#### **ORIGINAL ARTICLE**



# Romantic Perfectionism and Perceived Conflict Mediate the Link between Insecure Romantic Attachment and Intimate Partner Violence in Undergraduate Students

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# **Abstract**

This study examined whether romantic attachment insecurity (i.e., anxiety and avoidance) was indirectly related to intimate partner violence (IPV) victimization through two types of romantic perfectionism (i.e., self-oriented and socially prescribed) and perceived couple conflict. University students (N = 564; 422 women) between 17 and 25 years of age, who were involved in a romantic relationship, completed online questionnaires. Romantic attachment insecurity was positively associated with physical and psychological IPV victimization. Serial mediation models revealed significant indirect effects of attachment insecurity on IPV victimization through (a) socially prescribed (but not self-oriented) romantic perfectionism and (b) perceived couple conflict. Specifically, higher levels of attachment anxiety and attachment avoidance were indirectly associated with more IPV victimization (i.e., physical and psychological) through higher levels of socially prescribed romantic perfectionism and perceived couple conflict. This study highlights a viable mechanism underlying the link between romantic attachment insecurity and IPV victimization. Future research directions are discussed.

 $\textbf{Keywords} \ \ \text{Intimate partner violence} \cdot \text{Undergraduate students} \cdot \text{Romantic attachment} \cdot \text{Romantic perfectionism} \cdot \text{Conflict} \cdot \text{Couples}$ 

Individuals tend to consolidate their sense of self and begin to share it with another person in a romantic context during young adulthood. Unfortunately, some individuals are subjected to violence and aggression within their romantic relationships. Intimate partner violence (IPV) victimization is defined as a combination of hurtful behaviors that a person receives from their romantic partner, which can encompass both physical violence and psychological aggression (Centers for Disease Control and Prevention 2018). Physical violence includes any behavior that could cause injury, such as hair twisting or being slapped by a partner (Straus et al. 1996). Psychological aggression involves verbal or symbolic acts that are intended to inflict emotional pain or fear, such as insults or something important destroyed by a partner. IPV

Dating violence is most prevalent among young adults compared to the general population, and IPV appears to be negatively correlated with age (Caetano et al. 2005). Among samples of college students, estimates of IPV victimization ranged from 17% to 76% for psychological IPV and from



has been a consistent and increasingly pervasive problem in Canada in recent decades (Burczycka 2015), and IPV among undergraduate students appears to be rising in prevalence (Kaukinen 2014). Although both psychological and physical IPV tend to co-occur, they consist of very different acts and do not have the same prevalence (Centers for Disease Control and Prevention 2018). While both are associated with serious consequences, these can vary according to the type of violence. For example, in a longitudinal study by Lawrence et al. (2009) they found that psychological IPV victimization was associated with depression and anxiety symptoms, when controlling for physical IPV victimization, but that physical IPV victimization was not associated with such symptoms when controlling for psychological IPV victimization. Thus, it is crucial to examine the pathways leading to psychological and physical IPV separately.

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16% to 34% for physical IPV (Scherer et al. 2016). IPV victimization in young adulthood can have many serious negative effects on an individual, such as the development of depression, substance abuse, suicidal ideation, and repeated IPV victimization in adulthood (Exner-Cortens et al. 2013).

IPV victimization can be understood from a developmental perspective through the lens of attachment theory (Bowlby 1982). Although research on attachment and IPV exists (see Mikulincer and Shaver 2016, for a recent update), further research is needed to continue identifying the intrapersonal (e.g., romantic perfectionism) and interpersonal (e.g., perceived couple conflict) mechanisms driving the association between these two constructs, specifically in the context of young adult relationships. Romantic perfectionism is defined as rigid and unrealistic standards or perfectionistic expectations for oneself in the relationship (Hewitt and Flett 1991). Thus, the current study aimed to assess a conceptual model examining whether two types of romantic perfectionism (i.e., self-oriented and socially prescribed romantic perfectionism) and perceived couple conflict mediate the relationship between romantic attachment insecurity and two types of IPV victimization (i.e., psychological and physical) using a young adult student sample.

# **Understanding IPV from an Attachment Perspective**

Attachment theory, as conceptualized by Bowlby (1982), posits that all individuals have an innate behavioral system that wires us to seek proximity to primary caregivers, also known as attachment figures. During childhood, if an attachment figure is attentive and responsive to the child's needs, and provides them with a sense of security, the child will form a secure attachment to this caregiver. Conversely, if an attachment figure is inconsistent in their responsiveness, unresponsive, or abusive, the child may develop an insecure attachment to this caregiver (Ainsworth et al. 1971). Over time, romantic partners, friends, and other important figures become additional attachment figures for the individual, providing them with the potential for a renewed opportunity for security and comfort in close relationships (Markiewicz et al. 2006).

Hazan and Shaver (1987) first introduced a conceptualization of attachment in the context of adult romantic relationships. Romantic attachment insecurity can be conceptualized according to two dimensions: attachment anxiety and attachment avoidance. Attachment anxiety represents a negative model of the self, whereby an individual often feels unworthy of love and doubts their self-worth. This self-depreciating representation of self often causes anxiously attached individuals to fear rejection and abandonment in romantic relationships. Attachment avoidance represents a negative model of others, whereby an individual often sees others as emotionally

unavailable and unable to respond to their needs. This results in a tendency for avoidantly attached individuals to feel uncomfortable with intimacy. Due to their negative representations of self and others, insecurely attached individuals tend to use affect regulation strategies other than proximity seeking (i.e., primary attachment strategy), which are considered secondary attachment strategies (Mikulincer et al. 2003). Individuals with high levels of attachment anxiety tend to use hyperactivation secondary attachment strategies, which is characterized by an excessive need for validation and increased attentiveness to perceived threats to the integrity of the relationship (Mikulincer and Shaver 2016). Individuals who exhibit high attachment avoidance tend to use deactivation secondary attachment strategies, which is characterized by a high degree of reliance on the self rather than a partner for emotional comfort and security, leading them to distance themselves from their partner (Cassidy and Shaver 2016; Mikulincer and Shaver 2016).

