

Can Romantic Attachment and Psychopathy Concomitantly Explain the Forms and Severity of Perpetrated Intimate Partner Violence in Men Seeking Treatment?

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This study examines the respective contributions of two risk markers for intimate partner violence perpetrated by men seeking psychological help: psychopathic personality traits (primary and secondary), and attachment insecurities (anxiety and avoidance). In an effort to offer more specific and nuanced results, the severity of the violence perpetrated by participants (i.e., minor and severe) was examined with regards to three forms of intimate partner violence: physical, psychological, and sexual. A sample of 226 men seeking help in a community organization specialized in the treatment of relational difficulties and intimate partner violence answered a series of self-report questionnaires. Results of multiple and logistic regression analyses reveal that attachment anxiety is related to the perpetration of minor psychological violence, severe physical violence, and minor sexual violence. Attachment avoidance is not significantly associated with perpetration of intimate partner violence when attachment anxiety and psychopathy traits are considered. Primary psychopathy is also linked to the perpetration of severe psychological and sexual violence, whereas secondary

psychopathy is solely associated with the perpetration of minor psychological violence. From a clinical standpoint, these results highlight the importance of considering the forms and severity of intimate partner violence, and put forward the relevance of assessing and considering issues surrounding attachment insecurities and psychopathy in men seeking treatment for relationship difficulties.

KEYWORDS: intimate partner violence; attachment; psychopathy; men

According to the World Health Organization (WHO, 2012, 2016), intimate partner violence (IPV) represents a major public health problem and a violation of human rights, especially for women. In North America, empirical studies and populational surveys have observed that more than 1 in 3 women will report having experienced any form of IPV in their lifetime (Breiding et al., 2015; Desmarais et al., 2012). A representative study conducted in the United States revealed that a third of women (30.3%) reported having sustained physical violence by a romantic partner at least once, half reported psychological violence (48.4%) and close to a tenth (9.4%) of surveyed women reported sexual violence at the hands of a romantic partner (Black et al., 2011). Those high prevalence rates are all the more worrisome since IPV victimization in women has been associated with severe repercussions on their physical, mental, relational, and professional functioning. Research has shown that female victims of IPV report more chronic diseases (e.g., physical pain, hypertension, migraines; Ruiz-Pérez, Plazaola-Castaño & Río-Lozano, 2007); suicidal thoughts and behaviors; anxious, depressive, and somatic symptoms (Rogers & Follingstad, 2014); as well as lower relational satisfaction (Panuzio & DiLillo, 2010) and quality of employment (Showalter, 2016). Thus, research fostering a better understanding of the factors at play in the perpetration of IPV against women might alleviate these repercussions by preventing its presence in the first place. Because intimate partner violence is intrinsically relational in nature, researchers (Poythress, Skeem & Lilienfeld 2006; Shaver & Mikulincer, 2011) have underscored the need to consider relational risk markers for the perpetration of IPV in men, in particular attachment insecurities (for a review, see Velotti, Zobel, Rogier & Tembelli, 2018) and socially aversive personality traits such as psychopathy (Carton & Eagan, 2017; Dugal et al., 2021).

INTIMATE PARTNER VIOLENCE

Intimate partner violence is defined as a multidimensional concept that can manifest in three main forms: physical, psychological, and sexual (Breiding et al., 2015). All three types of violence can be rated on a continuum of severity ranging from more minor to more severe acts of violence. Although all forms of violent behaviors are unacceptable, more severe forms of violence would be associated with more severe consequences (e.g., Hackenberg, Sallinen, Handolin & Koljonen, 2021). Physical IPV

describes all physical behaviors that are exerted to harm the partner's physical integrity, life or liberty. It includes more minor acts of violence, such as shoving, grabbing or slapping one's partner, as well as more severe acts, such as punching, kicking, or threatening the partner with a firearm (Breiding et al., 2015; Straus, Hamby, Boney-McCoy & Sugarman, 1996). Psychological IPV refers to the use of verbal and nonverbal communication in order to harm on an emotional level or to control the partner (Breiding et al., 2015). Minor forms of psychological IPV include insulting, swearing or yelling at one's partner, whereas severe forms include threats to harm the partner (Straus et al., 1996). Sexual IPV refers to behaviors that are used to engage in sexual activity with one's partner despite their unwillingness. Minor forms of sexual IPV include insisting on having sex with a partner who does not want to as well as forcing the partner to have sex without protection, and severe forms include the use of physical force, weapons or threats in order to have sex with one's partner (Straus et al., 1996).

