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A Dyadic Perspective on Young Adult Dating Aggression

Abstract

Guided by the dynamic developmental systems theory (Capaldi, Knoble, Shortt, & Kim, 2012), the present studies examined individual and relationship level risk factors for dating aggression. A series of Actor Partner Interdependence Models (APIM; Kenny, 1996; Kenny & Cook, 1999) were used to assess associations between males' and females' risk factors and dating aggression within 137 young adult couples. Findings indicated that both partners' reports of a number of relationship characteristics were associated with aggression, including negative interactions, satisfaction, jealousy, and anxious and avoidant relational styles. Moreover, there were actor partner interactions between male and female jealousy, anxious styles, and negative interactions. For those couples in which both partners had high levels of the characteristic, the risk for aggression was elevated, whereas for couples in which one or both partners had low levels of the characteristic, the risk for aggression was generally mitigated. Additionally, both partners' levels of psychopathology were linked to aggression, and the strength of these effects depended upon the presence of certain partner characteristics and negative relationship characteristics. Findings demonstrated that the risk for aggression stems from the individual level, the relationship level, the intersection between these levels, and from interactions between romantic partners' risk factors. Results add merit to the utility of using a dyadic approach to examine the risk factors associated with young adult dating aggression, and highlight several critical points of intervention for young adult couples.

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of the Requirements for the Degree

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by

Ann Lantagne

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ABSTRACT

Guided by the dynamic developmental systems theory (Capaldi, Knoble, Shortt, & Kim, 2012), the present studies examined individual and relationship level risk factors for dating aggression. A series of Actor Partner Interdependence Models (APIM; Kenny, 1996; Kenny & Cook, 1999) were used to assess associations between males' and females' risk factors and dating aggression within 137 young adult couples. Findings indicated that both partners' reports of a number of relationship characteristics were associated with aggression, including negative interactions, satisfaction, jealousy, and anxious and avoidant relational styles. Moreover, there were actor partner interactions between male and female jealousy, anxious styles, and negative interactions. For those couples in which both partners had high levels of the characteristic, the risk for aggression was elevated, whereas for couples in which one or both partners had low levels of the characteristic, the risk for aggression was generally mitigated. Additionally, both partners' levels of psychopathology were linked to aggression, and the strength of these effects depended upon the presence of certain partner characteristics and negative relationship characteristics. Findings demonstrated that the risk for aggression stems from the individual level, the relationship level, the intersection between these levels, and from interactions between romantic partners' risk factors. Results add merit to the utility of using a dyadic approach to examine the risk factors associated with young adult dating aggression, and highlight several critical points of intervention for young adult couples.

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Chapter One: Introduction

To be a “couple” of anything, there must be more than one. In romantic relationships, two individuals pair together to form a couple. Any relationship experience, spanning dating aggression or conflict, relationship satisfaction or jealousy, necessitates two individuals and impacts both partners (Bartholomew & Cobb, 2011; Reis, Capobianco, & Tsai, 2002). Yet to understand the associations between risk factors and young adult dating aggression, studies have typically focused on only one individual from a couple and based our entire understanding upon that one partner (Capaldi et al., 2012). Consequently, only a fraction of the associations between risk factors and dating aggression have been examined.

This gap in the field is particularly striking when considering that dating aggression has been deemed a serious public health concern (White, 2009). The prevalence of dating aggression rises during adolescence, peaks in young adulthood, and decreases in adulthood, rendering young adulthood perhaps the most critical developmental period to examine risk factors in relationships (Halpern, Oslak, Young, Martin, & Kupper, 2001; O’Leary, 1999). Aggression is remarkably prevalent during this time, and more than half of young adults have experienced aggression in a relationship (Halpern et al., 2001; O’Leary, 1999). Dating aggression can have an enduring and debilitating impact on young adult functioning, and individuals who have been in an aggressive relationship are at greater risk for a number of physical and

psychological health difficulties (Foshee & Matthew, 2007; Silverman, Raj, Mucci, & Hathaway, 2001).

At present, very few studies have included both partners to more fully understand the associations between males' and females' risk factors and young adult dating aggression. A dyadic approach that focuses on couples could be particularly informative given that dating aggression has been conceptualized as a phenomenon that is relationship specific and emerges between certain combinations of partners (Whitaker, Le, & Niolin, 2010). Interpersonal interactions between individuals also typically precede aggression, highlighting the importance of examining both partners' characteristics and the ensuing relationship dynamics (Reese-Weber & Johnson, 2013; Winstok, 2007). In sum, dyadic studies examining the patterns of associations within couples will help us to understand which young adult couples could be at greatest risk for dating aggression.

Relatively recent developments in statistical methodologies, such as the Actor Partner Interdependence Model (APIM; Kenny, 1996; Kenny & Cook, 1999), enable researchers to take such a dyadic approach. APIMs measure actor effects, partner effects, and actor partner interactions. Actor effects determine how much each individual's dating aggression is influenced by his or her own risk factors. For example, an actor effect would measure the association between a female's jealousy and her dating aggression. In comparison, partner effects reflect how much an individual's dating aggression is influenced by his or her partner's risk factor and measure a form of interdependence (Cook & Kenny, 2005). An example of a partner effect would be the association between female jealousy and male dating aggression. Finally, certain combinations of partners

may be at greater risk for dating aggression, and dyadic models also take into account the interaction between males' and females' risk factors, or what are known as actor partner interactions. An example of an actor partner interaction would be the interaction between male and female jealousy; those couples in which both partners experience high jealousy may be at an especially elevated risk for aggression.

Accordingly, the present studies used Actor Partner Interdependence Models to apply a dynamic developmental systems perspective to the risk factors associated with physical dating aggression (DDS; Capaldi, Shortt, & Kim, 2005). The dynamic developmental systems theory conceptualizes aggression as a dyadic phenomenon in which the unique and combined risk factors from males and females contribute to each partner's dating aggression. The perspective also underscores the importance of examining predictors of both male and female aggression, which is critical during a developmental stage in which males and females are equally likely to be aggressive in a romantic relationship (Gray & Foshee, 1997; Herrera, Wiersma, & Cleveland, 2008).

At the first level of the dynamic developmental systems theory are the individual risk factors that each partner brings to the relationship, such as internalizing and externalizing symptoms (Capaldi et al., 2005). Assortative partnering, which is when individuals partner with others who have similar characteristics, has been shown to occur for both internalizing and externalizing symptoms during young adulthood. Young adults who have affective disorders tend to couple with others who also have affective disorders (Kim & Capaldi, 2004). When assortative partnering occurs, couples can include two individuals who each have a higher risk for dating aggression (Capaldi et al., 2005). Very

limited work has simultaneously examined both partners' psychopathology and the ensuing links with dating aggression.

The relationship level of the dynamic developmental systems theory focuses on the characteristics of the relationship and includes an array of variables ranging from conflict to support. This level emphasizes the couple's patterns of interactions and the nature of the romantic relationship itself. For example, a dynamic developmental systems approach at this level would include both male and female reports of a relationship characteristic and examine the patterns of associations with each partner's dating aggression.

The dynamic nature of the theory delineates that the relationship level and individual level do not exist in isolation. There can be interactions across levels, and dating aggression is conceptualized as a multi-determined behavior (Capaldi et al., 2012; Foran & O'Leary, 2008). The Vulnerability Stress Adaptation Model (VSA; Karney & Bradbury, 1995) would theorize that those individuals who are predisposed to an individual vulnerability and who experience relationship stress are at greater risk for dating aggression.

Notably, meta-analyses highlight that although there are significant risk factors across both the individual and relationship levels, relationship level variables are fundamental to understanding dating aggression in young adulthood (Stith, Smith, Penn, Ward, & Tritt, 2004). In particular, relationship characteristics and the nature of the relationship are typically linked to the immediate context surrounding dating aggression (Reese-Weber & Johnson, 2013). As mentioned above, the presence of certain

relationship dynamics may also influence the associations between risk factors at other levels and dating aggression. The present series of studies accordingly examined relationship risk factors in two different ways: first, by assessing the overall associations between relationship characteristics and dating aggression, and subsequently, by assessing whether relationship characteristics moderate the associations between individual risk factors and dating aggression.

Specifically, in Study 1, the associations between both partners' reports of relationship characteristics and male and female dating aggression were examined using Actor Partner Interdependence Models (APIM; Kenny, 1996; Kenny & Cook, 1999). Study 1 included a range of relationship characteristics to better understand the nature of the relationship context surrounding dating aggression, and examined each partner's perceptions of negative interactions, jealousy, satisfaction, support, and anxious and avoidant relational styles. One of the primary aims of this study was to determine the patterns of males' and females' relationship characteristics that are associated with dating aggression. Study 1 also sought to understand whether certain couples are at greater risk for dating aggression depending on the corresponding combination of risk factors between partners.

In Study 2, both partners' psychopathology and the associations with dating aggression were also examined using Actor Partner Interdependence Models. This study contributed to the limited work that has examined psychopathology and dating aggression in young adult couples (Kim & Capaldi, 2004). Additionally, in line with the Vulnerability Stress Adaptation Model, it was anticipated that associations between

psychopathology and dating aggression might be strongest in negative relationship contexts (Karney & Bradbury, 1995). In Study 2, relationship level risk factors were accordingly considered as moderators between psychopathology and dating aggression. Specifically, the interactions between psychopathology (externalizing & internalizing symptoms) and relationship characteristics (negative interactions, jealousy, satisfaction, support, & relational styles) were examined. Study 2 aimed to better understand the dynamic nature of risk for dating aggression by exploring not only who is at greatest risk for dating aggression, but also under which relationship conditions (Capaldi & Langhinrichsen-Rohling, 2012; Collibee & Furman, 2018).

In sum, although many studies have been conducted on dating aggression, our understanding is currently limited. Without a dyadic perspective examining both males' and females' risk factors for dating violence, we are only halfway there. Results from the present series of studies begin to fill in the other half of our understanding, yielding a more comprehensive picture of the nature of individual and relationship risk factors that are linked with aggression among young adult couples. As such, a dyadic perspective on young adult dating aggression can help us to gain more insight into the interpersonal context surrounding this major public health phenomenon.

Chapter Two: More Than The Sum of Two Partners: A Dyadic Perspective on Young Adult Dating Aggression

Abstract

Dating aggression has been deemed a public health concern, and rates of dating aggression reach their highest level during young adulthood (Halpern et al., 2001; White, 2009). The present study is among the first to use Actor Partner Interdependence Models to better understand how young adult males' and females' reports of conflict, support, satisfaction, jealousy, and relational styles predict dating aggression. Participants included 137 heterosexual couples (*M* age = 22.44 years). Numerous actor and partner effects demonstrate that each partner's relationship characteristics are uniquely associated with aggression. Actor by partner interactions reveal that aggression is highest among couples in which both partners have high jealousy, conflict, or anxious styles. When couples include one individual with low characteristics, there is a buffering effect, and levels of aggression generally do not differ from when both partners endorse low characteristics. Findings support conceptualizing aggression as a relationship specific phenomenon (Whitaker et al., 2009). Prevention and intervention should shift from exclusively targeting individuals to focusing on specific relationship characteristics as well.

Physical dating aggression is operationalized as the use of harmful and forceful physical contact towards a romantic partner, ranging from shoves and slaps to punches and severe beatings (Capaldi et al., 2012). Rates of dating aggression are highest in young adulthood, and more than half of individuals ages 18 to 24 have experienced violence in a romantic relationship (Halpern et al., 2001; O’Leary, 1999). Furthermore, around a third of young adults report that they initiated physical aggression towards a partner within the past year, with rates spanning 17% to 45% across samples (Murray & Kardatzke, 2007; Straus, 2004). Females and males are equally likely to engage in dating aggression during this time, and aggression is often mutual (Herrera et al., 2008; Hines & Saudino, 2003).

Existing work on the relationship risk factors associated with dating aggression has almost exclusively examined only one individual’s report of the relationship and his or her corresponding reports of aggression (for review, Capaldi et al., 2012); few studies have taken a dyadic approach and included the relationship experiences of both members of the couple. Much remains to be learned about how dating aggression arises in young adult couples and which couples are at greatest risk (Capaldi et al., 2012; Reese-Weber & Johnson, 2013). Consequently, we have a strikingly limited understanding of a phenomenon that has been deemed a major public health concern (Vagi, Olsen, & Basile, 2013). The current study is one of the first to use a dyadic approach to more fully understand the relationship characteristics associated with physical dating aggression during young adulthood.

A Dyadic Perspective on Dating Aggression

Dating aggression rarely occurs randomly; rather, aggression typically unfolds during an interpersonal interaction with a romantic partner (Bartholomew & Cobb, 2011; Kim & Capaldi, 2007). The dynamic developmental systems perspective therefore implements a dyadic conceptualization of both partners' risk factors associated with aggression in young adult couples (DDS; Capaldi et al., 2005). One part of the dynamic developmental systems theory focuses exclusively on the relationship characteristics associated with aggression, the nature of the relationship, and the patterns of interactions between partners (Kim & Capaldi, 2007). The theory emphasizes that both males' and females' relationship dynamics are linked to aggression, including heightened jealousy, low satisfaction, and high conflict (Capaldi et al., 2012). Such a conceptualization of aggression during young adulthood allows us to understand which couples are most likely to experience violence and to recognize the corresponding facets of the relationship associated with this risk (Reese-Weber & Johnson, 2013).

Furthermore, a dyadic perspective that integrates each partner's reports of their relationship characteristics is valuable, as both males and females contribute to the nature of interactions within a dyad (Bartholomew & Cobb, 2011). For example, males and females may bring varying levels of jealousy to the relationship, and each partner's jealousy could accordingly have a different influence on dating aggression. Males and females may also have discrepant perspectives of the same features within the relationship: among young adult couples, males characterize the relationship as having higher support and as having fewer relationship problems than females do (Burk &

Seiffge-Krenkre, 2015; Shulman & Kipnis, 2001). Thus, even when discussing a shared relationship characteristic, such as conflict or support, individuals experience different perceptions of the severity, the importance, or the impact of the characteristic. As partner aggression can result from an individual's reactions to his or her own perceptions of the relationship (Prospero, 2006), it will be informative to incorporate each partner's reports of the relationship and to explore the ensuing links with aggression.

Finally, taking a dyadic approach is pertinent during young adulthood, as the risk for dating aggression is dynamic and fluctuates across relationships as partners change (Reese-Weber & Johnson, 2013). Dating aggression is considered a relationship specific phenomenon that arises from a particular combination of individuals (Whitaker et al., 2010), underscoring the merits of considering how combinations of partners are associated with greater risk for aggression. Dating aggression also does not typically occur in all of the relationships an individual has: for couples that break up and form new relationships, dating aggression often desists in the successive relationship as new patterns of interactions are established (Capaldi, Shortt, & Crosby, 2003). As such, to accurately understand the relationship risk factors associated with dating aggression, it is important to take a dyadic approach that fully examines the concurrent relationship context that is created between particular partners (Capaldi et al., 2005).

Relationship Characteristics Associated with Dating Aggression

The probability of violence occurring in a relationship is thought to be contingent upon the nature and circumstances of the relationship itself (Reese-Weber & Johnson, 2013). Indeed, reviews indicate that relationship risk factors are the strongest predictors

of dating aggression (Stith et al., 2004). Relationship risk factors capture the features of the romantic relationship and the patterns of interactions that precede dating violence (Capaldi et al., 2005; Reese-Weber & Johnson, 2013). An array of relationship risk factors have been implicated for aggression toward a partner, including conflict, support, satisfaction, jealousy, and relational styles (Capaldi et al., 2012; Reese-Weber & Johnson, 2013).

