

Childhood Maltreatment Increases the Risk of Intimate Partner Violence via PTSD and Anger Personality Traits in Individuals Consulting for Sexual Problems

Nicolas Berthelot, Martine Hébert, Natacha Godbout, Michel Goulet, Sophie Bergeron & Sophie Boucher

To cite this article: Nicolas Berthelot, Martine Hébert, Natacha Godbout, Michel Goulet, Sophie Bergeron & Sophie Boucher (2014) Childhood Maltreatment Increases the Risk of Intimate Partner Violence via PTSD and Anger Personality Traits in Individuals Consulting for Sexual Problems, *Journal of Aggression, Maltreatment & Trauma*, 23:9, 982-998, DOI: [10.1080/10926771.2014.960631](https://doi.org/10.1080/10926771.2014.960631)

To link to this article: <https://doi.org/10.1080/10926771.2014.960631>



Published online: 25 Sep 2014.



Submit your article to this journal [↗](#)



Article views: 914



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 8 View citing articles [↗](#)

Childhood Maltreatment Increases the Risk of Intimate Partner Violence via PTSD and Anger Personality Traits in Individuals Consulting for Sexual Problems

NICOLAS BERTHELOT

Department of Nursing, Université du Québec à Trois-Rivières, Trois-Rivières, Québec, Canada

MARTINE HÉBERT, NATACHA GODBOUT, and MICHEL GOULET

Department of Sexology, Université du Québec à Montréal, Montréal, Québec, Canada

SOPHIE BERGERON

Department of Psychology, Université de Montréal, Montréal, Québec, Canada

SOPHIE BOUCHER

Department of Sexology, Université du Québec à Montréal, Montréal, Québec, Canada

Childhood maltreatment is a significant risk factor for the perpetration of intimate partner violence (IPV) in adulthood. This study tested, in a clinical sample, a conceptual model suggesting that childhood maltreatment contributes to the development of anger personality traits, directly and indirectly via posttraumatic stress disorder (PTSD), and that anger personality traits, in turn, are associated with IPV. Adults consulting for sex therapy (n = 114) completed self-report measures of childhood maltreatment, PTSD, anger, and IPV. Participants were exposed to high rates of childhood maltreatment (83%). Path analysis supported the hypothesized model: Exposure to child maltreatment was associated with anger personality traits, and this association was partially mediated by PTSD symptoms. Anger personality traits were highly correlated with IPV.

Received 25 May 2013; revised 14 September 2013; accepted 21 November 2013.

Address correspondence to Nicolas Berthelot, Department of Nursing, Université du Québec à Trois-Rivières, C.P. 500, Trois-Rivières, Québec, Canada G9A 5H7. E-mail: nicolas.berthelot@uqtr.ca

KEYWORDS adult survivor, aggression, clinical issues, intimate partner violence, maltreatment, sexuality issues, trauma

Child maltreatment has been associated with robust long-term effects on physical (Corso, Edwards, Fang, & Mercy, 2008), sexual (Lacelle, Hébert, Lavoie, Vitaro, & Tremblay, 2012), and mental health (K. M. Scott, Smith, & Ellis, 2010), including a higher risk of being involved in intimate partner violence (IPV; Godbout, Dutton, Lussier, & Sabourin, 2009). The total lifetime economic burden resulting from new cases of child maltreatment each year in the United States is approximately \$124 billion (Fang, Brown, Florence, & Mercy, 2012). As such, child maltreatment needs to be considered as a serious public health problem. Among the diverse outcomes associated with child abuse and neglect, the neurobiological (Caspi et al., 2002; Essex et al., 2011), developmental (Wolfe, 2007), social learning (Bandura, 1973), psychodynamic (Kernberg, 1994), and attachment (Dutton, 2010; Fonagy, 1999) literatures all suggest that child maltreatment predisposes survivors to bear intense and chronic feelings of anger later in life. The experience of interpersonal violence, hostility, or indifference in childhood, particularly when occurring in the context of significant relationships with caregivers, might foster biological or affective predispositions to aggression, including persistent feelings of anger and inadequate coping mechanisms.

Child maltreatment has been associated, in particular, with long-lasting symptoms of posttraumatic stress disorder (PTSD; Briere, Hodges, & Godbout, 2010; Kearney, Wechsler, Kaur, & Lemos-Miller, 2010; Ozer, Best, Lipsey, & Weiss, 2003). PTSD with onset in late adolescence or young adulthood has been associated with a longer duration, and remission is less likely when symptoms persist for longer than 12 months (Breslau et al., 1998). Consequently, long-lasting PTSD symptoms in response to childhood maltreatment might come to be relatively stable characteristics of the individual. PTSD symptoms could in turn lead to a lower threshold for feelings of anger given the persistent state of fear, hypervigilance, and recurrent dissociation that characterizes this disorder. Thus, according to empirical research and theoretical models, anger should be considered as one expected outcome of childhood maltreatment. Dispositions toward anger should be carefully considered given consistent evidence linking anger to IPV (e.g., see review by Norlander & Eckhardt, 2005).

Consistent with this backdrop, this study aims to test a conceptual model suggesting that childhood abuse and neglect acts as a significant risk factor for the perpetration of physical and psychological IPV via PTSD and anger personality traits in individuals seeking sex therapy. According to the proposed model, childhood maltreatment will be directly and indirectly, via PTSD, associated with anger, which will lead to IPV. Recent studies with college students (Kendra, Bell, & Guimond, 2012; Taft, Schumm, Orazem,

Meis, & Pinto, 2010) and women perpetrating violence (Swan, Gambone, Fields, Sullivan, & Snow, 2005) documented that PTSD increases the risk of perpetrating IPV and that this association is largely accounted for by anger. Similarly, both anger-related trauma symptoms and PTSD-like trauma symptoms were found to mediate the association between harsh parenting and IPV perpetration in adolescents (Jouriles, Mueller, Rosenfield, McDonald, & Dodson, 2012).