Researchers have stressed the importance of distinguishing between the various forms of partner violence in order to pinpoint their respective and potentially unique risk markers (Capaldi, Knoble, Shortt & Kim, 2012; O'Leary & Woodin, 2009). Others have also underscored the need to consider differences in frequency and severity of IPV to nuance the experience of this violence, which is known to have potentially different underlying mechanisms (e.g., Forgey & Badger, 2010; Leisring, 2013). Yet, very few studies examining the role of attachment insecurities and psychopathy on the various forms of IPV have considered these distinguishing aspects specifically.

ROMANTIC ATTACHMENT AND IPV

In his groundbreaking work on attachment between infants and their caregiver, Bowlby (1982, 1988) suggested the existence, from birth and throughout life, of an innate behavioral attachment system that would allow humans to meet their basic needs related to survival. Over the years, other authors have built on this theory to explain how adults' social interactions tend to mirror those nurtured with their primary attachment figure or caregiver, especially romantic relationships (Hazan & Shaver, 1987). As such, romantic attachment, as it is now broadly conceptualized, contains two dimensions: anxiety and avoidance (Brennan, Clark & Shaver, 1998).

Attachment Anxiety

Mikulincer and Shaver (2016) describe attachment anxiety as a negative representation of the self that leads to doubts about one's value, constant worries about being abandoned or rejected by others as well as an excessive need for the approval of others, especially that of the romantic partner. Those with higher levels of anxiety will use hyperactivation strategies to reduce their insecurity, such as becoming hyper-vigilant to the unavailability and to early signs of potential rejection or abandonment from the partner or seeking reassurance and proximity in an excessive manner.

With regard to the perpetration of IPV, research has shown that, when faced with unmet attachment needs and relational insecurity, highly anxious individuals tend to have difficulty tolerating their attachment-related fears (i.e., losing their partner, being rejected by their partner), and are thus more likely to express anger and use violence as ways to get attention and increase proximity with their partner (Allison, Bartholomew, Mayseless & Dutton, 2008; Brassard, Darveau, Péloquin, Lussier & Shaver, 2014; Lafontaine & Lussier, 2005). Results from studies using samples from the general population (e.g., Godbout, Dutton, Lussier & Sabourin, 2009; González, Carracedo, Oribe & Arismendi, 2016) and of men consulting for relational difficulties including aggression (Fournier, Brassard & Shaver, 2011), support the associations between attachment anxiety and physical and psychological IPV perpetration. Studies conducted with couples and individuals from the general population have also found a positive association between attachment anxiety in men and perpetration of sexual coercion against an intimate partner (Brassard, Shaver & Lussier, 2007; He & Tsang, 2014; Sommer, Babcock & Sharp, 2017). According to these authors, sexual coercion would also be used as a way to seek proximity with a partner when perceiving threats to the relationship. However, other studies have found no significant associations between attachment anxiety and perpetration of physical and psychological partner violence (e.g., Gormley & Lopez, 2010; Sommer et al., 2017) and very few have examined these associations by differentiating the severity of the acts perpetrated.

Attachment Avoidance

Attachment avoidance describes those who have a negative representation of others as unreliable, which lead these individuals to be highly self-reliant and uncomfortable with emotional intimacy (Brennan et al., 1998). Accordingly, they use deactivation strategies in order to preserve emotional distance, autonomy, and independence, and limit the unveiling of emotions to others based on a fear of showing vulnerability (Mikulincer & Shaver, 2016). Avoidant individuals believe they do not need to depend on others (or that it is dangerous to do so because others are perceived as untrustworthy) and often use denial and emotional minimization to avoid feeling the distress related to the potential loss of the partner.

Several studies have shown a positive association between attachment avoidance and perpetration of IPV, emphasizing that avoidant men tend to use psychological or physical violence in order to maintain distance from their partner or to withdraw when their partner is perceived as being intrusive (i.e., deactivating strategy; Allison et al., 2008; Godbout et al., 2009; González et al., 2016; Sommer et al., 2017). A few studies have also found a small association between attachment avoidance and the use of sexual coercion against a romantic partner (Karantzas et al., 2016; Smallbone & Dadds, 2001), but at least one study did not support this link (Brassard et al., 2007). Despite these contradicting results, Karantzas and colleagues (2016) suggested that because avoidant individuals tend to experience sexuality in ways

that minimize intimacy and interdependence (e.g., focusing on the physical aspects of sexuality only), they might show less consideration for the vulnerability or sexual response of their partner. In turn, this could increase their likelihood of using sexually coercive behaviors, especially more subtle and more minor forms (i.e., verbal threats, manipulation). This lack of consideration for the experience of others, including the romantic partner, is also observable in individuals with psychopathic personality traits, another well-known risk marker for IPV perpetration.

