girls reporting higher levels than boys ($t = 2.43, p = .016$). Parent reports of emotion coaching did not differ significantly based on adolescent gender ($t = 0.75, p = .450$).

Family Risk and Protective Factor Models

Results from model 1 evaluating family-level risk and protective factors for adolescent triangulation at T2 are shown in Table 3. In step 1, interparental warmth predicted decreases in T2 triangulation ($\beta_6 = -0.16, p = 0.012$). Neither interparental conflict nor family cohesion significantly predicted changes in T2 triangulation.

In step 2a, emotion coaching significantly moderated the association between interparental warmth and T2 triangulation ($\beta_{10} = 0.23, p = .0002$). This interaction was not probed because it was qualified by a three-way interaction in step 3a. Associations between interparental conflict and family cohesion and T2 triangulation were not significantly moderated by emotion coaching. In step 2b, adolescent gender did not significantly moderate associations between emotion coaching, interparental conflict, or family cohesion and T2 triangulation.

In step 3a, the three-way interaction between interparental warmth, emotion coaching, and adolescent gender was statistically significant ($\beta_{12} = 0.46, p = .0002$). As depicted in Figure 1, tests of simple slopes for interparental warmth and T2 triangulation at high (+1 SD), mean, and low (-1 SD) values of parent emotion coaching were conducted separately for adolescent girls and boys. For adolescent girls, interparental warmth was associated with significant

decreases in T2 triangulation at high (+1 SD; $\beta = -.31$) and mean levels of emotion coaching ($\beta = -.25$) but not low levels (-1 SD; $\beta = -.19$) of emotion coaching. High levels of interparental warmth were associated with average levels of T2 triangulation for all three levels of emotion coaching. We also calculated the regions of significance for girls, finding that interparental warmth was associated with changes in T2 triangulation when T1 parent emotion coaching values were between $-.52$ SD and $.94$ SD (57% of girls in sample).

We then examined simple slopes for boys, finding that interparental warmth was associated with significant changes in T2 triangulation at high (+1 SD; $\beta = .40$) and low (-1 SD; $\beta = -.38$) values of parent emotion coaching, but not mean levels ($\beta = .01$; see Figure 1). For boys, high levels of interparental warmth were associated with average levels of T2 triangulation for all three levels of emotion coaching. We calculated regions of significance for boys, finding that interparental warmth was associated with changes in T2 triangulation when T1 parent emotion coaching values were below $-.30$ SD (35% of boys in sample), and above $.34$ SD (42% of boys in sample).

In step 3b, a three-way interaction between family cohesion, emotion coaching, and adolescent gender was evaluated, but this interaction term was non-significant.

Parent Risk and Protective Factor Models

Results from model 2 evaluating parent risk and protective factors for adolescent triangulation at T2 are shown in Table 4. In step 1, parent depression ($\beta_5 = 0.18, p = 0.012$), and the emotion coaching covariate ($\beta_7 = -0.12, p = 0.049$) were statistically significant predictors of changes in T2 triangulation. Parent angry mood was not a significant predictor.

As shown in Table 4 steps 2a and 2b produced no significant two-way interactions, and steps 3a and 3b produced no significant three-way interactions. Thus, the main effects model outlined in step 1 remains the preferred model.

Adolescent Risk and Protective Factor Models

Results from model 3 evaluating adolescent risk and protective factors for adolescent triangulation at T2 are shown in Table 5. Adolescent emotion dysregulation ($\beta_6 = 0.16, p = 0.040$) and the emotion coaching covariate ($\beta_7 = -0.16, p = 0.010$) were statistically significant predictors of changes in T2 triangulation. Adolescent anxious mood was not a significant predictor.

In step 2a, emotion coaching was tested as a moderator of all predictor variables. As depicted in Table 5, emotion coaching was not a significant moderator of associations between interparental conflict, emotion dysregulation, or anxious mood and T2 triangulation.

In step 2b, adolescent gender was tested as a moderator of all main effects. Adolescent gender was a significant moderator of the association between emotion coaching and T2 triangulation ($\beta = -0.28, p = 0.025$). As seen in Figure 2, examination of simple slopes for emotion coaching revealed that the association between emotion coaching and T2 triangulation was significant for boys ($\beta = -.31, p < 0.01$) but not for girls ($\beta = -.03, p = 0.70$). Gender did not significantly moderate associations between interparental conflict, emotion dysregulation, or anxious mood and T2 triangulation. As seen in Table 4, steps 3a and 3b produced no significant three-way interactions.

Chapter 4: DISCUSSION

Triangulation into interparental conflict is a robust risk factor for adolescent psychological maladjustment (e.g., Buchanan & Waizenhofer, 2001; Davies et al., 2015; Fosco & Bray, 2016; Fosco & Grych, 2010). Despite thorough documentation of the harmful effects of triangulation, family research has yet to adequately identify the factors which place families at risk for triangulation. This research gap disadvantages family-based prevention programs which may otherwise be in a position to reduce risk for triangulation. The current study addressed this gap in the literature in three ways. First, in order to improve understanding of vulnerabilities for triangulation, risk factors were evaluated in three key domains - family-level functioning, parent characteristics, and adolescent characteristics. Second, parent emotion coaching was evaluated as a potential protective factor for triangulation which may be amenable for translation into family prevention settings. Third, adolescent gender differences in risk and protective factors for triangulation were evaluated.

Key Predictors of Triangulation

In the family domain, low interparental warmth, defined as low levels of love and commitment, emerged as a risk factor for triangulation. This finding indicates that beyond interparental conflict, the absence of positive qualities within the interparental relationship places families at risk for involving their adolescents in interparental disputes. The absence of positive affect within the couple relationship has been shown to exacerbate the association between negative problem-solving skills and marital dissatisfaction (Johnson et al., 2005). Similarly, low positivity within the interparental relationship may diminish motivation to effectively resolve conflict within the relationship, precipitating involvement of adolescents as a means to distract from conflict tension. Additionally, adolescent perceptions of interparental positivity are

negatively associated with threat appraisals of interparental conflict (Schlomer, Fosco, Cleveland, Vandenberg, & Feinberg, 2015), suggesting that positive qualities within the interparental relationship may indicate a healthy relationship to adolescents, even when conflict occurs. Adolescents witnessing interparental conflict in the context of a positive, healthy relationship may feel less distressed about conflict, and in turn, less compelled to intervene.