We evaluate this model in a clinical sample of adult men and women consulting for sexual problems for four main reasons. First, a recent study showed that childhood sexual abuse (CSA) was particularly prevalent in clients of sex therapy (Berthelot, Godbout, Hébert, Goulet, & Bergeron, 2014). However, this study did not assess the prevalence of child abuse and neglect, nor its links with IPV. Data on the prevalence of childhood maltreatment in this clientele are scarce, yet such data could inform clinicians of the importance of assessing current and past histories of violence. Second, IPV might be at the core of the symptom constellation for a subgroup of individuals consulting in sex therapy. Indeed, studies that concurrently assessed IPV and sexual health found an association between IPV and a lack of sexual desire or pleasure in intimate relationships (see review by Coker, 2007). Therefore, IPV might be prevalent in this clientele. Third, the majority of studies on the mechanisms underlying IPV rely on samples of men perpetrating violence, participants within the criminal justice systems, or individuals from the community. The trajectory to IPV might be different in clinical samples of men and women seeking therapy for sex problems. Indeed, clients of sex therapy typically present salient relational or sexual problems, and these problems might be related to IPV in a specific way as compared to other populations. Fourth, evaluating and attending to past or current IPV and the client's history of childhood maltreatment might be of crucial importance for treatment effectiveness. The sequence of objectives planned by therapists might need to be adapted for survivors of childhood maltreatment or for individuals engaged in violent relationships. For example, some typical correlates of IPV and childhood maltreatment, namely PTSD and anger, could interfere with clients' cognitive processes within the sessions, and the observance of recommended activities.

Empirical evidence to date supports the proposed model in different populations. First, child maltreatment has been established as a significant risk factor for physical and psychological IPV perpetration in nonclinical college samples (Gover, Kaukinen, & Fox, 2008; Shook, Gerrity, Jurich, & Segrist, 2000). Empirical studies with community samples of adults reported similar findings, particularly with regard to physical IPV (Ehrensaft et al., 2003; Godbout et al., 2009; Heyman & Sleps, 2002). Similar associations between childhood maltreatment and IPV were observed in at-risk samples, such as low-income participants (DiLillo, Giuffre, Tremblay, & Peterson, 2001; Topitzes, Mersky, & Reynolds, 2012) and samples of men (e.g., Delsol

& Margolin, 2004; Lawson, 2008) and women (e.g., Swan et al., 2005) who perpetrated violence. However, the lack of studies with clinical samples restrains the generalization of results and, to our knowledge, no study has addressed this association specifically in a clinical sample of individuals or couples seeking sex therapy. Hence, it remains to be documented whether similar effects will be obtained in adults seeking sex therapy and, consequently, whether specific interventions addressing PTSD symptoms and anger personality traits should be implemented to prevent IPV in this clientele.

Previous studies suggest that PTSD symptoms might play a key role in the mechanisms underlying the relationship between child maltreatment and IPV (Wekerle et al., 2001). Among all types of trauma, childhood abuse exhibits the strongest association with PTSD (Ozer et al., 2003), and approximately a third of the survivors of child abuse still present symptoms as adults (Kearney et al., 2010). A recent review suggests medium-sized associations between PTSD and physical or psychological aggression perpetration in intimate relationships (Taft, Watkins, Stafford, Street, & Monson, 2011). Based on their findings and previous theories (see Chemtob, Novaco, Harnada, Gross, & Smith, 1997), researchers such as Taft and collaborators (Taft, Schumm, Marshall, Panuzio, & Holtzworth-Munroe, 2008; Taft et al., 2010; Taft et al., 2011) conclude that PTSD might lead to higher levels of IPV principally through an overactivation of anger structures. According to this model, survivors of trauma with PTSD would be in constant alert mode and easily perceive threats in their environment, even in the absence of a factual threat. In response to the perceived threat, anger structures tend to be activated, resulting in heightened arousal and cognitive biases.

Anger has actually been found to be one possible mechanism linking child maltreatment to IPV. Anger has been associated with child maltreatment in college women (Sappington, Pharr, Tunstall, & Rickert, 1997) and noncollege populations (Epps, Carlin, & Ward, 1999), and it is described as one of the most pervasive emotional consequences of child abuse (R. I. Scott & Day, 1996). Anger has been equally associated with IPV perpetration in men (see Norlander & Eckhardt, 2005, for a meta-analysis), with perpetrators of IPV consistently reporting higher levels of anger and hostility than nonviolent men across various types of measurement strategies. Similar results were observed in couples from the community (Lafontaine & Lussier, 2005) and female adolescents (Wolfe, Wekerle, Scott, Straatman, & Grasley, 2004).

In addition to the distinctive sample recruited, this study presents two unique methodological characteristics. First, given that child maltreatment has been associated with impairments in important developmental functions, such as in emotion regulation (Briere et al., 2010; Cloitre, Miranda, Stovall-McClough, & Han, 2005; Maughan & Cicchetti, 2002), we postulated that child maltreatment could lead to enduring consequences that might

be best captured through personality trait assessment. Therefore, we evaluated anger personality traits, rather than situational and transient anger states, to examine the effect and interplay among child maltreatment, PTSD, and anger on physical and psychological IPV perpetration among adults seeking sex therapy. In addition, because adverse childhood experiences are typically cooccurring (Dong et al., 2004) and considering the known cumulative effects of child maltreatment (e.g., Hodges et al., 2013; Schaaf & McCanne, 1998), we considered the total number of different types of maltreatment endorsed by participants rather than the sole exposure to maltreatment.