PSYCHOPATHY

According to Cleckley (1988) and Levenson, Kiehl, and Fitzpatrick (1995), psychopathy contains two dimensions: primary psychopathy, which describes individuals who act in malevolent and deceitful ways with a lack of empathy or remorse, and secondary psychopathy, which describes individuals with an antisocial, emotionally labile and impulsive lifestyle. Researchers have stressed the need to differentiate between both dimensions of psychopathy when examining its association with IPV (e.g., Camp et al., 2013). For instance, Iyican and Babcock (2018) found that primary psychopathy, but not secondary psychopathy, was associated with higher perpetration of minor and severe physical, psychological, and sexual violence by men towards their romantic partner in a sample of 114 couples from the community. On the contrary, in their study using a sample of 155 men in an IPV-specialized treatment center, Lussier and Lemelin (2002) found only a small positive correlation between secondary psychopathy and the use of sexual coercion towards the partner when they examined associations between both dimensions of psychopathy and the three forms of IPV. Other studies have also found positive associations between the dark triad of personality (Machiavellianism, narcissism, and psychopathy; Paulhus & Williams, 2002) and the use of psychological (Dugal et al., 2021), physical, and sexual violence (Carton & Egan, 2017) in community samples. However, these studies did not include a measure of secondary psychopathy (the dark triad assesses primary psychopathy only), nor did they assess the severity of violence perpetrated by men in their samples. In addition, even though authors have stated that perpetrators of IPV who show psychopathic traits tend to use more severe forms of aggression (Holtzworth-Munroe, Meehan, Herron, Rehman & Stuart, 2003), very few studies have examined the specific associations between the two dimensions of psychopathy and physical, psychological, and sexual IPV, while considering the severity of the violence.

OBJECTIVES AND HYPOTHESES

This study aimed to examine the respective contributions of two risk markers, attachment insecurities (anxiety and avoidance) and psychopathy (primary and secondary), on the perpetration of intimate partner violence, as defined by three known forms (physical, psychological, sexual) and two levels of severity (minor, severe) within a non-correctional clinical sample of men who consulted a community setting for relational

difficulties and IPV. Based on existing scientific literature, it was expected that these men's attachment anxiety would be positively related to their perpetration of physical (1a), psychological (1b) and sexual (1c) IPV. Attachment avoidance was hypothesized to be positively related to the perpetration of physical (1d) and psychological (1e) IPV. It was also expected that primary psychopathic traits would be positively associated with the perpetration of physical (2a), psychological (2b) and sexual (2c) IPV. The association between secondary psychopathy and IPV was also examined, but because research has provided weaker empirical support regarding this association, no specific hypotheses were formulated. Finally, previous research has often failed to account for the severity of the violence despite some studies providing evidence that distinguishing between more minor and severe forms of violence yields different patterns of results. To address this limitation, all our analyses accounted for the severity of violence by differentiating between minor and severe violent behaviors.

METHOD

Procedure

Recruitment was conducted in partnership with facilitators of a community organization specialized in the treatment of IPV. Men were eligible for the study if they were aged 18 years and over and were able to read French. Prior to the intake assessment, facilitators invited their male clients to take part in a study on risk markers of couple conflicts by answering a series of self-administered paper-pencil questionnaires (around 60 minutes). Men were informed that their answers to the questionnaires would be made available to the facilitators and would be used to guide assessment and treatment. Most men accepted to take part in the study (participation rate: 96%). The research was approved by the researchers' university's ethics board.

Participants

The sample consisted of 226 men aged from 18 to 69 years ($M = 34.18$, $SD = 10.38$). The majority of the sample was French Canadian (93.7%), while 6.3% were born in another country. Participants' annual income varied from 0 to CAN\$130,000 ($M = 27,360$, $SD = 21,892$). Most men reported being full-time workers (43.8%), 31.5% were unemployed, 14.62% were part-time or seasonal workers, 6.4% were full-time students, and 3.7% were retired. Regarding education, 16.8% had completed elementary school, 57.5% held a high school diploma, 8.0% attained a pre-university college degree, 8.4% completed university studies and 9.3% did not answer this question. With regards to relationship status, 46.5% of men were in a cohabiting relationship, 15.0% were in a dating but not cohabiting relationship, 12.4% were married, 18.6% had been single for less than a year, and 7.5% were either widowed, separated or divorced. Among men who were in a relationship, the duration of the relationship varied between 0 and 47 years ($M = 6.42$, $SD = 8.37$).

Participants had been referred to the community organization by a health professional (38.1%), an order of the court (18.1%), a youth center (10.6%), someone close to them (11.1%), someone else (9.7%), or they self-referred (11.9%). The majority (62.4%) of men reported having sought therapy for psychological problems at least once in the past.

Measures

A sociodemographic questionnaire assessed participants' age, income, occupation, education, relational status, and previous psychotherapy experiences.