In terms of parent risk factors, depression predicted increases in triangulation, emphasizing the interdependence between individual characteristics and family-level functioning. Parent depression is a risk for increases in interparental conflict over time (Shelton & Harold, 2008). Families experiencing increases in interparental conflict frequency or intensity due to parental depression may adapt by drawing adolescents into conflict in an attempt to reduce conflict tension. Additionally, parent depression may increase risk for triangulation by rebalancing key relationships throughout the family. Parent depression is associated with declines in marital satisfaction (Kronmüller et al., 2011), as well as verbal hostility and avoidance during interparental conflict (Benazon & Coyne, 2000; Eldridge & Klinetob, 2002; Marchand & Hock, 2000), representing a threat to the integrity of the interparental relationship. Meanwhile, adolescents are often attuned to their parent's depression, and may assume responsibility for providing comfort and support to the depressed parent during times of emotional distress (Aldridge, 2006; Van Parys & Rober, 2013). By simultaneously undermining the marital relationship and eliciting concern and support from adolescents, parental depression may increase the family's vulnerability for formation of cross-generational alliances between the adolescent and depressed parent (Kerig, 2005). Such alliances place adolescents at greater risk for involvement in interparental conflict (Grych et al., 2004; Peris et al., 2008), possibly by positioning the adolescent to intervene on behalf of the depressed parent in a protective role.

In the adolescent domain, emotion dysregulation represented a third risk factor for triangulation, aligning with prior research with younger children indicating that child emotional reactivity represents a risk for involvement in interparental conflict (Schermerhorn et al., 2007). Interparental conflict is often emotionally distressing for adolescents (Davies & Forman, 2002; Fosco & Grych, 2008), necessitating strategies on the part of the adolescent for managing their distress (Davies & Forman, 2002). Adolescents who typically struggle with emotion dysregulation may be at a greater risk for dysregulated responses to conflict episodes, such as engaging in behaviors which distract parents from conflict (Minuchin, 1974; Minuchin, Rosman, & Baker, 1978), or reciprocating negative affect expressed by parents (Katz & Hunter, 2007). Similarly, adolescents who typically struggle with emotion regulation are at greater risk for externalizing behaviors (Cui et al., 2014), placing them at risk for being targeted as scapegoats for interparental conflict (Vuchinich, Wood, & Vuchinich, 1994). Conversely, adolescents with greater capacity to regulate their emotions may choose coping strategies which limit their exposure to interparental conflict.

Emotion Coaching as a Protective Factor

Emotion coaching refers to a parent's positive and constructive orientation toward a child's experience and expression of emotion (Gottman et al., 1997). Parents high in emotion coaching are typically more aware of their own emotions, as well as those of their children (Gottman et al., 1996; 1997). The benefits of emotion coaching for adolescents are well documented, with evidence for associations with greater emotional awareness (Cunningham et al., 2009), increased anger regulation (Shortt, Stoolmiller, Smith-Shine, Eddy, & Sheeber, 2010), reduced externalizing problems (Katz & Hunter, 2007; Shortt et al., 2010), and diminished negative affect during parent-adolescent interactions (Katz & Hunter, 2007).

Emotion coaching predicted significant decreases in triangulation within the adolescent and parent models, but not the family models, suggesting the possibility that it could be directly related to decreases in triangulation. Parent emotion coaching also moderated the association between interparental warmth and adolescent triangulation. In families characterized by low interparental warmth, adolescents with higher levels of emotion coaching from parents were at reduced risk for involvement in interparental conflict. However, this interaction was dependent upon adolescent gender. For boys, the combination of poor interparental warmth and low emotion coaching represented a robust risk for triangulation. For girls, the association between interparental warmth and triangulation was not significantly moderated by parent emotion coaching. These differences suggest that in the context of poor interparental warmth, emotion coaching represents a key protective factor for boys only. However, it should be noted that boys experiencing high levels of emotion coaching in families with low interparental warmth experienced *decreases* in triangulation over time. Parents high in emotion coaching may take extra pre-cautions to prevent their adolescents from being involved in conflict in households with low interparental warmth.

Several explanations may account for gender differences in the protective effects of parent emotion coaching. First, emotion coaching has been shown to differentially impact adolescent outcomes based on gender. Greater awareness of emotions due to parent emotion coaching is associated with decreased internalizing problems for boys and improved social skills for girls (Cunningham et al., 2009). For boys, parent emotion coaching may help to improve boys' awareness and understanding of interparental conflict, potentially mitigating their distress experienced during conflict episodes. Reduced internalizing problems and distress during conflict episodes may in turn reduce the risk of their intervening as a means to prevent further

deterioration of the interparental relationship. Girls, by comparison, may already possess greater awareness and understanding of interparental conflict, and thus have less to gain from emotion coaching within this specific context.

Second, parents typically permit expressions of fear or sadness in girls but are more likely to discourage it in boys (Garside & Klimes-Dougan, 2002). Parents who regularly engage in emotion coaching with their adolescent sons may be more attuned to their upset emotions during interparental conflict episodes, and refrain from drawing them into conflict. These parents may also coach their sons how to cope with distress during conflict episodes, helping them refrain from intervening even when concerned about the stability of their parents' relationship. However, since girls are typically socialized to express emotional distress, their emotions may be more apparent during interparental conflict regardless of their parents' orientation toward emotion coaching.

Finally, triangulation may take different forms in families with adolescent daughters versus sons. For example, daughters are more likely to be pressured into taking sides during interparental conflict (Amato & Afifi, 2006), whereas sons are more likely to be scapegoated (Cox, Paley, & Harter, 2001). Parent emotion coaching may be more effective at preventing patterns of triangulation which more frequently affect sons rather than daughters. Parents who engage in emotion coaching may be more comfortable expressing their own emotions directly to their partner, rather than scapegoating their male child. Likewise, since emotion coaching is associated with decreased externalizing problems (Katz & Hunter, 2007), sons who have benefitted from emotion coaching may be less likely to engage in disruptive behaviors in response to interparental conflict. Conversely, daughters' involvement in triangulation may be influenced by cultural expectations that females take on caregiving roles in distressed families

(Kerig, 2005), rather than lack of emotional awareness or control on the part of the adolescent child. In this case, the benefits of emotion coaching (i.e., greater emotional awareness and control) may not be conducive for altering patterns of triangulation for daughters in the context of poor interparental warmth.