First and foremost, aggression typically transpires during an argument with a romantic partner, and higher frequencies of conflict are associated with higher rates of dating aggression (Cascardi & Vivian, 1995; DeMaris et al., 2003). Conflict predicts aggression over time, even after controlling for initial levels of aggression (Aldarondo & Sugarman, 1996; O'Leary, Malone, & Tyree, 1993). Frequency of conflict also accounts for a portion of the increased rates of aggression during young adulthood (Johnson, Giordano, Manning, & Longmore, 2015).

In contrast, findings regarding the links between support and dating aggression are mixed. Lower validation is associated with higher dating aggression (Johnson et al., 2015). However, higher self-disclosure is also associated with higher levels of aggression, and high self-disclosure is thought to characterize the intense relationships of individuals who become over-involved in their relationships (Johnson et al., 2015). Other studies have not found any links between support and dating aggression during young adulthood (Collibee & Furman, 2016).

Lower relationship satisfaction is also associated with dating aggression, although again, findings vary depending on the sample. Low relationship satisfaction is a unique

predictor of aggression for college-aged males (Baker & Stith, 2007), and among adults, low satisfaction is linked to aggression for males and females (Smith Slep, Foran, Heyman & Snarr, 2010).

Jealousy is yet another quality that predicts dating aggression in young couples (Giordano, Soto, Manning, & Longmore, 2010; O'Leary & Smith Slep, 2003). Jealousy contributes above and beyond the influence of general aggression and relationship satisfaction in predicting dating aggression (Kerr & Capaldi, 2011). For females in particular, sexual jealousy is associated with dating aggression (Brownridge, 2004).

Finally, relational styles with romantic partners have been linked with dating aggression. Relational styles are representations of oneself, one's partner, and the relationship, and influence romantic expectations and behaviors (Furman & Wehner, 1999). These styles are traditionally measured on two dimensions: avoidant styles and anxious styles (Brennan, Clark, & Shaver, 1998). Avoidant relational styles describe individuals who are uncomfortable with intimacy and have trouble seeking romantic partners for support, whereas anxious relational styles describe individuals who are preoccupied with their romantic partner's availability and attempt to keep partners close (Brennan et al., 1998). Anxious relational styles have been associated with aggression in romantic relationships during young adulthood (Miga, Hare, Allen, & Manning, 2010). Although research demonstrates that there is a link between relational styles and aggression, existing work has not examined both partners' relational styles and aggression.

Clearly, romantic relationship dynamics are important risk factors for dating aggression, yet much remains to be learned. Different processes may be at play for males and females during young adulthood: for females, jealousy was a significant predictor (Brownridge, 2004), whereas for males, lower satisfaction was associated with dating aggression (Baker & Stith, 2007). In order to have an adequate understanding of dating aggression, research is needed that directly compares effects for males and females, simultaneously integrates both partners' perceptions of relationship characteristics, and takes into account the interplay between the two partners' reports (Capaldi & Kim, 2007; Tolan, Gorman-Smith & Henry, 2006).

Actor Partner Interdependence Models

Modern advances in statistical methodologies enable researchers to determine the unique and joint contributions of both partners in a dyad, and to appropriately model interdependence. Interdependence arises within close relationships, as two individuals' scores within a dyad are more closely related than two scores from individuals who are not in a relationship (Cook & Kenny, 2005). One dyadic technique is the Actor Partner Interdependence Model (APIM; Kenny, 1996; Kenny & Cook, 1999), which measures actor effects, partner effects, and actor by partner interactions (Figure 1).

Actor effects determine how much an individual's dating aggression is influenced by his or her own perceptions of the relationship. For example, an actor effect would reflect the association between a female's jealousy and her own aggression toward a partner. Partner effects determine how much a person's behavior is influenced by his or her partner's report of the relationship characteristic and measure a form of

interdependence (Cook & Kenny, 2005). An example of a partner effect would be the association between female jealousy and male aggression. Partner effects are relational effects signifying that one partner's aggression is associated with the other partner's report of relationship characteristics. Finally, dyadic models can take into account interactions between actor and partner effects. The effects of one partner's characteristic may depend on the other partner's characteristic: for example, couples in which both partners experience high jealousy may be at an especially elevated risk.

Dyadic Studies of Dating Aggression

Of the hundreds of studies examining relationship level predictors of dating aggression during young adulthood, only a handful of studies have used a dyadic framework. Dyadic analyses were conducted in a study of forty couples ages fifteen to twenty to examine how self-report and observed communication behaviors were associated with dating aggression (Paradis, Hebert, & Fernet, 2017). Surprisingly, each individual's communication behaviors were not associated with his or her own dating aggression. Findings did substantiate the role of partner effects: males' negative communication behaviors predicted females' aggression, and females' negative communication behaviors predicted males' aggression. However, this study was limited in sample size and may have been underpowered to detect all actor and partner effects.

Another recent study integrated self-report and observational data of couples to explore whether relational styles were associated with emotional dating abuse. Both male and female anxious relational styles predicted female emotional abuse; findings were mixed for male anxious relational styles and emotional abuse across methodologies. In

comparison, avoidant relational styles were not associated with emotional abuse (Goncy & van Dulmen, 2016).

Finally, dyadic correlations differed across one sided and mutually aggressive couples. Couples with one aggressive partner had higher conflict, more jealousy, and less adaptive coping than nonaggressive couples, whereas couples with mutual aggression reported higher conflict, larger deficits in emotion regulation, and lower affiliation than nonaggressive couples (Burk & Seiffge-Krenke, 2015).

The Present Study

Taken together, dyadic methodologies are clearly promising techniques for analyzing predictors of dating aggression, yet much remains to be learned. Dyadic studies examining an array of romantic qualities that have previously been associated with this phenomenon will yield a more comprehensive picture of the processes that culminate in dating aggression during this time. Accordingly, the purpose of the present study is to utilize Actor Partner Interdependence Models to examine how both partners' reports of relationship characteristics (negative interactions, support, satisfaction, jealousy, anxious & avoidant relational styles) are associated with physical dating aggression during young adulthood. Interactions between males' and females' relationship characteristics will also be analyzed. Finally, the strength of effects for males and females will be compared. For all analyses, a multi-informant outcome of dating aggression will be used, consisting of a composite of both partners' reports of the target individual's dating aggression perpetration. Such an approach is valuable because dating violence is subject to under-reporting: males and females are less likely to endorse their own aggressive behaviors in

comparison to reporting their partner's aggression (Fernandez-Gonzalez, O'Leary, & Munoz-Rivas, 2013).

The present study makes several important contributions to the field of young adult dating aggression. First, the present study adds to the very limited dyadic work on dating aggression by incorporating both partners' reports of relationship dynamics during young adulthood. As such, we will be able to determine whether aggression can be better understood by including partner reports, which has implications for conceptualizing the risk for aggression as a dyadic process. Incorporating both partners' reports is also particularly important for relationship characteristics, as males and females may have different perspectives that can have varying influences on aggression. Moreover, one of the primary purposes of the present study is to explore patterns of risk factors among combinations of individuals via actor by partner interactions, which will allow us to determine whether certain couples are at greater risk for aggression. Finally, we examine predictors for both partners' dating aggression to better understand whether similar processes culminate in male and female aggression. Results from the current study have the potential to inform prevention and intervention efforts about the nature of relationship processes that are associated with aggression. Findings could shift the focus of existing dating violence prevention programs from individuals to young couples, and inform us of which couples in particular may be at greatest risk for aggression (Capaldi & Kim, 2007).

Hypotheses. It is anticipated that each partner's perceptions of the relationship will be associated with both their own and their partner's dating aggression such that higher negative interactions (H1 & H2; actor and partner hypotheses, respectively), lower

support (H3 & H4), lower satisfaction (H5 & H6), higher jealousy (H7 & H8), higher anxious relational styles (H9 & H10), and higher avoidant styles (H11 & H12) will be associated with higher levels of aggression toward a partner. In terms of actor by partner interactions, it is expected that for couples in which both partners have high levels of relationship risk factors, the likelihood of aggression will be greater than anticipated based on main effects alone (H13). With regards to gender, differences have not consistently been found in correlates of aggression for males and females (Cascardi, Jouriles, & Temple, 2017). As there is no theoretical basis for expecting differences, gender hypotheses were not garnered.

Method

Participants. Data were drawn from a larger study of adolescent and young adult interpersonal relationships. Initial recruitment of 100 males and 100 females in their sophomore year of high school occurred in a Western metropolitan area. Brochures were distributed to students enrolled in various schools across ethnically diverse neighborhoods and letters were sent to families across a number of zip codes to obtain a diverse sample. Interested families were contacted and compensated \$25 to hear a description of the project, with the goal of selecting a quota sample with equal rates of males and females, and a distribution of racial and ethnic groups that approximated that of the United States. As many families who did not have a 10th grader were contacted, an ascertainment rate could not be determined. Among families that heard the description of the project, 85.5% expressed interest and participated in the Wave 1 assessment.

For the present study, a dyadic sample was drawn from the larger study. The average age in the present study was around 22 years old (female $M = 22.00$, $SD = 4.00$; male $M = 22.87$, $SD = 3.10$). The present study had a total of 137 dyadic reports. There were 80 dyads from Wave 5; 23 dyads from Wave 6; 11 dyads from Wave 7; and 23 dyads from Wave 8. Data were reorganized into scores for males and females and only heterosexual relationships were included in analyses ($N = 10$ individuals excluded). Within this sample, 73.7% of males and 74.3% of females identified as White, non-Hispanics, 8.8% of males and 6.6% of females identified as African American, 1.5% of males and 2.2% of females identified as Asian American, 12.4% of males and 11.8% of females identified as Hispanic, 0.7% of males and 0.7% of females identified as Native American, and 2.9% of males and 4.4% of females identified as biracial. 28.1% of the females' mothers and 31.3% of the males' mothers in the dyadic sample had a college degree.

In the present study, the average relationship length was about a year and a half long ($M = 18.34$ months, $SD = 16.87$). 63.5% of the relationships were not cohabiting relationships, whereas 36.5% were cohabiting relationships. With regards to dating aggression, 24.1% of couples endorsed male physical aggression and 33.2% endorsed female physical aggression. 88.0% of the couples that endorsed male aggression endorsed mutual aggression, and 63.0% of the couples that endorsed female aggression endorsed mutual aggression.

Procedure. The local Institutional Review Board approved of the study. Certificates of Confidentiality issued by the U.S. Department of Health and Human

Services protected the confidentiality of participants' data. Data were drawn from the first wave during young adulthood in which the participant had their romantic partner complete questionnaires as well, which included Waves 5 through 8 of the larger study. Data collection occurred every eighteen months between 2006 and 2012. In each wave, romantic partners were eligible to complete self-report questionnaires if the participant reported that the relationship was currently three months or longer. Of the participants and partners eligible to participate in young adulthood, 75.7% participated ($N = 293$), and 24.3% did not participate ($N = 94$). A series of independent samples t -tests were used to assess for differences between those whose partners participated and those whose partners did not. Comparisons demonstrated that those target participants whose partner participated self-reported more committed relationships ($t(387) = 4.37, p = .01$), higher support ($t(387) = 3.70, p = .01$), higher satisfaction ($t(387) = 3.52, p = .03$), and higher dating aggression perpetration and victimization ($t(387) = 2.14, p = .01$ and $t(387) = 2.90, p = .01$, respectively). There were no differences for relationship length, negative interactions, jealousy, anxious relational styles, or avoidant relational styles.

Measures

Support and negative interactions. Participants and romantic partners completed the Network of Relationships Inventory: Behavioral Systems Version (NRI; Furman & Buhrmester, 2009) about their current relationship. Five items assessed social support (e.g., "How much do you turn to this person for comfort and support when you are troubled about something?") and six items assessed negative interactions, conflict, and antagonism (e.g., "How much do you and this person get on each other's nerves?").

Ratings were made on a five-point scale assessing how characteristic each description was of the romantic relationship. Support and negative interaction scores were derived by averaging relevant items (M alpha = .89 & .91 respectively).

Relationship satisfaction. A version of Norton's (1983) Quality of Marriage Index was used to assess participants' and partners' satisfaction. Six items measured global relationship satisfaction (Baxter & Bullis, 1986). A sample item is, "My relationship with my boy/girlfriend makes me happy." A total satisfaction score was created by averaging all items (M alpha = .96).

Jealousy. Pfeiffer and Wong's (1989) 24-item Multidimensional Jealousy Scale measured romantic relationship jealousy for participants and their romantic partners. Questions assessed three types of jealousy, including emotional jealousy, cognitive jealousy (e.g. how often one is suspicious about their partner becoming interested in someone else), and behavioral jealousy (e.g., asking about their partner's whereabouts). All items were answered on a five point Likert scale, and the 24 items were averaged to derive a total score (M alpha = .89).

Relational styles. The Behavioral Systems Questionnaire (BSQ) measured participants' and partners' self-reported anxious, secure, and avoidant romantic relational styles (Furman & Wehner, 1999). The BSQ is similar to attachment style questionnaires, but measures intimacy and closeness with respect to caregiving, affiliation, sexuality, and attachment. Participants used five point Likert scales to rate agreement with 36 statements related to each behavioral system. Previous factor analyses of the BSQ have derived two dimensions: avoidant and anxious relational styles. As such, two scores were

calculated: (1) an avoidant style score, on which all of the dismissing items loaded positively and the secure items loaded negatively, and (2) an anxious style score, on which all of the preoccupied items loaded (M alpha = .93 for avoidant styles & .88 for anxious styles). These dimensions are similar to the avoidant and anxious dimensions in adult attachment studies (Brennan et al., 1998; Simpson, Rholes, & Nelligan, 1992).

Physical dating aggression. Dating aggression was measured using the Conflict Resolution Style Inventory, which consists of 16 items pertaining to how conflict in the relationship is handled (CRSI; Kurdek, 1994). Four items were added to the scale regarding the use of physical violence within the relationship. Participants and partners reported on their own and their partner's use of physical violence by using a seven point scale to rate how often they and their partner had each engaged in various behaviors in arguments such as "forcefully pushing or shoving", "slapping or hitting", "throwing items that could hurt", and "kicking, biting, or hair pulling." Internal consistency was satisfactory (M alpha = .83 for perpetration & .91 for victimization). Both partners' reports of an individual's aggression were used to yield male physical dating aggression perpetration (as reported by self-report of males and partner report of females, $r = .53$, $p < .05$) and female physical dating aggression perpetration (self-report of females and partner report of males, $r = .41$, $p < .05$).

Results

Preliminary and Descriptive Analyses

All variables were examined to insure that they had acceptable levels of skew and kurtosis (Behrens, 1997). Outliers were Winsorized to fall 1.5 times the interquartile

range below the 25th percentile or above the 75th percentile. Independent samples *t*-tests were used to assess for differences between non-aggressive couples and aggressive couples for all relationship characteristics. Aggressive couples reported longer relationship length (male relationship length $t(121) = 3.01, p = .003$; female relationship length $t(120) = 2.28, p = .03$). Additionally, aggressive couples reported lower male support ($t(124) = -2.30, p = .02$), higher male conflict ($t(124) = 4.20, p = .001$), higher female conflict ($t(125) = 5.46, p = .001$), higher male jealousy ($t(126) = 3.29, p = .001$), higher female jealousy ($t(126) = 4.03, p = .001$), lower male satisfaction ($t(124) = 3.14, p = .002$), lower female satisfaction ($t(126) = 3.66, p = .001$), higher male anxious relational style ($t(123) = 4.03, p = .001$), higher female anxious relational styles ($t(122) = 2.30, p = .02$), lower male avoidant relational styles ($t(123) = -3.83, p = .001$), and lower female avoidant relational styles ($t(127) = -2.98, p = .003$). There were no significant differences between non-aggressive and aggressive couples for age, relationship commitment, or female support. Means, standard deviations, and bivariate correlations are presented in Table 1.