According to an attachment perspective, IPV perpetration can be conceptualized as a poorly adapted behavioral strategy to regulate affective bonds in times of perceived rejection, detachment, unavailability, or intrusiveness (e.g., Bartholomew and Allison 2006; Mayseless 1991). The aggressive behavior, whether psychological or physical, could then be seen as either an effort to prevent distance and regain proximity between partners (i.e., hyperactivation strategy) and/or to create distance between partners (i.e., deactivation strategy; Allison et al. 2008). Extensive research has identified associations between romantic attachment insecurity and both psychological and physical IPV perpetration in couples (e.g., Fournier et al. 2011; Gabbay and Lafontaine 2017; Godbout et al. 2009; Péloquin et al. 2011). Compared to attachment avoidance, attachment anxiety has been linked more strongly and consistently with IPV perpetration (Mikulincer and Shaver 2016). Further, a growing number of studies have found a stronger link between attachment anxiety and both psychological and physical IPV victimization, in comparison to attachment avoidance (e.g., Bonache et al. 2017, 2019; Karakurt et al. 2013; Sandberg et al. 2019).

Although attachment theory has been one of the dominant approaches to understanding relationship violence (Bartholomew and Allison 2006), it has focused primarily on how attachment insecurity may put individuals at risk of violence perpetration towards their romantic partner. As we seek to understand the dynamics surrounding IPV victimization, we are not suggesting that the victims hold responsibility. Rather, we would like to highlight that the individuals who perpetrate the violence should be held responsible for their violence toward their partner, regardless of the context surrounding it. Some authors have suggested that insecurely attached individuals may be more vulnerable to IPV victimization due their perception of others as unreliable and unavailable (i.e., attachment avoidance) or due to a fear of



abandonment (i.e., attachment anxiety), which could contribute to difficulties in seeking help to leave abusive relationships (Velotti et al. 2018). A recent review of literature on attachment and IPV (Velotti et al. 2018) also suggests that there is generally a positive correlation between IPV and attachment insecurity in both partners. In this perspective, an insecurely attached individual may be more vulnerable to being involved in an abusive relationship when paired with an insecurely attached romantic partner because they both tend to rely on maladaptive strategies when their attachment system is activated; hence, when overwhelmed, their partner may use violence as a poorly adapted attempt to increase proximity or to create distance with their partner (Allison et al. 2008).

# Romantic Perfectionism and Perceived Couple Conflict as Mediators

Despite emerging empirical support for the link between insecure romantic attachment and IPV victimization, only a few studies have begun to examine intrapersonal mechanisms as potential mediators of the relationship between romantic attachment and IPV victimization (e.g., Sutton et al. 2014). These also remain limited in the context of IPV perpetration (e.g., Lafontaine et al. 2018; Ulloa et al. 2014). Based on an attachment theoretical model that emphasizes secondary attachment strategies of hyperactivation and deactivation, one could posit that romantic perfectionism and perceived couple conflict may sequentially and indirectly influence this link (see Fig. 1 for our integrated conceptual model).

For instance, individuals with high levels of attachment anxiety tend to engage in more frequent reassurance-seeking and verification behavior, and these behaviors may reflect a need to be perfect in the relationship (Fritts 2012). This could result from self-imposed excessively high standards or perfectionistic expectations for oneself in the relationship (i.e., self-oriented romantic perfectionism; Hewitt and Flett 1991) and/

or the perception that others hold excessively high standards or perfectionistic expectations of oneself in the relationship (i.e., socially prescribed romantic perfectionism; Hewitt and Flett 1991). In contrast, individuals with high levels of attachment avoidance tend to withdraw from the relationship, avoid conflict, and feel powerless in their relationship. To avoid criticism and feelings of inadequacy, they may compensate by attempting to present themselves as a perfect romantic partner, either due to self-imposed or socially prescribed standards (Fritts 2012).

This increased tendency for romantic perfectionism, whether it be self-oriented or socially prescribed, leads to unrealistic expectations about oneself in the relationship. Therefore, even mundane daily interactions could potentially act as threats to one's personal integrity or to the relationship, which could activate the attachment system, and thus generate greater sources of conflict in the relationship. For example, a partner cancelling plans may trigger an anxiously attached individual's abandonment fears or may confirm an avoidantly attached individual's negative beliefs about others. These perceived conflicts in the relationship might create an environment that fosters the tendency for both partners to use secondary attachment hyperactivation strategies or deactivation strategies, increasing vulnerability to being involved in an abusive relationship.

There is empirical evidence to support the different steps of our proposed conceptual model. First, insecure attachment has been found to be related to increased general perfectionism (e.g., Brennan and Shaver 1995; Rice and Lopez 2004; Wei et al. 2004) and romantic perfectionism (Lafontaine et al. 2019). Second, there is empirical evidence supporting the link between general perfectionism and perceived conflict. Specifically, socially prescribed perfectionism has been found to be related to conflictual interaction patterns, such as hostile dominant tendencies (Flett et al. 1994), whereas self-oriented perfectionism has been found to be associated with neuroticism and angry hostility (Hill et al. 1997). These links have yet

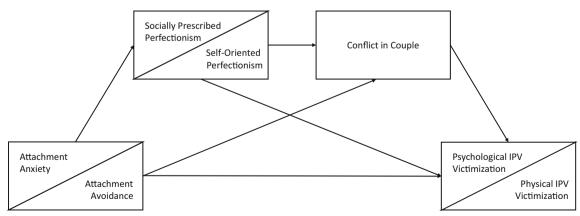


Fig. 1 Conceptual mediation model with romantic perfectionism and conflict in couple mediating the pathway from attachment insecurity to IPV victimization (see Tables 2 and 3 for estimates)



to be examined within the context of romantic perfectionism. Lastly, the frequency of IPV has been found to be a function of the amount of conflict within the relationship (Marshall et al. 2011). Bonache et al. (2017, 2019) identified destructive conflict resolution strategies as mediators of the relationship between both dimensions of attachment insecurity and IPV victimization.

