# Early Exposure to Violence, Relationship Violence, and Relationship Satisfaction in Adolescents and Emerging Adults: The Role of Romantic Attachment

Natacha Godbout and Marie-Ève Daspe Université du Québec à Montréal and Interdisciplinary Research Centre on Intimate Relationship Problems and Sexual Abuse, Montreal, Quebec, Canada

Stéphane Sabourin Université Laval and Interdisciplinary Research Centre on Intimate Relationship Problems and Sexual Abuse, Quebec City, Quebec, Canada

#### Yvan Lussier

Université du Québec à Trois-Rivières and Interdisciplinary Research Centre on Intimate Relationship Problems and Sexual Abuse, Trois-Rivieres, Quebec, Canada

> Don Dutton University of British Columbia, Vancouver, British Columbia, Canada

#### Martine Hébert

Université du Québec à Montréal and Interdisciplinary Research Centre on Intimate Relationship Problems and Sexual Abuse, Montreal, Quebec, Canada

> Objective: Violence in romantic relationships is highly prevalent in adolescence and early adulthood and is related to a wide array of negative outcomes. Although the scientific literature increasingly highlights potential risk factors for the perpetration of violence toward a romantic partner, integrative models of these predictors remain scarce. Using an attachment framework, the current study examines the associations between early exposure to violence, perpetration of relationship violence, and relationship satisfaction. We hypothesized that exposure to family violence fosters the development of attachment anxiety and avoidance, which in turn are related to relationship violence and low relationship satisfaction. Method: At Time 1, a sample of 1,252 (72.3% women) adolescents and emerging adults were recruited from high schools and colleges. Participants completed measures of exposure to family violence, attachment, perpetrated relationship violence and relationship adjustment. Three years later (Time 2), 234 of these participants agreed to participate in a follow-up assessment. Structural equation modeling was used to test cross-sectional and longitudinal models. Results: The findings suggest that exposure to family violence predicts relationship violence both directly and indirectly through attachment anxiety, whereas attachment avoidance and relationship violence are predictors of relationship satisfaction. Longitudinal analyses also show that changes in romantic attachment are associated with changes in relationship violence and satisfaction. Conclusions: Romantic attachment is a significant target for the prevention and treatment of violence in intimate relationships involving adolescents or emerging adults.

> Keywords: partner violence, childhood maltreatment, attachment, adolescents, emerging adults, relationship satisfaction

Adolescence and early adulthood are periods of discovery filled with new experiences in romantic relationships and sexuality, offering opportunities to experience intense feelings of love, passion, and commitment but also anxiety, inequity, and even violence (Fernet, 2005). The prevalence rates of relationship violence (victimization and perpetration) in late adolescents and emerging

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Natacha Godbout and Marie-Ève Daspe, Department of Sexology, Université du Québec à Montréal and Interdisciplinary Research Centre on Intimate Relationship Problems and Sexual Abuse (CRIPCAS), Montreal, Quebec, Canada; Yvan Lussier, Department of Psychology, Université du Québec à Trois-Rivières, Trois-Rivières, Quebec, Canada and CRIPCAS; Stéphane Sabourin, School of Psychology, Université Laval, Quebec City, Quebec, Canada and CRIPCAS; Don Dutton, Department of Psychology, University of British Columbia, Vancouver, British Columbia, Canada; Martine Hébert, Department of Sexology, Université du Québec à Montréal, Montreal, Quebec, Canada and CRIPCAS.

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Correspondence concerning this article should be addressed to Natacha Godbout, Department of Sexology, Université du Québec à Montréal, 455, Rene Levesque East, local-R110, Montreal, Quebec, Canada, H2L 4Y2. E-mail: godbout.natacha@uqam.ca

adults are alarming, ranging between 30% and 35% (Haynie et al., 2013). In addition to the numerous adverse outcomes related to early exposure to violence in intimate relationships, including depression, low self-esteem, suicide, and substance abuse (Exner-Cortens, Eckenrode, & Rothman, 2013; Lussier et al., 2013), the perpetration of violence in an individual's first intimate relationships constitutes an important predictor for the perpetration of violence in subsequent relationships (Exner-Cortens et al., 2013). A better understanding of the early manifestations of relationship violence may help to identify treatment and prevention options that target the problem at its source and decrease the risk for the crystallization or escalation of violence in romantic relationships throughout adulthood. Furthermore, because late adolescence and early adulthood are key developmental periods, examining the variations in dispositional vulnerabilities and relationship violence might constitute a promising way to capture the nature of this phenomenon in younger populations and to circumscribe relevant targets for intervention.

