

Interdependence of attachment styles and relationship quality in parent-adolescent dyads



Chong Man Chow^{a,*}, Ellen Hart^a, Lillian Ellis^a, Cin Cin Tan^{a,b}

^a Eastern Michigan University, United States

^b University of Michigan, United States

ARTICLE INFO

Keywords:

Attachment
Adolescent
Parent
Dyadic
Actor-partner interdependence model
Relationship quality

ABSTRACT

The current study examined how attachment styles of parents and adolescents may jointly influence the quality of their relationship. Parent-adolescent ($N_{\text{dyads}} = 77$) pairs were recruited from a Midwestern town in the United States. The mean of adolescents' age was 16.25. Both members reported their attachment styles, relationship closeness, and relationship discord. The Actor-Partner Interdependence Model (APIM) showed that both members' attachment avoidance was associated with self-report lower levels of closeness. Parents' attachment anxiety was related to relationship discord. Parents with higher avoidant attachment reported lower closeness when adolescents were higher in avoidant attachment. Higher parents' anxious attachment was related to higher relationship closeness when adolescents were higher on anxious attachment. Such an association was negative when adolescents had lower anxious attachment. Higher parents' anxious attachment was related to greater discord when adolescents were lower on anxiety attachment. This study reveals the complex dyadic dynamics of relationship quality in parent-adolescent pairs.

Relationship quality with parents has important implications for adolescents' psychosocial functioning. Adolescents who have warm and less conflictual relationships with parents are less likely to suffer from psychological symptoms and they are more capable of forming well-functioning peer relationships (for a review, see Steinberg, 2001). Although the determinants and outcomes of parent-adolescent relationship quality have been well-examined (Steinberg, 2001), most existing studies have adopted an individual-level analysis which assumes adolescents' and parents' individual characteristics (e.g., pubertal status, temperament, parenting) are *independently* related to their relationship quality. Unfortunately, this approach has prevented us from better understanding how adolescents and parents may *jointly* shape the quality of their relationships. Indeed, interdependence theory (Kelley & Thibaut, 1978; Kelley et al., 2003) argues that any dyadic relationship outcomes should be conceptualized as the independent and interaction effects of the two members' characteristics. Accordingly, parent-adolescent relationships are a mutually regulated system in which both members' attachment styles may have independent and interactive effects on their quality of relationships. The current study integrated interdependence theory (Kelley et al., 2003) and attachment theory (Bowlby, 1969) to examine how attachment styles of adolescents and parents may independently and jointly relate to their perceptions of relationship closeness and conflict.

1. Adolescent attachment and parent-adolescent relationship quality

Attachment theory postulates that the quality of infant-caregiver interactions during early ages gives rise to cognitive or mental

* Corresponding author. Psychology Department, Eastern Michigan University, 361A Science Complex, Ypsilanti, MI 48197, United States.
E-mail address: cchow@emich.edu (C.M. Chow).

representations of close relationships (Bowlby, 1969). Interactions with attachment figures who are sensitive and responsive will facilitate the development of attachment security, or a sense of confidence about the availability of the attachment figures. In contrast, attachment figures who are cold and rejecting or inconsistent will facilitate the development of attachment insecurity, or a sense of worries about others' availability and uncertainty about self-worth.

Although seminal works on attachment (e.g., Ainsworth, Blehar, Waters, & Wall, 1978; Hazan & Shaver, 1987) have adopted a categorical approach to conceptualizing attachment styles (secure, anxious/avoidant, and anxious/ambivalent), one common conceptualization of attachment styles in adolescence and adulthood is a two dimensional model: attachment anxiety and attachment avoidance (Crowell, Fraley, & Roisman, 2016; Fraley & Shaver, 2000). The attachment anxiety component governs the extent to which individuals monitor their attachment figures' availability or cues of rejection, and their heightened efforts to seek intimacy and closeness. The attachment avoidance component governs the extent to which individuals distrust their attachment figures, and their heightened efforts to maintain a sense of self-reliance and independence.

Although attachment styles are assumed to form during infancy and childhood, attachment-related mental representations result in trait-like attachment styles that continue to guide expectations, attitudes, and behaviors in adolescent and adult relationships (Fraley & Shaver, 2000). Thus, as adolescents mature, their relationship quality with parents should become increasingly stable and consistent with their mental representations derived from their history of interactions (Laursen & Collins, 2009). Supporting this idea, studies that employed the Adult Attachment Interview (AAI) found that adolescents with higher attachment security or who were classified as secure (vs insecure) had more communication and trust in their relationships with parents (Allen et al., 2003), experienced more parental monitoring/supervision (Scott, Briskman, Woolgar, Humayun, & O'Connor, 2011), less parental neglect (Borelli, Compare, Snively, & Decio, 2015), and displayed more positive behaviors (e.g., mutual validation, empathy, engagement) and fewer negative behaviors (e.g., anger, avoidance) in observed parent-adolescent interactions (Allen, Porter, McFarland, McElhaney, & Marsh, 2007; Allen et al., 2003; Becker-Stoll, Fremmer-Bombik, Wartner, Zimmermann, & Grossmann, 2008; Kobak, Cole, Ferenz-Gillies, Fleming, & Gamble, 1993; Scott et al., 2011).

Research that captured adolescent attachment with self-report questionnaires (e.g., Experiences of Close Relationship; ECR) has similar findings. Specifically, adolescents with higher attachment avoidance and anxiety reported less parental supportiveness and responsiveness (Brenning, Soenens, Braet, & Bal, 2011; Brenning, Van Petegem, Vanhalst, & Soenens, 2014; Shomaker & Furman, 2009), more parental psychological control and less autonomy (Brenning et al., 2014; Van Petegem, Beyers, Brenning, & Vansteenkiste, 2013), and more negative interactions (e.g., conflict; Shomaker & Furman, 2009). Furthermore, adolescents with higher self-report attachment avoidance and anxiety were less willing to seek parental support in an observed problem-solving task (Dujardin et al., 2016). A longitudinal study of adolescents found that changes in self-report attachment anxiety and avoidance were related to changes in the positive features (e.g., relationship satisfaction, parental approval) and negative features (e.g., parental pressure/control, criticism) in parent-adolescent relationships (Ruhl, Dolan, & Buhmester, 2015). Based on past research, therefore, we hypothesized that adolescents' avoidance and anxiety would be related to lower closeness and higher discord with their parents.