# The Current Study: Originality, Goals, and Hypotheses

As previously described, possible mediators explaining the association between romantic attachment insecurity and both psychological and physical IPV victimization have been understudied. In the current study, we aim to explore romantic perfectionism (i.e., self-oriented and socially prescribed) and perceived couple conflict as serial mediators of the link between attachment insecurity (i.e., anxiety and avoidance) and IPV victimization (i.e., psychological and physical). More specifically, based on attachment theory and previous findings, it is plausible to expect that both types of romantic attachment insecurity will be positively related to physical and psychological IPV victimization. Second, we anticipate that romantic attachment insecurity will be indirectly associated with IPV victimization through (a) romantic perfectionism (self-oriented and socially prescribed), and (b) perceived couple conflict. Despite a lack of research, based on our theoretical model, we expect the same patterns of results will hold across both types of romantic perfectionism and both types of IPV victimization.

## Method

# **Participants**

The final sample was composed of 564 undergraduate students. To be eligible for this study, participants must have been (a) between 17 and 25 years of age, (b) able to understand English, and (c) currently involved in a romantic relationship for at least six months to ensure a minimal level of relationship stability. Data was collected from September 2016 to January 2018. Out of the 564 participants, there were 422 females (74.8%) and 142 males (25.2%). The mean age was 19.40 (SD = 1.79). The length of relationship was less than a year for 54 (9.6%) participants, one to two years for 387 (68.6%) participants, three to five years for 112 (19.9%) participants, six to 10 years for nine (1.7%) participants, and more than 10 years for two (0.4%) participants. Only 11 (2.0%) participants were married and 482 (85.5%) participants did not live with their partner. Relationships were described as straight by 531 (94.1%) participants, gay or lesbian by 27 (4.8%) participants, and six (1.1%) participants did not answer this question.

The native language of the participants was French for 129 (22.9%) participants, English for 360 (63.8%) participants, and 75 (13.3%) participants selected "other" (e.g., Spanish, Arabic, Chinese, etc.). Regarding racial or ethnic background, which participants were able to select as many that applied to them, 427 (75.7%) self-identified as Caucasian; 35 (6.2%) self-identified as Black; 73 (12.9%) self-identified as Asian; 14 (2.5%) self-identified as Latino or Hispanic; one (0.2%) self-identified as Pacific Islander; 37 (6.6%) self-identified as Middle Eastern; 15 (2.7%) selfidentified as Native Canadian, First Nations, or Métis; and one (0.2%) self-identified as "other" (e.g., mixed, Italian, etc.). The majority of the participants selected student (550; 97.5%) as their main daily occupation, 11 (1.9%) held white or blue collar jobs, and the remaining participants (three; 0.6%) were either selfemployed, unemployed, homemakers, or selected "other" (i.e., coach, military, management counsellor). These characteristics are representative of the region's population (Statistics Canada 2017).

#### **Procedure**

Participants were recruited through the Integrated System of Participation in Research (ISPR), a research participation system that enabled students enrolled in introductory psychology and behavioral science courses to participate in research in exchange for course credits. Once screened into the study, participants were provided a secure internet link to the package of questionnaires. Participants were prompted to provide their informed consent prior to receiving access to the questionnaires by signing a consent form, which outlined the purpose of the study and information on confidentiality and voluntary participation. Once all of the questionnaires were completed (80 min total/20 min for questionnaires used in the current study), participants were provided with a list of mental health resources to assist them should they require the support. The study was approved by the university's Office of Research Ethics and Integrity.

# **Measures**

# Sociodemographic Questionnaire

Participants were asked to provide personal information (e.g., age, gender, ethnicity/racial background, and level of education) as well as relationship-related information (e.g., length of relationship, length of cohabitation, marital status, and number of children).



# **Romantic Attachment Insecurity**

The Brief Version of the Experiences in Close Relationships Scale (ECR-12; Lafontaine et al. 2016) is a 12-item version of the original ECR (Brennan et al. 1998) questionnaire, which is a validated self-report measure of romantic attachment. It is comprised of two subscales: attachment anxiety (6 items; e.g., "I need a lot of reassurance that I am loved by my partner") and attachment avoidance (6 items; e.g., "I try to avoid getting too close to my partner"). Each subscale is rated on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Higher scores are indicative of higher levels of attachment anxiety and attachment avoidance, and the mean score of each subscale was used in our analyses. Lafontaine et al. (2016) demonstrated convergent and predictive validities of the ECR-12 with English, French-Canadian, same-sex, and clinical couple samples. Our reliability analysis yielded Cronbach's coefficients of  $\alpha = .86$  for attachment anxiety and  $\alpha = .82$  for attachment avoidance, both indicating good internal consistency.

#### **Romantic Perfectionism**

The brief Multidimensional Perfectionism Scale (MPS; Cox et al. 2002) is a 15-item version of the original (Hewitt et al. 1991), which is a measure of perfectionism with three subscales: self-oriented perfectionism, otheroriented perfectionism and socially prescribed perfectionism. In the current study, only the self-oriented perfectionism (6 items; e.g., "one of my goals in my romantic relationship is to be perfect in everything I do.') and socially prescribed perfectionism (5 items; e.g., "people expect nothing less than perfection from me in my romantic relationship") subscales were adapted to create a version of the MPS to be used in the context of romantic relationships. For the purpose of the current study, we did not examine the other-oriented perfectionism subscale as we were interested in exploring models examining perfectionism oriented towards the self. Each subscale is rated on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). The current adapted version is scored the same way as the original MPS. Scores on both subscales are calculated by summing the scores on items related to each subscale, with higher scores representing higher levels of perfectionism. Psychometric data reported for the brief scale by Cox et al. (2002) indicated good internal consistency and validity for both the selforiented perfectionism subscale and the socially prescribed perfectionism subscale. Our reliability analysis yielded coefficients of  $\alpha = .91$  for the self-oriented subscale and  $\alpha = .85$  for the socially prescribed subscale, both indicating excellent and very good internal consistency, respectively.

#### **Perceived Couple Conflict**

The *Perception of Conflict* scale (PC; Brassard and Lussier 2007) is a 24-item questionnaire assessing different sources of conflict within a relationship. Participants are asked to rate their perception of the level of disagreement in their romantic relationship of each source on a 4-point Likert scale, ranging from 1 (*no disagreement*) to 4 (*major disagreement*). Examples of sources of disagreement include household tasks, and sexual interactions. Scores are calculated by averaging the 24 items, with higher global scores representing more perceived conflict within the relationship. The original validation study reported excellent internal consistency (Brassard and Lussier 2007). In the current sample, the alpha coefficient for the PC is .92, indicating excellent internal consistency.