Parent emotion coaching did not moderate associations between other significant risk factors (i.e., parent depression and adolescent emotion dysregulation) and triangulation. Parents experiencing depression may not be as effective at providing emotion coaching to their adolescent children. Alternatively, emotion coaching may not be effective at reducing adolescents' feelings of concern and responsibility on behalf of the depressed parent, factors which may increase an adolescent's tendency to take on a protective role during interparental conflict (Van Parys & Rober, 2013). Meanwhile, adolescents' high levels of emotion dysregulation may be indicative of ineffective attempts at parent emotion coaching.

Implications for Intervention

Study findings suggest that risk factors for adolescent triangulation into interparental conflict exist within multiple domains of the family, including family-level, parent, and adolescent characteristics. This range of risk factors suggests multiple viable avenues for prevention efforts. First and foremost, poor interparental warmth emerged as a robust risk factor for triangulation, underscoring the importance of family-based prevention programming designed to promote positivity within this relationship (e.g., Cummings, Faircloth, Mitchell, Cummings, & Schermerhorn, 2008; Feinberg & Kan, 2008). Program emphasis on partner communication skills and healthy conflict management have been shown to improve marital satisfaction (Cummings et al., 2008). Such factors may reduce the likelihood of conflict extending beyond the interparental dyad, while diminishing adolescent concerns regarding

potential dissolution of the marital relationship as a result of conflict. Furthermore, parent emotion coaching was a protective factor for the association between low interparental warmth and triangulation, but only for boys. Parent emotion coaching may be an ideal component to be included in family-based prevention settings (e.g., Strengthening Families Program, Kumpfer, Molgaard, & Spoth, 1996). Given typical gender differences in emotion socialization (Garside & Klimes-Dougan, 2002), programs may emphasize the importance and benefits of practicing emotion coaching with sons.

Intervention programs for depression often utilize treatment models which focus on the individual (e.g., Stice, Rohde, Seeley, & Gau, 2010); however, results from the current study are aligned with prior research highlighting the benefits of understanding parental depression within the context of family relationships (e.g., Gabriel et al., 2010; Kronmüller et al., 2011; Van Parys & Rober, 2013). Programs targeting parent depression may consider a more comprehensive family approach in which depression is viewed in context of relationships with the spouse and adolescent children. Parental depression is seldom discussed openly within families, despite its influence on children (Van Parys & Rober, 2013). Prevention programs may aid families with a depressed parent by supporting effective communication between spouses, in addition to addressing the ways in which depression influences adolescents' roles and responsibilities. Such efforts may reduce the risk for triangulation by strengthening communication between parents and reevaluating adolescents' roles as caregivers during times of emotional distress.

Limitations and Future Directions

This study had several limitations which should be addressed in future research. First, families in this study were predominantly White. Expectations regarding roles of adolescents and parents within families may differ by race and culture (e.g., Fuligni & Tsai, 2015), necessitating

replication of study findings with families of diverse racial backgrounds. Furthermore, participating families were of low clinical risk with incomes comparable to the national average. Future research should explore risk and protective factors for triangulation in higher risk samples in order to determine if the patterns of risk found in the current study are consistent across levels of clinical risk.

Additionally, while multiple risk and protective factors for triangulation were discovered, uncovering specific mechanisms of risk remains beyond the scope of the current study. One step toward facilitating greater understanding in this direction would involve continued development of measures designed to capture complex aspects of triadic conflict processes. For instance, the triangulation measure used in this study represented a menu of typologies rather than a strict scale, and was not designed to distinguish which family members initiate triangulation. Development and validation of additional triangulation measures with added focus on capturing patterns of initiation represents one opportunity for future work focused on identifying specific mechanisms linking risk factors and adolescent triangulation.

Conclusions

This study contributed to research on interparental conflict and triangulation by evaluating potential risk and protective factors for triangulation within multiple domains of the family. Low interparental warmth, parent depression, and adolescent emotion dysregulation emerged as significant risk factors, while parent emotion coaching buffered the association between interparental warmth and triangulation, but only for boys. Findings highlight multiple avenues for prevention efforts targeting triangulation, and also underscore the necessity of examining gender when evaluating protective factors in the family context.

References

- Aldridge, J. (2006). The experiences of children living with and caring for parents with mental illness. *Child Abuse Review: Journal of the British Association for the Study and Prevention of Child Abuse and Neglect*, 15, 79-88.
- Amato, P. R., & Afifi, T. D. (2006). Feeling caught between parents: Adult children's relations with parents and subjective well-being. *Journal of Marriage and Family*, 68, 222-235.
- Atkinson, E. R., Dadds, M. R., Chipuer, H., & Dawe, S. (2009). Threat is a multidimensional construct: Exploring the role of children's threat appraisals in the relationship between interparental conflict and child adjustment. *Journal of Abnormal Child Psychology*, 37, 281-292.
- Barber, B. K., & Buehler, C. (1996). Family cohesion and enmeshment: Different constructs, different effects. *Journal of Marriage and the Family*, 433-441.
- Baer, J. (2002). Is family cohesion a risk or protective factor during adolescent development?. *Journal of Marriage and Family*, 64, 668-675.
- Benazon, N. R., & Coyne, J. C. (2000). Living with a depressed spouse. *Journal of Family Psychology*, 14, 17-79.
- Billings, A. (1979). Conflict resolution in distressed and nondistressed married couples. *Journal of Consulting and Clinical Psychology*, 47(2), 368.
- Bloom, B. L. (1985). A Factor Analysis of Self-Report Measures of Family Functioning. *Family process*, 24(2), 225-239.
- Braiker, H. B., & Kelley, H. H. (1979). Conflict in the development of close relationships. In R. L. Burgess & T. L. Huston (Eds.), *Social exchange in developing relationships* (pp. 135-168). New York: Academic.

- Brody, L. R. (2000). The socialization of gender differences in emotional expression: Display rules, infant temperament, and differentiation. In A.H. Fischer (Ed.), *Gender and emotion: Social psychological perspectives* (pp. 24-47). Cambridge, UK: Cambridge University Press.
- Buchanan, C. M., & Waizenhofer, R. (2001). The impact of interparental conflict on adolescent children: Considerations of family systems and family structure. In A. Booth, A. C. Crouter, & M. Clements (Eds.), *Couples in conflict* (pp. 149-160). Mahwah, NJ: Erlbaum.
- Buehler, C., Anthony, C., Krishnakumar, A., Stone, G., Gerard, J., & Pemberton, S. (1997). Interparental conflict and youth problem behaviors: A meta-analysis. *Journal of Child and Family Studies, 6*, 233-247.
- 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*(2), 167.
- Camisasca, E., Miragoli, S., & Blasio, P. (2019). Children's triangulation during inter-parental conflict: Which role for maternal and paternal parenting stress? *Journal of Child and Family Studies, 28*, 1623-1634.
- Chaplin, T. M., Cole, P. M., & Zahn-Waxler, C. (2005). Parental socialization of emotion expression: gender differences and relations to child adjustment. *Emotion, 5*(1), 80.
- Christensen, A., & Heavey, C. L. (1990). Gender and social structure in demand-withdraw pattern of marital conflict. *Journal of Personality and Social Psychology, 59*, 73-81.