2. Parental romantic attachment and parent-adolescent relationship quality

Parent-adolescent relationships are considered a mutually regulated system in which both members' characteristics may exert independent influences on their quality of interactions (Cox & Paley, 1997; Laursen & Collins, 2009). Therefore, it is not surprising that parents' attachment styles, often measured by self-report experiences of past romantic relationships, are important correlates of parenting behaviors and parent-child relationship quality (Feeney, 2006; Jones & Cassidy, 2014; La Valley & Guerrero, 2012; Millings, Walsh, Hepper, & O'Brien, 2012). For instance, research showed that parents' attachment anxiety and avoidance with regard to romantic relationships were related to less responsive caregiving to their children and better parenting styles (e.g., more authoritative, less authoritarian and permissive) (Millings et al., 2012). Also, a recent study found that maternal self-report attachment avoidance was related to lower warmth and overall quality and higher relationship hostility between adolescents and their parents (Jones & Cassidy, 2014). Similarly, research on parents with adult-age children showed that parental self-report attachment security was related to higher self-report and child-report of relational satisfaction (La Valley & Guerrero, 2012). Fostering well-functioning parent-child relationships and managing parenting tasks may require a great amount mental and emotional resources. Therefore, parents' secure romantic relationships may protect them from being overwhelmed by their own attachment needs, allowing them to be more sensitive and responsive to their children's needs. In contrast, parents with insecure romantic relationships may struggle with managing their own relationship issues with partners (e.g., conflict), reducing their capability of fostering high quality relationships with their children (Millings et al., 2012; Rholes, Simpson, & Friedman, 2006).

Some research has also examined the link between parental self-report attachment styles and their conflict resolution skills in a parent-child context. Specifically, research has found that parents (of adolescent or adult children) higher on avoidance and anxiety attachment were more likely to use maladaptive conflict resolution strategies when dealing with parent-child conflict (Feeney, 2006; García-Ruiz, Rodrigo, Hernández-Cabrera, Máiquez, & Deković, 2013; La Valley & Guerrero, 2012). A study also showed that with mothers who were high in self-report attachment avoidance, adolescents displayed less secure base use behaviors during an observed conflict discussion task (Jones & Cassidy, 2014). Based on past literature, we hypothesized that parents' avoidance and anxiety would be related to their own report of lower closeness and higher discord. Similarly, we also hypothesized that parents' avoidance and anxiety would be related to their adolescents' reports of lower closeness and higher discord.

3. Interactive role of adolescent and parental attachment

Interdependence theory argues that dyadic relationship outcomes are dependent on the independent and conjoint effects of the two members' characteristics (Kelley & Thibaut, 1978; Kelley et al., 2003). Specifically, there are 3 components that underlie the pattern of any given relationship outcome that have been proposed: *actor control*, *partner control*, and *joint control*. Actor control refers to individuals' direct influence over their own outcome, partner control refers to individuals' direct influence over their partner's outcome, and joint control refers to two members' dual influence on each other's outcome. When these ideas are applied to parent-adolescent dyads, it is reasonable to argue that individuals' perceptions of relationship quality should be related to their own attachment styles (actor control), their counterpart's attachment styles (partner control), and the interaction between two members' attachment styles (joint control).

As reviewed earlier, numerous research studies have provided evidence that demonstrates how attachment orientations of parents and adolescents are independently related to relational quality (e.g., Jones & Cassidy, 2014; Shomaker & Furman, 2009). Very few studies, however, have simultaneously investigated parents' and adolescents' attachment styles in relation to their relationship quality. Consequently, we still know very little about how parents' and adolescents' attachment styles may be related to each other's perceptions of relationship quality (partner control). Most importantly, the interaction effect between parents' and adolescents' attachment styles (joint control) is also understudied. However, research on couple relationships showed that that individuals' attachment anxiety and avoidance were associated with their partners' perception of lower relationship quality (Campbell, Simpson, Kashy, & Rholes, 2001; Hadden, Rodriguez, Knee, DiBello, & Baker, 2016; Kane et al., 2007). Indeed, researchers on adult attachment relationships have made similar calls for increased research attention on the interaction effect of two members' attachment orientations on relationship outcomes (Simpson & Howland, 2012). For instance, a recent study found that individuals felt more closeness and relatedness in their romantic relationships when both members were high on attachment anxiety. Also, avoidant individuals felt a stronger need for autonomy when their partners' attachment anxiety increased (Hadden et al., 2016). These findings on romantic relationships support the importance of considering actor, partner, and joint controls when examining the link between attachment and relationship quality.

To our knowledge, there is only one existing study that examined how parents' and adult-age children's attachment orientations interacted to predict their conflict resolution strategies (La Valley & Guerrero, 2012). In parent-child dyads, it was found that preoccupied parents and children (high on anxiety) reported more collaborative conflict resolution strategies when the other member was secure. These preoccupied individuals, however, reported fewer collaborative strategies when the other member was higher on dismissive attachment (high on avoidance). Furthermore, individuals higher on dismissive attachment used yielding strategies (e.g., making sacrifices) less when the other member was preoccupied. Finally, secure individuals used direct forms of confrontation less when the other member was fearful (high on both avoidance and anxiety).

La Valley and Guerrero's (2012) study, however, utilized a convenience sample of adults with a broad age range, and their findings may not necessarily be applicable to parent-adolescent relationships. Because adolescents experience rapid change in their relationships with parents and these changes have important implications for their psychological health (Laursen & Collins, 2009), it is important to focus specifically on parent-adolescent dyads. Also, La Valley and Guerrero have examined conflict resolution strategies but not the actual perceptions of relationship quality (e.g., intimacy, conflict) and how they are related to parents' and adolescents' attachment styles. Finally, La Valley and Guerrero utilized a four-dimension approach to attachment styles. Alternative approaches to measuring attachment styles, such as the two-dimensional framework (anxiety versus avoidance; Brennan, Clark, & Shaver, 1998), may be adopted for testing similar hypotheses. Overall, La Valley and Guerrero (2012) have provided evidence to support the interactive role of parents' and children's attachment styles, which is a crucial stepping stone for the current study.