Intimate Partner Violence. The Revised Conflict Tactics Scales (CTS2; Straus et al., 1996) assesses the experience of perpetrated and sustained intimate partner violence in the past 12 months. This measure contains 78 items rated on an 8-point scale ranging from 0 "this has never happened" to 7 "more than 20 times in the past year". Subscales include perpetrated and sustained physical violence (24 items, e.g., "I beat up my partner"), psychological violence (16 items, e.g., "I shouted or yelled at my partner"), and sexual violence (14 items, e.g., "I made my partner have sex without a condom"). Scores are calculated by creating midpoints of the range mentioned (e.g., for "3 to 5 times in the past year", the number 4 is used) and by adding the relevant scale's items. Scores indicate the number of behaviors of that kind that occurred in the past year. These three subscales are divided into minor and severe forms of intimate partner violence, for a total of six subscales. The construct validity and internal consistency of the CTS2 are adequate, with alpha coefficients varying between .79 and .86 (Lussier, 1997; Straus et al., 1996). In the current sample, alpha coefficients were also adequate for the physical, psychological and sexual partner violence subscales, whether minor (respectively .84, .75, and .71) or severe (respectively .89, .69, and .93).

Romantic Attachment. The abridged 12-item version (Lafontaine et al., 2016) of the Experiences in Close Relationships (ECR; Brennan et al., 1998) assesses two dimensions of romantic attachment: anxiety (6 items, e.g., "I worry a fair amount about losing my partner") and avoidance (6 items, e.g., "I get uncomfortable when a romantic partner wants to be very close"). Items are rated using a 7-point Likert scale ranging from 1 "disagree strongly" to 7 "agree strongly". Higher mean scores on each scale indicated higher levels of attachment anxiety or avoidance. The abridged version (Lafontaine et al., 2016) used in this study holds good psychometric qualities (anxiety: $\alpha = .78-.87$; avoidance: $\alpha = .74-.83$). In the sample, alpha coefficients were adequate for the anxiety ($\alpha = .90$) and avoidance ($\alpha = .81$) dimensions.

Psychopathy. The French and validated version (Savard, Lussier & Sabourin, 2014) of the Levenson Self-Report Psychopathy scale (LSRP; Levenson et al., 1995) includes 26 items rated on a 4-point Likert scale ranging from 1 "disagree strongly" to 4 "agree strongly". This measure assesses both psychopathy dimensions: primary psychopathy (16 items, e.g., "Looking out for myself is my top priority") and secondary psychopathy (10 items, e.g., "I don't plan anything very far in advance"). Higher

scores on the measure indicate the presence of more psychopathic traits. Alpha coefficients obtained with this measure (Savard et al., 2014) are satisfactory for both primary ($\alpha = .78$) and secondary psychopathy ($\alpha = .63$), and adequate in this sample (respectively .77 and .71).

RESULTS

Descriptive Analyses

Descriptive analyses revealed that on average, men from the sample report having perpetrated less than five acts of minor physical violence, more than 25 acts of minor psychological violence, and less than two acts of minor sexual violence towards their romantic partner in the past year. They also report having perpetrated, on average, less than one act of severe physical or sexual violence and close to four acts of severe psychological violence towards their romantic partner in the past year. Table 1 presents results of further descriptive analyses conducted with the study variables, romantic attachment, psychopathy, and IPV. Since scores for IPV were moderately to highly skewed, non-linear transformations were used for severe psychological (logarithmic) and minor physical violence (logarithmic and reciprocal) and dichotomization (0 = no violence; 1 = presence of violence) was used for severe physical, minor and severe sexual violence. Descriptive analyses for these dichotomous variables revealed that 27.0% of men reported having perpetrated at least one act of severe physical violence, 22.6% reported at least one act of minor sexual violence and 4.4% reported at least one act of severe sexual violence against a romantic partner in the past year. On average, men from this sample presented moderate levels of attachment anxiety as well as mild levels of avoidance. With regards to psychopathy, the sample showed levels of primary and secondary psychopathy traits that are higher than those found in previous studies, including in a sample of couples seeking couple therapy (Mayer, Savard, Brassard, Lussier & Sabourin, 2020).

Preliminary Analyses

Pearson correlations, multivariate analyses of variance (MANOVAs) and chi-square analyses were conducted to test the need to control for demographic variables in the main analyses. No correlations between the study and continuous sociodemographic variables (age, annual income, duration of the actual relationship) were significant. The MANOVAs yielded no significant differences ($ps > .05$) on the study variables based on the categorical demographic variables (occupation, prior consultation, having sustained violence as a child, education, relational status). Finally, chi-square analyses revealed no significant associations between dichotomized IPV variables (severe physical, minor and severe sexual violence) and demographic variables ($ps > .05$). Thus, the main analyses did not include any covariates.