#### **IPV Victimization**

The Revised Conflict Tactics Scales (CTS-2; Straus et al. 1996) is a 78-item measure assessing incidences of perpetrated and received (i.e., victimization) physical, psychological, and sexual IPV. In the current study, only the psychological aggression (8 items; e.g., "my partner called me fat or ugly") and physical violence (12 items; e.g., "my partner twisted my arm or hair") victimization subscales were administered. Participants report how often each behavior has occurred in their relationship based on an 8-point scale: 0 (this has never happened), 1 (once in the current relationship), 2 (twice in the *current relationship*), 3 (3–5 times in the current relationship), 4 (6–10 times in the current relationship), 5 (11–20 times in the current relationship), 6 (more than 20 times in the current relationship), and 7 (not in the current relationship, but it has happened in a previous relationship). Participants' responses are coded using midpoints, which are 0, 1, 2, 4, 8, 15, and 25, respectively. To ensure that data pertained to the current relationship, "not in the current relationship, but it has happened in a previous relationship" was coded at 0. Scores can range from 0 to 100 for the psychological subscale and 0-150 for the physical violence subscale, with higher scores reflecting more frequent and/or more severe occurrence of psychological and physical violence, respectively. Straus et al. (1996) found good and very good internal consistency, respectively. Our reliability analysis yielded coefficients of .70 for the psychological aggression subscale and .70 for the physical violence subscale, indicating good internal consistency.

# **Data Analyses**

We conducted all statistical analyses using IBM SPSS Statistics (Version 24.0). Analyses first examined missing data and outliers. Following this, we looked at descriptive statistics and intercorrelations among all variables. A multivariate analysis of variance (MANOVA) was then used to investigate



differences between male and female participants on all study variables. Analysis of variances (ANOVAs) and correlations among other sociodemographic variables and outcome variables (i.e., psychological and physical IPV victimization) were also conducted to identify possible confounding effects. With regard to our main analyses, serial mediational models were run with bootstrapping (5000 re-samples) using PROCESS, a regression path analysis modelling tool compatible for use in IBM SPSS Statistics (Hayes 2017). The PROCESS macro generates total effects, direct effects, and indirect effects for each model that is run. Since we performed multiple serial mediation analyses, we adjusted our confidence interval using the Bonferroni correction (1 - (0.05/8) = 0.99), resulting in a conservative confidence interval of 99%.

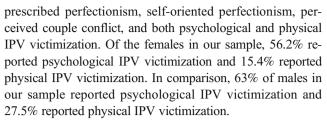
#### Results

# **Preliminary Statistics**

Among the 1833 undergraduate students who participated in our larger study, 1158 were not currently involved in a romantic relationship of six months or more, and 54 individuals did not specify their relationship status; these participants were thus ineligible for the current study. An additional 55 participants answered our validity question ("You have read this statement and will select number 7 [totally]") incorrectly, suggesting possible random responding, and were therefore removed from analyses. Two participants were also removed because they did not self-identify as female or male (i.e., one participant selected "other" as gender, and another did not specify their gender), thus preventing meaningful analyses exploring nonbinary gender identities. An additional 12 participants were identified as multivariate outliers based on Mahalanobis' distances; however, these individuals were retained because they responded correctly to the validity question, suggesting that their responses were not random, and thus likely reflect their unique personal experience. This resulted in a final sample of 564 eligible participants. Missing data were low for all study variables (0.2–2.3%), but were not missing at random (Little's MCAR test:  $\chi^2(2187) = 2590.08$ , p < .001). Therefore, an expectation maximization approach was employed to impute for missing data prior to running the main analyses.

# **Descriptive Statistics**

Means, standard deviations, intercorrelations among all variables and gender differences are presented in Table 1. Significant gender differences were found on all but one variable (i.e., attachment anxiety). Specifically, males reported significantly greater levels of attachment avoidance, socially



Analyses examining potential confounding sociodemographic variables revealed no significant effect of participants' ethnicity on neither psychological, F(7,594) = 1.431, p = .190, nor physical IPV victimization, F(7,594) = 1.490, p = .168. Significant correlations were found between psychological IPV victimization and the length of the relationship (r = .15, p < .01) and cohabitation with the partner (r = .09, p < .05). Significant correlations were also found between physical IPV victimization and the length of the relationship (r = .10, p < .05). Following this, the sociodemographic variables linked with each type of violence were included as covariates in the main analyses.

# **Serial Mediational Analyses**

A total of eight serial mediational models, including gender and length of the relationship as covariates, were conducted to examine the proposed full conceptual serial mediational model (see Fig. 1) linking insecure romantic attachment (i.e., attachment anxiety or avoidance), romantic perfectionism (i.e., self-oriented or socially prescribed perfectionism), perceived conflict and IPV victimization (i.e., psychological and physical IPV). Based on our correlational analyses, cohabitation with the partner was only included as a covariate in models examining psychological IPV victimization.

# Attachment Avoidance and Psychological IPV Victimization

First, we investigated whether attachment avoidance was indirectly associated with psychological IPV victimization through (a) self-oriented perfectionism and (b) perceived couple conflict (see Table 2 for path coefficients). The total effect of attachment avoidance on psychological IPV victimization was significant, B = 3.44, SE = .80, p < .001. However, after introducing the mediators, the direct effect was no longer significant, B = 0.61, SE = .77, p = .42. The specific indirect effect through perceived couple conflict was significant, B =2.87, SE = .61, 99% CI [1.47, 4.61], while the specific indirect effect through self-oriented perfectionism was not significant, B = 0.01, SE = .04, 99% CI [-0.14, 0.16]. The final serial multiple mediation model was not significant. Specifically, the indirect effect of attachment avoidance on psychological IPV victimization through both self-oriented perfectionism and perceived couple conflict was not significant, B = -0.05, SE = .07, 99% CI [-0.25, 0.11].