Although both interdependence theory (Kelley et al., 2003) and attachment theory (Ainsworth et al., 1978) argue that relationship quality should be investigated by considering the interactive role of two members' attachment styles, they have provided very limited insights into the specific patterns of interaction. Therefore, we relied on past research on parent-child dyads (La Valley & Guerrero, 2012) to guide our hypotheses. It is possible that parent-adolescent relationship quality would be compromised when both members were insecurely attached. Specifically, we hypothesized that when parents and adolescents were both high on attachment anxiety or attachment avoidance, they would report lower relationship closeness and higher relationship discord. Similarly, when one member is high on attachment anxiety while another member is high on attachment avoidance, the "mismatch" of relational regulatory patterns would be detrimental to their relationship quality. Furthermore, it is possible that having a secure partner may buffer against one's own insecurity and perceptions of relationship quality. Specifically, we hypothesized that although attachment avoidance and anxiety would be related to lower relationship closeness and higher discord, such associations would be alleviated when the other member has a low attachment avoidance or anxiety.

4. Overview of the current study

The current study utilized a dyadic design to examine the relationship between parents' and adolescents' attachment styles on their perceptions of relationship quality. Borrowing fundamental ideas from interdependence theory (Kelley et al., 2003), we argue that parent-adolescent relationship quality is the result of the independent and joint effects of both members' attachment styles. The examination of both actor control and partner control processes (Kelley et al., 2003) can help demonstrate that there are mutual influences of personal characteristics in parent-adolescent relationships. As adolescents become more autonomous over time, it is important to examine whether their attachment styles should be related to their parents' perceptions of relationship quality.

5. Method

5.1. Procedures and participants

The current study included parent-adolescent dyads who were recruited from a local community in the Midwestern region, USA. For recruitment, information regarding this study was distributed through emails and flyers at local colleges and schools. Parent-adolescent dyads who were interested in the study contacted the researchers to schedule a lab session and were then invited to visit the psychology department's lab for the study. Both adolescents and their parents were required to provide written informed consent before participating. Parents and adolescents were then assigned to separate rooms to complete a computer-administered survey. To compensate for their participation, 3 adolescents were randomly selected to receive an iPod 8.

In the current sample, adolescents' ages ranged between 13 and 19 years, and the mean age was 16.25 ($SD = 1.83$). Of the 77 adolescents, 34 (44.2%) were male, 42 (54.5%) were female, and 1 adolescent (1.3%) had failed to report his/her gender. Parents ranged in age from 35 to 63 years ($M = 49.1$, $SD = 5.72$), and 72 of the parents were mothers (93.5%) and 5 (6.5%) were fathers. Similar to the surrounding community, the majority of adolescents (89.6%) were Caucasian. The majority of parents reported a household income of \$35,000 or above (83.1%) and had at least some college education (85.7%). A total of 53 parents reported that they were in a committed or stable relationship, whereas 24 parents reported that they were divorced/separated or considered themselves single parents.

5.2. Measures

5.2.1. Adolescents' attachment styles

Adolescents completed the 36-item Experiences in Close Relationships Scale-Revised Child version (ECR-RC; Brenning, Soenens, Braet, & Bosmans, 2011) to measure their attachment avoidance and anxiety. Adolescents were asked to answer the items based on how they typically felt and acted in their relationships with their parents or the people they considered parental figures. Specifically, 18 items captured their attachment anxiety (e.g., "I worry about being abandoned by my parents") and 18 items captured their attachment avoidance (e.g., "I prefer not to show my parents how I feel deep down"). Items were rated based on a scale that ranged from 1 (*not at all*) to 7 (*very much*). For the current study, Cronbach's alphas of the anxiety and avoidance subscales were .89 and .94, respectively.

5.2.2. Parents' attachment styles

Parents completed the 36-item Experiences in Close Relationships scale (ECR; Brennan et al., 1998) to measure their attachment avoidance and anxiety. Parents were asked to answer the items based on how they typically felt and acted in their romantic relationships in general, not just in what is happening in a current relationship. Specifically, 18 items captured their attachment anxiety (e.g., "I worry about being abandoned") and 18 items captured their attachment avoidance (e.g., "I prefer not to show my partner how I feel deep down"). Items were rated based on a scale that ranged from 1 (*disagree strongly*) to 7 (*agree strongly*). For the current study, Cronbach's alphas of the anxiety and avoidance subscales were both .94s.

5.2.3. Parent-adolescent relationship closeness and discord

Adolescents' and parents' perceptions of relationship closeness and discord were assessed with the 30-item Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985). Specifically, 15 items measured features of relational closeness (e.g., companionship, support, satisfaction) and 15 items measured features of relational discord (e.g., conflict, criticism, pressure). One closeness item was "How happy are you with your relationship with your parent/child?" One discord item was "How often do you and this person argue with each other?" Adolescents and parents rated how much/often each feature occurred in their relationships on a scale from 1 (*Never or hardly at all*) to 5 (*Always or extremely much*). Composite indices for closeness and discord dimensions were computed by averaging across the respective items. For the current study, reliability coefficients for adolescents' and parents' closeness scores were .84 and .86, respectively. Reliability coefficients for adolescents' and parents' discord scores were .78 and .88, respectively.

5.3. Planned analyses

Descriptive analyses were first conducted (e.g., means, standard deviations, and correlations). Because the data were dyadic in nature (parent-adolescent dyads), we adopted the actor-partner interdependence model with moderation effects (APIM; Kenny, Kashy, & Cook, 2006) to test the main hypotheses. As depicted in Fig. 1, the APIM is a statistical model that permits the examination of how individuals' perception of relationship outcomes could be predicted by their own characteristics, their partner's characteristics, and the combination of both. For example, it is possible to examine how adolescents' perception of closeness is shaped by their own attachment (*actor effect*), as well as their parents' attachment (*partner effect*), and the interaction between both (*actor-partner interaction effect*). Similar effects could be simultaneously estimated for parents' perceptions of closeness. The estimation of actor, partner, and actor-partner interaction effects directly reflects the components of actor control, partner control, and joint control proposed by interdependence theory (Kelley et al., 2003). To facilitate interpretation of results, all predictors were standardized to the grand mean. Interaction terms were formed based on the standardized predictors (Aiken & West, 1991). The conceptual model depicted in Fig. 1 was tested in the structural equation modeling (SEM) framework implemented with R's Lavaan package (R Core