TABLE 1. Descriptive statistics and Pearson Correlations between Indicators of Romantic Attachment, Psychopathy, and Intimate Partner Violence

Variables	1	2	3	4	5	6	7	8	9	10
1. Minor physical IPV ²	-	.53**	.50**	.55**	.08	.12	.15*	.04	.14*	.12
2. Severe physical IPV ³		-	.30**	.31**	.05	.11	.22**	.01	.10	.18**
3. Minor psychological IPV			-	.53**	.31**	.09	.32**	.14*	.15*	.31**
4. Severe psychological IPV ¹				-	.14*	.16*	.10	.08	.23**	.19**
5. Minor sexual IPV ³					-	.04	.26**	-.06	.09	.15*
6. Severe sexual IPV ³						-	.13*	.10	.16*	.10
7. Attachment anxiety							-	.16*	.20**	.48**
8. Attachment avoidance								-	.08	.28**
9. Primary psychopathy									-	.33**
10. Secondary psychopathy										-
<i>M</i>	4.30	0.93	28.14	4.10	1.97	0.14	3.96	2.55	30.98	22.52
<i>SD</i>	11.98	3.91	25.65	9.55	6.50	0.86	1.42	1.04	7.13	5.29
<i>Min</i>	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	16.00	10.00
<i>Max</i>	125.00	45.00	100.00	60.00	50.00	8.00	7.00	5.60	54.00	35.00
Skewness	6.90	9.03	1.06	3.94	5.11	7.68	-0.06	0.50	0.41	0.01
Kurtosis	58.53	91.40	0.39	17.25	29.93	63.67	-0.75	-0.34	-0.16	-0.44

¹A logarithm transformation was used to normalize data on this variable. ²A logarithm and reciprocal transformation was used to normalize data on this variable. ³The variable was dichotomized (0 = no act of violence; 1 = at least one act of violence).

* $p < .05$. ** $p < .01$.

Main Analyses

The study's hypotheses were verified using multiple regression analyses with minor physical violence, and minor and severe psychological violence as dependant variables. Logistic regression analyses were conducted with dichotomized variables, namely severe physical violence and minor and severe sexual violence. A standard approach was privileged for the analyses, with the four predictor variables entered simultaneously (attachment anxiety and avoidance, primary and secondary psychopathy) in the regression models. When significant, the percentage of unique explained variance for each predictor was estimated by the squared semi-partial correlation (sr^2). Assumptions of normality, homoscedasticity, and linearity of residuals were tested, as well as the absence of multivariate outliers (Cook's distance < 1). The absence of multicollinearity was also verified: coefficients of the correlation matrix were all lower than .70 (see Table 1).

Minor Psychological Violence. The regression model assessing the respective contribution of romantic attachment and psychopathy on the perpetration of minor psychological violence was significant, $F(4,221) = 8.707$, $p < .001$, and explained 13.6% of the variance ($R^2_{\text{adj}} = .121$). Precisely, attachment anxiety ($\beta = .214$, $p = .003$, $sr^2 = .035$) and secondary psychopathy ($\beta = .173$; $p = .024$, $sr^2 = .020$) were associated with higher minor psychological violence. Attachment avoidance ($\beta = .058$; $p = .375$) and primary psychopathy ($\beta = .045$; $p = .496$) were not significantly related to this form of violence when all predictors were considered.

Severe Psychological Violence. The regression model assessing the respective contribution of romantic attachment and psychopathy on the perpetration of severe psychological violence was significant, $F(4,221) = 3.999$, $p = .004$, and explained 6.7% of the variance ($R^2_{\text{adj}} = .051$). Precisely, primary psychopathy ($\beta = .189$, $p = .007$, $sr^2 = .032$), but not attachment anxiety ($\beta = -.003$; $p = .971$), avoidance ($\beta = .036$; $p = .595$), nor secondary psychopathy ($\beta = .115$; $p = .149$), was significantly associated with a more frequent use of severe psychological violence.

Minor Physical Violence. The regression model assessing the respective contribution of romantic attachment and psychopathy on the perpetration of minor physical violence was not significant, $F(4,221) = 2.012$, $p = .094$ — that is, attachment anxiety ($\beta = -.108$; $p = .156$) and avoidance ($\beta = -.009$; $p = .901$), as well as primary ($\beta = -.107$; $p = .127$) and secondary psychopathy ($\beta = -.032$; $p = .690$) were not significantly associated with the use of minor physical violence.