- Cox, M. J., Paley, B., & Harter, K. (2001). Interparental conflict and parent-child relationships. In J.H. Grych & F.D. Fincham (Eds.), *Interparental conflict and child development* (pp. 249-272). New York: Cambridge University Press.
- Cui, L., Morris, A. S., Criss, M. M., Houlberg, B. J., & Silk, J. S. (2014). Parental psychological control and adolescent adjustment: The role of adolescent emotion regulation. *Parenting, 14*(1), 47-67.
- Cummings, E. M., & Davies, P. (1994). *Guilford series on social and emotional development. Children and marital conflict: The impact of family dispute and resolution*. New York, NY, US: Guilford Press.
- Cummings, E. M., Faircloth, W. B., Mitchell, P. M., Cummings, J. S., & Schermerhorn, A. C. (2008). Evaluating a brief prevention program for improving marital conflict in community families. *Journal of Family Psychology, 22*(2), 193-202.
- Cummings, E. M., Simpson, K. S., & Wilson, A. (1993). Children's responses to interadult anger as a function of information about resolution. *Developmental Psychology, 29*(6), 978-985.
- Cunningham, J. N., Kliewer, W., & Garner, P. W. (2009). Emotion socialization, child emotion understanding and regulation, and adjustment in urban African American families: Differential associations across child gender. *Development and Psychopathology, 21*(1), 261-283.
- Cutrona, C. E., Russell, D. W., Hessling, R. M., Brown, P. A., & Murry, V. (2000). Direct and moderating effects of community context on the psychological well-being of African American women. *Journal of Personality and Social Psychology, 79*, 1088-1101.

- Davies, P. T., Coe, J. L., Martin, M. J., Sturge-Apple, M. L., & Cummings, E. M. (2015). The developmental costs and benefits of children's involvement in interparental conflict. *Developmental psychology, 51*, 1026-1047.
- Davies, P. T., & Forman, E. M. (2002). Children's patterns of preserving emotional security in the interparental subsystem. *Child Development, 73*, 1880–1903.
- Davies, P. T., & Lindsay, L. L. (2001). Does gender moderate the effects of marital conflict on children? In J. H. Grych, & F. D. Fincham (Eds.), *Interparental conflict and child development: Theory, Research, And applications*. Cambridge University Press, New York, NY.
- Davies, P. T., Myers, R. L., Cummings, E. M., & Heindel, S. (1999). Adult conflict history and children's subsequent responses to conflict: An experimental test. *Journal of Family Psychology, 13*, 610-628.
- Davies, P. T., & Windle, M. (1997). Gender-specific pathways between maternal depressive symptoms, family discord, and adolescent adjustment. *Developmental psychology, 33*(4), 657-668.
- Driver, J. L., & Gottman, J. M. (2004). Daily marital interactions and positive affect during marital conflict among newlywed couples. *Family process, 43*, 301-314.
- Eldridge, K. A., & Christensen, A. (2002). Demand-withdraw communication during couple conflict: A review and analysis. In P. Noller, & J.A. Feeney (Eds.), *Understanding marriage: Developments in the study of couple interaction* (pp. 289-322). New York: Cambridge University Press.
- Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: a meta-analytic review. *Psychological Bulletin, 118*, 108-132.

- Eysenck, M. W., Mogg, K., May, J., Richards, A., & Mathews, A. (1991). Bias in interpretation of ambiguous sentences related to threat in anxiety. *Journal of Abnormal Psychology, 100*, 144-150.
- Feinberg, M. E. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting: Science and Practice, 3*, 95-131.
- Feinberg, M. E., & Kan, M. L. (2008). Establishing family foundations: intervention effects on coparenting, parent/infant well-being, and parent-child relations. *Journal of Family Psychology, 22*, 253-263.
- Fosco, G. M., & Bray, B. C. (2016). Profiles of cognitive appraisals and triangulation into interparental conflict: Implications for adolescent adjustment. *Journal of Family Psychology, 30*, 533-542.
- Fosco, G. M., & Grych, J. H. (2008). Emotional, cognitive, and family systems mediators of children's adjustment to interparental conflict. *Journal of Family Psychology, 22*, 843-854.
- Fosco, G. M., & Grych, J. H. (2010). Adolescent triangulation into parental conflicts: Longitudinal implications for appraisals and adolescent-parent relations. *Journal of Marriage and Family, 72*, 254-266.
- Fosco, G. M., & Grych, J. H. (2013). Capturing the family context of emotion regulation: A family systems model comparison approach. *Journal of Family Issues, 34*, 557-578.
- Fosco, G. M., Lippold, M., & Feinberg, M. E. (2014). Interparental boundary problems, parent-adolescent hostility, and adolescent-parent hostility: A family process model for adolescent aggression problems. *Couple and Family Psychology: Research and Practice, 3*, 141-155.

- Franck, K. L., & Buehler, C. (2007). A family process model of marital hostility, parental depressive affect, and early adolescent problem behavior: The roles of triangulation and parental warmth. *Journal of Family Psychology, 21*, 614-625.
- Fuligni, A. J., & Tsai, K. M. (2015). Developmental flexibility in the age of globalization: Autonomy and identity development among immigrant adolescents. *Annual Review of Psychology, 66*, 411-431.
- Gabriel, B., Beach, S. R., & Bodenmann, G. (2010). Depression, marital satisfaction and communication in couples: Investigating gender differences. *Behavior Therapy, 41*, 306-316.
- Garside, R. B., & Klimes-Dougan, B. (2002). Socialization of discrete negative emotions: Gender differences and links with psychological distress. *Sex Roles, 47*, 115-128.
- Gerard, J. M., Buehler, C., Franck, K. L., & Anderson, O. (2005). In the eyes of the beholder: The functional roles of perceived appraisals associated with interparental conflict. *Journal of Family Psychology, 19*, 376-384.
- Goeke-Morey, M. C., Cummings, E. M., & Papp, L. M. (2007). Children and marital conflict resolution: Implications for emotional security and adjustment. *Journal of Family Psychology, 21*, 744.
- Goeke-Morey, M. C., Papp, L. M., & Cummings, E. M. (2013). Changes in marital conflict and youths' responses across childhood and adolescence: A test of sensitization. *Development and Psychopathology, 25*, 241-251.
- Gottman, J. M., Coan, J., Carrere, S., & Swanson, C. (1998). Predicting marital happiness and stability from newlywed interactions. *Journal of Marriage and the Family, 5*-22.