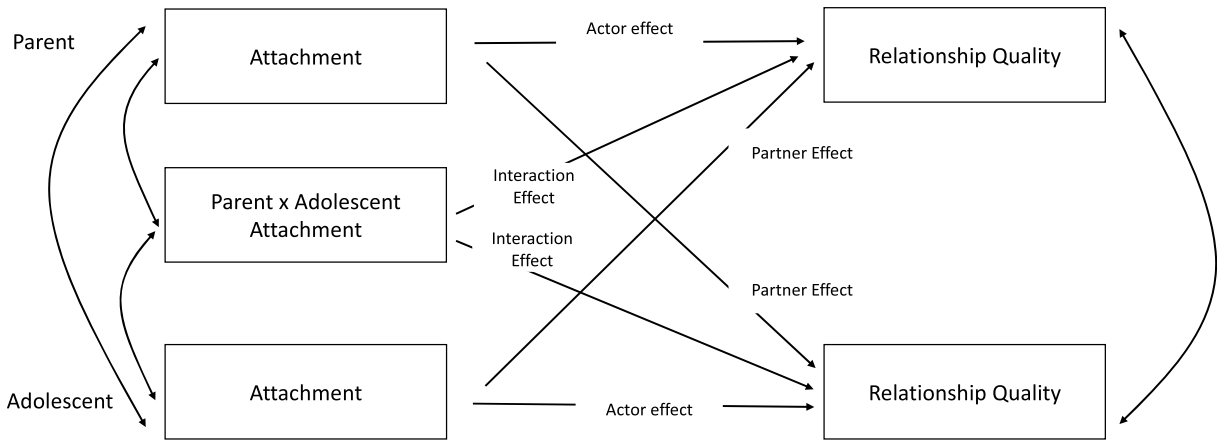


Fig. 1. General representation of the Moderated Actor-Partner Interdependence Model (APIM) with Structural Equation Modeling. Single-headed arrows represent regression coefficients and double-headed arrows represent covariances. All predictors (including interaction terms) are allowed to covary. Although not depicted, adolescent-age, parent-age, and parent-relationship status (1 = stable/committed, 0 = single/divorced/separated) were included as covariates in the models.

Team, 2015; Rosseel, 2012). Two models were specified for relationship closeness and discord, respectively. Adolescent-age, parent-age, and parent-relationship status (1 = stable/committed, 0 = single/divorced/separated) were included as covariates in the models.

6. Results

6.1. Preliminary analyses

Means, standard deviations, and correlations of study variables are presented in Table 1. Results showed that the associations between attachment styles and relationship quality were stronger for within-person reports compared to cross-person reports. The directions of correlations, however, were consistent with our expectations. We also ran a series of independent t-tests comparing boys and girls on their self-report and parent-report variables. We found that the only significant gender difference emerged in parent-report relationship discord. Specifically, parents of girls reported having higher discord with their adolescents compared to parents of boys, $t(74) = -3.37, p < .01$. We also conducted a series of independent t-tests and found that parents in a stable/committed relationship (compared to those who were not) scored lower on romantic anxiety and avoidance, but the groups were not significantly different in their reports of relationship closeness and discord with their adolescents. Also, adolescents with parents in a stable/committed relationship (compared to those who were not) were not significantly different in their reports of attachment and relationship quality variables.

6.2. Actor-partner interdependence models

Results of the APIM depicted in Fig. 1 are presented in Table 2. Two models were specified for relationship closeness and discord, respectively. In both models, the actor and partner effects of adolescents' and parents' attachment dimensions (avoidance, anxiety) were estimated. Furthermore, all possible combinations of adolescents' and parents' attachment dimensions were included as the

Table 1
Descriptive statistics and correlations of study variables.

	1	2	3	4	5	6	7	8
1. A-Avoidance	–							
2. A-Anxiety	.64**	–						
3. A-Closeness	–.66**	–.32**	–					
4. A-Discord	.24*	.25*	–.40**	–				
5. P-Avoidance	–.02	–.03	–.04	.07	–			
6. P-Anxiety	–.10	–.14	.23*	–.09	.27*	–		
7. P-Closeness	–.16	–.22	.22	–.28*	–.24*	.06	–	
8. P-Discord	.12	.06	–.01	.22	.16	.26*	–.16	–
M	3.39	1.88	3.49	2.22	2.61	2.89	3.05	2.04
SD	1.33	.85	.57	.48	1.19	1.29	.50	.55

Notes. A = adolescent-report, P = parent-report.
* $p < .05$. ** $p < .01$.

Table 2Actor-partner interdependence models predicting relationship closeness and discord from parents' and adolescents' Attachment styles and interaction effects.^a

	Closeness		Discord	
	A-Report	P-Report	A-Report	P-Report
Intercept	3.46	3.10	2.09	1.87
Covariates				
A-Age	-.08 (.05)	-.02 (.05)	-.04 (.06)	-.09 (.06)
P-Age	-.05 (.05)	-.06 (.05)	.05 (.06)	.14* (.06)
P-Relationship Status	.04 (.11)	-.06 (.12)	.17 (.13)	.23 (.14)
Main (Simple) Effects				
A-Anxiety	.11 (.07)	-.03 (.07)	.05 (.08)	-.03 (.08)
A-Avoidance	-.43* (.06)	-.05 (.06)	.06 (.07)	.10 (.07)
P-Anxiety	.10 (.05)	.01 (.06)	-.01 (.06)	.20* (.07)
P-Avoidance	-.05 (.05)	-.14* (.05)	.07 (.05)	.08 (.06)
Interaction Effects				
A-Anxiety*P-Anxiety	-.02 (.07)	.19* (.07)	-.14 (.08)	-.19* (.09)
A-Avoidance*P-Avoidance	.02 (.07)	-.17* (.07)	-.05 (.08)	.02 (.09)
A-Anxiety*P-Avoidance	.03 (.08)	-.05 (.08)	.11 (.08)	.17 (.10)
A-Avoidance*P-Anxiety	-.03 (.06)	-.09 (.06)	.05 (.07)	.05 (.07)
<i>R</i> ²	.54	.34	.16	.25

Notes. A = adolescent variables, P = parent variables. For parents' relationship status: 0 = married/stable relationship and 1 = others. All coefficients are unstandardized coefficients with standard errors in parentheses. * $p < .05$.