Severe Physical Violence. The logistic regression model assessing the respective contribution of romantic attachment and psychopathy on the perpetration of severe physical violence was found to be significant, $\chi^2(4, N = 226) = 13.511$, $p = .009$. The Hosmer–Lemeshow chi-square goodness of fit test indicated an absence of difference between the predicted and observed values, $\chi^2(8) = 10.708$, $p = .219$, which supports the fit of the model. The four predictors explained between 5.8% (Cox & Snell's R^2) and 8.4% (Nagelkerke's R^2) of the variance in severe physical violence. We found that men were 1.35 times more likely to use severe physical violence for each additional

unit of value of attachment anxiety ($B = .297, p = .020$). Attachment avoidance ($B = -.099, p = .529$), and primary ($B = .013, p = .569$) and secondary psychopathy ($B = .042, p = .228$) were not significantly associated with severe physical violence.

Minor Sexual Violence. The logistic regression model conducted on minor sexual violence was also significant, $\chi^2(4, N = 225) = 22.841, p < .001$. The Hosmer–Lemeshow chi-square goodness of fit test supported an absence of difference between the predicted and observed values, $\chi^2(8) = 9.317, p = .316$. The four predictors explained between 9.7% (Cox & Snell's R^2) and 14.8% (Nagelkerke's R^2) of the variance in minor sexual violence. We found that men were 1.64 times more likely to use minor sexual violence for each additional unit of value of attachment anxiety ($B = .492, p = .001$). Attachment avoidance ($B = -.347, p = .059$), and primary ($B = .012, p = .621$) and secondary psychopathy ($B = .040, p = .290$) were not significantly associated with minor sexual violence.

Severe Sexual Violence. The logistic regression model conducted with severe sexual violence was significant, $\chi^2(4, N = 223) = 15.137, p = .004$. The Hosmer–Lemeshow chi-square goodness of fit test supported an absence of difference between the predicted and observed values, $\chi^2(8) = 5.213, p = .735$. The predictors explained between 6.6% (Cox & Snell's R^2) and 26.9% (Nagelkerke's R^2) of the variance of the perpetration of this form of violence. The results showed that men were 1.21 times more likely to perpetrate severe sexual violence for each additional unit of value of primary psychopathy ($B = .192, p = .003$). Attachment anxiety ($B = .243, p = .509$) and avoidance ($B = -.325, p = .407$), and secondary psychopathy ($B = .042, p = .669$) were not significantly associated with severe sexual violence.

DISCUSSION

This study allowed us to examine the joint contribution of attachment insecurities and psychopathy in our understanding of various forms of IPV (physical, psychological, and sexual), while also accounting for differences in the severity level (minor, severe) of these aggressive behaviors in a large sample of men seeking treatment in a community organization specialized in the treatment of relational difficulties and IPV. Our findings supported the relevance of examining these relational risk markers of IPV perpetration in men. They also highlighted the importance of distinguishing minor from severe acts of violence, as different patterns of results emerged based on the level of severity.

Attachment Anxiety

In accordance with previous research (for a review, see Velotti et al., 2018), results support this study's first hypothesis with regards to a positive association between attachment anxiety and the perpetration of IPV. Yet, the current study goes beyond these results as it highlights the differential associations of attachment anxiety with various forms and severity levels of IPV, while controlling for psychopathy.

Results showed that higher attachment anxiety was associated with the more frequent perpetration of minor psychological violence, such as doing something to spite the partner, yelling or insulting them, as well as severe physical violence, such as choking, kicking or beating up the partner. It is possible that these men's high sensitivity to rejection is activated when they perceive that their partner does not meet their needs for proximity or connection. Such perception may result in strong feelings of fear of abandonment that escalate into the use of increasingly aggressive or controlling tactics to get the partner's attention and to increase relational connection (Dutton, 2011; Mikulincer & Shaver, 2016). Indeed, Fournier and colleagues (2011) explained that men who are sensitive to rejection might become insistent and pushy when faced with signals of their partner's unavailability or distancing. Thus, anxious men might experience relational conflicts as threats to the attachment bond (Dutton, 2011), which, in addition to poor regulation and expression of emotions, could cause them to start criticizing and insulting their partner. Brassard and colleagues (2014) have indeed showed that attachment anxiety is associated with the perpetration of psychological violence in men partly due to their difficulties regulating their experience of anger.