Table 1 Intercorrelations and Mean Differences Between Males and Females Across All Study Variables

	1	2	3	4	5	6	7	Males (n = 142) M (SD)	Females (n = 422) M (SD)	F	df
1. Attachment avoidance	-	.21**	.31**	.03	.32**	.13**	.14**	2.23 (1.04)	1.71 (.82)	36.77***	1, 563
2. Attachment anxiety		-	.34**	.29**	.38**	.23**	.10*	3.34 (1.48)	3.56 (1.54)	2.12	1, 563
3. Socially-prescribed romantic perfectionism			-	.61**	.39**	.18**	.16**	13.39 (7.05)	10.15 (6.16)	27.29***	1, 563
4. Self-oriented romantic perfectionism				-	.17**	.10*	.08	25.93 (8.16)	21.40 (9.77)	24.72***	1, 563
5. Conflict in couple					_	.51**	.35**	39.57 (12.30)	37.21 (10.21)	5.10*	1, 563
6. Psychological IPV victimization <sup>a</sup>						_	.51**	11.42 (18.61)	7.66 (16.76)	5.04*	1, 563
7. Physical IPV victimization <sup>b</sup>							-	2.9 (8.05)	1.09 (6.55)	7.88**	1, 563

IPV = intimate partner violence. Means and standard deviations are presented. Multivariate test of significance was significant, Wilks'  $\lambda = .86$ , F(7, 556) = 13.12, p < .001, partial  $\eta^2 = .14$ 

We then tested a model examining the indirect effects of attachment avoidance on psychological IPV victimization through (a) socially prescribed perfectionism and (b) perceived couple conflict (see Table 2 for path coefficients). Whereas the total effect of attachment avoidance on psychological IPV victimization was significant, B = 3.44, SE = .80, p < .001, when controlling for the effect of the mediators, the direct effect was no longer significant, B = 0.75, SE = .77, p = .33. The specific indirect effect through socially prescribed perfectionism was not significant, B = -0.21, SE = .20, 99% CI [-0.81, 0.29], while the specific indirect effect through perceived couple conflict was significant, B = 2.23, SE = .58, 99% CI [0.93, 3.89]. With respect to the final serial multiple mediation model, results revealed that the indirect effect of attachment avoidance on psychological IPV victimization through both socially prescribed perfectionism and perceived couple conflict was significant, B = 0.67, SE = .19, 99% CI [0.27, 1.23].

#### Attachment Anxiety and Psychological IPV Victimization

Third, we investigated the indirect effects of attachment anxiety on psychological IPV victimization through (a) self-oriented perfectionism and (b) perceived couple conflict (see Table 2 for path coefficients). The total effect of attachment anxiety on psychological IPV victimization was significant, B = 2.49, SE = .46, p < .001. However, the direct effect was not significant after controlling for the effect of the mediators, B = 0.86, SE = .47, p = .07. Although the specific indirect effect through self-oriented perfectionism was not significant,

B = -0.13, SE = .14, 99% CI [-0.50, 0.20], the indirect effect through perceived couple conflict was significant, B = 1.68, SE = .36, 99% CI [0.89, 2.73]. Lastly, results revealed that the serial multiple mediation model was not significant; precisely, the indirect effect of attachment anxiety on psychological IPV victimization through both self-oriented perfectionism and perceived couple conflict was not significant, B = 0.08, SE = .07, 99% CI [-0.10, 0.28].

In our fourth model, we tested whether attachment anxiety was indirectly associated with psychological IPV victimization through (a) socially prescribed perfectionism and (b) perceived couple conflict (see Table 2 for path coefficients). The total effect of attachment anxiety on psychological IPV victimization was significant, B = 2.49, SE = .46, p < .001. This effect remained significant after controlling for the effect of the mediators, B = 0.93, SE = .47, p < .05. The specific indirect effect through perceived couple conflict, B = 1.28, SE = .31, 99% CI [0.57, 2.21], but not socially prescribed perfectionism, B = -0.27, SE = .18, 99% CI [-0.80, 0.19], was significant. Finally, in our serial multiple mediation model, the specific indirect effect of attachment anxiety on psychological IPV victimization through both socially prescribed perfectionism and perceived couple conflict was significant, B = 0.54, SE = .16, CI [0.24, 1.08].

# **Attachment Avoidance and Physical IPV Victimization**

Fifth, we tested whether attachment avoidance was indirectly associated with physical IPV victimization through (a) self-



<sup>\*</sup>*p* < .05, \*\**p* < .01. \*\*\**p* < .001

<sup>&</sup>lt;sup>a</sup> Prevalence rates of psychologial IPV victimization in women = 56.2%; men = 63.4%

<sup>&</sup>lt;sup>b</sup> Prevalence rates of physical IPV victimization in women = 15.4%; men = 27.5%

Table 2 Path Coefficients from Fig. 1 Estimated Using PROCESS for the Models with Psychological IPV Victimization