METHOD

Participants

A total of 114 individuals (53 men, 61 women) consulting for sexual dysfunction (e.g., erectile dysfunction, premature ejaculation, dyspareunia, low desire, etc.) or sexual dissatisfaction provided complete data on the variables under study. Participants were recruited in different clinical settings from a large metropolitan area, reflecting the wide array of sex-related services offered to the population. The majority of participants sought individual therapy (72%), and 28% sought couples' therapy. Clinical assessment was provided by graduate students completing a supervised clinical internship in clinical sexology. The mean age was 35 years ($SD = 12.53$, range = 19–80). Half of the participants (49%) attained at least a college-level education and 92% were involved in a relationship (i.e., dating, cohabiting, or married) with a mean duration of the relationship of 6.7 years ($SD = 8.80$). Concerning annual income, 42% of participants reported low income, as suggested by the low-income cutoffs in Canada (Statistics Canada, 2013). The vast majority of participants were born in Montréal with French as their primary language (82%).

Procedure

During the first meeting with their clients, therapists explained the research project and interested participants completed the consent form. Participants were informed that the project aimed to examine the functioning of individuals and couples consulting for sexual difficulties in a variety of clinical settings. Participants were invited to complete self-report questionnaires alone, without consulting their partner. Confidentiality was protected by the attribution of a numerical code for each participant. This research was approved by the Université du Québec à Montréal Institutional Review Board.

Measures

CHILD ABUSE AND NEGLECT

Indicators of physical and emotional abuse were derived from the short form of the Early Trauma Inventory, Self-Report version (ETI-SR; Bremner, Bolus, & Mayer, 2007). Participants had to identify whether they had experienced these types of abuse before age 18. Five items were used to assess physical abuse, considered as physical contacts, constraints, or confinements, with intent to hurt or injure. The five items used to evaluate emotional abuse referred to verbal communication with the intention of humiliating or degrading the participant. Two indicators of CSA were used: unwanted sexual touching and unwanted sexual intercourse before the age of 18. Participants indicated if any of these experiences had ever happened to them. Neglect history was assessed using three items derived from the Comprehensive Child Maltreatment Scale for Adults (Higgins & McCabe, 2000): not receiving regular meals or baths, clean clothes, or needed medical attention; being shut in a room alone for an extended period of time; and requests for attention being ignored or the caregiver not speaking to the participant for an extended period of time. For the purpose of this study, each scale was dichotomously coded (0 = absent, 1 = at least one item of the scale was reported as present) and the results were cumulated to obtain a score of abuse and neglect that reflects the cumulative types of childhood maltreatment reported by each participant (ranging from 0–4). The ETI-SR showed high levels of internal consistency (Cronbach's $\alpha > .70$) and most items were highly correlated with measures of PTSD symptom severity, suggesting that the instrument is a valid measure of childhood trauma (Bremner et al., 2007). In our sample, the Cronbach's alpha value for the composite scale of abuse and neglect was .60.

INTIMATE PARTNER VIOLENCE

A self-report questionnaire was administered to assess inflicted physical and psychological violence in intimate relationships in the past 12 months. Six questions measuring physical IPV and three questions assessing psychological IPV were derived from the French adaptation (Hébert & Parent, 2000) of the Conflict Tactics Scale (CTS-2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Another question, specifically assessing control of the partner, was derived from an instrument assessing violence against women in intimate relationships (Lavoie & Vézina, 2001) and was incorporated in the psychological IPV subscale of the measure. Participants were asked to report the number of times they had perpetrated the 10 behaviors toward their current or last intimate partner on a Likert-type scale ranging from 0 (*it has never happened to me*) to 3 (*it has happened more than 10 times in my life*). For the purpose of this study, subscale scores were cumulated in a continuous

score of IPV perpetration. The psychological and physical violence subscales were merged given the high correlation observed between the two types of violence ($r = .61, p < .001$). Similar composite scores were also used in previous studies (e.g., Swan et al., 2005). Internal consistency of our composite scale was adequate ($\alpha = .77$).

ANGER PERSONALITY TRAITS

Participants completed the French version (Laughrea, Bélanger, & Wright, 1996) of the State-Trait Anger Expression Inventory (STAXI; Spielberger, 1988). The STAXI is a widely used measure assessing both the intensity of anger as an actual emotional state (five subscales) and dispositional traits of anger (two subscales). The STAXI has been found to have excellent internal consistency (α ranging from .84–.93; Corcoran & Fischer, 1987). Only the personality trait scale was used for the purpose of this study. In our sample, the internal consistency for this scale was high ($\alpha = .85$).

PTSD

The Modified PTSD Symptom Scale (MPSS–SR; Falsetti, Resnick, Resick, & Kilpatrick, 1993) was used to assess the frequency of PTSD symptoms. The MPSS–SR is a self-report measure adapted from the PTSD Symptom Scale (Foa, Riggs, Dancu, & Rothbaum, 1993). The 17 items of the measure parallel the symptoms enumerated in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed. [DSM–IV]; American Psychiatric Association, 2000). The French version of the MPSS–SR has been shown to have excellent reliability in regard to symptom frequency ($\alpha = .98$; Stephenson, Marchand, Marchand, & Di Blasio, 2000) and to properly classify 90% of patients according to the PTSD diagnosis (Guay, Marchand, Iucci, & Martin, 2002). The internal consistency in the present sample was high ($\alpha = .94$).