Hypotheses were tested through a series of Actor Partner Interdependence Models (APIM; Kenny, 1996; Kenny & Cook, 1999). All APIMs were estimated via structural equation models using the MPlus 8.0 Program (Muthen & Muthen, 2012). The structural model depicted in Figure 1 was estimated for each relationship characteristic (negative interactions, support, satisfaction, jealousy, anxious relational styles, & avoidant relational styles). These models allow researchers to test actor effects while controlling for partner effects, and vice-versa (Cook & Kenny, 2005). When significant actor effects

or partner effects were found, paths for males and females were constrained to be equal to determine whether the size of the effects were the same (Garcia, Kenny, & Ledermann, 2015).

Each partner's predictor variables were standardized by grand mean centering the variable across the entire sample (Kenny & Cook, 1999). The product interaction term of actor by partner predictors was then created. Analyses of significant actor by partner interactive effects were further interpreted using Preacher, Curran, and Bauer's (2006) computational tools. The estimated effect of one partner's relationship characteristics on his/her dating aggression were plotted at three levels of their partner's characteristic: low levels of the relationship characteristic (one standard deviation below the mean), average levels (at the mean), and high levels (one standard deviation above the mean).

Negative interactions. Higher female reports of negative interactions had an actor effect on female aggression, controlling for the effects of male negative interactions on female aggression. Higher female reports of negative interactions also had a partner effect on male aggression, controlling for the effects of male negative interactions on male aggression. Males' reports of negative interactions did not have actor or partner effects on aggression. However, male and female negative interactions interacted to predict male aggression. Upon probing the interaction, none of the slopes significantly differed from zero. However, it appeared that for couples in which females reported high negative interactions, as males' reports of negative interactions increased, male aggression tended to increase (Figure 2). When females' reports of negative interactions

were average or low, as males' reports of negative interactions increased, male aggression tended to slightly decrease.

Support. Neither males' nor females' perceptions of support were related to aggression.

Satisfaction. Female satisfaction had a significant actor effect and was inversely associated with female aggression, controlling for the effect of male satisfaction on female aggression. Female satisfaction also had a partner effect and was similarly associated with male aggression, controlling for the effect of male satisfaction on male aggression. Male satisfaction was not associated with male or female aggression.

Jealousy. Higher female jealousy had an actor effect on female aggression, controlling for the effect of male jealousy on female aggression. Male jealousy had an actor effect on male aggression, controlling for the effect of female jealousy on male aggression. Female jealousy had a partner effect on male aggression, controlling for the effect of male jealousy on male aggression. Male jealousy also had a partner effect on female aggression, controlling for the effect of female jealousy on female aggression.

These main effects were qualified by the interaction between male and female jealousy, which predicted both male and female aggression (Figure 3 & Figure 4, respectively). For couples in which females had average or above average levels of jealousy, as males' levels of jealousy increased, male aggression increased ($B = 0.11$, $t(124) = 1.94$, $p < .05$ for average female jealousy & $B = 0.28$, $t(124) = 3.77$, $p < .001$ for average female jealousy). In comparison, for couples in which females had low jealousy, there were no differences in male aggression regardless of the males' level of jealousy.

Parallel patterns were found for female aggression: for couples in which males had average or above jealousy, as female jealousy increased, female aggression increased ($B = 0.21, t(124) = 3.01, p < .01$ for average male jealousy & $B = 0.38, t(124) = 4.26, p < .001$ for average male jealousy). For couples in which males had low jealousy, there were no differences in female aggression regardless of females' jealousy.

Relational styles. Male avoidant relational styles had a partner effect on female aggression such that higher avoidance was associated with higher aggression; this was found controlling for the effect of female avoidant relational styles on female aggression. Female avoidant styles had a partner effect on male aggression, such that higher avoidance was associated with higher aggression; this was found controlling for the effect of male avoidant styles on male aggression.

Female anxious relational styles had an actor effect on female aggression, controlling for the effect of male anxious relational styles on female aggression. Male anxious styles had an actor effect on male aggression, controlling for the effect of female anxious styles on male aggression. Female anxious styles also had a partner effect on male aggression, controlling for the effect of male anxious styles on male aggression. Male anxious styles had a partner effect on female aggression, controlling for the effect of female anxious styles on female aggression.

These main effects were qualified by the interaction between males' and females' anxious styles, which predicted both male and female dating aggression (Figure 5 & 6, respectively). For couples in which females have average or above average relational anxiety, as males' relational anxiety increased, male aggression increased ($B = 0.13,$

$t(124) = 2.75, p < .01$ for average male relational anxiety; $B = 0.27, t(124) = 3.81, p < .01$ for above average male relational anxiety). For couples in which females had low relational anxiety, there were no differences in levels of male aggression regardless of the males' level of relational anxiety.

Parallel patterns were found for female aggression: for couples in which males had average or above relational anxiety, as females' relational anxiety increased, female aggression increased ($B = 0.09, t(124) = 2.02, p < .05$ for average female relational anxiety; $B = 0.22, t(124) = 3.43, p < .001$ for above average female relational anxiety). For couples in which males had low relational anxiety, there were no differences in female aggression regardless of females' relational anxiety.

Gender. To compare the effects for males and females, paths for males and females were constrained to be equal in order to assess whether there was a significant decrease in model fit. If model fit decreased, gender moderated the actor and partner effects (Garcia, Kenny, & Ledermann, 2015). There were differences between the size of males' and females' effects for negative interactions and for satisfaction. Females' satisfaction and reports of negative interactions had significant effects on aggression, whereas males' characteristics were not associated with aggression ($\Delta\chi^2 = 18.23, p < .01, \Delta\chi^2 = 10.53, p < .01$ for negative interaction actor and partner effects, respectively; $\Delta\chi^2 = 6.54, p < .05$ for satisfaction actor effects).

Male actor effects were then compared to male partner effects to determine whether there were differences between the size of effects. For jealousy and anxious styles, the size of male partner effects on female aggression was larger than the male

actor effects on male aggression ($\Delta\chi^2 = 4.58, p < .05$ for male jealousy actor and male jealousy partner effects, and $\Delta\chi^2 = 7.64, p < .01$ for male anxious style actor and male anxious style partner effects). There was no significant difference between actor and male partner effects for male avoidant styles on dating aggression.

Female actor effects were then compared to female partner effects. There was a significant difference between female actor effects and female partner effects for negative interactions, such that female negative interactions actor effects were larger than the female negative interactions partner effects ($\Delta\chi^2 = 3.87, p < .05$). There were no significant differences between actor and partner effects for female anxious styles, female satisfaction, female avoidant styles, and female jealousy on dating aggression.

Discussion

Couples are composed of endless combinations of partners who each have their own perceptions of the relationship and experiences within the relationship. However, our understanding of young adult dating aggression has been founded almost entirely upon one individual's report of the relationship. At best, only half of the associations between relationship characteristics and physical aggression have been investigated. The present study therefore furthered our understanding of the relationship characteristics associated with dating aggression by simultaneously including both males' and females' reports. Although patterns vary across characteristics, findings demonstrate that each partner's reports of relationship characteristics are uniquely associated with their own and their partner's aggression. Notably, males' and females' relationship characteristics also interacted to predict aggression for jealousy, anxious styles, and negative interactions.

Contingent on the combination of partners, certain couples are at greater risk for aggression, whereas other couples appear to be buffered from the risk.

Actor and Partner Effects

Taken together, both partners' jealousy and anxious relational styles, female satisfaction, and female reports of negative interactions had significant actor and partner effects, and male and female avoidant styles had significant partner effects. Common dynamics could underlie these characteristics, such as broader relationship insecurity, lack of trust, and not getting one's needs met in the relationship, which have all been associated with aggression (Johnson et al., 2015; Petite, Knee, & Rodriguez, 2017; Rodriguez, DiBello, Overup, & Neighbors, 2015; Volz & Kerig, 2010). These characteristics may also be salient indicators of turbulent relationships that incite intense emotions, which can be difficult to manage. Such characteristics could be a marker of the type of relationships that are prone to aggression, such as relationships in which unfaithfulness has occurred or on-again off-again relationships (Giordano et al., 2010; Longmore et al., 2016). Similarly, these characteristics might all represent ineffective communication: young adult females have cited poor communication as a catalyst for aggression (Hettrich & O'Leary, 2007).

For satisfaction and negative interactions, only females' reports were associated with male and female aggression. In general, females are more aware of their relationships and tend to be relationally oriented (Acitelli, 1992; Maccoby, 1990). Females are socialized to maintain close relationships with partners, and perceptions of negative interactions or low satisfaction may indicate that females are unsuccessfully

maintaining problematic or distressing relationships (Gilligan, 1982). Research on marital quality has suggested that males are less likely to notice marital difficulties (Carstensen, Gottman, & Levenson, 1995). Females' reports are generally a more accurate indicator of the relationship quality, and such findings could extend to females' reports of satisfaction and negative interactions being more pertinent for understanding dating aggression.

Contrary to predictions, support was not associated with aggression. Previous studies have shown that aggressive relationships do not differ from nonaggressive relationships in ratings of positive qualities such as support or intimacy (Capaldi & Gorman-Smith, 2003; Giordano et al., 2010). Qualities such as support may keep individuals in relationships that would otherwise end due to negative dynamics (Giordano et al., 2010).

Regardless of the underlying mechanism, the present constellation of relationship characteristics reflects that aggression is linked to an ongoing negative relationship context characterized by jealousy, negative interactions, anxious and avoidant relational styles, and low female satisfaction (Capaldi et al., 2005). The present study adds to the limited dyadic work that has examined both males' and females' predictors of dating aggression, and is the first to examine both partners' perceptions of relationship characteristics in young adulthood. By including both partners' reports, the present study is able to disentangle the influence of males' and females' relationship characteristics on dating aggression while controlling for the influence of their partner's relationship characteristics on the corresponding outcome. A dyadic approach enables us to uncover paths within couples that may not have been previously recognized, and to better

understand the full extent of relationship dynamics surrounding young adult dating aggression. The plethora of present findings also substantiates the merits of using dyadic approaches to examine relationship predictors of dating aggression.

Another significant contribution of the present study is that a number of partner effects were found. These effects add merit to conceptualizing dating aggression as both an intrapersonal and interpersonal process: aggression results from an individual's reactions to their own perceptions of the relationship, and aggression is also an interactive process in which individuals respond to interpersonal exchanges and dynamics with partners (Paradis et al., 2017). Results have implications for the design of subsequent research and clinical work. Partner effects can help us determine whether partners who endorse certain relationship characteristics are at greater risk for experiencing aggression, which could influence intervention work focused on victims (Moffitt, Robins, & Caspi, 2001).

Actor by Partner Interactions: Combinations Of Partners

Perhaps our most interesting finding is that combinations of males and females varied in their risk for dating aggression. For jealousy and anxious relational styles, there were no differences in aggression among couples in which both partners had low levels of relationship risk factors and couples in which one partner had low levels and the other partner had average or high levels. In contrast, when couples were composed of two individuals with above average jealousy or anxious styles, there was a synergistic risk for aggression, above and beyond the simple additive main effects of each partner's level of

relationship risk. Similar patterns tended to be found for male aggression when couples were composed of two individuals with high reports of negative interactions as well.

When at least one partner has low levels of relationship risk, this could buffer or tone down the effects of having a partner high in risk (Kim, Laurent, Capaldi, & Feingold, 2008; Moffitt et al., 2001). These couples may be better able to deescalate or stop the coercive interaction cycle that is linked to dating aggression, in which partners establish maladaptive patterns of interacting with one another that perpetuate over time (Patterson, 1982). Such findings are also consistent with broader theories on adolescent delinquency, which posit that romantic relationships can be the positive impetus that facilitates desistance for at risk individuals (Sampson & Laub, 2003). Furthermore, romantic relationships are considered the forum for establishing and learning relationship skills (Connolly & McIsaac, 2009; Wincentak, Connolly, & Card, 2017). Relationships in which one partner endorses low characteristics may enable the other partner to gain competence. Comparatively, when both partners endorse high levels of these relationship characteristics, couples may instead be prone to escalating, and each partner might reciprocally provoke, reinforce, or encourage the other partner (Capaldi & Gorman-Smith, 2003; Sabourin, Infante, & Rudd, 1993; Shortt, Capaldi, Kim, & Laurent, 2010).

Thus, dating aggression differs among couples depending on the combinations of partners and the ensuing quality of the relationship that is created between two individuals. The present findings support conceptualizing aggression as a relationship specific phenomenon that depends on the perceptions of both members of a couple (Whitaker et al., 2010). There has recently been a call for a shift from emphasizing how

an individual's characteristics predict his or her own violence to conceptualizing dating violence as an interpersonal exchange that emerges between partners (Winstok, 2007). Such a shift necessitates a dyadic framework, and the present study provides an important foundation for further work.

Mutuality of Perpetration During Young Adulthood

The limited work using a dyadic framework to examine dating aggression is striking, given that mutual violence is the most common form of dating violence in couples during this time (Archer, 2000). Although the present study was unable to separate mutual aggression from one-sided aggression due to the low frequency of one-sided aggression, in general, each relationship characteristic predicted both male and female aggression. One possible explanation is that when a relationship characteristic predicts both partners' aggression, it may be indicative of mutually aggressive relationships. Likewise, for actor by partner interactions, the couples in which both partners endorse relationship risk factors may also be those couples in which both partners are aggressive, which is consistent with existing work on insecure attachment and mutual aggression (Seiffge-Krenke & Burk, 2015). Mutually aggressive couples have the least adaptive relationship functioning when compared to one-sided or non-aggressive couples (Burk & Seiffge-Krenke, 2015), and accordingly, couples in which both partners endorse relationship risk factors are those with the least adaptive functioning. Future research could use dyadic models to better understand whether profiles of relationship characteristics can distinguish between one sided and mutually aggressive relationships. For example, uneven power dynamics such as high levels of control by one partner or

high levels of dependency in the other partner could be indicative of one-sided partner aggression (Capaldi & Kim, 2007; Johnson, 1995).

Clinical Implications

Interventions focusing on dating aggression have rarely been effective (Salis & O’Leary, 2016). However, interventions focusing on the relationship characteristics associated with dating aggression could be more effective by indirectly influencing aggression and changing the relationship characteristics surrounding dating violence (Salis & O’Leary, 2016). The results from our analyses examining combinations of partners’ relationship characteristics have several interesting implications for interventions. First, one way that interventions could be effective is that for couples in which both partners have high relationship risk factors, a conjoint intervention could be implemented in which males and females learn communication skills, with the goal of reducing jealousy, negative interactions, or anxious relational styles. The PREP approach is one approach that has been associated with decreases in couples’ violence: PREP is a broadband marital enrichment program designed to improve relationship quality and communication (Markman, Renick, Floyd, Stanley, & Clements, 1993). Alternatively, another implication from the present study is that for certain relationship risk factors, if the relationship risk of even one partner is reduced, it could be sufficient to reduce the ensuing risk for violence.

Limitations and Future Directions

The current study establishes the merits of including both partners’ reports to predict physical dating aggression. However, there are several limitations. Although

relationship characteristics were examined as predictors of dating aggression, it is equally plausible that dating aggression impacts the ensuing relationship. For example, dating violence is associated with decreases in satisfaction (Shortt et al., 2010). Therefore, low satisfaction may not result in aggression, but rather, aggression may result in low satisfaction.

The present study also focused on each partner's reports of one specific relationship characteristic. Combinations of different qualities across partners may also interact with one another, such that couples in which females report low satisfaction and males report high jealousy may be at greater risk for aggression (Reese-Weber & Johnson, 2013). Additional relationship qualities could also be examined, such as power dynamics or intimacy.

One of the primary purposes of the present study was to examine relationship predictors of physical aggression. However, replicating the present models with other types of aggression, including psychological or sexual aggression, could yield interesting patterns of dyadic predictors for each type of aggression, and also shed light on common predictors. Moreover, the present study examined dating aggression in heterosexual couples. Dating aggression is also prevalent among same sex couples (Freedner, Freed, Yang, & Austin, 2002), and it will be imperative to extend dyadic approaches to understand dating aggression among LGBTQ couples.