Consequent											
Antecedent	$M_1$ (Rom	antic Perf	ectionism)	$M_2$ (Con	flict in Co	ouple)	Y (Psychological IPV Victimization)				
	Coeff.	SE	p	Coeff.	SE	p	Coeff.	SE	p		
Model 1											
Gender	-4.79	.94	< .001	.64	1.03	.54	-1.72	1.55	.27		
Length of the relationship	29	.28	.30	.14	.30	.64	1.61	.46	< .001		
Cohabitation with the partner	-1.95	1.15	.09	-1.60	1.24	.20	-1.70	1.87	.36		
Attachment Avoidance	<b></b> 39	.45	.39	3.99	.48	< .001	.61	.77	.43		
Self-oriented Romantic Perfectionism	_	_	-	.19	.05	< .001	03	.07	.70		
Conflict in Couple	_	_	-	_	_	_	.72	.06	< .001		
Psychological IPV Victimization	35.70	3.05	< .001	27.70	3.66	< .001	-15.66	5.78	< .01		
	$R^2 = .05$			$R^2 = .14$			$R^2 = .24$				
	F(4, 558) = 7.41, p < .001			F(5, 557)	() = 18.70,	p < .001	F(6, 556) = 29.80, p < .001				
Model 2											
Gender	-2.45	.62	< .001	1.05	.98	.29	-1.90	1.54	.22		
Length of the relationship	14	.19	.45	.16	.29	.59	1.60	.46	< .001		
Cohabitation with the partner	-1.24	.75	.10	-1.30	1.19	.27	-1.76	1.86	.34		
Attachment Avoidance	1.64	.29	< .001	3.01	.47	< .001	.75	.77	.33		
Socially Prescribed Romantic Perfectionism	-	-	_	.55	.07	< .001	13	.11	.26		
Conflict in Couple	_	_	_	_	_	_	.74	.07	< .001		
Psychological IPV Victimization	<b>14.71</b> $R^2 = .10$	2.00	< .001	<b>26.58</b> $R^2 = .21$	3.29	< .001	$-15.49$ $R^2 = .25$	5.46	< .01		
		= 16.14, j	<i>p</i> < .001		F(5, 557) = 29.97, p < .001			F(6, 556) = 30.06, p < .001			
Model 3		71				1		, <u>1</u>			
Gender	-4.98	.86	< .001	-2.55	1.01	< .05	-2.46	1.52	.11		
Length of the relationship	07	.27	.81	.40	.31	.19	1.70	.46	< .001		
Cohabitation with the partner	-1.66	1.09	.13	-1.36	1.24	.27	-1.67	1.86	.37		
Attachment Anxiety	1.94	.25	< .001	2.40	.30	< .001	.86	.47	.07		
Self-oriented Romantic Perfectionism	_	_	-	.06	.05	.23	07	.07	.33		
Conflict in Couple	_	_	-	_	_	_	.70	.06	< .001		
Psychological IPV Victimization	27.60	2.80	< .001	34.42	3.45	< .001	-14.73	5.62	< .01		
	$R^2 = .14$			$R^2 = .14$			$R^2 = .25$				
	F(4, 558)	$= 23.43, \mu$	<i>p</i> < .001	F(5, 557)	() = 18.03,	p < .001	F(6, 556) = 30.41, p < .001				
Model 4											
Gender	-3.60	.57	< .001	-1.07	.97	.27	-2.67	1.52	.08		
Length of the relationship	.05	.18	.80	.37	.29	.21	1.71	.46	< .001		
Cohabitation with the partner	94	.72	.19	99	1.19	.40	-1.68	1.86	.37		
Attachment Anxiety	1.53	.16	< .001	1.77	.29	< .001	.93	.47	< .05		
Socially Prescribed Romantic Perfectionism	-	_	-	.49	.07	< .001	17	.11	.13		
Conflict in Couple	_	_	_	_	_	_	.72	.07	< .001		
Psychological IPV Victimization	13.54	1.86	< .001	29.38	3.20	< .001	-15.22	5.36	< .001		
	$R^2 = .18$			$R^2 = .21$	$R^2 = .21$			$R^2 = .25$			
	F(4, 558) = 31.06, p < .001			F(5, 557)	() = 29.10,	p < .001	F(6, 556) =	: 30.72, <i>p</i> < .0	001		

oriented perfectionism and (b) perceived couple conflict (see Table 3 for path coefficients). Whereas the total effect of attachment avoidance on physical IPV victimization was

significant, B = 0.78, SE = .33, p < .05, when controlling for the effect of the mediators, the direct effect was not significant, B = 0.18, SE = .34, p = .59. The specific indirect effect through



Table 3 Path Coefficients from Fig. 1 Estimated Using PROCESS for the Models with Physical IPV Victimization

Consequent										
Antecedent	$M_1$ (Rom	antic Perfe	ctionism)	M <sub>2</sub> (Con	flict in Co	uple)	Y (Physical IPV Victimization)			
	Coeff.	SE	p	Coeff.	SE	p	Coeff.	SE	p	
Model 1		'								
Gender	-4.74	.94	< .001	.61	1.03	.55	-1.41	.69	< .05	
Length of relationship	19	.28	.50	.22	.30	.46	.45	.20	< .05	
Attachment Avoidance	<b></b> 38	.45	.39	3.97	.48	< .001	.18	.34	.59	
Self-oriented Romantic Perfectionism	_	_	_	.20	.05	< .001	00	.03	.97	
Conflict in Couple	_	_	-	_	_	=	.15	.03	< .001	
Physical IPV Victimization	31.85	2.11	< .001	24.64	2.68	< .001	-2.82	SE  .69 .20 .34 .03 .03 1.92  )=10.09, p .68 .20 .34 .05 .03 1.76  )=10.38, p .68 .20 .21 .03 .03 .1.82	.14	
	$R^2 = .04$			$R^2 = .14$			$R^2 = .08$			
	F(3, 560) = 8.62, p < .001			F(4, 559)	= 22.80,	p < .001	F(5, 558) = 10.09, p < .001			
Model 2										
Gender	-2.39	.62	< .001	.96	.98	.33	-1.28	.68	.06	
Length of relationship	07	.18	.70	.22	.29	.44	.46	.20	< .05	
Attachment Avoidance	1.65	.30	< .001	3.02	.47	< .001	.13		.70	
Socially Prescribed Romantic Perfectionism	_	_	=	.53	.07	< .001	.06	.05	.25	
Conflict in Couple	_	_	_	_	_	_	.14	.03	< .001	
Physical IPV Victimization	12.22	1.40	< .001	24.34	2.32	< .001	-3.19	1.76	.07	
	$R^2 = .10$			$R^2 = .21$			$R^2 = .09$			
	F(3, 560) = 19.87, p < .001			F(4, 559)	= 36.19,	p < .001	F(5, 558) = 10.38, p < .001			
Model 3										
Gender	-4.96	.87	< .001	-2.58	1.01	< .05	-1.57	.68	< .05	
Length of relationship	.03	.26	.92	.46	.30	.12	.46	.20	< .05	
Attachment Anxiety	1.99	.25	< .001	2.38	.30	< .001	.13	.21	.54	
Self-Oriented Romantic Perfectionism	_	_	-	.06	.05	.23	01	.03	.80	
Conflict in Couple	_	-	_	_	_		.16	.03	< .001	
Physical IPV Victimization	24.18	1.82	< .001	31.92	2.37	< .001	-2.50	.69 .20 .34 .03 .03 1.92 )=10.09, p < .68 .20 .34 .05 .03 1.76 )=10.38, p < .68 .20 .21 .03 .03 1.82 )=10.11, p < .68 .20 .21 .03 .03 1.82	.17	
	$R^2 = .14$			$R^2 = .14$			$R^2 = .08$			
	F(3, 560) = 31.11, p < .001			F(4, 559)	= 21.83,	p < .001	F(5, 558) = 10.11, p < .001			
Model 4		_						_		
Gender	-3.58	.58	< .001	-1.18	.98	.23	-1.35	.68	< .05	
Length of relationship	.11	.18	.55	.41	.29	.15	.46	.20	< .05	
Attachment Anxiety	1.59	.16	< .001	1.75	.29	< .001	.05		.82	
Socially Prescribed Romantic Perfectionism	_	_	_	.47	.07	< .001	.06		.27	
Conflict in Couple	_	_	_	_	_	_	.14	.03	< .001	
Physical IPV Victimization	11.46	1.21	< .001	27.89	2.14	< .001	-3.02	1.69	.07	
	$R^2 = .18$			$R^2 = .20$			$R^2 = .08$			
	F(3, 560) = 41.98, p < .001			F(4, 560)	= 34.79,	p < .001	F(5, 558) = 10.35, p < .001			