The current study explores the precursors of relationship violence and satisfaction identified in two major research areas: early exposure to parental violence and attachment insecurity. To fill the gap between these two fields of research, an integrative model of the associations among early exposure to violence, romantic attachment, and relationship violence has been previously developed and applied to established adult relationships (Godbout, Dutton, Lussier, & Sabourin, 2009). However, this model has not yet been tested in youths and emerging adults. As romantic attachment influences the capacity of young individuals to form close relationships (Mayseless & Scharf, 2007), attachment theory might constitute a useful framework to understand the occurrence of relationship violence during this developmental stage. Recently, Lee, Reese-Weber, and Kahn (2014) explored early exposure to violence and relationship violence in association with romantic attachment in younger couples (i.e., emerging adults). However, they focused specifically on physical violence (i.e., physical child maltreatment and physical relationship violence). Previous studies found support for the mediational role of attachment insecurities in the relationship between family violence and violence in intimate relationships in women but not in men (Lee et al., 2014), and in adult couples from the general population (Godbout et al., 2009). However, in the study of Lee et al., the small sample size of the men's model (n = 89) might have limited the conclusions on gender invariance. The current study goes beyond previous investigations of the links between child maltreatment, attachment, relationship violence perpetration, and relationship satisfaction by (a) focusing on both psychological and physical violence, (b) considering both parent to child violence as well as witnessing interparental violence, (c) examining gender invariance, and (d) investigating longitudinal changes in the variables of interest.

#### Early Exposure to Violence and Relationship Violence

According to the "intergenerational transmission of violence" hypothesis (Straus, Gelles, & Steinmetz, 1980), childhood experiences of abuse from parents or witnessing intimate partner violence increase the risk of perpetrating violence in the survivor's future romantic relationships. Based on social learning theory (Bandura, 1973), behavioral responses are learned through the observation of other's behaviors and their consequences. Thus,

witnessing or experiencing abuse in the family may teach the child that violence can be used as a conflict resolution strategy or as a means of gaining control over an intimate partner (O'Leary, 1988). A substantial body of evidence supports the intergenerational transmission of violence hypothesis in adolescence and early adulthood and has shown that both parent-to-child and interparental violence in childhood constitute significant precursors to relationship violence (Fang & Corso, 2007; Godbout et al., 2009; Gover, Kaukinen, & Fox, 2008; Linder & Collins, 2005; Reyes et al., 2015).

Available meta-analytic results on adult populations (Stith et al., 2000) suggest that the association between exposure to parental violence and later perpetration of relationship violence is of small magnitude (r = .18). However, studies also have highlighted that childhood violent experiences increase the risk of victimization or perpetration of relationship violence at least twofold (odd ratios ranges from 1.90 to 3.80; e.g., Whitfield, Anda, Dube, & Felitti, 2003). Identifying mediators of this association might help to understand the mechanisms by which exposure to violence fosters violence toward a romantic partner and to determine who is at greater risk. A similar conclusion was reached in studies of adolescents and emerging adults (Ehrensaft et al., 2003). Among the potential mediators, romantic attachment is of particular interest and has not been fully examined simultaneously with exposure to early violence, relationship violence and relationship satisfaction in adolescents and emerging adults.

## Attachment, Violence in Close Relationships, and Relationship Satisfaction

Contemporary research and clinical work on intimate relationships have increasingly taken into consideration the concept of romantic attachment (Stanton & Campbell, 2014). Attachment was originally defined by Bowlby (1988) as the tendency of human beings to create strong emotional bonds with others. The initial attachment representations, which are developed between the child and the significant adult figure, leads to mental representations of internal working models that later guide their feelings and behaviors in adult romantic relationships (Schneider, Atkinson, & Tardif, 2001). Adult attachment insecurity is conceptualized in terms of two dimensions: anxiety over abandonment and avoidance of intimacy (Brennan, Clark, & Shaver, 1998). Abandonment anxiety refers to a negative model of self, characterized by fear of relational rejection and abandonment, combined with the lack of a sense of self-worth. It involves a strategic hyperactivation of the attachment system, which is sensitive to signals that the relationship might be threatened and in need of love and reassurance. Avoidance of intimacy refers to a negative model of others and is characterized by emotional suppression, self-reliance, and discomfort with closeness and interdependence because of expectations that the partner will be unavailable. It involves a strategic deactivation of the attachment system to reduce negative emotional states as well as vulnerability to rejection and neediness (for more information, see Mikulincer & Shaver, 2003).