Analytic Strategy

We first examined the prevalence of abuse and neglect history as well as IPV perpetration. Then bivariate correlations between the variables were examined. Path analysis was used next to test the hypothesized model that child maltreatment and PTSD symptoms increase the risk of presenting a chronic disposition to anger, which in turn explains a significant portion of the variance in IPV perpetration. Analyses were performed using AMOS 5 (Arbuckle, 2003). The model had one exogenous manifest variable (cumulative score of child maltreatment) and three manifest endogenous variables (frequency of PTSD symptoms, anger personality traits, and score of physical and psychological IPV perpetration). The fit statistics retained to assess the adequacy of the model to represent the data were the chi-square goodness-of-fit index,

Bentler's Comparative Fit Index (CFI), and the root mean square error of approximation (RMSEA). The chi-square evaluates whether the observed covariance matrix is similar to the matrix predicted by the model (Hu & Bentler, 1999) and a model is normally considered acceptable when the chi-square value is nonsignificant (Barrett, 2007). The CFI is an incremental fit index that compares the sample covariance matrix with the null model asserting that all observed variables are uncorrelated (Bentler, 1990). The CFI performs well even with a small sample size (Tabachnick & Fidell, 2007) and values higher than .95 are indicative of a good fit (Hu & Bentler, 1999). The RMSEA is an absolute fit test that takes into account the complexity of the model in assessing how optimally chosen parameter estimates would fit the population covariance matrix. RMSEA values of less than or equal to .05 designate correct fit (Hu & Bentler, 1999).

RESULTS

The analysis revealed that 83% of men ($n = 44$) and 82% of women ($n = 50$) receiving services in sex therapy reported at least one incident of childhood maltreatment. Sixty-one percent of the sample ($n = 69$) reported physical abuse, 66% ($n = 75$) reported emotional abuse, 31% ($n = 35$) reported neglect, and 34% ($n = 39$) reported sexual abuse, at least once. The different forms of abuse and neglect were similar across genders, with the exception of sexual abuse: 49% ($n = 30$) of women reported sexual victimization compared to 17% of men ($n = 9$). The data indicated that 20% sustained one form of abuse or neglect and that more than half (62%; $n = 71$) were polyvictimized (30% endured two forms of maltreatment, 18% three forms, and 14% all forms). The average number of different forms of child maltreatment sustained was 1.91 ($SD = 1.29$). Abuse and neglect scores were not significantly correlated with age, annual income, or marital status.

Among the participants, 66% ($n = 75$; 42 women and 33 men) reported having inflicted, at least once, psychological violence toward their partner and 24% ($n = 27$; 13 women and 14 men) reported having inflicted physical violence over the last 12 months of the relationship. All participants endorsing acts of physical IPV also reported psychological IPV. The scores obtained on these two subscales of the French adaptation of the CTS-2 were added to reflect the frequency of IPV. Total scores of IPV ranged between 0 and 13, with a mean of 2.62 ($SD = 3.09$). The IPV scores were not associated with age, gender, annual income, or marital status. Thus, we did not control for sociodemographic characteristics in further analyses. The correlation matrix between study variables is presented in Table 1.

The path analysis (see Figure 1) showed that all specified paths were significant. Results indicated adequate fit: CFI = .99, Normed Fit Index (NFI) = .96, RMSEA = .04 with 90% CI [.00, .20], and $\chi^2(2, N = 114) = 2.33, p = .31$.

TABLE 1 Correlation Matrix between Study Variables

Variables	Childhood maltreatment	Symptoms of PTSD	Anger personality traits
PTSD symptoms	.23**		
Anger personality traits	.23**	.26**	
IPV perpetration	.18 ^t	.24**	.52***

Note. PTSD = posttraumatic stress disorder; IPV = intimate partner violence.

^t = .06.

** $p \leq .01$. *** $p \leq .001$.

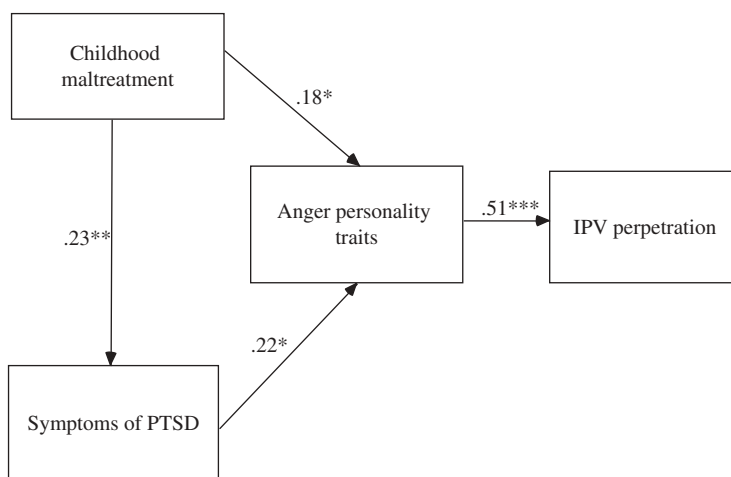


FIGURE 1 Path analysis of the association between child maltreatment and physical and emotional violence in intimate relationships. Note. IPV = intimate partner violence; PTSD = posttraumatic stress disorder. $\chi^2(2) = 2.33$, $p = .31$, CFI = .993; NFI = .957; RMSEA = .038. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

In summary, the more the participants reported cumulative forms of childhood maltreatment and symptoms of PTSD, the more likely they were to display a chronic disposition toward anger and, in turn, to display violent behaviors in the context of intimate relationships. A Sobel test showed that the effect of PTSD as a mediator in the relationship between victimization and anger personality traits was marginally significant ($z = 1.88$, $p = .06$).

DISCUSSION

This research aimed to evaluate whether individuals consulting for sex therapy were at risk of reporting IPV and whether these coercive behaviors were associated with exposure to childhood abuse and neglect, which would trigger violence through its interplay with PTSD and anger personality traits. Preliminary analyses showed that 82.5% of participants reported at least one

form of abuse or neglect in childhood. This rate is exceptionally high considering that between 16% and 30% of the general population usually report childhood abuse or neglect (Afifi et al., 2011; May-Chahal & Cawson, 2005). One might consider that the measure used to evaluate childhood abuse and neglect history was particularly inclusive and that the yes–no format could have fostered such a high rate. However, a previous study recently reported, in a different sample of 218 adult sex therapy clients and using a different assessment protocol, that close to half of the participants (47%) had been exposed to sexual abuse only (Berthelot et al., 2014). Consequently, we were not surprised to find very high prevalence rates when including other types of childhood maltreatment. With regard to IPV, a quarter of the participants reported having inflicted physical violence toward an intimate partner and the majority (66%) disclosed at least one episode of psychological violence. These results are similar to the prevalence of IPV found in community samples, with 25% for physical IPV (see Desmarais, Reeves, Nicholls, Telford, & Fiebert, 2012, for a meta-analysis study) and 63% to 83% for psychological IPV (e.g., Godbout et al., 2009; Lafontaine & Lussier, 2005). These findings corroborate the critical importance for clinicians of documenting abuse and neglect history and IPV, particularly when their clients present with sexual issues.