self-oriented perfectionism was not significant, B = 0.00, SE = .02, 99% CI [-0.06, 0.05], and the specific indirect effect through perceived couple conflict was significant, B = 0.61, SE = .20, 99% CI [0.18, 1.26]. Taken together, the serial multiple mediation was not significant; specifically, the specific indirect effect of attachment avoidance on physical IPV victimization through both self-oriented perfectionism and

perceived couple conflict was not significant, B = -0.01, SE = .01, 99% CI [-0.06, 0.03].

In our sixth model, we tested the indirect effects of attachment avoidance on physical IPV victimization through (a) socially prescribed perfectionism and (b) perceived couple conflict (see Table 3 for path coefficients). While the total effect of attachment avoidance on physical IPV victimization



was significant, B = 0.78, SE = .32, p < .05, the direct effect after controlling for the mediators was not significant, B = 0.13, SE = .34, p = .70. The specific indirect effect through perceived couple conflict, B = 0.43, SE = .18, 99% CI [0.07, 0.98], but not socially prescribed perfectionism, B = 0.09, SE = .12, 99% CI [-0.17, 0.49], was significant. When testing our total serial multiple mediation model, the specific indirect effect of attachment avoidance on physical IPV victimization through both socially prescribed perfectionism and perceived couple conflict was found to be significant, B = 0.12, SE = .05, 99% CI [0.02, 0.31].

# Attachment Anxiety and Physical IPV Victimization

In our seventh model, we then tested whether attachment anxiety was indirectly linked with physical IPV victimization through (a) self-oriented perfectionism and (b) perceived couple conflict (see Table 3 for path coefficients). The total effect of attachment anxiety on physical IPV victimization was significant, B = 0.49, SE = .19, p < .05. However, when controlling for the effect of the mediators, the direct effect was not significant, B = 0.13, SE = .21, p = .54. The specific indirect effect through self-oriented perfectionism was not significant, B = -0.02, SE = .05, 99% CI [-0.17, 0.10], whereas the specific indirect effect through perceived couple conflict was significant, B = 0.36, SE = .12, 99% CI [0.09, 0.75]. Taken together, in our serial multiple mediation model, the specific indirect effect of attachment anxiety on physical IPV victimization through both the mediators was not significant, B =0.02, SE = .02, 99% CI [-0.02, 0.07].

Finally, in our eighth model, we tested the indirect effect of attachment anxiety on physical IPV victimization through (a) socially prescribed perfectionism and (b) perceived couple conflict (see Table 3 for path coefficients). The total effect of attachment anxiety on physical IPV victimization was significant, B = 0.49, SE = .19, p < .05. However, the direct effect was not significant after controlling for the effect of the mediators, B = 0.05, SE = .20, p = .82. The specific indirect effect through socially prescribed perfectionism was not significant, B = 0.09, SE = .11, 99% CI [-0.17, 0.43], but the specific indirect effect through perceived couple conflict was significant, B = 0.25, SE = .10, 99% CI [0.03, 0.57]. When testing the final serial multiple mediation model, the specific indirect effect of attachment anxiety on physical IPV victimization through both socially prescribed perfectionism and perceived couple conflict was significant, B = 0.11, SE = .05, 99% CI [0.01, 0.27].

# **Alternative Models**

To ascertain the robustness of our conceptual model, two alternative plausible conceptual models were examined. The first alternative model examined the impact of romantic

attachment insecurity (i.e., attachment anxiety and avoidance) on IPV victimization (i.e., psychological and physical IPV) through (a) perceived couple conflict and (b) romantic perfectionism (i.e., self-oriented and socially prescribed perfectionism). As for the main analyses, eight serial mediational models were conducted. No significant indirect effect was found in any of the serial multiple mediational models. The second alternative model examined the impact of romantic attachment insecurity (attachment anxiety and avoidance) on romantic perfectionism (i.e., self-oriented and socially prescribed perfectionism), through (a) perceived couple conflict and (b) IPV victimization (i.e., psychological and physical IPV). Another eight serial mediational models were conducted. No significant indirect effect was found in any of the serial multiple mediational models.

# **Discussion**

Our study aimed to investigate specific serial mechanisms that could help to explain the relationship between insecure romantic attachment (i.e., attachment anxiety and attachment avoidance) and IPV victimization (i.e., physical and psychological IPV) in a sample of undergraduate students. Although researchers have previously investigated IPV through an attachment lens, our study is the first to our knowledge to examine whether romantic attachment insecurity may be indirectly associated with IPV victimization through romantic perfectionism (i.e., self-oriented and socially prescribed perfectionism) and perceived couple conflict. As expected, based on past research and theoretical work (e.g., Karakurt et al. 2013; Lussier et al. 2017; Mikulincer and Shaver 2016; Sandberg et al. 2019), higher romantic attachment insecurity was related to more physical and psychological IPV victimization before introducing the mediating variables. Interestingly, the current study also found that socially prescribed perfectionism (but not self-oriented perfectionism) and perceived couple conflict sequentially mediated the influence of attachment insecurity (i.e., attachment anxiety and avoidance) on physical and psychological IPV victimization. More specifically, as hypothesized, our results indicated that higher levels of attachment insecurity (i.e., attachment anxiety or attachment avoidance) was linked with higher socially prescribed perfectionism, which was, in turn, associated with increased perceived couple conflict and more psychological and physical IPV victimization. However, the mediations including self-oriented perfectionism did not significantly explain the pathway between attachment insecurity and IPV victimization. In other words, higher levels of attachment anxiety and avoidance were not indirectly linked with an increase in both types of IPV victimization through self-oriented perfectionism and perceived couple conflict.