^a We ran a series of models in which the four interaction terms were entered individually (instead of simultaneously). It was found that all the nonsignificant interaction terms in the full model remained nonsignificant when they were tested individually. Also, the interaction effect of adolescent-avoidance*parent-avoidance on parent-closeness remained significant when it was tested individually. Finally, the interaction effects of adolescent-anxiety*parent-anxiety on parent-report closeness and discord became nonsignificant when they were tested individually. These findings suggest that the joint effect of adolescent-parent anxiety on parent-report relationship quality should be examined in conjunction with other combinations of attachment styles in adolescent-parent relationships.

interaction terms. These models were saturated models; thus, no fit indices were reported. This moderated APIM has been described in [Chow, Claxton, and van Dulmen's \(2015\)](#) work.

6.2.1. Relationship closeness

In the relationship closeness model, the adolescent actor effect showed that adolescents with higher attachment avoidance reported lower relationship closeness. Similarly, the parent actor effect showed that parents with higher attachment avoidance reported lower relationship closeness.

With regard to actor-partner interaction effects ([Table 2](#)), results showed that the interaction between adolescents' and parents attachment anxiety was significantly related to parent-report relationship closeness. A simple slopes analysis was conducted to examine the varying effects of parents' anxiety on parent-report relationship closeness, moderated by adolescents' anxiety ([Aiken & West, 1991](#)). As displayed in [Fig. 2](#), parents' anxiety was related to higher closeness when their adolescents were also high on anxiety ($b = .20$, $SE = .10$, $p < .05$). Contrary, parents' higher anxiety was related to lower closeness when their adolescents were low on anxiety ($b = -.18$, $SE = .09$, $p < .07$). These findings suggest that as adolescents and parents become similarly high on anxiety, parents tend to perceive that their relationship as more intimate and close.

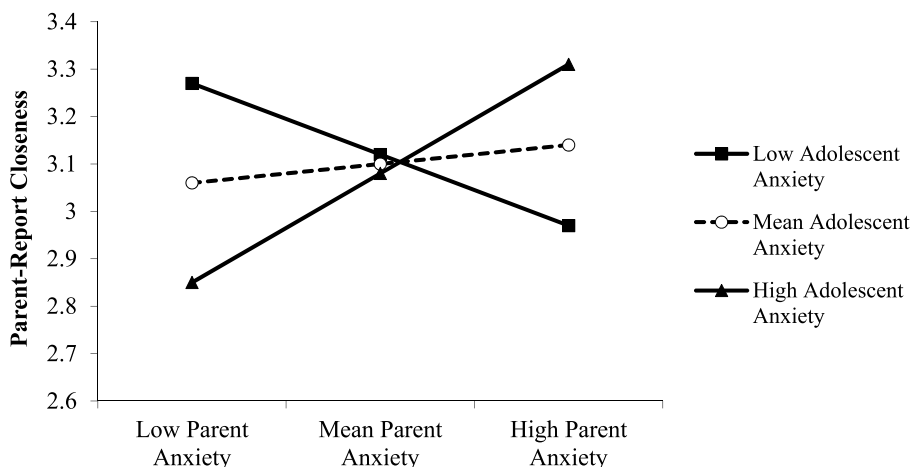


Fig. 2. Varying effects of parents' anxiety on parent-report relationship closeness, moderated by adolescents' anxiety.

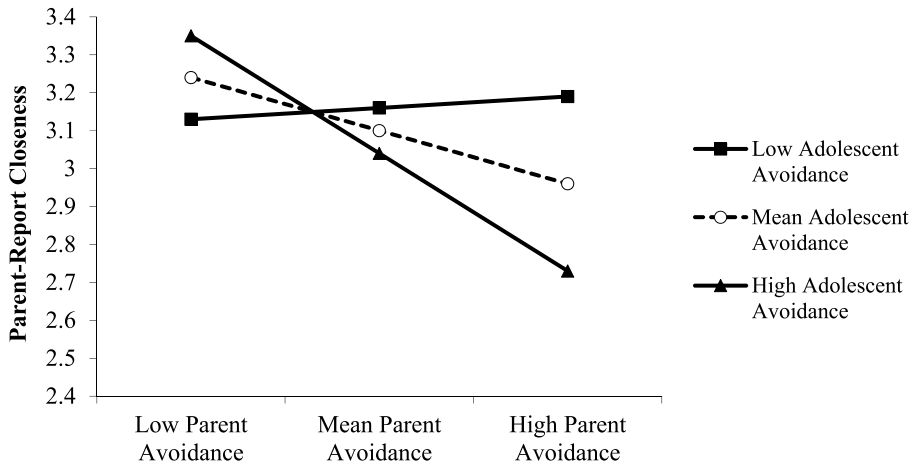


Fig. 3. Varying effects of parents' avoidance on parent-report relationship closeness, moderated by adolescents' avoidance.

Furthermore, results showed that the interaction between adolescents' and parents attachment avoidance was significantly related to parent-report relationship closeness. A simple slopes analysis was conducted to examine the varying effects of parents' avoidance on self-report relationship closeness, moderated by adolescents' avoidance. As displayed in Fig. 3, parents' avoidance was related to lower closeness when their adolescents were also high on avoidance ($b = -.31, SE = .08, p < .05$). Contrary, parents' avoidance was not related to closeness when their adolescents were low on avoidance ($b = .03, SE = .09, p = .78$). These findings suggest that the negative impact of parents' avoidance on their own perception of relationship closeness was buffered by low adolescent avoidance.

6.2.2. Relationship discord

The parent actor effect showed that parents with higher attachment anxiety reported higher relationship discord. Contrary to our expectation, no other significant actor and partner effects were found (see Table 2). With regard to actor-partner interaction effects, results showed that the interaction between adolescents' and parents attachment anxiety was significantly related to parent-report relationship discord. A simple slopes analysis was conducted to examine the varying effects of parents' anxiety on parent-report relationship discord, moderated by adolescents' anxiety. As displayed in Fig. 4, parents' anxiety was related to higher discord when their adolescents were low on anxiety ($b = .39, SE = .10, p < .05$). Contrary, parents' anxiety was not related to discord when their adolescents were high on anxiety ($b = .02, SE = .11, p = .87$). These findings were rather surprising; they suggest that as adolescents and parents become similarly high on anxiety, parents tend to perceive that their relationship is low in discord.