The association between childhood maltreatment and IPV was modest ($r = .18$) and marginally significant ($p = .06$) in our sample. Similar correlations were equally observed in nonclinical samples (e.g., r ranging from .04–.17 in Godbout et al., 2009). Although the lack of significance might be related to statistical power issues, findings might also suggest that factors other than sole exposure to abuse or neglect lead to IPV in adulthood. Accordingly, the findings that the relationship between childhood abuse and neglect and anger personality traits was marginally mediated by PTSD symptoms, and that a chronic disposition toward anger was largely associated with the perpetration of IPV in participants, have important implications. The results support previous research with adult women (Kendra et al., 2012; Swan et al., 2005), war veterans (McFall, Fontana, Raskind, & Rosenheck, 1999; Orcutt, King, & King, 2003), and college students (Taft et al., 2010), which all documented that symptoms of PTSD activate feelings of anger, which are in turn associated with IPV. However, to our knowledge, this is the first study to corroborate this model in a clinical population of men and women engaged in sex therapy.

One possible interpretation for these results comes from Chemtob et al.'s (1997) pioneer work suggesting that PTSD is associated with overactive threat appraisals. According to the authors, the hypervigilance regarding potential threats in the environment might lead to an overinterpretation of others' behaviors as being hostile, in turn activating anger structures. In these circumstances, an aggressive response is both primed and justified. Our confirmed conceptual model is also in line with the fight or flight

model suggesting that when confronted with a threat, living species show an instinctive tendency to attack or escape the menace. Given the hypervigilance characteristic of PTSD, individuals presenting such symptoms might be particularly inclined to avoid affects, thoughts, or situations judged as threatening, but also to respond with violence when confronted to such stressors.

Chemtob et al.'s (1997) model was initially developed with war veterans and might be useful to understand survivors of other types of traumas such as childhood maltreatment. However, other key features should be considered with survivors of child maltreatment. Most important, contrary to war veterans, the trauma experienced by child abuse and neglect survivors occurred early in life and generally in the context of a significant attachment relationship. According to Sroufe (2009), critical events have different impacts depending on when they happen or the prior development of the victim. When traumatic adversity takes place in childhood or adolescence, the probability that the trauma will interfere with normal developmental tasks is higher, compared to trauma experienced by adults with more mature regulation strategies. These effects of trauma, more specific to children, have been labeled *developmental effects* (e.g., attachment dysregulation), in contrast to *localized effects* (e.g., flashbacks; Finkelhor, 1995). One important developmental acquisition that has been consistently associated with childhood maltreatment concerns emotion regulation (Briere et al., 2010; Cloitre et al., 2005; Maughan & Cicchetti, 2002). In view of this evidence, one possibility is that survivors of child maltreatment might be more prone to slip into anger and aggression when personal or relational problems challenge their ability to regulate negative emotions. Interestingly, the association between child maltreatment and anger personality traits was partially mediated through PTSD symptoms. This suggests that some survivors of abuse and neglect developed the ability to regulate anger, whereas this appeared to be more difficult for survivors who were more severely disturbed by these traumatic experiences, as manifested through dissociation, flashbacks, intense fears, avoidance, or psychosomatic symptoms characteristic of PTSD.

In addition, and contrary to the experience of war veterans, the traumatic adversity experienced by survivors of childhood maltreatment often involves a significant adult who would normally have been expected to provide adequate care and affection. This relational nature of childhood trauma should not be circumvented, because for these survivors the threat was in the attachment relationship itself. Thus, the elaboration of new attachment bonds might be particularly challenging for survivors of child maltreatment, and they might be particularly at risk of deregulation of the anger system and violence within intimate relationships. Similarly, Dutton (1995) observed that a large percentage of men involved in treatment programs for batterers can be described as having characteristics consistent with borderline personality organization in that early attachment difficulties led them to develop a hypersensitivity toward cues of abandonment in adult intimate relationships (Godbout et al., 2009). These threats, whether real or imagined, are

susceptible to provoke feelings of rage, leading to directed aggression and control to reduce the threat. Such models give a clear psychological meaning to the association observed between childhood abuse and neglect, anger, and perpetration of IPV in our sample. Therapists might gain to go beyond Chemtob et al.'s (1997) model in incorporating critical developmental features in their case formulations, such as the early age of onset and the relational nature of the trauma, to provide optimum treatment to adults with a history of abuse and neglect.

This study has many strengths, such as the inclusion of a meaningful number of clinical participants, men and women, all receiving sex therapy in a variety of clinical settings, thus representing the general services offered to the population. Although this feature of the study design increases the ecological validity of the results, clients from distinct clinics might also show differences in their history, clinical presentation, and motives for coming to therapy, thus reducing the internal validity. In addition, we did not have sufficient information about the severity of the exposure to abuse and neglect to consider this variable in this research. Concerning the measures, all instruments were self-reports, which might have produced response bias. The retrospective self-reports of childhood maltreatment could have led to biases or distortions in recall, although critical analysis of retrospective reports suggest that such presumed biases do not systematically affect the association between childhood maltreatment and later outcomes (Brewin, Andrews, & Gotlib, 1993). Finally, our research was correlational in nature. Consequently, the specific order of causation between the variables was based on theoretical and historical grounds (i.e., childhood trauma was experienced before IPV, and PTSD resulted from childhood trauma). Only multiple-wave longitudinal designs will eventually confirm the direction of the observed effects and empirically inform possible causal relationships.