Finally, the present study examined predictors and outcomes concurrently. Relationships change over time (Bradbury, 2002; Capaldi et al., 2005), and it will be important for future dyadic work to examine early indicators of subsequent dating

aggression. Studies could also explore how dyadic predictors vary throughout the duration of the relationship, as well as across dating, cohabitation, and marriage (Brown & Bulanda, 2008; Capaldi & Crosby, 1997).

Although much remains to be learned about dyadic predictors of dating aggression, the present study is one of the first to use Actor Partner Interdependence Models to simultaneously examine both males' and females' relationship predictors and the associations with aggression in young adulthood. The results of our study suggest that dating aggression is a relationship specific phenomenon that is contingent upon a network of dyadic processes resulting from both partners' reports. For some couples, the risk for dating aggression is attenuated by having a partner who low in risk; for other couples, the risk for aggression is heightened by both partners being at high risk. The complex patterns of actor effects, partner effects, and actor by partner interactions in the present study highlight that the whole dyadic context surrounding dating aggression is more than just the sum of the two partners' relationship characteristics.

Table 1. *Unstandardized Means, Standard Deviations, and Bivariate Correlations of Qualities & Dating Aggression.*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Age (1)	-														
M. supt(2)	-.06	-													
F. supt(3)	-.09	.39**	-												
M. neg int(4)	-.06	.02	-.13	-											
F. neg. int(5)	-.06	-.08	-.05	.53**	-										
M. jealousy(6)	-.23**	.03	.08	.35**	.27**	-									
F. jealousy(7)	-.11	-.01	.01	.31**	.49**	.21*	-								
M. sat (8)	-.01	.46**	.44**	-.50**	-.33**	-.21*	-.28*	-							

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F. sat (9)	.02	.28**	.53**	-.42**	-.50**	-.28**	-.30**	.40**	-						
M.avoid (10)	.97	-.58**	-.43**	.33**	.24**	.03	.07	-.59**	-.36**	-					
F.avoid (11)	.03	-.28**	-.63**	.26**	.16	.11	.10	-.38**	-.56**	.33**	-				
M. anx (12)	.02	-.29**	-.14	.36**	.25**	.22*	.17	-.37**	-.23**	.49**	.12	-			
F. anx (13)	.08	-.02	-.22**	.25**	.43**	.09	.49**	-.16	-.35**	.12	.30**	.21*	-		
M. aggr(14)	-.02	-.23**	-.17	.33**	.55**	.34**	.33**	-.27**	-.48**	.22*	.24**	.30**	.27**	-	
F. aggr (15)	.02	-.18*	-.14	.35**	.59**	.40**	.30**	-.30**	-.45**	.28**	.22*	.41**	.25**	.75**	-
Means (SD)	22.1 (1.9)	3.85 (.91)	3.92 (.93)	1.78 (.83)	1.68 (.72)	2.35 (.47)	2.43 (.43)	44.44 (9.92)	44.83 (11.0)	-4.02 (.44)	-4.26 (.47)	2.18 (.56)	2.24 (.65)	1.13 (.32)	1.21 (.39)

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

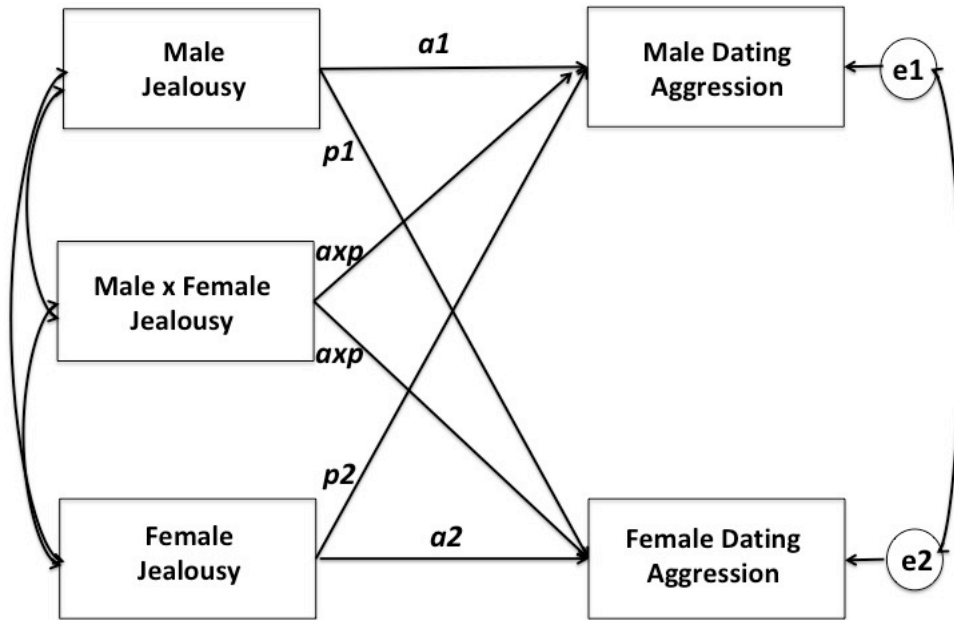
Table 2. Actor Partner Interdependence Models Examining Relationship Characteristics and Dating Aggression in Young Adult Couples

<i>Predictors:</i>	Male Predictor → Male Aggression n (a1)	Male Predictor → Female Aggression (p1)	Female Predictor → Female Aggression (a2)	Female Predictor → Male Aggression (p2)	Actor x Partner Interaction → Male Aggression	Actor x Partner Interaction → Female Aggression	Covariance between predictors
Negative Interactions	0.02	0.03	0.30 ^{***}	0.23 ^{***}	0.07 [*]	0.04	0.31 ^{***}
Support	-0.06 [†]	-0.06	-0.04	-0.04	0.03	0.04	0.30 ^{***}
Satisfaction	-0.01	-0.01	-0.01 ^{***}	-0.01 ^{***}	0.01	0.01	53.30 ^{***}
Jealousy	0.19 ^{***}	0.30 ^{***}	0.20 ^{**}	0.20 ^{**}	0.40 ^{***}	0.37 ^{**}	0.04 [*]
Anxious Relational Style	0.14 ^{**}	0.26 ^{**}	0.10 [*]	0.11 ^{**}	0.21 ^{**}	0.26 ^{**}	0.08 [*]
Avoidant Relational Style	0.11 [†]	0.21 ^{**}	0.12 [†]	0.13 [*]	0.08	0.21	0.07 ^{**}

Notes. The numbers in the table are unstandardized coefficients.

[†] $p < .10$; ^{*} $p < .05$; ^{**} $p < .01$; ^{***} $p < .001$

Figure 1. The actor-partner interdependence model (APIM) examining associations between jealousy and dating aggression.



Notes. Paths labeled a indicate actor effects and paths labeled p indicate partner effects. Paths labeled axp indicate actor by partner interactions. Double-headed arrows represent correlated variables. e_1 and e_2 represent residual (unexplained) portion of aggression.

Figure 2. Actor by partner interaction between male and female negative interactions on male aggression.

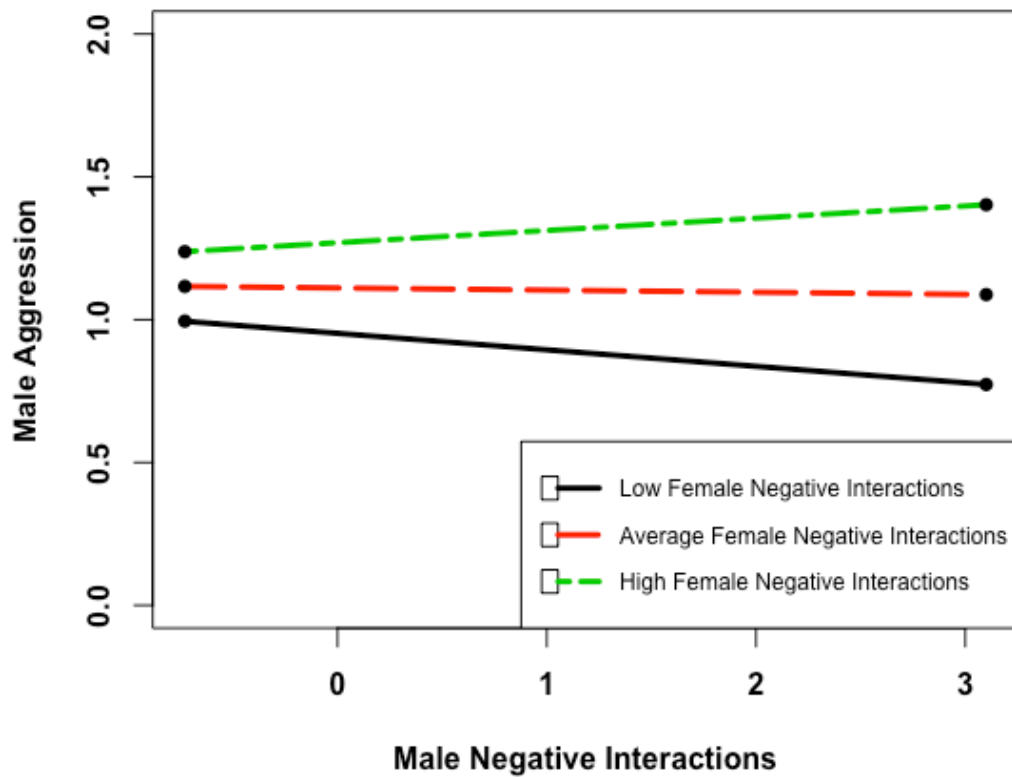


Figure 3. Actor by partner interaction between male and female jealousy on male aggression.

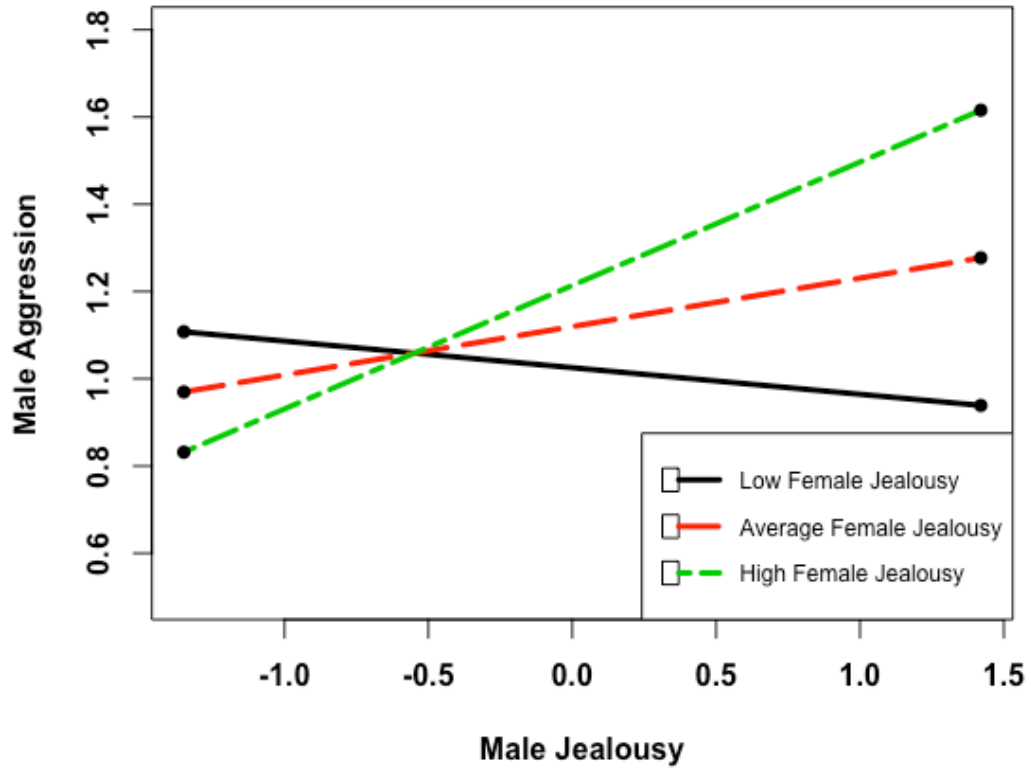


Figure 4. Actor by partner interaction between male and female jealousy on female aggression.

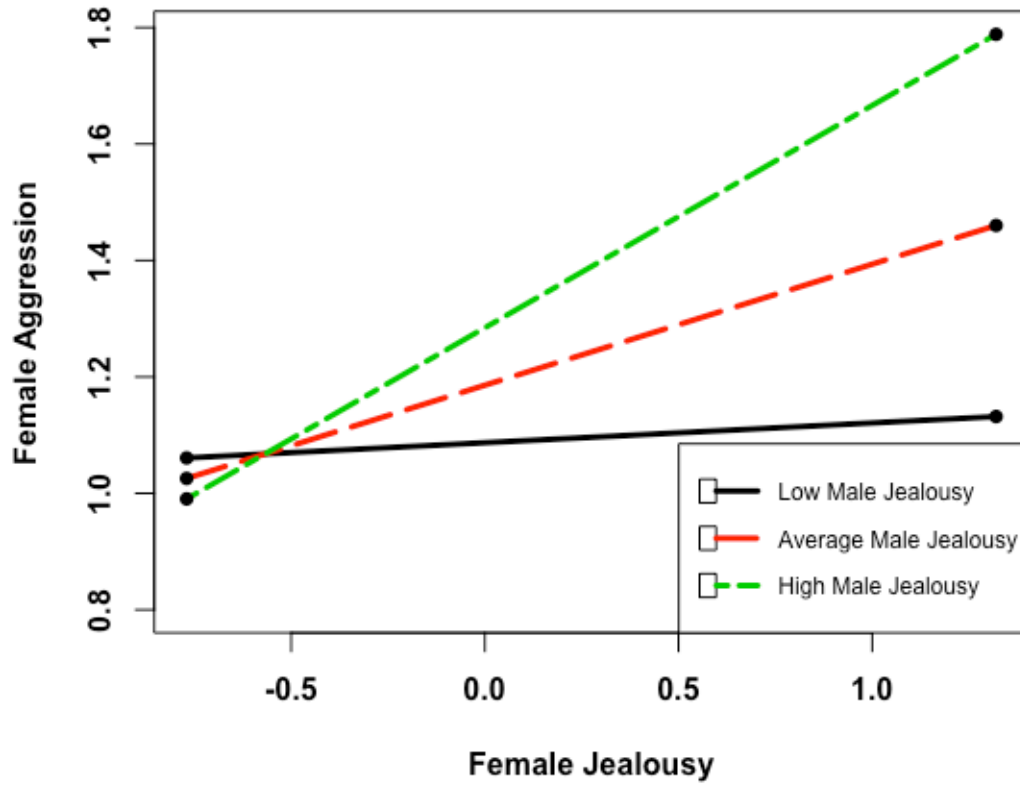


Figure 5. Actor by partner interactions between male and female anxious relational styles on male aggression.