Given this interpretation, the lack of association between attachment anxiety and severe psychological violence could be surprising. However, there might be an important qualitative difference between more minor forms of psychological violence and severe psychological aggression, because this latter form of violence involves the notion of threats and humiliation. It may be that factors underlying the use of this type of violence go beyond a difficulty in regulating one's attachment insecurity and unmet needs for intimacy, which are chief characteristics of attachment anxiety. Nonetheless, these difficulties dealing with fears of abandonment were found to explain the use of severe physical violence. Indeed, because our sample specifically included men with aggression problems, who are known to lack skills in regulating their anger (e.g., Brassard et al., 2014), it may be that highly anxious men were even more likely to get angry and resort to the use of serious acts of physical violence – as controlling behaviors aiming to reestablish security – when they experienced attachment-related fears and desperately needed reassurance from their partner (Allison et al., 2008; Brassard et al., 2014; Dutton, 2011; Mikulincer & Shaver, 2016). This is in line with previous studies who found that attachment anxiety was related to more frequent and severe acts of physical dating violence through an angry temperament and more frequent controlling behaviors toward the partner (Follingstad, Bradley, Helff & Laughlin, 2002) and that attachment anxiety in court-mandated men was related to controlling behaviors (Sonkin, Ferreira, Hamel, Buttell & Frias, 2019).

Regarding sexual violence, we found that attachment anxiety was associated with minor, but not severe, forms of sexual violence, such as verbally pressuring a partner into sex. In accordance with previous findings (Brassard et al., 2007; Karantzas et al., 2016), men reporting more attachment anxiety might be more prone to pressure their partner for sex, despite their partner's unwillingness, which would also be a dysfunctional and controlling way to meet their need for reassurance about their

partner's affection and lessen their relational insecurity and fear of rejection (Dutton, 2011). Previous studies have found that sexuality is often used to increase intimacy with the partner and meet one's attachment needs for proximity, intimacy, approval, and reassurance about the stability of the relationship, and anxious individuals are especially likely to engage in sex for these reasons (Davis, Shaver & Vernon, 2004; Feeney & Noller, 2004; Tracy, Shaver, Albino & Cooper, 2003). Men in our sample may thus have been more likely to pressure their partner to engage in sexual intercourse as a way to get reassurance from their partner, yet without resorting to force, which would have described a more severe form of sexual violence.

Attachment Avoidance

Contrary to our expectations, yet consistent with some studies (e.g., Brassard et al., 2007), attachment avoidance was not associated with IPV perpetration beyond the contribution of attachment anxiety and psychopathic traits. Several reasons might underlie these findings. First, Mikulincer and Shaver (2016) have noted that when fearful (high anxiety and high avoidance) and dismissive (low anxiety, high avoidance) attachment styles are considered, only fearful attachment is related to the use of partner violence. It is thus possible that attachment avoidance is associated with IPV only in the concomitant presence of high levels of anxiety. In the same vein, the perpetration of violence in men with higher avoidance has been shown to take place when they are in a relationship with an anxious partner (Doumas, Pearson, Elgin & McKinley, 2008). In such a case, violence is used to re-establish distance from a demanding partner. Yet, because this study did not include men's partners, future research should aim to recruit both members of the couple in order to further examine these links. Another explanation would be that avoidant individuals tend to be less committed and invested in their romantic relationships (Bergeron, Brassard, Mondor & Pélouquin, 2020). It is possible that men who are less invested in their relationship are less likely to be overwhelmed by a fear of losing their partner or to want to hurt their partner because the relationship is not as meaningful to them. This explanation remains to be tested.

Primary Psychopathy

In partial support of our hypothesis, primary psychopathy was associated with the perpetration of severe psychological and severe sexual violence, which has been previously observed (e.g., Holtzworth-Munroe et al., 2003), but not with physical violence. Individuals who present primary psychopathic traits also present an inability to establish affective bonds with others, emotional detachment, and empathy deficits (Meloy, 2002), the latter having been related to higher perpetration of psychological IPV (Pélouquin, Lafontaine & Brassard, 2011). They also tend to act in ways that prioritize the fulfillment of their own needs without remorse or consideration of others (Cleckley, 1988). As such, they may deliberately humiliate or hurt their partner in

order to get a reaction that will benefit them (e.g., to show their dominance in the relationship, belittle their partner to heighten their own grandiosity; Cleckley, 1988). In addition, relationships with men who present primary psychopathy tend to be characterized by impersonal and utilitarian dominance rather than by mutual affection (Meloy, 2002). Therefore, it is not surprising that men with higher levels of primary psychopathy in the current sample were more prone to accuse their partner of being ugly or a lousy lover, to destroy something that belonged to them or to threaten to hit them (i.e., severe psychological violence), compared to men with lower levels of this personality trait. Moreover, these men might not hesitate to use every means necessary to satisfy their sexual needs, such as using physical force or a weapon to have sex with their partner. Meloy (2002) and Häkkänen-Nyholm (2012) have also found such an association between primary psychopathy and the use of violence to have sexual relations.

The absence of association between primary psychopathy and severe physical violence may be explained by the fact that men with high primary psychopathy are wise and strategic (e.g., Häkkänen-Nyholm, 2012) enough to anticipate that the use of physical violence might leave visible traces on their partner, while psychological or sexual violence would be difficult to detect. This hypothesis, however, is speculative and would need to be tested more directly in future research.