- Gottman, J. M., Katz, L. F., & Hooven, C. (1996). Parental meta-emotion philosophy and the emotional life of families: Theoretical models and preliminary data. *Journal of Family Psychology, 10*, 243.
- Gottman, J. M., Katz, L. F., & Hooven, C. (1997). *Meta-emotion: How families communicate emotionally*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Grych, J. H. (1998). Children's appraisals of interparental conflict: Situational and contextual influences. *Journal of Family Psychology, 12*, 437–453.
- Grych, J. H. (2002). Marital relationships and parenting. In M Bornstein (Ed.), *Handbook of parenting: Vol 4. Social conditions and applied parenting* (2nd ed., pp. 203-225). Mahwah, NJ: Erlbaum.
- Grych, J. H., Raynor, S. R., & Fosco, G. M. (2004). Family processes that shape the impact of interparental conflict on adolescents. *Development and psychopathology, 16*, 649-665.
- Grych, J.H., Seid, M., & Fincham, F.D. (1992). Assessing marital conflict from the child's perspective: The Children's Perception of Interparental Conflict Scale. *Child Development, 63*, 558-572.
- Grych, J. H., Grych, J. H., & Fincham, F. D. (Eds.). (2001). *Interparental conflict and child development: Theory, research and applications*. New York: Cambridge University Press
- Johnson, M. D., Cohan, C. L., Davila, J., Lawrence, E., Rogge, R. D., Karney, B. R., ... & Bradbury, T. N. (2005). Problem-solving skills and affective expressions as predictors of change in marital satisfaction. *Journal of consulting and clinical psychology, 73*, 15-27.
- Johnson, S. L., & Jacob, T. (2000). Sequential interactions in the marital communication of depressed men and women. *Journal of Consulting and Clinical Psychology, 68*, 4-12.

- Katz, L. F., & Gottman, J. M. (1997). Buffering children from marital conflict and dissolution. *Journal of clinical child psychology, 26*, 157-171.
- Katz, L. F., & Hunter, E. C. (2007). Maternal meta-emotion philosophy and adolescent depressive symptomatology. *Social Development, 16*, 343-360.
- Kaufman, E. A., Xia, M., Fosco, G., Yaptangco, M., Skidmore, C. R., & Crowell, S. E. (2015). The difficulties in emotion regulation scale short form (DERS-SF): Validation and replication in adolescent and adult samples. *Journal of Psychopathology and Behavioral Assessment, 1-13*.
- Kerig, P. K. (2005). Revisiting the construct of boundary dissolution: A multidimensional perspective. *Journal of Emotional Abuse, 5*, 5-42.
- Klinetob, N. A., & Smith, D. A. (1996). Demand-withdraw communication in marital interaction: Tests of interspousal contingency and gender role hypotheses. *Journal of Marriage and the Family, 58*, 945-958.
- Krishnakumar, A., & Buehler, C. (2000). Interparental conflict and parenting behaviors: A meta-analytic review. *Family Relations, 49*, 25-44.
- Kronmüller, K. T., Backenstrass, M., Victor, D., Postelnicu, I., Schenkenbach, C., Joest, K., Fiedler, P., & Mundt, C. (2011). Quality of marital relationship and depression: Results of a 10-year prospective follow-up study. *Journal of Affective Disorders, 128*, 64-71.
- Kumpfer, K. L., Molgaard, V., & Spoth, R. (1996). The Strengthening Families Program. *Preventing childhood disorders, substance abuse, and delinquency, 3*, 241.
- Laumakis, M. A., Margolin, G., & John, R. S. (1998). The emotional, cognitive and coping responses of preadolescent children to different dimensions of marital conflict. In G. W. Holden, R. Geffner, & E. N. Jouriles (Eds.), *APA science Vols. Children exposed to*

- marital violence: Theory, research, and applied issues* (pp. 257-288). Washington, DC, US: American Psychological Association.
- Marchand, J. F., & Hock, E. (2000). Avoidance and attacking conflict-resolution strategies among married couples: Relations to depressive symptoms and marital satisfaction. *Family Relations*, *49*, 201-206.
- McCabe, S. B., & Gotlib, I. H. (1993). Interactions of couples with and without a depressed spouse: Self-report and observation of problem-solving situations. *Journal of Social and Personal Relationships*, *10*, 589-599.
- Minuchin, S. (1974). *Families and family therapy*. Cambridge, MA: Harvard University Press.
- Minuchin, P. (1985). Families and individual development: Provocations from the field of family therapy. *Child Development*, *56*(2), 289-302.
- Minuchin, S., Rosman, B. L., & Baker, L. (1978). *Psychosomatic Families: Anorexia Nervosa in Context*. Cambridge, MA: Harvard University Press.
- Moos, R. H. & Moos, B. S. (1981). *Manual for the Family Environment Scale*. Palo Alto, CA: Consulting Psychologists Press.
- Nichols, W. C., & Everett, C. A. (1986). *Systemic family therapy: An integrative approach*. New York, NY: Guilford Press.
- Olson, D. H., Sprenkle, D. H., & Russell, C. S. (1979). Circumplex model of marital and family systems: I. Cohesion and adaptability dimensions, family types, and clinical applications. *Family process*, *18*(1), 3-28.
- Peris, T. S., Goeke-Morey, M., Cummings, E. M., & Emery, R. E. (2008). Marital conflict and support seeking by parents in adolescence: Empirical support for the parentification construct. *Journal of Family Psychology*, *22*(4), 633-642.

- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385-401.
- Ramsden, S. R., & Hubbard, J. A. (2002). Family expressiveness and parental emotion coaching: Their role in children's emotion regulation and aggression. *Journal of abnormal child psychology, 30*, 657-667.
- Schermerhorn, A. C., Cummings, E. M., DeCarlo, C. A., & Davies, P. T. (2007). Children's influence in the marital relationship. *Journal of Family Psychology, 21*(2), 259.
- Schlomer, G. L., Fosco, G. M., Cleveland, H. H., Vandenberg, D. J., & Feinberg, M. E. (2015). Interparental relationship sensitivity leads to adolescent internalizing problems: Different genotypes, different pathways. *Journal of Marriage and Family, 77*, 329-343.
- Schneewind, K. A., & Gerhard, A. K. (2002). Relationship personality, conflict resolution, and marital satisfaction in the first 5 years of marriage. *Family Relations, 51*, 63-71.
- Schoppe-Sullivan, S. J., Schermerhorn, A. C., & Cummings, E. M. (2007). Marital conflict and children's adjustment: Evaluation of the parenting process model. *Journal of Marriage and Family, 69*, 1118-1134.
- Silk, J. S., Steinberg, L., & Morris, A. S. (2003). Adolescents' emotion regulation in daily life: Links to depressive symptoms and problem behavior. *Child development, 74*(6), 1869-1880.
- Stice, E., Rohde, P., Seeley, J. R., & Gau, J. M. (2010). Testing mediators of intervention effects in randomized controlled trials: An evaluation of three depression prevention programs. *Journal of Consulting and Clinical Psychology, 78*, 273.

- Shelton, K. H., & Harold, G. T. (2008). Interparental conflict, negative parenting, and children's adjustment: Bridging links between parents' depression and children's psychological distress. *Journal of Family Psychology, 22*, 712-724.
- Shortt, J. W., Stoolmiller, M., Smith-Shine, J. N., Mark Eddy, J., & Sheeber, L. (2010). Maternal emotion coaching, adolescent anger regulation, and siblings' externalizing symptoms. *Journal of Child Psychology and Psychiatry, 51*, 799-808.
- Terry, P. C., Lane, A. M., & Fogarty, G. J. (2003). Construct validity of the profile of mood states-adolescents for use with adults. *Psychology of Sport and Exercise, 4*, 129-139.
- Van Parys, H., & Rober, P. (2013). Trying to comfort the parent: A qualitative study of children dealing with parental depression. *Journal of Marital and Family Therapy, 39*(3), 330-345.
- Vuchinich, S., Wood, B., & Vuchinich, R. (1994). Coalitions and family problem solving with preadolescents in referred, at-risk, and comparison families. *Family Process, 33*(4), 409-424.

APPENDIX A**TABLES**

Table 1. *Correlations, Means, and Standard Deviations.*

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	-											
2. Income	.02	-										
3. IPC, T1	-.11	-.04	-									
4. Cohesion, T1	-.12	.10	-.04	-								
5. IP_Warmth, T1	-.05	.05	-.26**	.20**	-							
6. P_Depression, T1	.05	-.19*	.33**	-.21**	-.38**	-						
7. P_Anger, T1	.06	.06	.32**	-.05	-.21**	.39**	-					
8. Emo_Coaching, T1	-.08	.01	-.10	.14	.19*	-.17*	-.20**	-				
9. A_Anxious, T1	-.15*	.10	.22**	-.05	-.12	.12	.11	-.02	-			
10. A_DERS, T1	-.07	-.10	.38**	-.06	-.18*	.36**	.21**	-.04	.48**	-		
11. Triangulation, T1	.00	-.02	.62**	-.01	-.20**	.19*	.27**	.01	.28**	.36**	-	
12. Triangulation, T2	.06	-.03	.38**	-.24**	-.35**	.33**	.33**	-.17*	.29**	.37**	.53**	-
Mean	-	8.93	2.35	4.19	4.37	1.47	2.23	4.23	2.10	2.07	1.84	1.61
SD	-	4.32	0.86	0.68	0.95	0.43	0.61	0.67	0.91	0.72	0.83	0.8

Note. $N = 180$. * = $p < 0.05$; ** = $p < 0.01$; T1 = time 1, T2 = time 2; IPC = interparental conflict; Cohesion = family cohesion, IP_Warmth = interparental warmth; P_Depression = parent depression; P_Anger = parent angry mood; Emo_Coaching = parent emotion coaching; A_Anxious = adolescent anxious mood; A_DERS = adolescent emotion dysregulation; SD = standard deviation.

Table 2. *Descriptive Statistics by Adolescent Gender*

Variable	Females (n=102)				Males (n=78)				T-test	Cohen's D
	Mean	SD	Skew	Kurtosis	Mean	SD	Skew	Kurtosis		
1. IPC	2.44	0.82	0.41	-0.18	2.25	0.89	0.57	-0.26	1.42	0.22
2. Cohesion	4.20	0.68	-0.85	0.02	4.17	0.68	-0.99	1.08	0.23	0.05
3. IP_Warmth	4.42	0.93	-1.75	2.01	4.32	0.99	-1.66	2.20	0.69	0.10
4. P_Depression	1.46	0.42	1.23	0.92	1.50	0.44	1.66	3.68	-0.62	0.09
5. P_Anger	2.20	0.64	0.40	0.12	2.28	0.56	0.77	2.29	-0.83	0.13
6. Emo_Coach	4.27	0.62	-0.57	-0.65	4.17	0.73	-0.67	-0.40	1.00	0.15
7. A_Anxious	2.22	0.95	0.79	0.13	1.95	0.84	0.93	1.09	2.03*	0.30
8. A_DERS	2.11	0.79	1.14	0.96	2.02	0.60	0.48	-0.68	0.92	0.13
9. Triangulation, T1	1.84	0.88	1.35	1.92	1.84	0.77	0.59	-0.84	0.03	0.00
10. Triangulation, T2	1.57	0.82	1.68	2.66	1.66	0.79	1.08	0.47	-0.79	0.11

Note. * = $p < .05$. T1 = time 1, T2 = time 2; IPC = interparental conflict; Cohesion = family cohesion, IP_Warmth = interparental warmth; P_Depression = parent depression; P_Anger = parent angry mood; Emo_Coaching = parent emotion coaching; A_Anxious = adolescent anxious mood; A_DERS = adolescent emotion dysregulation

Table 3. *Family Risk and Protective Factors for Triangulation*

Block	Predictors	b	SE b	β
1	<i>Main effects</i>			
	T1 Triangulation β_1	.47**	.07	.49
	Gender β_2	.02	.98	.02
	Income β_3	.01	.01	.04
	IPC β_4	-.04	.08	-.04
	Cohesion β_5	-.16	.09	-.20
	IP_Warmth β_6	-.14*	.05	-.16
	E_Coach β_7	-.12	.07	-.10
	R ²	.37		
2	<i>2-way interactions</i>			
a	IPC*E_Coach β_8	.15	.11	.10
	Cohesion*E_Coach β_9	.16	.12	.09
	IP_Warmth*E_Coach β_{10}	.29**	.08	.23
	R ²	.43		
b	IPC*Gender β_8	-.02	.14	-.02
	Cohesion*Gender β_9	.01	.17	.01
	IP_Warmth*Gender β_{10}	.16	.11	.19
	E_Coach*Gender β_{11}	-.25	.15	-.21
	R ²	.39		
3	<i>3-way interactions</i>			
a	IP_Warmth*E_Coach*Gender β_{10}	.58**	.15	.46
	R ²	.48		
b	Cohesion*E_Coach*Gender β_{10}	-.13	.22	-.07
	R ²	.36		

Note. $N = 180$. * = $p < 0.05$; ** = $p < .01$; T1 = Time 1; IPC = interparental conflict; IP_Warmth = interparental warmth; E_Coach = parent emotion coaching.