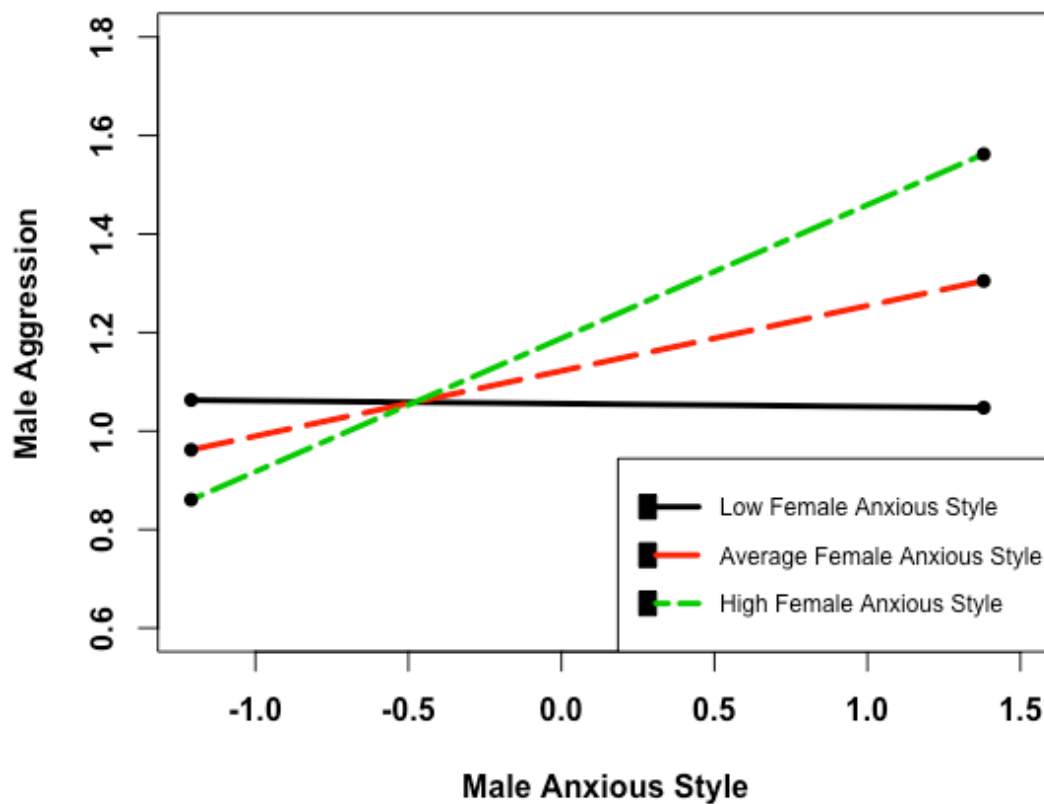
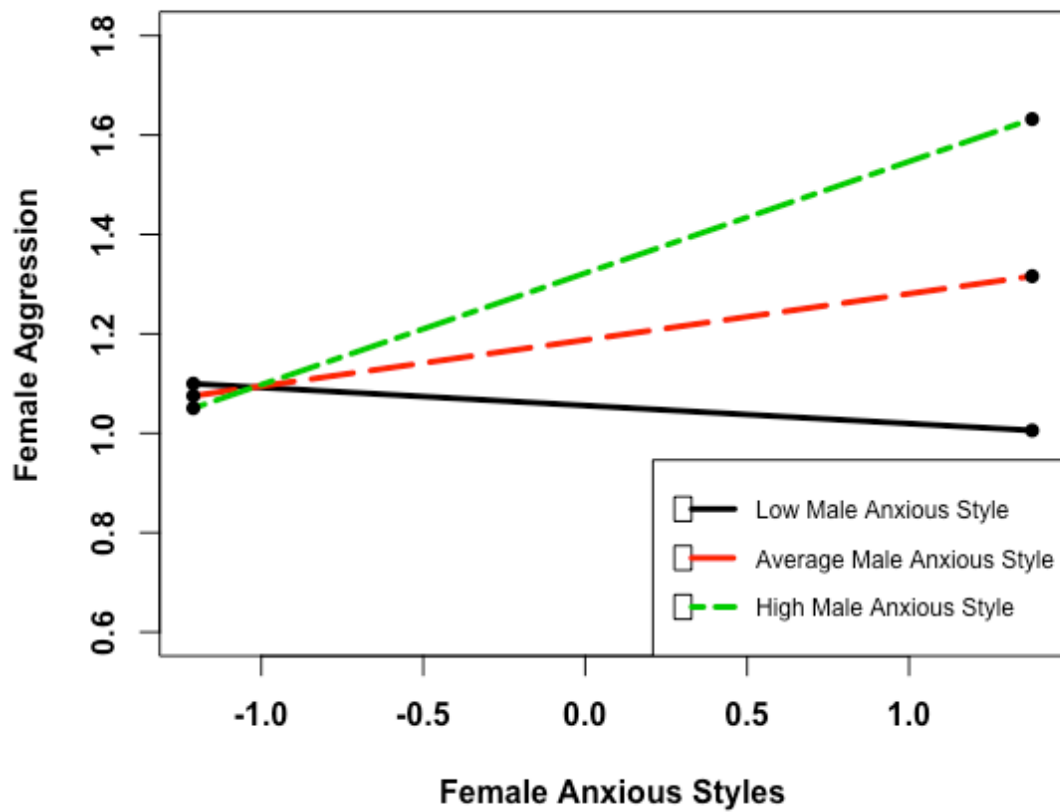


Figure 6. Actor by partner interactions between male and female anxious relational styles on female aggression.



Chapter Three: Two Sides to Every Relationship: Associations Between Psychopathology and Dating Aggression in Young Adult Couples

Abstract

Although psychopathology has been examined as a risk factor for dating aggression, very limited work has included both romantic partners' externalizing and internalizing symptoms to understand associations with aggression in young adult couples. The present study first used Actor Partner Interdependence Models (APIM; Kenny, 1996; Kenny & Cook, 1999) to examine links between male and female psychopathology and young adult dating aggression within 137 couples (*M* age = 22.44 years). Both males' and females' externalizing and internalizing symptoms were associated with aggression. Actor partner interactions also revealed that couples in which both partners have high externalizing symptoms experience higher levels of aggression. A moderation model was then tested to determine whether the effects of psychopathology on aggression depended upon a negative relationship context. Relationship risk factors interacted with male and female externalizing symptoms to generally predict female aggression, and with male and female internalizing symptoms to predict partner aggression. Results highlight the complexity of combinations of risk factors that result in dating aggression, and indicate that different pathways culminate in male and female aggression.

Dating violence has been called the dark side of romantic relationships (Seiffge-Krenke & Burk, 2015). Rates of aggression rise among adolescent couples, peak in young adult couples, and subsequently decline (Halpern et al., 2001; O’Leary, 1999). Across young adulthood, the risk for developing a mood disorder also increases (Kessler et al., 2005). Psychopathology and dating aggression can be intertwined, and there is a growing evidence base for the importance of considering psychopathology among the many risk factors for young adult dating aggression (Capaldi et al., 2012; Devries et al., 2013).

Notably, existing work on mental health risk factors has predominately focused on a single individual (Capaldi et al., 2012). However, there are two sides to every relationship. Relationships only emerge between pairs of individuals, and each partner’s characteristics shape the interpersonal context (Bartholomew & Cobb, 2011). Burgeoning research suggests that such processes are at play for dating aggression: males’ and females’ antisocial behaviors and depressive symptoms each uniquely contribute to aggression (Kim & Capaldi, 2004). By including both partners’ risk factors, aggression can be predicted above and beyond the influence of a single individual’s risk factor on his or her own aggression, yet limited work has taken such a dyadic approach in young adulthood.

The field of dating aggression research has also largely examined individual risk factors in isolation. Dating aggression is conceptualized as a multi-determined relationship behavior, and to better understand this complex phenomenon, multiple levels of risk factors, as well as the interaction between these factors, need to be considered (Foran & O’Leary, 2008; Murphy & Eckhardt, 2005). There has recently been a call for

research that furthers our understanding of dating aggression by examining moderators of established risk factors (Capaldi et al., 2012). Although individual and relationship characteristics are associated with aggression in young adult couples, existing work has rarely examined whether the effects of individual characteristics on aggression depend on the nature of the romantic relationship (Capaldi et al., 2012; Kim & Capaldi, 2004).

Given the growing salience of psychopathology and dating aggression during young adulthood, one of the primary purposes of the present study is to supplement the limited dyadic work examining both males' and females' psychopathology and dating aggression during this time. The present study also aims to extend existing research by exploring whether relationship risk factors exacerbate these associations. Results could indicate whether different pathways culminate in male and female dating aggression, and empirically inform clinical work on patterns of risk factors characteristic of high-risk couples.

The Dynamic Developmental Systems Perspective

The dynamic developmental systems perspective provides a dyadic conceptualization of aggression within young adult relationships (DDS; Capaldi et al., 2005). The perspective emphasizes that to adequately understand aggression, the roles of each partner's risk factors on their own and their partner's dating aggression must be examined simultaneously (Capaldi et al., 2012). At the core level of the perspective are the individual characteristics and behaviors that each partner brings to the relationship, such as externalizing or internalizing symptoms. The next level incorporates the relationship processes that are associated with aggression, such as conflict or jealousy.

This level includes the couple's patterns of interactions and the nature of the romantic relationship.

The dynamic developmental systems theory also posits that there can be interactions between the levels: the influence of individual characteristics on dating violence may depend upon certain relationship characteristics (Capaldi et al., 2012; Kim & Capaldi, 2004; Whitaker et al., 2010). Psychopathology is a relatively stable characteristic (Ferdinand, Verhulst, & Wiznitzer, 1995), and associations with dating violence may only become evident under stressful relationship contexts, which vary across partners and relationships (Karney & Bradbury, 1995).

Psychopathology and Dating Aggression

Two domains of psychopathology commonly associated with dating violence include externalizing symptoms and internalizing symptoms (Vezina & Hebert, 2007). First, behavior problems have been deemed one of the most important predictors of dating aggression (Magdol et al., 1997). A number of externalizing symptoms, including delinquency, antisocial behaviors, conduct problems, and general aggression are associated with dating aggression (Andrews, Foster, Capaldi, & Hops, 2000; Ehrensaft et al., 2003; Kerr & Capaldi, 2011). Externalizing symptoms are linked to higher rates of conflict in couples, and individuals with elevated symptoms use coercive and aggressive conflict resolution strategies more frequently (Capaldi & Owen, 2001; Humbad, Donnellan, Iacono, & Burt, 2010). With regards to dyadic studies, slightly discrepant patterns have been found for externalizing symptoms. In adult couples, male and female antisocial behaviors were associated with female aggression (Marshall, Jones, &

Feinburg, 2011). Among young adult couples in which the male partners were at high risk for delinquency, male and female antisocial behaviors were associated with male aggression, and female antisocial behaviors were also associated with female aggression (Kim & Capaldi, 2004).

Second, internalizing symptoms are associated with irritability, withdrawal, and perceived alienation, all of which may underlie an increased risk for aggression (Dutton & Karakanta, 2013). Longitudinal studies demonstrate that internalizing symptoms precede dating violence during young adulthood (Devries et al., 2013; Foshee, Benefield, Ennett, Bauman, & Suchindran, 2004; Roberts, Klein, & Fischer, 2003; Vezina & Hebert, 2007). Additionally, several dyadic studies have examined associations within committed relationships. For adult couples, males' depressive symptoms were associated with female aggression, and females' depressive symptoms were associated with male aggression (Marshall et al., 2011). Among stable young adult couples, females' depressive symptoms predicted male and female aggression concurrently. Males' depressive symptoms were not associated with male or female aggression concurrently, but predicted male aggression at a later time (Kim & Capaldi, 2004).

Taken together, dyadic studies have typically focused on psychopathology and dating aggression exclusively among adult couples that were cohabiting (Marshall et al., 2011) or among young adult couples that had lasting relationships (Kim & Capaldi, 2004). During young adulthood, dating violence often culminates in breakups, on-again-off-again dynamics, and relationship instability (Halpern-Meehin, Manning, Giordano, & Longmore, 2013; Rhoades, Kamp-Dush, Atkins, Stanley, & Markman, 2011). It will

therefore be informative to supplement existing work by examining patterns among less established young adult couples.

Relationship Characteristics

In young adulthood, numerous relationship characteristics have been implicated as risk factors for aggression, ranging from support to conflict (see Capaldi et al., 2012, for review). In another study using the same dataset as the present study, the dyadic effects of males' and females' relationship characteristics on dating aggression were examined (Lantagne, 2018). Several characteristics predicted both male and female aggression: males' and females' anxious relational styles and jealousy were linked to both partners' aggression. There were gender differences for other characteristics, and only female satisfaction and female reports of negative interactions were associated with male and female aggression. Finally, each individual's avoidant style was associated with his or her partner's aggression.

Relationship risk factors are clearly relevant during young adulthood. Moreover, theoretical models conceptualize dating violence as not just arising from an individual's own risk factors, but rather as culminating from an interplay between the individual's characteristics and the environment (Stith et al., 2004). Specifically, the Vulnerability Stress Adaptation Model (VSA; Karney & Bradbury, 1995) theorizes that vulnerable individuals who also experience stressful relationships are most likely to have poor relationship outcomes. Associations between psychopathology and dating aggression may accordingly be strongest in challenging or stressful relationship contexts, and the

intersection of multiple risk factors could cause a tipping point in which violence becomes increasingly more likely (Foran & O'Leary, 2008).

Only a few studies have explored relationship characteristics in the role of moderators between psychopathology and aggression. Although different individual vulnerabilities and relationship dynamics are examined across the studies, each study used a vulnerability-stress lens to examine associations with aggression. In married couples, husbands' hostility, an individual vulnerability, interacted with marital distress to predict partner abuse only for highly distressed couples (Leonard & Senchak, 1993). In adult couples, hostility, antisocial behaviors and depressive symptoms interacted with conflict to predict violence (Marshall et al., 2011). Finally, for couples in college, depression interacted with lower perceived relationship bond to predict aggression (Woodin, Caldeira, & O'Leary, 2013).

In sum, very limited work has examined interactions across levels of risk factors, particularly during young adulthood. It would be interesting to explore whether an array of relationship risk factors, including negative interactions, jealousy, relational styles, satisfaction, and support, moderate associations between psychopathology and aggression in young adult couples. If various combinations of predictors are associated with each partner's aggression, it would suggest that different pathways are at play for male and female aggression.

Actor Partner Interdependence Models (APIM)

Modern statistical methodologies, such as the Actor Partner Interdependence Model (APIM; Kenny, 1996; Kenny & Cook, 1999), enable researchers to employ a dyadic approach to dating aggression. In APIMs, an actor effect determines how much each individual's own characteristics influences his or her aggression. For example, an actor effect measures the links between a female's internalizing symptoms and her aggression. Partner effects are relational effects reflecting that one partner's individual characteristic is associated with their partner's aggression, and measure interdependence (Cook & Kenny, 2005). An example of a partner effect is the association between female internalizing symptoms and male aggression. APIMs also enable researchers to compare the strength of effects across partners. It has been posited that the effects of psychopathology on dating violence may be stronger for females because there are effects for female depression on dating violence, but no effects for male depression (Kim & Capaldi, 2004). However, males' and females' effects have never been formally contrasted to determine if the differences are in fact significant (Ackerman, Donnellan & Kashy, 2011).

Actor partner interactions are another integral feature of dyadic models (Ackerman et al., 2011). Young adults with affective disorders tend to couple with others who have affective disorders (Kim & Capaldi, 2004; Merikangas, 1982). Actor partner interactions take into account the interplay between males' and females' risk factors, and assess whether certain combinations of partners may be at greater risk for dating aggression. For example, if both males and females have high internalizing symptoms,

then the couple may be at an especially elevated risk for aggression (Figure 1). Existing work has found additive effects of each partner's psychopathology on dating aggression rather than multiplicative interaction effects (Kim & Capaldi, 2004). However, existing work that has examined interactions between partners' psychopathology on dating violence has largely been underpowered.

Additionally, other moderator effects can be incorporated into dyadic models as well. The size of actor and partner effects might vary according to the presence of third variables (Garcia et al., 2015). The presence of psychopathology does not inevitably result in dating aggression: some individuals with elevated levels of internalizing or externalizing symptoms never engage in aggression. Among those who do experience elevated psychopathology and engage in dating aggression, aggression is not necessarily ubiquitous across all of their relationships. The link between psychopathology and dating aggression may only become evident under negative relationship contexts, revealing several critical points for intervention (Roche, Runtz, & Hunter, 1999).