7. Discussion

This study utilized a dyadic design to examine the associations between parent and adolescent attachment and their relationship closeness and discord. APIM analyses examined the ways in which one's perceptions of relationship quality are associated with their

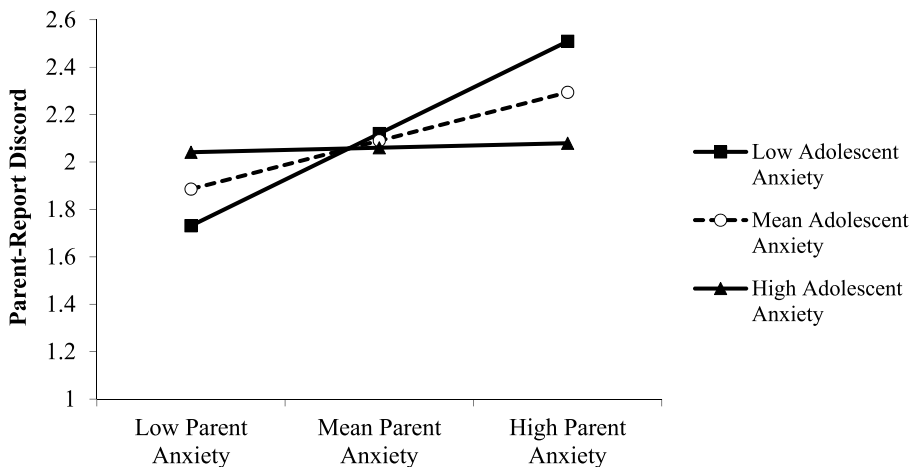


Fig. 4. Varying effects of parents' anxiety on parent-report relationship discord, moderated by adolescents' anxiety.

own characteristics, their partner's characteristics, and the interaction of both member's characteristics. By looking at reports of relationship quality at both individual and partner levels, we were able to examine how parent's and adolescent's attachment styles are related to each other's perceived relationship closeness and discord. The predictive power of combined parent-adolescent attachment on relationship closeness and discord was found to surpass that of individual characteristics alone. This study's findings have contributed to the literature, as it expands the results of the one existing study that examined the interaction effects of parent and adult-age children attachment styles on relationship quality (La Valley & Guerrero, 2012), by using a two-dimensional measure of attachment (anxiety and avoidance), an adolescent population, and by including relationship conflict and closeness as outcome variables.

7.1. Actor and partner effects

As expected, both adolescents and parents with high attachment anxiety and avoidance indicated lower perceived relationship closeness within the pair (actor effect). Actor effects in the APIM showed high levels of reflexive control as actors' attachment styles were relatively strongly related to their own perspectives of relationship closeness. This is consistent with existing research that individual attachment of parents and adolescents are each separately related to the relationship quality of the pair (Jones & Cassidy, 2014; Shomaker & Furman, 2009). However, the analysis of actor effects can be influenced by self-report bias; the dyadic findings described below begin to account for that. Surprisingly, the current study did not show any additional partner-level associations of significance; however, the moderating role of partner's attachment style on an individual's perceived relationship quality cannot be discounted.

7.2. Actor-partner interaction effects

Using a dyadic method of investigation allowed for actor-partner interaction effects to be detected. This is consistent with Kelley and Thibaut's (1978) interdependence theory, which argues the importance of both partners' reciprocal influence on the relationship above and beyond their individual characteristics. It was hypothesized that parents and adolescents who were both avoidant-attached would experience low closeness and high discord in their relationship. This was supported such that the combination of high parental and high adolescent avoidance was related to low levels of relationship closeness (see Fig. 3). Furthermore, it appears that the association between parent-report avoidance and relationship closeness was buffered by adolescents' lower avoidance. These findings are consistent with the model of intimacy, which suggests that relational intimacy is the result of mutual disclosure and support (Reis & Shaver, 1988). Thus, when parents and adolescents are both avoidant, their exchanges of disclosure and support may be limited, and such a dyadic tendency may prevent the emergence of connectedness and closeness. In this study, however, we also demonstrated that adolescents who are low in avoidance may alleviate the negative impact of parents' attachment avoidance on their own relationship closeness. It is important to note that such an interaction effect was only significant for perceived relationship quality as reported by the parents.

We predicted that parent-adolescent dyads who were both anxious should experience lower closeness due to their general tendencies to feel dissatisfied with relationships (Fraleigh & Shaver, 2000). The current study, however, depicted a rather surprising picture. We found that when parents and adolescents were both higher on attachment anxiety, parents reported higher relationship closeness with their children. As mentioned earlier, anxiously attached parents and adolescents are likely to engage in similar intimacy-seeking, relationship-related disclosure behaviors; it follows that an anxiously attached parent would report high levels of closeness with a son or daughter who was also actively seeking out this kind of interdependent relationship. Furthermore, we also demonstrated that when parents and adolescents were both higher on attachment anxiety, parents reported lower relationship conflict with their children. Again, the enmeshment of both members may prevent them from evaluating their relationship quality objectively. Thus, future research may adopt an observational method to capture levels of conflict between parents and adolescents.

Although relationship closeness is thought to be beneficial for psychological health (Steinberg, 2001), recent research on peer relationships suggests that excessive interdependence that is built upon co-rumination may lead to internalizing symptoms, such as depression (Rose, 2002). The paradoxical effect of anxious parent-adolescent pairs deserves more research attention. Interestingly, we also found that the same anxiously attached parent would likely feel a low level of closeness with a low anxiety child who may not reciprocate the parents' strong desires for intimacy. This dyadic pattern resembles the demand-withdrawn interaction proposed by marital researchers, which is theorized to be harmful to relationship quality (Christensen & Heavey, 1990).