Table 4. *Parent Risk and Protective Factors for Triangulation*

Block	Predictors	b	SE b	β
1	<i>Main effects</i>			
	T1 Triangulation β_1	.47**	.08	.48
	Gender β_2	.05	.10	.06
	Income β_3	.00	.011	.00
	IPC β_4	-.03	.08	-.03
	P_Depression β_5	.34*	.13	.18
	P_Anger β_6	.15	.09	.12
	E_Coach β_7	-.15*	.08	-.12
	R ²	.37		
2	<i>2-way interactions</i>			
a	IPC* E_Coach β_8	.11	.10	.08
	P_Depression*E_Coach β_9	-.29	.20	-.10
	P_Anger*E_Coach β_{10}	.00	.13	.00
	R ²	.38		
b	IPC*Gender β_8	-.12	.13	-.13
	P_Depression*Gender β_9	-.06	.26	-.03
	P_Anger*Gender β_{10}	.26	.19	.19
	E_Coach*Gender β_{11}	-.28	.15	-.23
	R ²	.40		
3	<i>3-way interactions</i>			
a	P_Depression*E_Coach*Gender β_{10}	-.11	.37	-.04
	R ²	.37		
b	P_Anger*E_Coach*Gender β_{10}	-.11	.24	-.06
	R ²	.39		

Note. $N = 180$. * = $p < 0.05$; ** = $p < .01$; T1 = Time 1; IPC = interparental conflict; P_Depression = Parent Depression, P_Anger = Parent Anger, E_Coach = Emotion Coaching.

Table 5. *Adolescent Risk and Protective Factors for Triangulation*

Block	Predictors	b	SE b	β
1	<i>Main effects</i>			
	T1 Triangulation β_1	.42	.08	.44
	Gender β_2	.12	.10	.15
	Income β_3	.00	.01	-.02
	IPC β_4	.01	.08	.01
	A_Anxiety β_5	.09	.06	.10
	A_DERS β_6	.17*	.08	.16
	E_Coach β_7	-.19*	.07	-.16
	R ²	.36		
2	<i>2-way interactions</i>			
a	IPC* E_Coach β_8	.06	.10	.08
	A_Anxiety*E_Coach β_9	-.18	.10	-.10
	A_DERS*E_Coach β_{10}	-.21	.13	-.13
	R ²	.40		
b	IPC*Gender β_8	-.13	.13	-.14
	A_Anxiety*Gender β_9	.11	.13	.13
	A_DERS*Gender β_{10}	.14	.18	.12
	E_Coach*Gender β_{11}	-.34*	.15	-.28
	R ²	.39		
3	<i>3-way interactions</i>			
a	A_Anxiety*E_Coach*Gender β_{10}	-.26	.17	-.16
	R ²	.42		
b	A_DERS*E_Coach*Gender β_{10}	-.13	.21	-.08
	R ²	.41		

Note. $N = 180$. * = $p < 0.05$; ** = $p < .01$; T1 = Time 1; IPC = interparental conflict; A_Anxiety = Adolescent Anxious Mood, A_DERS = Adolescent Emotion Dysregulation, E_Coach = Emotion Coaching.

APPENDIX B

FIGURES

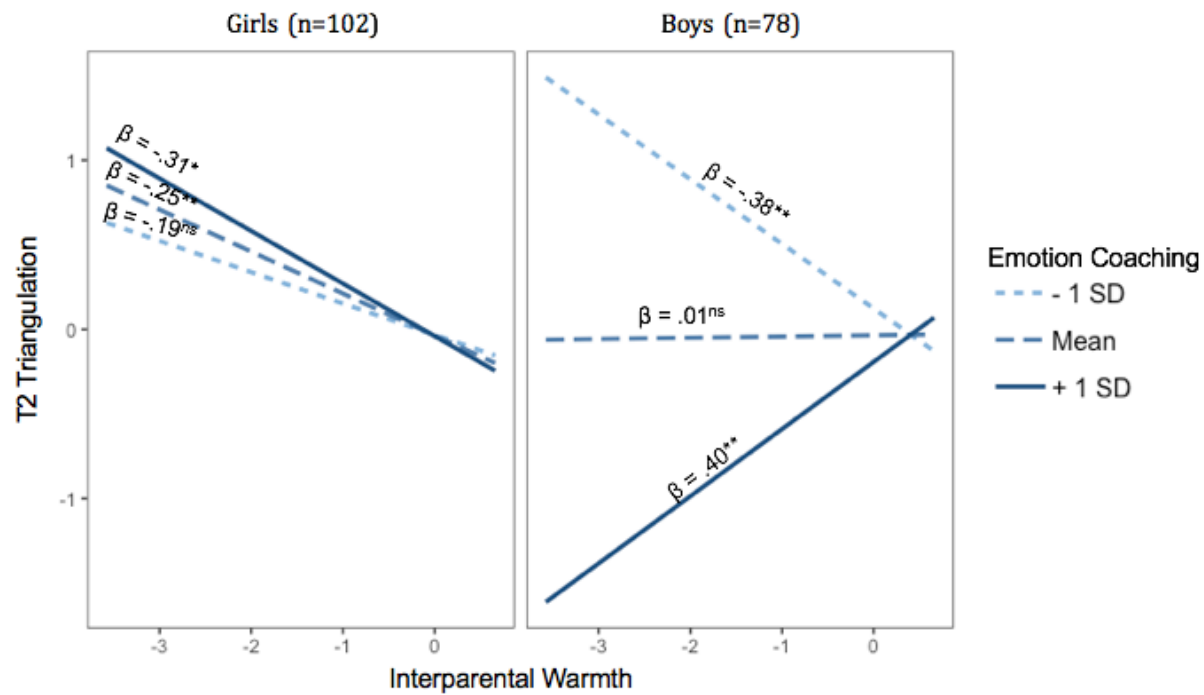


Figure 1. $N = 180$; Three-way interaction between interparental warmth, emotion coaching, and adolescent gender. Emotion coaching moderates the association between interparental warmth and T2 triangulation differentially based on adolescent gender.