Although both types of romantic perfectionism entail high standards toward the self within the relationship (i.e., strong desire to be as perfect as they can in their romantic relationship), they either originate from the self (i.e., self-oriented perfectionism: "one of my goals in my romantic relationship is to be perfect in everything I do") or originate from others (i.e., socially prescribed perfectionism: "my family expects me to be perfect in my romantic relationship"). Regarding mediational models examining the indirect link between attachment avoidance and IPV victimization through selforiented perfectionism and conflict, attachment avoidance was not directly linked with self-oriented perfectionism even if the latter was linked with greater conflict. Thus, it is possible that since individuals with high levels of attachment avoidance tend to prioritize deactivation strategies in times of need (i.e., characterised by creating distance from the partner and relying on the self), they might be less likely to impose excessively high standards on themselves to be perfect in their relationship. Regarding mediational models examining the link between attachment anxiety and IPV victimization, although attachment anxiety was directly linked with self-oriented perfectionism, the latter was not linked with conflict in the relationship when controlling for attachment anxiety. Thus, it may be that since individuals with high levels of attachment anxiety tend to use hyperactivation strategies in times of need (i.e., characterized by an excessive need for validation and increased attentiveness to threats about the integrity of the relationship), they might impose excessively high standards on themselves to be perfect in the relationship. However, given that high attachment anxiety also appeared to be directly and highly linked with increased perceived couple conflict, possibly because hyperactivation strategies tend to manifest as outwardly behaviors (e.g., excessive reassurance seeking), this could explain why high self-oriented perfectionism was not directly linked with perceived couple conflict when considering levels of attachment anxiety.

Another possible explanation for our findings is that selforiented perfectionism may have certain facets that are associated with higher levels of adaptive functioning. For example, Stoeber et al. (2008) found that perfectionistic striving (i.e., a facet of self-oriented perfectionism) was associated with positive outcomes (i.e., higher levels of pride after success). Thus, it is also possible that high attachment anxiety might be associated with both adaptive and less adaptive facets of self-oriented perfectionism, which might explain the null direct effect between self-oriented perfectionism and perceived couple conflict when taking attachment anxiety into account. Furthermore, recent studies using a 2 × 2 model of dispositional perfectionism (Gaudreau and Thompson 2010) suggested that it might be useful to distinguish between individuals who manifest pure self-oriented perfectionism, pure socially prescribed perfectionism, both self-oriented and socially prescribed perfectionism, and no indication of either type of romantic perfectionism. As such, there might be different links between romantic attachment and IPV victimization through romantic perfectionism and perceived couple conflict among individuals who scored higher on either one type, both types of romantic perfectionism or none. That said, such model has yet to be applied in the context of IPV victimization, and thus future investigation of these links is warranted.

#### Prevalence of IPV

Our findings indicated that men report significantly more IPV victimization than women. Other studies have found similar gender differences in IPV victimization among students (e.g., Ahmadabadi et al. 2017). However, IPV rates tend to vary widely from one study to another; some studies report similar rates between men and women (e.g., Centers for Disease Control and Prevention 2018), while others report higher rates of IPV victimization among women (e.g., Hébert et al. 2014). This highlights the importance of considering both men and women when examining IPV victimization models, with an emphasis on young adults since they are most at risk of IPV victimization (Caetano et al. 2005).

#### **Limitations and Future Research**

Although our study provides valuable insight into the associations between romantic attachment insecurity and IPV victimization in undergraduate students, certain limitations must be acknowledged. Our sample was mainly comprised of women, individuals who self-identified as Caucasian, and highly educated individuals, and thus we cannot generalize our findings to other populations. Furthermore, given that we recruited participants through a convenience method, we had a limited sample of participants who had experienced physical violence, and thus their responses may not have fully reflected the experience of this population. It is worth noting, however, that our prevalence rates for psychological and physical IPV victimization were generally congruent with the available rates in the literature (e.g., Ahmadabadi et al. 2017; Centers for Disease Control and Prevention 2018). Since these characteristics are typical of undergraduate psychology classes (National Center for Education Statistics 2018), future studies could expand upon our findings by recruiting from more diverse community samples. The self-report methods used to measure our variables also introduce the possibility of self-report bias, and the cross-sectional nature of our methodology prevents us from inferring causality and directionality. Longitudinal studies would allow for the examination of temporal sequencing between the variables in play. Finally, having data from only one partner in a relationship does not allow for a full actor-partner analysis, and therefore only one side of the phenomenon was studied. Future studies should



investigate both members of the dyad to gain a more complete understanding of what contributes to IPV victimization. Examining other well-documented variables linked to romantic attachment and IPV victimization (e.g., parenting behaviors, childhood abuse) in similar models would also further our understanding of IPV. Further, future studies could explore whether similar models may be applicable in the context of other types of IPV victimization (e.g., sexual violence).

# **Conclusions**

Romantic partners can heavily influence a young adult's behaviors and mindset in their current and/or future relationships. Early couple relationships set the foundation for a developing model of self and others in a romantic context. IPV victimization represents a major breach of support as well as a profound disruption in the safety that is expected from a romantic partner. This form of relational trauma can lead to repeated relationship failures and decreased well-being. It is imperative that further research is conducted to better understand models of IPV victimization in college-aged samples.

Considering the high prevalence of IPV in this age group it is also important to continue to increase university students' awareness of this phenomenon and its potential impact on their wellbeing. To our knowledge, important strategies (e.g., building awareness through posters, conferences, workshops, and leadership trainings) and policies made available to university students through various means (e.g., university website, course syllabus) to prevent violence on campuses already exist in some universities. According to our literature search, educating students about the importance of attachment security for the romantic relationship wellbeing could be an important, research-informed, complement to existing programs. The "Hold me Tight" educational and therapeutic initiative, which is currently available in many languages via a book, DVDs, group workshops and online (Johnson 2008; Johnson 2019) and, thus, accessible to university students, is highly relevant to this effect. Helping partners to become more attuned and emotionally responsive to each other's needs, as well as allowing repair of attachment injuries, are some of the key ingredients to creating a deeper emotional connection and coregulation between partners. This can act as an important antidote against problematic behaviors within the relationship, such as violence.

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