These results have important implications for clinical practice. First, we lack empirically based data to guide clinical practice with clients presenting with sexual problems and IPV, as this is the first known study to be conducted with a clinical sample of individuals seeking sex therapy. The corroboration of the model under study with a sample of clients seeking sex therapy provides important information about the suitability of translating current and previous findings into clinical interventions. In that regard, results suggest that anger regulation could be a critical focus of therapy in clients presenting with IPV. In addition, to obtain significant changes concerning anger regulation, it might be necessary to address traumatic issues, particularly if clients are presenting with PTSD symptoms. Future studies should document how specific therapeutic techniques or models suited for survivors of childhood trauma allow for significant changes in PTSD symptoms and anger, and whether this leads to less IPV. In conclusion, this study highlights that individuals depicting a chronic disposition toward anger that leads to IPV might bear the effects of undetected cumulative childhood maltreatment, such as PTSD symptoms.

FUNDING

This research was supported in part by grants from Fonds de recherchesur la société et la culture (FQRSC) awarded to the Équipe Violence sexuelle et santé (ÉVISSA) and the Interdisciplinary Research Centre on Intimate Relationship Problems and Sexual Abuse (CRIPCAS).

REFERENCES

- Affi, T. O., Mather, A., Boman, J., Fleisher, W., Enns, M. W., Macmillan, H., & Sareen, J. (2011). Childhood adversity and personality disorders: Results from a nationally representative population-based study. *Journal of Psychiatric Research, 45*, 814–822.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- Arbuckle, J. L. (2003). *Amos 5.0 update to the Amos user's guide*. Chicago, IL: Small Waters.
- Bandura, A. (1973). *Aggression: A social learning analysis*. Englewood Cliffs, NJ: Prentice-Hall.
- Barrett, P. (2007). Structural equation modelling: Adjudging model fit. *Personality and Individual Differences, 42*, 815–824.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*, 238–246.
- Berthelot, N., Godbout, N., Hébert, M., Goulet, M., & Bergeron, S. (2014). Prevalence and correlates of childhood sexual abuse in adults consulting for sexual problems. *Journal of Sex and Marital Therapy, 40*, 434–443. doi: [10.1080/0092623X.2013.772548](https://doi.org/10.1080/0092623X.2013.772548)
- Bremner, J. D., Bolus, R., & Mayer, E. A. (2007). Psychometric properties of the Early Trauma Inventory-Self Report. *Journal of Nervous and Mental Disease, 195*, 211–218.
- Breslau, N., Kessler, R. C., Chilcoat, H. D., Schultz, L. R., Davis, G. C., & Andreski, P. (1998). Trauma and posttraumatic stress disorder in the community: The 1996 Detroit Area Survey of Trauma. *Archives of General Psychiatry, 55*, 626–632.
- Brewin, C. R., Andrews, B., & Gotlib, I. H. (1993). Psychopathology and early experience: A reappraisal of retrospective reports. *Psychological Bulletin, 113*, 82–98.
- Briere, J., Hodges, M., & Godbout, N. (2010). Traumatic stress, affect dysregulation, and dysfunctional avoidance: A structural equation model. *Journal of Traumatic Stress, 23*, 767–774.
- Caspi, A., McClay, J., Moffitt, T. E., Mill, J., Martin, J., Craig, I. W., . . . Poulton, R. (2002). Role of genotype in the cycle of violence in maltreated children. *Science, 297*(5582), 851–854.
- Chemtob, C. M., Novaco, R. W., Harnada, R. S., Gross, D. M., & Smith, G. (1997). Anger regulation deficits in combat-related posttraumatic stress disorder. *Journal of Traumatic Stress, 10*(1), 17–36.

- Cloitre, M., Miranda, R., Stovall-McClough, K. C., & Han, H. (2005). Beyond PTSD: Emotion regulation and interpersonal problems as predictors of functional impairment in survivors of childhood abuse. *Behavior Therapy, 36*, 119–124.
- Coker, A. L. (2007). Does physical intimate partner violence affect sexual health?: A systematic review. *Trauma, Violence, & Abuse, 8*, 149–177.
- Corcoran, K., & Fischer, J. (1987). *Measures for clinical practice: A sourcebook*. New York, NY: The Free Press.
- Corso, P. S., Edwards, V. J., Fang, X., & Mercy, J. A. (2008). Health-related quality of life among adults who experienced maltreatment during childhood. *American Journal of Public Health, 98*, 1094–1100.
- Delsol, C., & Margolin, G. (2004). The role of family-of-origin violence in men's marital violence perpetration. *Clinical Psychology Review, 24*, 99–122.
- Desmarais, S. L., Reeves, K. A., Nicholls, T. L., Telford, R. P., & Fiebert, M. S. (2012). Prevalence of physical violence in intimate relationships, Part 2: Rates of male and female perpetration. *Partner Abuse, 3*, 170–198.
- DiLillo, D., Giuffre, D., Tremblay, G. C., & Peterson, L. (2001). A closer look at the nature of intimate partner violence reported by women with a history of child sexual abuse. *Journal of Interpersonal Violence, 16*, 116–131.
- Dong, M., Anda, R. F., Felitti, V. J., Dube, S. R., Williamson, D. F., Thompson, T. J., . . . Giles, W. H. (2004). The interrelatedness of multiple forms of childhood abuse, neglect, and household dysfunction. *Child Abuse & Neglect, 28*, 771–784.
- Dutton, D. G. (1995). Trauma symptoms and PTSD-like profiles in perpetrators of intimate abuse. *Journal of Traumatic Stress, 8*, 299–316.
- Dutton, D. G. (2010). Anger in intimate relationships. In M. Potegal, G. Stemmler, & C. Spielberger (Eds.), *International handbook of anger: Constituent and concomitant biological, psychological, and social processes* (pp. 535–544). New York, NY: Springer.
- Ehrensaft, M. K., Cohen, P., Brown, J., Smailes, E., Chen, H., & Johnson, J. G. (2003). Intergenerational transmission of partner violence: A 20-year prospective study [Research Support, U.S. Government, P.H.S.]. *Journal of Consulting and Clinical Psychology, 71*, 741–753.
- Epps, J., Carlin, A. S., & Ward, N. G. (1999). Adult anger expression and childhood physical abuse history: The effects of event memory vs. self-labeling. *Journal of Mental Health and Aging, 5*, 175–185.
- Essex, M. J., Shirtcliff, E. A., Burk, L. R., Ruttle, P. L., Klein, M. H., Slattery, M. J., . . . Armstrong, J. M. (2011). Influence of early life stress on later hypothalamic–pituitary–adrenal axis functioning and its covariation with mental health symptoms: A study of the allostatic process from childhood into adolescence. *Developmental Psychopathology, 23*, 1039–1058.
- Falsetti, S. A., Resnick, H. S., Resick, P. A., & Kilpatrick, D. (1993). The Modified PTSD Symptom Scale: A brief self-report measure of posttraumatic stress disorder. *The Behavioral Therapist, 16*, 161–162.
- Fang, X., Brown, D. S., Florence, C. S., & Mercy, J. A. (2012). The economic burden of child maltreatment in the United States and implications for prevention. *Child Abuse and Neglect, 36*, 156–165.
- Finkelhor, D. (1995). The victimization of children: A developmental perspective. *American Journal of Orthopsychiatry, 65*, 177–193.