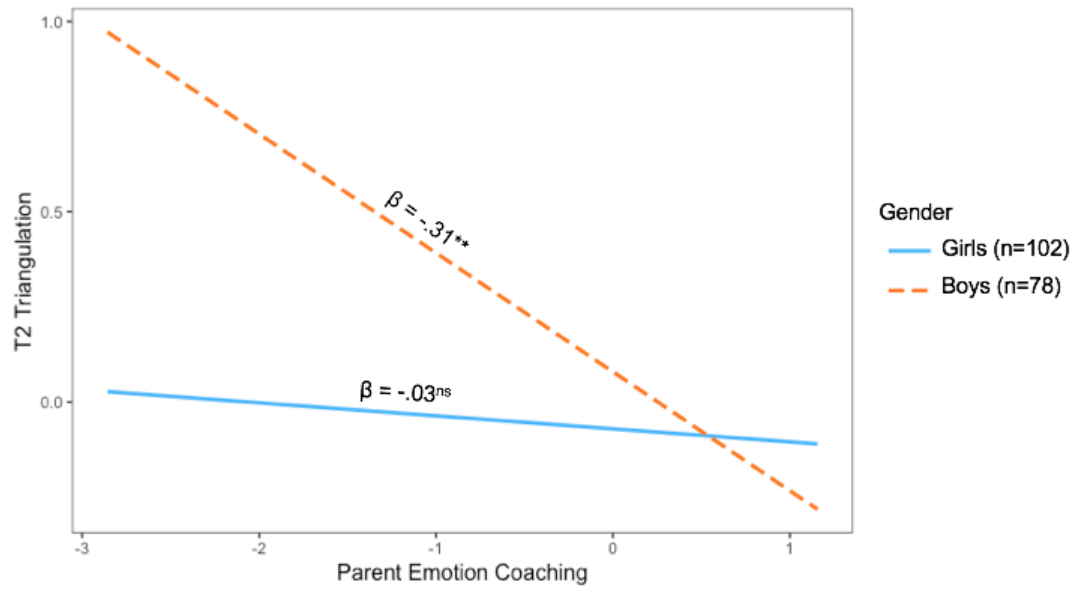


Figure 2. $N = 180$; Two-way interaction between parent emotion coaching and adolescent gender. Gender moderates the association between parent emotion coaching and changes in T2 triangulation; the slope is significant for boys ($n = 78$), but not girls ($n = 102$).

APPENDIX C
MODEL EQUATIONS

Model Equations

In order to test the family risk hypothesis, the family model was constructed as:

$$T2.triangulation_i = \beta_0 + \beta_1(T1.triangulation_i) + \beta_2(IPC_i) + \beta_3(adolescent\ gender_i) + \beta_4(family\ income_i) + \beta_5(Cohesion_i) + \beta_6(IP_Warmth_i) + \beta_7(E_Coach_i) + e_i.$$

In order to test the parent individual risk hypothesis, the parent model was constructed as:

$$T2.triangulation_i = \beta_0 + \beta_1(T1.triangulation_i) + \beta_2(IPC_i) + \beta_3(adolescent\ gender_i) + \beta_4(family\ income_i) + \beta_5(P_Depression_i) + \beta_6(P_Anger_i) + \beta_7(E_Coach_i) + e_i.$$

In order to test the adolescent individual risk hypothesis, the adolescent model was constructed as:

$$T2.triangulation_i = \beta_0 + \beta_1(T1.triangulation_i) + \beta_2(IPC_i) + \beta_3(adolescent\ gender_i) + \beta_4(family\ income_i) + \beta_5(A_Anxious_i) + \beta_6(A_DERS_i) + \beta_7(E_Coach_i) + e_i.$$

Tests for emotion coaching buffering hypothesis. In step 2a, will evaluated the parent emotion coaching buffering hypotheses by introducing emotion coaching as a moderator for all main effects, as shown in the equation for the family model:

$$T2.triangulation_i = \beta_0 + \beta_1(T1.triangulation_i) + \beta_2(IPC_i) + \beta_3(adolescent\ gender_i) + \beta_4(family\ income_i) + \beta_5(Cohesion_i) + \beta_6(IP_Warmth_i) + \beta_7(E_Coach_i) + \beta_8(IPC_i)*(E_Coach_i) + \beta_9(Cohesion_i)*(E_Coach_i) + \beta_{10}(IP_Warmth_i)*(E_Coach_i) + e_i.$$

Step 2a will be completed for each the family, parent, and adolescent models.

Exploratory gender models. In step 2b, we explored the potential moderating role of adolescent gender by introducing interaction terms between gender and all main effects, as shown in the equation for the family model:

$$T2.triangulation_i = \beta_0 + \beta_1(T1.triangulation_i) + \beta_2(IPC_i) + \beta_3(Gender_i) + \beta_4(family\ income_i) + \beta_5(Cohesion_i) + \beta_6(IP_Warmth_i) + \beta_7(E_Coach_i) + \beta_8(IPC_i)*(Gender_i) + \beta_9(Cohesion_i)*(Gender_i) + \beta_{10}(IP_Warmth_i)*(Gender_i) + \beta_{11}(E_Coach_i)*(Gender_i) + e_i.$$

This step will be completed for each the family, parent, and adolescent models.

In step 3a, introduced three-way interaction terms between gender, emotion coaching, and the first hypothesized risk factor within each model. Within the family model, the three-way interaction with gender, emotion coaching, and interparental warmth will be evaluated using the following equation:

$$T2.triangulation_i = \beta_0 + \beta_1(T1.triangulation_i) + \beta_2(IPC_i) + \beta_3(Gender_i) + \beta_4(\text{family income}_i) + \beta_5(IP_Warmth_i) + \beta_6(E_Coach_i) + \beta_7(IP_Warmth_i)*(Gender_i) + \beta_8(E_Coach_i)*(Gender_i) + \beta_9(IP_Warmth_i)*(E_Coach_i) + \beta_{10}(IP_Warmth_i)*(E_Coach_i)*(Gender_i) + e_i.$$