Our analyses did not reveal any significant interactions for adolescent report of relationship closeness or discord. As only parent report was affected by interaction effects, this suggests that child attachment to the parent is related to perceived relationship quality above and beyond the parents' attachment. One reason that this could be the case is that parent attachment style was measured as their thoughts and actions in romantic relationships. This may have been too specific a context to adequately compare with child attachment style to the parent. Use of a self-report measure of general attachment in all relationships or a more implicit measure of attachment may give a more accurate depiction of overall attachment style. Another possible reason is that the correlations between relationship outcomes and adolescents' attachment dimensions were much stronger compared to those with parents' attachment dimensions. Therefore, adolescent-report relationship outcomes may have less variability to be explained by the predictors and interactions, compared to parent-report relationship outcomes.

7.3. Limitations and future directions

While this study sheds light on the relationship between attachment style and relationship quality in parents and adolescents, it does so with cross-sectional, non-experimental data. Significant results indicate that attachment style is a predictor of perceived relationship closeness and discord within parent-adolescent relationships; however, there are countless possible third variables that may also play a role. For example, twin studies have shown that genetics has a significant influence on the parent-child relationship, with this relationship strengthening during adolescence (McGue, Elkins, Walden, & Iacono, 2005). Furthermore, it is certainly possible that relationship quality may precede attachment styles (Ruhl et al., 2015). In the future, a longitudinal study could allow us to draw stronger inferences regarding the reciprocal associations between adolescent attachment styles and their relationship closeness and discord.

Additionally, this study only addressed the relationship quality of an adolescent with one parent, primarily mothers. A second caregiver may also influence the parent-child closeness and discord with the parent studied. This singularity limits the generalizability to all parent-adolescent dyads as father-adolescent attachment and relationships are not well represented in the data. Future studies may include a more diverse composition of families for the examination of similar hypotheses.

Finally, it is important to note that we analyzed the impact of self-report attachment style on perceived relationship quality. Parents reported their attachment style in relation to romantic relationships which may have had an impact on the evaluation as relationship quality related to their children. To further avoid reporter bias, observational methods such as coded interactions could be used to directly observe parent-adolescent dyads engaging in supportive and/or conflict behaviors.

8. Conclusion

The current study provides evidence that the interaction between parent and adolescent attachment styles influence relationship quality above and beyond individual influences. This study suggests that these associations act primarily on parent perception of closeness and discord. This research provided support for the hypothesis that high attachment avoidance was detrimental to the relationship; the same was true for attachment anxiety, but only when the pair was mismatched. For both high and both low anxiously attached dyads, closeness was perceived as high. Therefore, researchers on parent-child dynamics should embrace the value of studying the reciprocal nature of these dyadic relationships.

Similarly, in practice, interventions centered on improving the parent-adolescent relationship should acknowledge the importance of both members of the pair and the ways their traits interact. Our findings indicate that the parent's perception of the relationship quality is the least close when both the parent and adolescent are high in attachment avoidance; however, they view the relationship as quite close when they are both high in attachment anxiety. This may have particular clinical relevance for family therapies utilizing parent-child attachment as a primary point of intervention. Research suggests that improving an adolescent's attachment security with a parent is both possible and helpful in treating other psychological problems such as depression or externalizing problems in the child (Diamond, 2014; Moretti, Obsuth, Craig, & Bartolo, 2015; Beijersbergen, Juffer, Bakermans-Kranenburg, & van Ijzendoorn, 2012). Given our findings, it is evident that being a member of a dyad high in attachment avoidance may have different implications than a dyad high in attachment anxiety; these differences may need to be considered in attachment-focused therapy. Additionally, parents and adolescents who are both high in attachment anxiety may still report high relationship closeness; therefore, it may be helpful to utilize multiple domains of relationship quality when measuring change throughout therapy.

Funding

This research was supported by UWU Faculty Development-Small Grant Component (FDM 242) awarded to the first author.

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum.
- Allen, J. P., McElhaney, K. B., Land, D. J., Kuperminc, G. P., Moore, C. W., O'Beirne-Kelly, H., et al. (2003). A secure base in adolescence: Markers of attachment security in the mother-adolescent relationship. *Child Development, 74*, 292–307.
- Allen, J. P., Porter, M., McFarland, C., McElhaney, K. B., & Marsh, P. (2007). The relation of attachment security to adolescents' paternal and peer relationships, depression, and externalizing behavior. *Child Development, 78*, 1222–1239.
- Becker-Stoll, F., Fremmer-Bombik, E., Wartner, U., Zimmermann, P., & Grossmann, K. E. (2008). Is attachment at ages 1, 6, and 16 related to autonomy and relatedness behavior of adolescents in interaction towards their mothers? *International Journal of Behavior Development, 32* 372–280.
- Beijersbergen, M., Juffer, F., Bakermans-Kranenburg, M., & van Ijzendoorn, M. (2012). Remaining or becoming secure: Parental sensitive support predicts attachment continuity from infancy to adolescence in a longitudinal adoption study. *Developmental Psychology, 48*, 1277–1282.
- Borelli, J. L., Compare, A., Snavely, J. E., & Decio, V. (2015). Reflective functioning moderates the association between perceptions of parental neglect and attachment in adolescence. *Psychoanalytic Psychology, 32*, 23–35.
- Bowlby, J. (1969). *Attachment and loss, Vol. I: Attachment*. New York: Basic Books.
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson, & W. S. Rholes (Eds.). *Attachment theory and close relationships* (pp. 46–76). New York: Guilford Press.
- Brenning, K., Soenens, B., Braet, C., & Bosmans, G. (2011). An adaptation of the experiences in close relationships scale-revised for use with children and adolescents. *Journal of Social and Personal Relationships, 28*, 1048–1072.
- Brenning, K., Van Petegem, S., Vanhalst, J., & Soenens, B. (2014). The psychometric qualities of a short version of the experiences in close relationships scale - revised child version. *Personality and Individual Differences, 68*, 118–123.
- Campbell, L., Simpson, J. A., Kashy, D. A., & Rholes, W. S. (2001). Attachment orientations, dependence, and behavior in a stressful situation: An application of the