- Foa, E., Riggs, D., Dancu, C., & Rothbaum, B. (1993). Reliability and validity of a brief instrument for assessing post-traumatic stress disorder. *Journal of Traumatic Stress, 6*, 459–474.
- Fonagy, P. (1999). Male perpetrators of violence against women: An attachment theory perspective. *Journal of Applied Psychoanalytic Studies, 1*, 7–27.
- Godbout, N., Dutton, D., Lussier, Y., & Sabourin, S. (2009). Early exposure to violence, domestic violence and marital adjustment: The role of attachment. *Personal Relationships, 16*, 365–384.
- Gover, A. R., Kaukinen, C., & Fox, K. A. (2008). The relationship between violence in the family of origin and dating violence among college students. *Journal of Interpersonal Violence, 23*, 1667–1693.
- Guay, S., Marchand, A., Iucci, S., & Martin, A. (2002). Validation de la version québécoise de l'Échelle modifiée des symptômes du trouble de stress posttraumatique auprès d'un échantillon clinique [Validation of the French-Canadian version of the modified Post-Traumatic Symptom Scale in a clinical setting]. *Revue Québécoise de Psychologie, 23*, 257–267.
- Hébert, M., & Parent, N. (2000). *Version française abrégée du Revised Conflict Tactics Scales (CTS-2)*; Straus, Hamby, Boney-McCoy, & Sugarman, 1996 [French version of the short form of Revised Conflict Tactics Scales]. Montréal, Québec, Canada: Department of Sexology, Université du Québec à Montréal.
- Heyman, R. E., & Sleps, A. M. S. (2002). Do child abuse and interparental violence lead to adulthood family violence? *Journal of Marriage and Family, 64*, 864–870.
- Higgins, D. J., & McCabe, M. P. (2000). Relationships between different types of maltreatment during childhood and adjustment in adulthood. *Child Maltreatment, 5*, 261–272.
- Hodges, M., Godbout, N., Briere, J., Lanktree, C., Gilbert, A., & Taylor Kletzka, N. (2013). Cumulative trauma and symptom complexity in children: A path analysis. *Child Abuse & Neglect, 37*, 891–898. doi:<http://dx.doi.org/10.1016/j.chiabu.2013.04.001>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1–55.
- Jouriles, E. N., Mueller, V., Rosenfield, D., McDonald, R., & Dodson, M. C. (2012). Teens' experiences of harsh parenting and exposure to severe intimate partner violence: Adding insult to injury in predicting teen dating violence. *Psychology of Violence, 2*, 125–138.
- Kearney, C. A., Wechsler, A., Kaur, H., & Lemos-Miller, A. (2010). Posttraumatic stress disorder in maltreated youth: A review of contemporary research and thought. *Clinical Child and Family Psychological Review, 13*, 46–76.
- Kendra, R., Bell, K. M., & Guimond, J. M. (2012). The impact of child abuse history, PTSD symptoms, and anger arousal on dating violence perpetration among college women. *Journal of Family Violence, 27*, 165–175.
- Kernberg, O. F. (1994). Aggression, trauma, and hatred in the treatment of borderline patients. *Psychiatric Clinics of North America, 17*, 701–714.
- Lacelle, C., Hébert, M., Lavoie, F., Vitaro, F., & Tremblay, R. E. (2012). Child sexual abuse and women's sexual health: The contribution of CSA severity and