Secondary Psychopathy

Results suggested an association between secondary psychopathy and the perpetration of minor psychological violence when attachment insecurities and primary psychopathy are also considered in the model. It is possible that individuals with secondary psychopathic traits use minor psychological violence because of their impulsiveness, difficulty tolerating frustration, and their unstable mood (Savard, Sabourin & Lussier, 2006, 2011), which suggest emotion regulation difficulties. Their use of minor rather than severe psychological violence might not be the result of a desire for domination or manipulation as in primary psychopathy, but rather a way to express their anger to their partner, to reduce tension or to communicate their dissatisfaction in their relationship (Lussier & Lemelin, 2002). The absence of significant associations between secondary psychopathy and physical and sexual violence may be explained by the lower relative importance of secondary psychopathy personality traits in comparison with attachment anxiety and primary psychopathy. When these risk markers are taken into account, the impulsive and antisocial tendencies of secondary psychopathy may be of less importance to understand men's use of physical and sexual violence.

Strengths and Limitations

This study has several strengths, including the size of the sample which not only allowed us to conduct multivariate analyses with a statistical power exceeding the

required 80%, but is also uncommon in studies using similar clinical populations. That is, data was collected from a sample of non-incarcerated men seeking help for relational or aggression difficulties, a clinical population that is difficult to access because of their low use of mental health services (Statistics Canada, 2016). However, since the data from this study originated from a single community organization, the generalization of the results remains limited. Also, although self-report questionnaires facilitate the access to more private information, they are limited by higher risks of recall bias, social desirability, as well as introspection and fatigue biases. In addition, this study solely considered the individual perspective of men, without their partner's standpoint and experience. Since most of the variables assessed in this study take place within the romantic relationship, it would be relevant to use a dyadic design to examine the potential couple-based combinations of attachment insecurities and psychopathy, and their respective impact on the use of violence against a romantic partner (e.g., Henderson, Bartholomew, Trinkle & Kwong, 2005). It would also be important to include a measure of coercive control behaviors in future studies on this population, especially when trying to understand how attachment anxiety relates to IPV. Finally, the correlational nature of this research only allows us to examine the links between attachment insecurities, psychopathy and intimate partner violence, without inferring causality. Future studies using longitudinal designs should examine the evolution or stability of these links, as well as potential sequential links between attachment insecurities, psychopathy and IPV.

Implications

Our results highlight the relevance of distinguishing between minor and severe forms of IPV, as specific risk markers of these behaviors can be found among men. From a clinical standpoint, results of this study emphasize the importance of assessing attachment insecurities and psychopathy in men who seek treatment for relation and aggression difficulties. A brief measure of romantic attachment, like the ECR-12 (Lafontaine et al., 2016), allows for a prompt evaluation of clients' attachment insecurities, which can be used to guide interventions on proximity and distance regulation within relationships and their impact on the use of aggression towards the partner. Individuals with higher levels of attachment anxiety, notably, would benefit from understanding their controlling and violent behaviors as dysfunctional strategies, often triggered by fear of losing their partner and aiming at restoring their sense of security (e.g., Dutton, 2011). Relying on emotionally focused therapy (e.g., Johnson, 2019), therapists could validate the men's attachment needs and fears, and help them learn adequate ways to seek closeness and reassurance by first recognizing and regulating their emotions (e.g., fear, shame, anger, loneliness).

It is also recognized that the presence of psychopathic traits is associated with a poor prognosis for therapeutic change (Hakkanen-Nyholm, 2012; Harris & Rice, 2006; Meloy, 2001), particularly primary psychopathy. Indeed, individuals with primary psychopathy traits tend to be more resistant to therapeutic change (Hare, 1999)

and to avoid accepting responsibility, they tend to show little motivation to change problematic behaviors as well as a limited ability to use introspection (Hakkanen-Nyholm, 2012; Skeem, Poythress, Edens, Lilienfeld & Cale, 2003). Because they see relationships as utilitarian, they have also been shown to manipulate the therapist in order to gain secondary benefits. According to Hakkanen-Nyholm (2012), therapists should be careful when targeting the improvement of empathy, because it could accidentally improve these men's ability to manipulate others. On the contrary, studies have shown that therapy for men with secondary psychopathy can be effective especially when they experience anxiety or guilt and are motivated to change (Skeem et al., 2003). As such, by assessing these traits, therapists can adjust their prognosis and better help individuals with psychopathy traits to recognize the triggering events in a violent episode (e.g., ego threats), to improve emotion regulation and impulse control, as well as enhance social and interpersonal skills (Hakkanen-Nyholm, 2012).

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