The Present Study

One of the primary goals of the present study is to supplement the limited existing work using a dyadic perspective to examine associations between psychopathology and aggression in young adult couples. As such, Actor Partner Independence Models (APIMs) will first be used in our community sample to determine associations between each partner's externalizing and internalizing symptoms and physical dating aggression. Each partner's effects will be compared to ascertain if the impact of psychopathology on aggression is stronger for females than males. The present study will also assess whether

there is an interaction between male and female psychopathology. Finally, the present study will take a novel approach by exploring whether relationship characteristics, including negative interactions, jealousy, relational styles, satisfaction, and support, moderate associations between psychopathology and aggression.

Regardless of the patterns of risk factors at play, it is important to note that the present study aims to better understand the interpersonal context in which aggression unfolds. Much like research on victims of bullying or crime, results are not meant to blame the victim (Moffitt et al., 2001). Rather, it is hoped that findings can inform intervention work with both perpetrators and victims about the individual vulnerabilities, particular relationship features, and patterns of interactions between partners that may increase the likelihood of experiencing dating violence.

Hypotheses. It is anticipated that individuals with high levels of externalizing symptoms will have higher dating aggression (actor effects; H1). It is also anticipated that high partner externalizing symptoms will predict the target individual's dating aggression (partner effects; H2). Parallel hypotheses are posited for associations between internalizing symptoms and aggression (H3 & H4). Consistent with existing literature (Kim & Capaldi, 2004), the effects of female psychopathology on male and female aggression are expected to be stronger than the effects of male psychopathology on aggression (H5). It is also expected that female and male psychopathology will interact and predict dating aggression above and beyond the main effects of each person's symptoms, such that couples that have two partners with high psychopathology will be at increased likelihood for aggression (H6).

Subsequently, we will examine whether a number of relationship risk factors moderate associations between psychopathology and aggression. It is anticipated that the associations between psychopathology and dating aggression will be strongest when individuals endorse negative relationship characteristics (H7; high negative interactions, jealousy, anxious relational styles, avoidant relational styles, and low satisfaction, low support).

Method

Participants. Participants were part of a larger longitudinal study examining the role of adolescent and young adult interpersonal relationships on psychosocial adjustment. Two hundred 10th graders (100 males; 100 females) were recruited from a high school in a Western metropolitan area. In order to obtain a diverse sample, letters were sent to families across a number of zip codes and brochures were distributed to students enrolled in various schools across ethnically diverse neighborhoods. Interested families were contacted and compensated \$25 to hear a description of the project, with the goal of selecting a quota sample with a distribution of racial and ethnic groups that approximated that of the United States and had equal rates of males and females. As many families were contacted who did not have a 10th grader, an ascertainment rate could not be determined. Among the families that heard the description of the project, 85.5% expressed interest and participated in the Wave 1 assessment.

The present study utilized 137 dyadic reports from the larger study. There were 80 dyads from Wave 5; 23 dyads from Wave 6; 11 dyads from Wave 7; and 23 dyads from Wave 8. Data were reorganized into scores for males and females, and only heterosexual

relationships were included ($N = 10$ individuals excluded). Within this sample, males and females were on average around 22 years old (female $M = 22.00$, $SD = 4.00$; male $M = 22.87$, $SD = 3.10$). 73.7% of males and 74.3% of females identified as White, non-Hispanics, 8.8% of males and 6.6% of females identified as African American, 1.5% of males and 2.2% of females identified as Asian American, 12.4% of males and 11.8% of females identified as Hispanic, 0.7% of males and 0.7% of females identified as Native American, and 2.9% of males and 4.4% of females identified as biracial. 28.1% of the females' mothers and 31.3% of the males' mothers in the sample had a college degree.

In terms of relationships, 63.5% of the couples in the present study were not cohabiting, and 36.5% were cohabiting. The average relationship length was about a year and a half long ($M = 18.34$ months, $SD = 16.87$). 24.1% of couples endorsed male physical perpetration and 33.2% endorsed female perpetration. 88.0% of the couples that reported male aggression and 63.0% of the couples that reported female aggression reported mutual aggression.

Procedure. The local Institutional Review Board approved of the study. Certificates of Confidentiality issued by the U.S. Department of Health and Human Services protected the confidentiality of participants' data. Data were drawn from the first wave during young adulthood (Waves 5 to 8) in which the participant had a romantic partner complete the questionnaires as well. Data were collected every eighteen months between 2006 and 2012. Romantic partners were eligible to complete self-report questionnaires if the participant reported that the relationship was currently three months or longer. 75.7% of the eligible dyads participated ($N = 293$), and 24.3% did not

participate ($N = 94$). Independent samples t -tests were used to assess for differences between the participants whose partner participated and those whose partner did not. Those whose partner participated self-reported more committed relationships ($t(387) = 4.37, p = .01$), higher support ($t(387) = 3.70, p = .01$), higher satisfaction ($t(387) = 3.52, p = .03$), and more dating violence perpetration and victimization ($t(387) = 2.14, p = .01$ and $t(387) = 2.90, p = .01$, respectively). There were no differences for internalizing and externalizing symptoms, negative interactions, jealousy, anxious relational styles, or avoidant relational styles.

Measures

Externalizing and internalizing symptoms. Participants and romantic partners completed 75 items from the Adult Self-Report (Achenbach, 1997). Externalizing symptoms included two subscales, aggression and delinquency. Internalizing symptoms were composed of three subscales including anxiety, depression/withdrawal, and somatic symptoms. Externalizing and internalizing scores were derived by averaging the relevant items (M alpha = .82 for externalizing & M alpha = .88 for internalizing).

Support and negative interactions. Participants and partners completed the Network of Relationships Inventory: Behavioral Systems Version (NRI; Furman & Buhrmester, 2009) about their relationship. Five items measured social support (e.g., “How much do you turn to this person for comfort and support when you are troubled about something?”) and six items measured negative interactions, criticism, and antagonism (e.g., “How much do you and this person get on each other’s nerves?”).

Support and negative interaction scores were derived by averaging relevant items (M alphas = .89 & .91 respectively).

Relationship satisfaction. A version of Norton's (1983) Quality of Marriage Index assessed relationship satisfaction for both participants and partners. Six items assessed overall relationship satisfaction (Baxter & Bullis, 1986). A sample item is, "My relationship with my boy/girlfriend makes me happy." The average of all items was used to yield a total satisfaction score (M alpha = .96).

Jealousy. Pfeiffer and Wong's (1989) 24-item Multidimensional Jealousy Scale measured cognitive jealousy (e.g. how often one is suspicious about their partner becoming interested in someone else), emotional jealousy, and behavioral jealousy (e.g., asking about the partner's whereabouts) for participants and partners. All items were answered on a five point Likert scale, and the 24 items were averaged to derive a total score (M alpha = .89).

Relational styles. The Behavioral Systems Questionnaire (BSQ) measured participants' and partners' self-reported anxious, secure, and avoidant romantic relational styles (Furman & Wehner, 1999). Similar to attachment style questionnaires, the BSQ measures attachment, as well as intimacy and closeness with respect to caregiving, affiliation, and sexuality. Participants used five point Likert scales to rate agreement with 36 statements related to each behavioral system. Previous factor analyses of the BSQ have derived two dimensions: avoidant and anxious relational styles. As such, two scores were calculated: (1) an avoidant style score, on which all the dismissing items loaded positively and the secure items loaded negatively, and (2) an anxious style score, on

which all the preoccupied items loaded (M alphas = .93 for avoidant styles & .88 for anxious styles). These dimensions are similar to the avoidant and anxious dimensions in adult attachment studies (Brennan et al., 1998; Simpson et al., 1992).

Physical dating aggression. The Conflict Resolution Style Inventory consists of 16 items pertaining to how conflict in the relationship is handled (CRSI; Kurdek, 1994). Four items were added to the scale regarding the use of physical violence within the relationship. Participants and romantic partners each reported on their own and their partner's use of physical violence using a seven point scale to rate how often each partner had each engaged in various behaviors in arguments, such as "forcefully pushing or shoving", "slapping or hitting", "throwing items that could hurt", and "kicking, biting, or hair pulling" (M alpha = .82 for perpetration & .91 for victimization). As dating violence is often under-reported in young adulthood (Cui, Lorenz, Conger, Melby, & Bryant, 2005; Riggs & Kaminski, 2010), both partners' reports of an individual's perpetration were used to yield male physical dating aggression perpetration (as reported by self-report of males and partner report of females, $r = .53, p < .05$) and female physical perpetration (self-report of females and partner report of males, $r = .41, p < .05$).

Results

Each variable was examined to insure that it had acceptable levels of skew and kurtosis (Behrens, 1997). All outliers were Winsorized to fall 1.5 times the interquartile range below the 25th percentile or above the 75th percentile. Means, standard deviations, and bivariate correlations are presented in Table 1. Paired samples t -tests were used to compare male and female psychopathology. Males had higher externalizing symptoms

than females, $t(125) = 3.05, p = .002$, and females had higher internalizing symptoms than males, $t(125) = 1.99, p = .01$. Independent samples t -tests were used to compare aggressive and non-aggressive couples on psychopathology. Aggressive couples had higher male externalizing symptoms ($t(132) = 4.15, p = .001$), higher female externalizing symptoms ($t(132) = 3.79, p = .001$), higher male internalizing symptoms ($t(132) = 2.32, p = .02$), and higher female internalizing symptoms ($t(132) = 3.05, p = .001$).

Actor Partner Interdependence Models for Psychopathology

All hypotheses were tested through Actor Partner Interdependence Models via a series of structural equation models using the MPlus 8.0 Program (Muthen & Muthen, 2012). These models allow researchers to test actor effects while controlling for partner effects, and vice-versa (Cook & Kenny, 2005). Each individual's predictor variables were standardized by grand mean centering the variable across the entire sample (Kenny & Cook, 1999). The structural model depicted in Figure 1 was first estimated for externalizing symptoms and then for internalizing symptoms.

Higher externalizing symptoms were associated with aggression. Specifically, male externalizing symptoms had an actor effect on male aggression, controlling for the effect of female externalizing symptoms on male aggression; and female externalizing symptoms had an actor effect on female aggression, controlling for the effect of male externalizing symptoms on female aggression. Male externalizing symptoms had a partner effect on female aggression as well, controlling for the effect of female externalizing symptoms on female aggression.

Similarly, higher internalizing symptoms were also associated with higher aggression. Male internalizing symptoms had an actor effect on male aggression, controlling for the effect of female internalizing symptoms on male aggression; and female internalizing symptoms had an actor effect on female aggression, controlling for the effects of male internalizing symptoms on female aggression. Male internalizing symptoms also had a partner effect on female aggression, controlling for the effects of female internalizing symptoms on female aggression; and female internalizing symptoms had a partner effect on male aggression, controlling for the effects of male internalizing symptoms on male aggression (see Table 2).

Paths for males and females were constrained to be equal to determine whether the effects were the same magnitude (Garcia et al., 2015). The effect of male externalizing symptoms on male aggression was larger than the effect of female externalizing symptoms on male aggression, $\Delta\chi^2(1) = 4.91, p < .05$. The effect of male externalizing symptoms on female aggression was also larger than the effect of male externalizing symptoms on male aggression, $\Delta\chi^2(1) = 6.38, p < .05$. In comparison, for females, the effect of female externalizing symptoms on female aggression was larger than the effect of female externalizing symptoms on male aggression, $\Delta\chi^2(1) = 6.98, p < .05$. There were no differences in the size of actor or partner effects for male and female internalizing symptoms, or actor effects for externalizing symptoms.

Assortative Mating & Actor Partner Interactions

There was an association between male and female externalizing symptoms ($r = .29, p = .01$) and between male and female internalizing symptoms ($r = .24, p = .01$),

indicative of assortative mating. The product terms of actor by partner effects (male by female externalizing symptoms or male by female internalizing symptoms) were also examined to determine whether partner characteristics moderated associations between psychopathology and aggression. Significant interactions were interpreted using Preacher et al.'s (2006) computational tools. The estimated effect of one individual's psychopathology on his/her dating aggression was plotted at three levels of their partner's psychopathology: low levels (one standard deviation below the mean), average levels (at the mean), and high levels (one standard deviation above the mean).

There were no interactions between male and female internalizing symptoms on dating aggression. However, male and female externalizing symptoms interacted to predict both male and female aggression. For couples in which females have low externalizing symptoms, there were no differences in male aggression regardless of the level of male externalizing symptoms. For couples in which females have average or high externalizing symptoms, as male externalizing symptoms increased, male aggression increased (Figure 2; $B = 0.39$, $t(119) = 3.27$, $p < .001$ for average female externalizing; $B = 0.62$, $t(119) = 4.02$, $p < .001$ for above average female externalizing). Likewise, for couples in which males had low externalizing symptoms, there were no differences in female aggression regardless of the level of female externalizing symptoms. For couples in which males had average or above average externalizing symptoms, as female externalizing symptoms increased, female aggression increased (Figure 3; $B = 0.42$, $t(119) = 3.09$, $p < .01$ for average male externalizing; and $B = 0.84$, $t(119) = 4.50$, $p < .001$ for high male externalizing).

Relationship Characteristics as Moderators

Relationship characteristics were then examined as moderators of the associations between psychopathology and dating aggression. Product interaction terms were created for psychopathology and each relationship variable: 1) female externalizing (or internalizing) symptoms by female relationship characteristic, and 2) male externalizing (or internalizing) symptoms by male relationship characteristic. Both female and male interaction terms were simultaneously included as predictors in models of female and male aggression, alongside the corresponding main effects.

Female externalizing symptoms. Female satisfaction and jealousy interacted with female externalizing symptoms to predict female aggression (see Table 2). For females with low satisfaction, as externalizing symptoms increased, female aggression increased. For females with average or high satisfaction, there were no differences in female aggression, regardless of externalizing symptoms. In terms of jealousy, for females with low or average levels of jealousy, there were no differences in female aggression regardless of female externalizing symptoms. For females with high jealousy, as female externalizing symptoms increased, female aggression increased.

Male externalizing symptoms. Male satisfaction and jealousy interacted with male externalizing symptoms to predict female aggression. Males' reports of negative interactions and anxious styles interacted with male externalizing symptoms to predict both female and male aggression as well.

First, for males with low or average satisfaction, as male externalizing symptoms increase, female aggression increased. For males with high satisfaction, there were no

differences in female aggression, regardless of male externalizing symptoms. Next, for males with low jealousy, there were no differences in female aggression, regardless of male externalizing symptoms. For males with average or high jealousy, as externalizing symptoms increased, female aggression increased.

In terms of anxious styles, there were no differences in female aggression for males with low anxious styles, regardless of male externalizing symptoms. For males with average or high anxious styles, as externalizing symptoms increased, female aggression increased. Similarly, for males with low or average anxious styles, there were no differences in male aggression regardless of male externalizing symptoms. For males with high anxious styles, as externalizing symptoms increased, male aggression increased.

Finally, for males with low reports of negative interactions, there were no differences in female aggression, regardless of male externalizing symptoms. For males who endorsed average or high negative interactions, as males' externalizing symptoms increased, female aggression increased. Similarly, for males with low reports of negative interactions, there were no differences in male aggression, regardless of male externalizing symptoms. However, for males who endorsed average or high reports of negative interactions, as externalizing symptoms increased, male aggression increased.

Female internalizing symptoms. Female satisfaction and avoidant relational styles interacted with female internalizing symptoms to predict male dating aggression. For females with low satisfaction, as female internalizing symptoms increased, male aggression increased. For females with average or above average satisfaction, there were

no differences in male aggression, regardless of the level of female internalizing symptoms. Next, for females with low avoidant styles, there were no differences in male aggression, regardless of female internalizing symptoms. However, for females with average or above average avoidant styles, as female internalizing symptoms increased, male aggression increased.