- exposure to multiple forms of childhood victimization. *Journal of Child Sexual Abuse*, 21, 571–592.
- Lafontaine, M. F., & Lussier, Y. (2005). Does anger towards the partner mediate and moderate the link between attachment and intimate violence. *Journal of Family Violence*, 20, 349–361.
- Laughrea, K., Bélanger, C., & Wright, J. (1996). L'inventaire de l'expérience de la colère en situation sociale et conjugale: Validation auprès de la population adulte québécoise [Inventory of anger experience in social and marital situations: Validation with Québec adults]. *Science et comportement*, 25(1), 71–95.
- Lavoie, F., & Vézina, L. (2001). Violence faite aux filles dans le contexte des fréquentations à l'adolescence: Élaboration d'un instrument (VIFFA) [Female victimization in the context of dating violence in adolescence: Development of an instrument (VIFFA)]. *Revue Canadienne de Santé mentale communautaire*, 20(1), 153–171.
- Lawson, D. M. (2008). Attachment, interpersonal problems, and family of origin functioning: Differences between partner violent and nonpartner violent men. *Psychology of Men and Masculinity*, 9, 90–105.
- Maughan, A., & Cicchetti, D. (2002). Impact of child maltreatment and interadult violence on children's emotion regulation abilities and socioemotional adjustment. *Child Development*, 73, 1525–1542.
- May-Chahal, C., & Cawson, P. (2005). Measuring child maltreatment in the United Kingdom: A study of the prevalence of child abuse and neglect. *Child Abuse and Neglect*, 29, 969–984.
- McFall, M., Fontana, A., Raskind, M., & Rosenheck, R. (1999). Analysis of violent behavior in Vietnam combat veteran psychiatric inpatients with posttraumatic stress disorder. *Journal of Traumatic Stress*, 12, 501–517.
- Norlander, B., & Eckhardt, C. (2005). Anger, hostility, and male perpetrators of intimate partner violence: A meta-analytic review. *Clinical Psychology Review*, 25, 119–152.
- Orcutt, H. K., King, L. A., & King, D. W. (2003). Male-perpetrated violence among Vietnam veteran couples: Relationships with veteran's early life characteristics, trauma history, and PTSD symptomatology. *Journal of Traumatic Stress*, 16, 381–390.
- Ozer, E. J., Best, S. R., Lipsey, T. L., & Weiss, D. S. (2003). Predictors of posttraumatic stress disorder and symptoms in adults: A meta-analysis. *Psychological Bulletin*, 129, 52–73.
- Sappington, A. A., Pharr, R., Tunstall, A., & Rickert, E. (1997). Relationships among child abuse, date abuse, and psychological problems. *Journal of Clinical Psychology*, 53, 319–329.
- Schaaf, K. K., & McCanne, T. R. (1998). Relationship of childhood sexual, physical, and combined sexual and physical abuse to adult victimization and posttraumatic stress disorder. *Child Abuse & Neglect*, 22, 1119–1133.
- Scott, K. M., Smith, D. R., & Ellis, P. M. (2010). Prospectively ascertained child maltreatment and its association with *DSM-IV* mental disorders in young adults. *Archives of General Psychiatry*, 67, 712–719.
- Scott, R. I., & Day, H. D. (1996). Association of abuse-related symptoms and style of anger expression for female survivors of childhood incest. *Journal of Interpersonal Violence*, 11, 206–220.

- Shook, N. J., Gerrity, D. A., Jurich, J., & Segrist, A. E. (2000). Courtship violence among college students: A comparison of verbally and physically abusive couples. *Journal of Family Violence, 15*, 1–22.
- Spielberger, C. D. (1988). *Professional manual for the State-Trait Anger Expression Inventory*. Odessa, FL: Psychological Assessment Resources.
- Sroufe, L. A. (2009). The concept of development in developmental psychopathology. *Child Development Perspectives, 3*, 178–183.
- Statistics Canada. (2013, May 2). *Low income cut-offs*. Retrieved from <http://www.statcan.gc.ca>
- Stephenson, R., Marchand, A., Marchand, L., & Di Blasio, L. (2000). Examination of the psychometric properties of a brief PTSD measure on a French-Canadian undergraduate population. *Scandinavian Journal of Behaviour Therapy, 29*(1), 1–9.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The Revised Conflict Tactics Scales (CTS–2): Development and preliminary psychometric data. *Journal of Family Issues, 17*, 283–316.
- Swan, S. C., Gambone, L. J., Fields, A. M., Sullivan, T. P., & Snow, D. L. (2005). Women who use violence in intimate relationships: The role of anger, victimization, and symptoms of posttraumatic stress and depression. *Violence and Victims, 20*, 267–285.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). New York, NY: Allyn & Bacon.
- Taft, C. T., Schumm, J. A., Marshall, A. D., Panuzio, J., & Holtzworth-Munroe, A. (2008). Family-of-origin maltreatment, posttraumatic stress disorder symptoms, social information processing deficits, and relationship abuse perpetration. *Journal of Abnormal Psychology, 117*, 637–646.
- Taft, C. T., Schumm, J., Orazem, R. J., Meis, L., & Pinto, L. A. (2010). Examining the link between posttraumatic stress disorder symptoms and dating aggression perpetration. *Violence and Victims, 25*, 456–469.
- Taft, C. T., Watkins, L. E., Stafford, J., Street, A. E., & Monson, C. M. (2011). Posttraumatic stress disorder and intimate relationship problems: A meta-analysis. *Journal of Consulting and Clinical Psychology, 79*, 22–33.
- Topitzes, J., Mersky, J. P., & Reynolds, A. J. (2012). From child maltreatment to violent offending: An examination of mixed-gender and gender-specific models. *Journal of Interpersonal Violence, 27*, 2322–2347.
- Wekerle, C., Wolfe, D. A., Hawkins, D. L., Pittman, A. L., Glickman, A., & Lovald, B. E. (2001). Childhood maltreatment, post-traumatic stress symptomatology, and adolescent dating violence: Considering the value of adolescent perceptions of abuse and trauma meditational model. *Development and Psychopathology, 13*, 847–871.
- Wolfe, D. A. (2007). Understanding anger: Key concepts from the field of domestic violence and child abuse. In T. A. Cavell & K. T. Malcolm (Eds.), *Anger, aggression and interventions for interpersonal violence* (pp. 393–401). Mahwah, NJ: Erlbaum.
- Wolfe, D. A., Wekerle, C., Scott, K., Straatman, A. L., & Grasley, C. (2004). Predicting abuse in adolescent dating relationships over 1 year: The role of child maltreatment and trauma. *Journal of Abnormal Psychology, 113*, 406–415.