- actor-partner interdependence model. *Journal of Social and Personal Relationships*, 18, 821–843.
- Chow, C. M., Claxton, S. E., & van Dulmen, M. H. (2015). Testing dyadic mechanisms the right way: A primer into moderated actor–partner interdependence model with latent variable interactions. *Emerging Adulthood*, 3, 421–433.
- Christensen, A., & Heavey, C. L. (1990). Gender and social structure in the demand/withdraw pattern of marital conflict. *Journal of Personality and Social Psychology*, 59, 73–81.
- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology*, 48, 243–267.
- Crowell, J. A., Fraley, R. C., & Roisman, G. I. (2016). Measurement of individual differences in adult attachment. In J. Cassidy, & P. R. Shaver (Eds.). *Handbook of attachment: Theory, research, and clinical applications* (pp. 598–635). (3rd ed.). New York: Guilford Press.
- Diamond, G. M. (2014). Attachment-based family therapy interventions. *Psychotherapy*, 51, 15–19.
- Dujardin, A., Santens, T., Braet, C., De Raedt, R., Vos, P., Maes, B., et al. (2016). Middle childhood support-seeking behavior during Stress: Links with self-reported attachment and future depressive symptoms. *Child Development*, 87, 326–340.
- Feeney, J. A. (2006). Parental attachment and conflict behavior: Implications for offspring's attachment, loneliness, and relationship satisfaction. *Personal Relationships*, 13, 19–36.
- Fraley, R. C., & Shaver, P. R. (2000). Adult romantic attachment: Theoretical developments, emerging controversies, and unanswered questions. *Review of General Psychology*, 4, 132–154.
- Furman, W., & Buhrmester, D. (1985). Children's perceptions of the personal relationships in their social networks. *Developmental Psychology*, 21, 1016–1024.
- García-Ruiz, M., Rodrigo, M. J., Hernández-Cabrera, J. A., Máiquez, M. L., & Deković, M. (2013). Resolution of parent–child conflicts in the adolescence. *European Journal of Psychology of Education*, 28, 173–188.
- Hadden, B. W., Rodriguez, L. M., Knee, C. R., DiBello, A. M., & Baker, Z. G. (2016). An actor–partner interdependence model of attachment and need fulfillment in romantic dyads. *Social Psychological and Personality Science*, 7, 349–357.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511–524.
- Jones, J. D., & Cassidy, J. (2014). Parental attachment style: Examination of links with parent secure base provision and adolescent secure base use. *Attachment & Human Development*, 16, 437–461.
- Kane, H. S., Jaremka, L. M., Guichard, A. C., Ford, M. B., Collins, N. L., & Feeney, B. C. (2007). Feeling supported and feeling satisfied: How one partner's attachment style predicts the other partner's relationship experiences. *Journal of Social and Personal Relationships*, 24, 535–555.
- Kelley, H. H., Holmes, J. G., Kerr, N. L., Reis, H. T., Rusbult, C. E., & Van Lange, P. A. M. (2003). *An atlas of interpersonal situations*. Cambridge, England: Cambridge University Press.
- Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. New York: Wiley-Interscience.
- Kenny, D. A., Kashy, D. A., & Cook, W. (2006). *Dyadic data analysis*. New York, NY: Guilford.
- Kobak, R. R., Cole, H. E., Ferenz-Gillies, R., Fleming, W. S., & Gamble, W. (1993). Attachment and emotion regulation during mother-teen problem solving: A control theory analysis. *Child Development*, 64, 231–245.
- La Valley, A. G., & Guerrero, L. K. (2012). Perceptions of conflict behavior and relational satisfaction in adult parent–child relationships: A dyadic analysis from an attachment perspective. *Communication Research*, 39, 48–78.
- Laursen, B., & Collins, W. A. (2009). Parent-child relationships during adolescence. In R. M. Lerner, & L. Steinberg (Vol. Eds.), (third ed.). *Handbook of adolescent psychology: 2. Contextual influences on adolescent development* (pp. 3–42). Hoboken, NJ: Wiley.
- McGue, M., Elkins, I., Walden, B., & Iacono, W. G. (2005). Perceptions of the parent-adolescent relationship: A longitudinal investigation. *Developmental Psychology*, 41, 971–984.
- Millings, A., Walsh, J., Hepper, E., & O'Brien, M. (2012). Good partner, good parent responsiveness mediates the link between romantic attachment and parenting style. *Personality and Social Psychology Bulletin*, 39, 170–180.
- Moretti, M. M., Obsuth, I., Craig, S. G., & Bartolo, T. (2015). An attachment-based intervention for parents of adolescents at risk: Mechanisms of change. *Attachment and Human Development*, 17, 119–135.
- R Core Team (2015). R: A language and environment for statistical computing. Vienna, Austria: R Foundation for Statistical Computing. <http://www.R-project.org/>.**
- Reis, H. T., & Shaver, P. (1988). Intimacy as an interpersonal process. In S. Duck (Ed.). *Handbook of personal relationships* (pp. 367–389). Chichester, UK: Wiley.
- Rholes, W. S., Simpson, J. A., & Friedman, M. (2006). Avoidant attachment and the experience of parenting. *Personality and Social Psychology Bulletin*, 32, 275–285.
- Rose, A. J. (2002). Co-rumination in the friendships of girls and boys. *Child Development*, 73, 1830–1843.
- Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48, 1–36.
- Ruhl, H., Dolan, E. A., & Buhrmester, D. (2015). Adolescent attachment trajectories with mothers and fathers: The importance of parent–child relationship experiences and gender. *Journal of Research on Adolescence*, 25, 427–442.
- Scott, S., Briskman, J., Woolgar, M., Humayun, S., & O'Connor, T. G. (2011). Attachment in adolescence: Overlap with parenting and unique prediction of behavioural adjustment. *Journal of Child Psychology and Psychiatry*, 52, 1052–1062.
- Shomaker, L. B., & Furman, W. (2009). Parent–adolescent relationship qualities, internal working models, and attachment styles as predictors of adolescents' interactions with friends. *Journal of Social and Personal Relationships*, 26, 579–603.
- Simpson, J. A., & Howland, M. (2012). Bringing the partner into attachment theory and research. *Journal of Family Theory & Review*, 4, 282–289.
- Steinberg, L. (2001). We know some things: Parent–adolescent relationships in retrospect and prospect. *Journal of Research on Adolescence*, 11, 1–19.
- Van Petegem, S., Beyers, W., Brenning, K., & Vansteenkiste, M. (2013). Exploring the association between insecure attachment styles and adolescent autonomy in family decision making: A differentiated approach. *Journal of Youth and Adolescence*, 42, 1837–1846.