Male internalizing symptoms. Male satisfaction, jealousy, and anxious relational styles interacted with male internalizing symptoms to predict female aggression. Males' reports of negative interactions interacted with male internalizing symptoms to predict female and male aggression as well.

First, for males with low or average satisfaction, as internalizing symptoms increased, female aggression increased. For males with high satisfaction, there were no differences in female aggression regardless of internalizing symptoms. Second, for males with low jealousy, there were no differences in female aggression regardless of male internalizing symptoms. However, for males with average or high jealousy, as male internalizing symptoms increased, female aggression increased. Third, for males with low or average anxious styles, there were no differences in female aggression regardless of male internalizing symptoms. For males with high anxious styles, as internalizing symptoms increased, female aggression increased.

Finally, for males with low reports of negative interactions, there were no differences in female aggression, regardless of male internalizing symptoms. However, for males with average or high reports of negative interactions, as male internalizing symptoms increased, female aggression increased. Similarly, there were no differences in

male aggression for males with low reports of negative interactions, irrespective of male internalizing symptoms. However, for males with average or high reports of negative interactions, as male internalizing symptoms increased, male aggression also increased.

Discussion

The present study is among the first to examine male and female psychopathology and dating aggression in young adult couples. Results demonstrate that both partners' levels of psychopathology are associated with their own and their partner's aggression. Characteristics of the romantic partner were then examined as moderators of the associations between psychopathology and aggression. Male and female externalizing symptoms interacted to predict both partners' aggression, suggesting that particular combinations of partners are at greater risk. The present study is also novel in exploring whether characteristics of the romantic relationship moderate associations between psychopathology and aggression. Findings provided clarifying information regarding the intersection between individual and relationship characteristics that increase the risk for aggression. Relationship characteristics interacted with externalizing symptoms to generally predict female aggression, and relationship characteristics interacted with internalizing symptoms to predict partner aggression. In sum, present findings align with the notion that the risk for young adult dating aggression is dynamic and dyadic, depending on both partners' psychological functioning as well as the nature of the current relationship (Collibee & Furman, 2018; Moffitt et al., 2001).

Psychopathology and Dating Aggression

One goal of the present study was to supplement the limited work examining psychopathology and aggression within young adult couples. Existing studies have shown that both partners' externalizing symptoms predict male aggression, and that female externalizing symptoms predict female aggression. In comparison, present findings are almost a mirror image: males' externalizing symptoms predict male aggression, and both partners' externalizing symptoms predict female aggression. Additionally, whereas existing work has shown that only females' depressive symptoms predicted male aggression (Kim & Capaldi, 2004), present findings indicate that both partners' internalizing symptoms are associated with male and female aggression.

The present study may have found a different pattern of associations for externalizing symptoms and more associations for internalizing symptoms due to greater variability in psychopathology and a wider range of symptoms among the couples in our community sample. In comparison, existing work on young adults has focused on the relationships of high-risk young adult males. The characteristics of romantic partners may play a different role in such high-risk samples. Despite slight differences in the patterns of results, past work, alongside present findings, demonstrate that both partners' externalizing and internalizing symptoms are risk factors for male and female dating aggression. Findings add support to the merits of using a dyadic perspective to appreciate the full network of associations between each partner's individual risk factors and dating aggression.

Partner Characteristics and Relationship Characteristics as Moderators

Dating aggression is conceptualized as a behavior that results from unskilled relationship processes, such as poor problem solving (Capaldi et al., 2005). We examined combinations of partners and expected that aggression would be highest among couples in which both partners had high levels of psychopathology. We then examined interactions between individual and romantic relationship characteristics, with the idea that relationship characteristics can exacerbate associations between psychopathology and aggression (Capaldi et al., 2012; Karney & Bradbury, 1995).

Assortative partnering & actor partner interactions. In the present study, assortative partnering was found for externalizing and internalizing symptoms, reflecting that young adults pair with partners who have similar levels of psychopathology. Assortative partnering suggests that there are proportionately more pairs of individuals who both have high levels of psychopathology than would be expected by chance. Such findings suggest that young adults can pair in a manner such that mental health risk factors can be reinforced or even exacerbated (Andrews et al., 2000; Quinton, Pickles, Maughan, & Rutter, 1993), and highlight the importance of examining both partners' individual risk factors.

Assortative partnering has noteworthy implications for dating aggression. Indeed, the present study found that both partners' externalizing symptoms interacted to predict male and female aggression, and that rates of aggression are highest when both partners have high levels of externalizing symptoms. Hostile and aggressive patterns of interacting may be more prevalent and prolonged for these couples, as both partners could have

lower impulse control and emotion regulation abilities (Keenan-Miller, Hammen, & Brennan, 2007; Kim et al., 2008). Conversely, when one partner has low externalizing symptoms, there were no differences in aggression regardless of their partner's symptoms. For such couples, the effects of externalizing symptoms on aggression are mitigated. Findings are consistent with existing work, which has found that if an individual pairs with a normative partner, adaptive functioning improves, whereas if an individual couples with a deviant partner, maladaptive functioning ensues (Pickles & Rutter, 1991; Quinton et al., 1993). Therefore, for problem behaviors, prevention work focused on couples may be particularly beneficial.

Interactions between externalizing symptoms and relationship

characteristics. The present study moved from examining characteristics of the partner as moderators to examining characteristics of the relationship as moderators of the associations between psychopathology and dating aggression. For males, satisfaction and negative interactions interacted with externalizing symptoms to predict male aggression. For females, satisfaction and jealousy interacted with externalizing symptoms to predict female aggression. Anger, impulsivity, and difficulties with self-regulation are vulnerabilities associated with externalizing symptoms, which in combination with negative relationship characteristics could culminate in aggression (Reyes, Foshee, Tharp, Ennett, & Bauer, 2015). For individuals with externalizing symptoms, the propensity towards aggression is high, and when combined with low satisfaction, high conflict, or high jealousy, there may be a tipping point in which the impulse for aggression exceeds inhibition.

Additionally, a number of male relationship characteristics, including satisfaction, jealousy, negative interactions, and anxious styles, interacted with externalizing symptoms to predict female aggression. In general, low satisfaction, high jealousy, high anxious styles, and high conflict are all indices of relationship insecurity. Relationships in which males experience higher insecurity and externalizing behaviors may cultivate a particularly taxing interpersonal context, which could be associated with higher levels of female aggression. The presence of such relationship dynamics may challenge the use of effective communication strategies within the dyad as well. Females have reported that one of the most pervasive explanations for their own dating aggression is to show anger (Makepeace, 1986; O'Keefe, 1997), which may be particularly salient in such relationships.

Interactions between internalizing symptoms and relationship characteristics. The present study also examined interactions between internalizing symptoms and relationship characteristics in predicting aggression. Consistent with existing literature, internalizing symptoms predicted partner aggression, an association that was most pronounced in the presence of negative relationship characteristics (Longmore, Manning, Giordano & Copp, 2014). Female satisfaction and avoidant styles interacted with internalizing symptoms to predict male aggression. Male satisfaction, anxious styles, jealousy, and reports of negative interactions interacted with internalizing symptoms to predict female aggression. One explanation is that internalizing symptoms may impede an individual's sense of self-efficacy and self-worth (Sharpe & Taylor, 1999; Vezina & Hebert, 2007), increasing the odds of entering into or remaining in an

unhealthy relationship in which aggression is more likely (Cleveland et al., 2003). Studies suggest that individuals who feel depressed or isolated often stay in poor relationships to avoid losing the connection with another person (Vicary, Klingaman, & Harkness, 1995). Internalizing symptoms can also impact the skills needed to end an unhealthy relationship (Cleveland et al., 2003; Longmore et al., 2014).

Additionally, because internalizing symptoms can impair interpersonal skills, smaller conflicts can more readily escalate (Longmore et al., 2014). Internalizing symptoms shape communication and conflict behaviors, and the constellation of relationship characteristics that moderate associations with aggression may reflect common catalysts for conflict (Riggs & O'Leary, 1989). Among couples in which one partner has high internalizing symptoms, romantic interactions are rated by objective outsiders as being globally more negative, displaying more frequent hostility, irritability, negative affect, negative communication behaviors, and lower levels of affection (McCabe & Gotlib, 1993). These behaviors may be more pronounced when negative relationship characteristics are also present. Interestingly, the associations between relationship characteristics and partner aggression have also been shown to be strongest in serious relationships (Cleveland et al., 2003). One reason may be that characteristics such as satisfaction, jealousy, negative interactions, and relational styles may become more salient in serious relationships.

Gender and Pathways to Dating Aggression

Existing work suggests that male aggression is better predicted by individual characteristics, or contextual factors, whereas female aggression is more closely linked

with relationship variables, or situational factors (Marshall et al., 2011; O’Keefe, 1997). Present findings muddle these distinctions, demonstrating that different combinations of individual vulnerabilities and relationship characteristics are associated with both male and female aggression. Ten interactions between psychopathology and characteristics predicted female aggression, whereas five interactions between psychopathology and characteristics predicted male aggression. The discrepant relationship characteristics that interact with externalizing and internalizing symptoms suggest that somewhat different pathways result in male and female dating aggression, which is consistent with literature highlighting that different factors are implicated for male versus female aggression (Arias, Samios, & O’Leary, 1987; Riggs, O’Leary, & Breslin, 1990). Findings also suggest that not all individuals who experience psychopathology are involved in aggressive relationships. Rather, consistent with a theory of multi-finality (Cicchetti & Rogosch, 1996), there are complex combinations of relationship risk factors and psychopathology that culminate in both partners’ aggression, and which appear to be relatively more salient for understanding female dating aggression.

Interestingly, although there were a number of gender differences among predictors, there were also some gender similarities for male and female aggression. For both males and females, satisfaction was the one pervasive relationship characteristic that interacted with male externalizing and internalizing symptoms and female externalizing and internalizing symptoms to predict male and female aggression. This may be a particularly relevant characteristic to focus on, as psychopathology can impact an individual’s perceptions of the relationship quality. For example, individuals with

depression tend to perceive their partner's behaviors through a negative lens (Crick & Dodge, 1994), which could be associated with decreased satisfaction. Satisfaction could also be an accurate indicator of the overall nature of the relationship, and it may concisely reflect the array of other negative relationship characteristics.

Dating Violence as a Dynamic Risk

Taken together, interactions between individual and relationship risk factors highlight the interplay across multiple levels of the dynamic developmental systems theory (Capaldi et al., 2012). Findings suggest that the risk for dating violence is not simply a linear or additive risk: relationship characteristics appear to work synergistically with psychopathology. Individuals who have escalated externalizing or internalizing symptoms and who are in stressful relationships experience higher rates of aggression in their relationships. Such findings are consistent with theories on multiple risk factors, which posit that the presence of any single risk factor for dating aggression can be exacerbated by the presence of additional other risk factors (Kim & Capaldi, 2004).

Present findings also add merit to conceptualizing the risk for dating violence as a dynamic risk (Capaldi & Langhinrichsen-Rohling, 2012; Collibee & Furman, 2018). The majority of existing studies have conceptualized the risk for dating aggression as invariable and static, rather than as a risk that evolves over time, across partners, and even within relationships (Kim et al., 2008). The present study emphasizes relationship characteristics as risk factors, and such factors vary across relationships, which in turn often change throughout young adulthood (Rauer, Pettit, Lansford, Bates, & Dodge, 2013). It will be important for future work to continue to conceptualize dating aggression

as a dynamic risk that fluctuates according to individual characteristics, relationship characteristics, and romantic partners.

Clinical Implications

Findings have implications for intervention and prevention work, and imply that there are several critical points of intervention for dating aggression. Psychopathology and dating aggression are both potentially malleable risk factors for dating aggression. Studies have shown that low levels of internalizing symptoms can be a protective factor, and that individuals with low levels of depression are less likely to be victimized (Halpern, Spriggs, Martin, & Kupper, 2009). Therefore, one point of intervention could be to focus on decreasing levels of psychopathology. Moreover, another point of intervention could be to focus on improving the quality of the relationship. As different patterns of characteristics are implicated for male and female aggression, relationship prevention programs that are multifaceted and target multiple qualities could be most effective (Longmore et al., 2014).

One modality that could be particularly useful is Interpersonal Psychotherapy for Adolescents with an emphasis on Skills Training (IPT-AST), an intervention that focuses on improving relationship quality by enhancing problem solving and communication skills, two factors that could reduce the risk for aggression (Young et al., 2013). If relationship quality improves or if communication skills increase, the ensuing risk for dating aggression could decrease.

Limitations and Future Directions

Given that dating aggression increases across young adulthood, as do levels of psychopathology, the present study sought to further our understanding of the associations between the two. The present study also assessed whether partner characteristics and relationship characteristics moderate these associations. Although findings make an important contribution to an existing gap in the field, several limitations exist. First, the present study is cross-sectional, and existing work has demonstrated that dating violence can also be associated with increases in psychopathology (Devries et al., 2013). Longitudinal research examining dyadic models of dating aggression and changes in psychopathology over time could provide important temporal information regarding associations in couples. It is also important to note that the present study examined relationship characteristics as moderators of the relationship between psychopathology and aggression. However, it is possible that psychopathology could moderate the effects of negative relationship characteristics and unfulfilling relationships on dating aggression as well.

Additionally, there could also be three-way interactions, such that when assortative partnering occurs for externalizing symptoms and individuals are in an insecure relationship, risk increases. Similarly, externalizing symptoms and internalizing symptoms often co-occur, and individuals who experience both types of psychopathology often have the poorest overall adjustment (Capaldi & Stoolmiller, 1999). Subsequent work could continue to explore whether relationship characteristics interact with combinations of psychopathology to predict dating aggression in young adult couples.

Finally, although the present study used a multi-informant outcome of dating aggression, only self-reports of psychopathology and self-reports of relationship qualities were examined. By incorporating multiple reporters' perspectives on an individual's psychopathology, as well as objective observational coding of the relationship qualities within the dyad, findings from the present study could be strengthened (Capaldi et al., 2012).

Despite these limitations, the present study makes several notable contributions to the field. Findings highlight that both males' and females' psychopathology are risk factors for dating aggression in young adult couples. Additionally, the interplay between male and female externalizing symptoms underscores that when couples consist of two individuals with high levels of externalizing symptoms, the risk for dating aggression increases. Finally, results demonstrate that psychopathology does not uniformly culminate in dating aggression among couples. Rather, the co-occurrence of individual and relationship characteristics shapes the risk for dating aggression differently for males and females. In sum, by considering combinations of risk factors, researchers may be better able to predict who is at greatest risk for dating aggression, with which partners, and in which relationships (Collibee & Furman, 2016; Sung Hong, Esperlage, Grogan-Kaylor, & Allen-Meares, 2012).

Table 1: Means, Standard Deviations, and Bivariate Correlations of Psychopathology, Dating Aggression, Age, Relationship Length, and Relationship Status

	1	2	3	4	5	6	7	8	9
Age (1)	-								
Relationship Length (2)	-.14	-							
Relationship Status (3)	.19*	.26**	-						
Male Externalizing Symptoms (4)	-.03	.05	-.08	-					
Female Externalizing Symptoms (5)	.09	-.03	.03	.28**	-				

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Male Internalizing Symptoms (6)	.10	-.03	-.04	.63**	.25**	-			
Female Internalizing Symptoms (7)	.08	.04	-.01	.24**	.72**	.23*	-		
Male Aggression (8)	-.02	.25**	.10	.33**	.22*	.34**	.25**	-	
Female Aggression (9)	.02	.11	.11	.46**	.37**	.38**	.37**	.75**	-
Means & Standard Deviations	22.13 (1.91)	18.18 (16.67)	4.45 (1.13)	.33 (.22)	.38 (.22)	.38 (.34)	.36 (.26)	1.13 (.32)	1.21 (.39)

† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 2: Actor Effects, Partner Effects, and Actor Partner Interactions of Psychopathology on Aggression
(*N* = 137 dyads)

<i>Predictors:</i>	Male predictor → Male perp (<i>a1</i>)	Male predictor → Female perp (<i>p1</i>)	Female predictor → Female perp (<i>a2</i>)	Female predictor → Male perp (<i>p2</i>)	Actor x Partner Interaction → Male perp	Actor x Partner Interaction → Female perp	Co- variance between predictors
Internalizing Symptoms	0.40 ^{***}	0.55 ^{***}	0.29 [*]	0.22 [*]	0.51	0.90 [†]	0.01 [*]
Externalizing Symptoms	0.42 ^{**}	0.67 ^{***}	0.47 ^{**}	0.20	1.01 [*]	1.91 ^{***}	0.01 ^{**}

Notes. ^{*} *p* < .05; ^{**} *p* < .01; ^{***} *p* < .001

Table 3

Simple Slopes From Interactions Between Psychopathology and Relationship Characteristics on Aggression

Female Externalizing Symptoms	
Female externalizing x satisfaction → Female aggression	Low satisfaction: $B = 0.40^*$
Female externalizing x jealousy → Female aggression	High jealousy: $B = 0.46^*$
Male Externalizing Symptoms	
Male externalizing x satisfaction → Female aggression	Low satisfaction: $B = 0.94^{***}$
	Average satisfaction: $B = 0.57^{***}$
Male externalizing x jealousy → Female aggression	Average jealousy: $B = 0.58^{***}$
	High jealousy: $B = 0.93^{***}$
Male externalizing x conflict → Female aggression	Average conflict: $B = 0.46^{***}$
	High conflict: $B = 0.93^{***}$
Male externalizing x anxious styles → Female aggression	Average anxious: $B = 0.41^{***}$
	High anxious: $B = 0.84^{***}$
Male externalizing x conflict → Male aggression	High conflict: $B = 0.49^{**}$
Male externalizing x anxious styles → Male aggression	High anxious: $B = 0.49^{**}$
Female Internalizing Symptoms	
Female internalizing x satisfaction → Male aggression	Low satisfaction: $B = 0.29^*$
Female internalizing x avoidant styles → Male aggression	Average avoidant: $B = 0.25^*$
	High avoidant: $B = 0.54^{***}$
Male Internalizing Symptoms	
Male internalizing x satisfaction → Female aggression	Low satisfaction: $B = 0.73^{**}$
	Average satisfaction: $B = 0.31^*$
Male internalizing x jealousy → Female aggression	Average jealousy: $B = 0.30^*$
	High jealousy: $B = 0.50^{**}$
Male internalizing x anxious styles → Female aggression	High anxious: $B = 0.48^{***}$
Male internalizing x conflict → Female aggression	Average conflict: $B = 0.28^*$
	High conflict: $B = 0.75^{***}$
Male internalizing x conflict → Male aggression	Average conflict: $B = 0.21^*$
	High conflict: $B = 0.47^{***}$

Notes. * $p < .05$; ** $p < .01$; *** $p < .001$

Figure 1. The actor-partner interdependence model (APIM) examining associations between psychopathology and dating aggression.

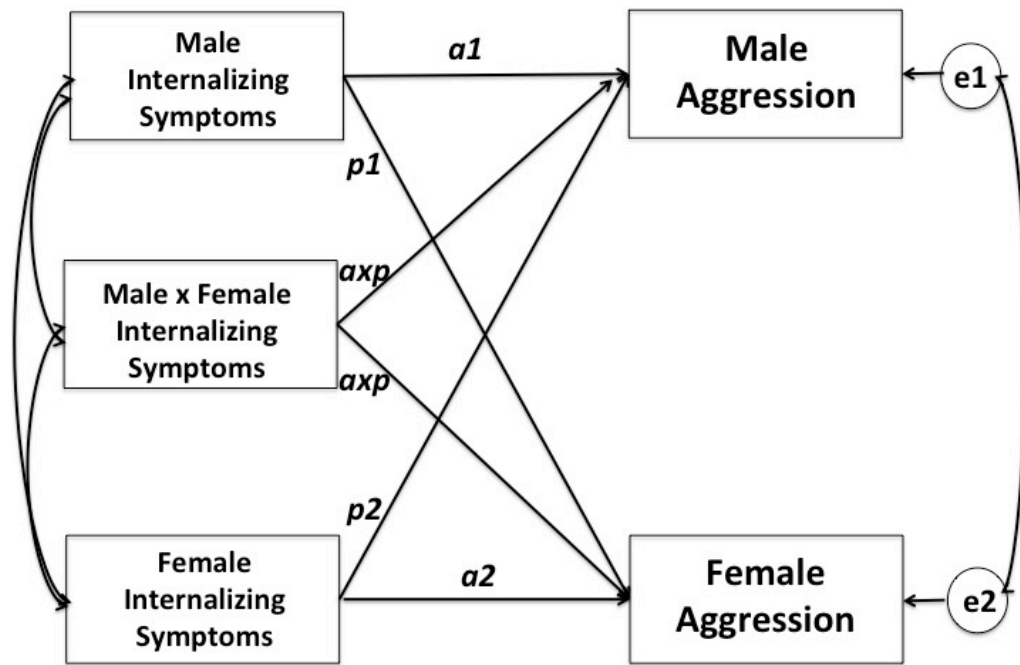


Figure 2. Actor by partner interactions between male and female externalizing symptoms on male aggression.

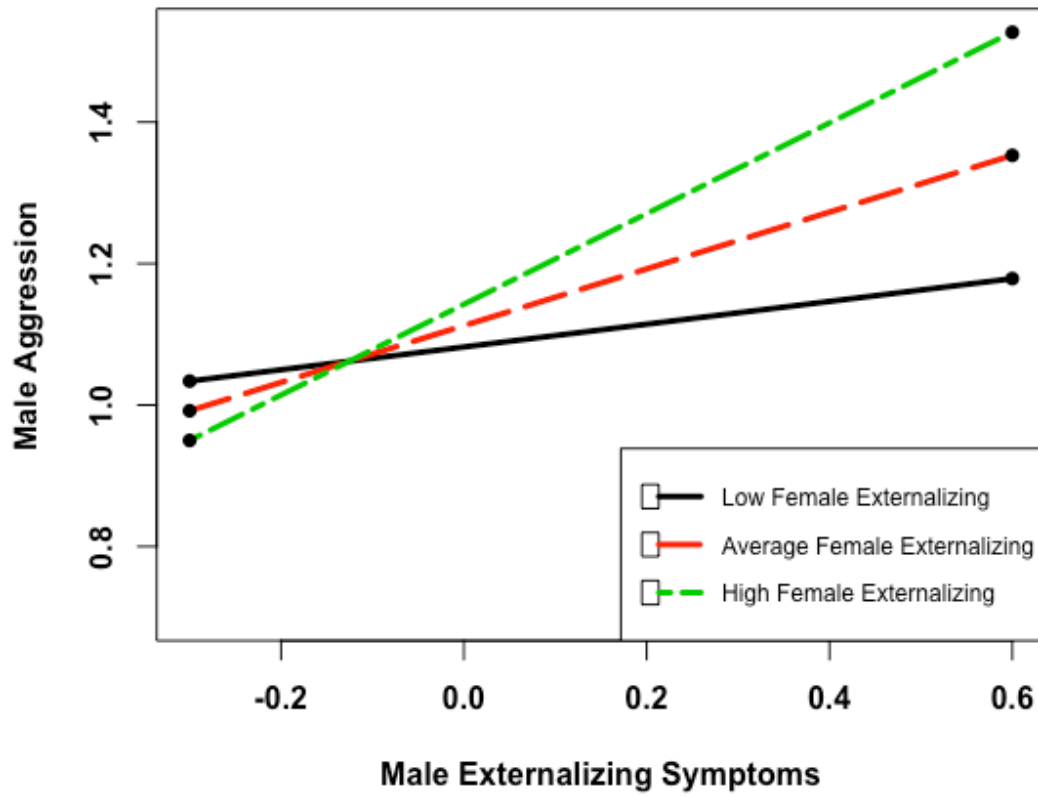
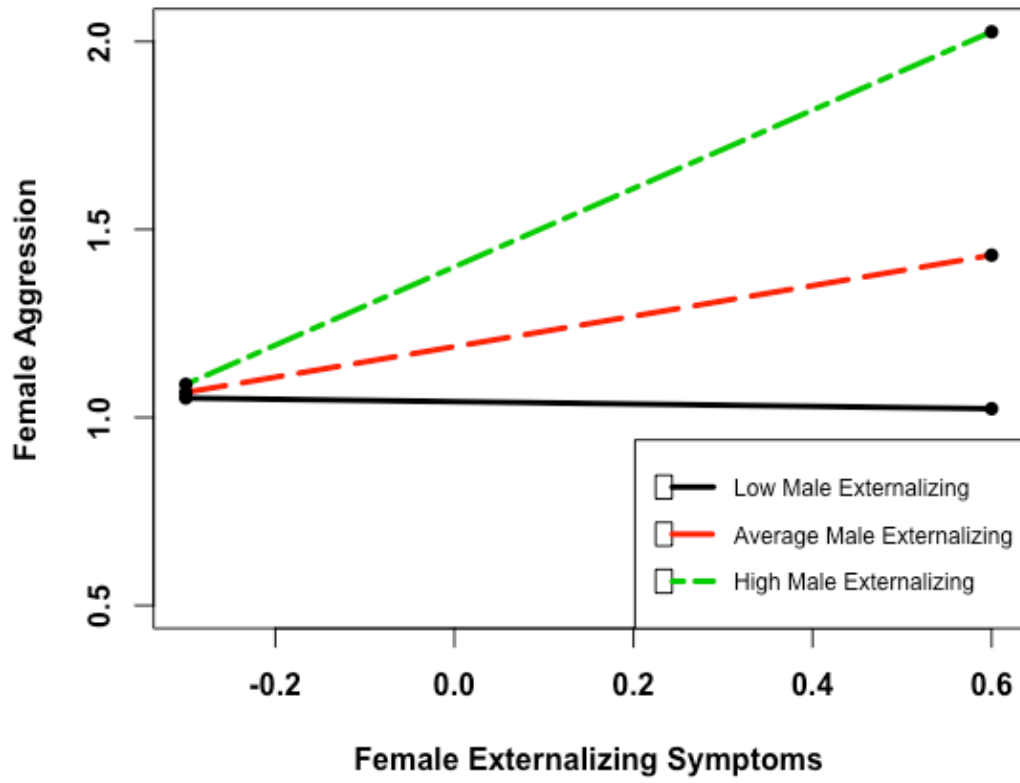


Figure 3. Actor by partner interactions between male and female externalizing symptoms on female aggression.



Chapter Four: Discussion

Dating aggression is conceptualized as a phenomenon that emerges between particular combinations of partners within a dyad (Capaldi et al., 2003; Whitaker et al., 2009). However, to date, very few studies of dating aggression have included both partners' risk factors. Study 1 was one of the first studies that incorporated males' and females' reports of relationship characteristics and explored patterns of associations with aggression. Similarly, Study 2 supplemented the limited work examining psychopathology and aggression in young adult couples.

At the most fundamental level, the present studies are unified in applying principles from the dynamic developmental systems theory to understand the risk for aggression (Capaldi et al., 2012). This theory delineates that each individual's risk and the combined risk that arises between partners are associated with dating aggression. Study 1 focused entirely on a single level of the theory and examined characteristics of the romantic relationship. Findings indicated that a negative relationship context, consisting of varying patterns of jealousy, negative interactions, relational styles, and satisfaction, was associated with aggression. Also guided by the dynamic developmental systems theory, Study 2 examined two individual characteristics, externalizing symptoms and internalizing symptoms, and associations with aggression. Findings revealed that both partners' levels of psychopathology were integral risk factors, and additionally, that the effects of psychopathology on aggression depended upon the presence of certain

relationship characteristics. Taken together, the present studies demonstrate that the risk for dating aggression not only stems from the individual level and the relationship level, but also from interactions across these levels.

One primary conclusion from the present studies is that to fully understand a relationship behavior such as dating aggression, researchers must examine the relationship. Existing research has tended to conceptualize dating aggression as a behavior that emerges solely from an individual's corresponding risk factors (Winstok, 2007). However, relationships emerge between partners, and to adequately understand the relationship, the dyad needs to be examined as the unit of analysis (Bartholomew & Cobb, 2011; Capaldi et al., 2012; Reis et al., 2002). Numerous actor and partner effects were found in the present studies, adding to an empirical basis for conceptualizing the risk for dating aggression as a dyadic phenomenon.

Across both studies, actor partner interactions also emerged, and combinations of males' and females' externalizing symptoms, jealousy, anxious styles, and negative interactions were associated with aggression. When couples were comprised of two partners with high levels of these characteristics, the risk for aggression was exacerbated; when couples contained one individual with low levels of these characteristics, risk was generally attenuated. However, there were no interactions between both partners' avoidant styles, support, and satisfaction, implying that taking a couples' approach in interventions may be applicable for some, but not all, relationship characteristics (Capaldi & Kim, 2007).

Another theme from the present studies is that the risk for dating aggression is dynamic (Capaldi & Langhinrichsen-Rohling, 2012; Collibee & Furman, 2016). The risk for dating aggression was associated with the individual risk factors that each partner brought to the relationship, and the resulting nature of the relationship that was created between partners. The present studies demonstrated that the risk for dating aggression depended upon dyadic interactions. Notably, this risk is not inert: relationships change throughout young adulthood and breakups are common in this period (Rhoades et al., 2011). The risk for dating aggression may also change over the course of a particular relationship, as relationship characteristics change over time (Furman, Collibee, Lantagne, & Golden, 2018). Findings highlighted that research on dating aggression needs to continue examining who is at risk for aggression, with which partners, in which relationships, and at which time points over the course of a relationship.

Finally, both studies shed light on gender differences in the pathways associated with aggression. Study 1 highlighted gender differences in predictors and found that only female satisfaction and female negative interactions were indicative of aggression. Results from Study 2 reflected the sheer complexity and diversity of risk factors that culminated in each partner's aggression. Additional work should continue to examine multiple levels of predictors for both male and female aggression to yield a more nuanced understanding of the similarities and differences in the pathways associated with each partner's aggression.

The present studies make a number of important contributions to the field of young adult romantic relationships. First, dating aggression is a multiply determined

relationship behavior that results from the intersection of risk factors (Foran & O’Leary, 2008), and the field needs to shift from studying isolated risk factors to exploring the interplay among multiple risk factors. Furthermore, present findings have implications for prevention and intervention work, and highlight a number of potential points of intervention. For qualities such as externalizing symptoms, jealousy, negative interactions, or anxious styles, interventions focused on couples may be particularly beneficial. Regarding the interactions between psychopathology and relationship characteristics, a multifaceted approach that simultaneously targets a number of relationship characteristics might also enhance the efficacy of interventions.

In conclusion, the majority of work on young adult dating aggression has not examined couples or involved dyadic models (Capaldi et al., 2012). 95% of existing studies on adolescent and young adulthood dating aggression have examined the risk factors of either males or females individually (Capaldi et al., 2012). Accordingly, only 5% of studies have simultaneously examined the risk factors of both partners or have examined both partners’ dating aggression. The present studies demonstrated the merits of including both males’ and females’ risk factors for dating aggression. Such findings have broader implications for the field of romantic relationships, and posit that research on romantic relationships should involve a dyadic approach in which the relationship itself is examined. Present findings add to the very limited research examining individual and relationship risk factors of dating aggression within young adult couples, and highlight the importance of a dyadic perspective on young adult dating aggression.

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