Witnessing or experiencing violence in childhood contributes to the development of insecure attachment styles (Unger & De Luca, 2014). When exposed to interparental violence or to direct victimization, the child might infer the unavailability of his or her caretaker, or perceive them as a source of potential threat or danger (Davies & Cummings, 1998). This process is likely to undermine the development of positive representations of self and others and sets the stage for the use of long-lasting hyperactivating (attachment anxiety) or deactivating (intimacy avoidance) strategies in adult relationships with significant others. As the child grows, the attachment system, originally built within the relationship with the caregiver(s), is progressively—in late adolescence or adulthood—directed toward romantic partners (Doherty & Feeney, 2004). Insecure attachment and relationship violence are strongly related to lower levels of relationship satisfaction in both established (Fournier, Brassard, & Shaver, 2011) and dating relationships (Collins & Read, 1990; Holland, Fraley, & Roisman, 2012).

Although early exposure to violence may lead to insecure attachment, theoretical (e.g., Bartholomew & Allison, 2006) and empirical (Godbout et al., 2009; Ulloa, Martinez-Arango, & Hokoda, 2014; Unger & De Luca, 2014; Wekerle & Wolfe, 1998) studies suggest that insecure attachment can increase the risk of violence perpetration in intimate relationships. Anxiously attached individuals have been found to be at greater risk of using violence as a pursuit strategy to protest real or perceived abandonment and to regain control over their romantic partner (Allison, Bartholomew, Mayseless, & Dutton, 2007; Fournier et al., 2011; Godbout et al., 2009). In avoidant individuals, violence will be used as a distancing strategy to deal with intolerance to closeness or to regain a comfortable distance in the relationship (Allison et al., 2007; Brassard, Darveau, Péloquin, Lussier, & Shaver, 2014). Nonetheless, the limited empirical evidence and inconsistent results regarding the association between intimacy avoidance and perpetration of relationship violence (e.g., Unger & De Luca, 2014; Wekerle & Wolfe, 1998) underscores the need to pursue this line of investigation. In turn, empirical data also highlight the role of relationship violence in adverse relationship outcomes, including couple distress, relationship dissatisfaction, and instability (Godbout et al., 2009; Lawrence & Bradbury, 2007). In a metaanalysis of 32 studies, Stith, Green, Smith, and Ward (2008) found evidence of a significant, negative association between dyadic satisfaction and intimate partner violence (overall r = -.27).

## Stability of Relationship Violence, Romantic Attachment, and Relationship Satisfaction

Longitudinal studies examining changes in relationship violence in youths found moderate stability of physical and psychological aggression over time (Fritz & Smith Slep, 2009; O'Leary & Smith Slep, 2003). Some have observed decreases in relationship violence perpetration as individuals age (Nocentini, Menesini, & Pastorelli, 2010), whereas others have reported increases (Foshee et al., 2009). With respect to the mechanisms responsible for such changes, variations in intraindividual characteristics associated with relationship violence, such as romantic attachment, play a key role, in theory. Romantic attachment is a stable characteristic thought to persist in life (Bowlby, 1988). This core assumption, however, is challenged by empirical evidence suggesting that changes in attachment can be observed (Fraley, Vicary, Brumbaugh, & Roisman, 2011). Given that adolescence and early adulthood are critical periods for the establishment of romantic relationships, internalized representations of romantic attachment may develop or change. For example, repeated positive experiences involving care from a responsive partner may confirm or reinforce secure romantic attachment. Inversely, violent behaviors from a dating partner may reinforce basic insecurity. However, few studies thus far have examined the potential changes in romantic attachment and their links with changes in relationship violence or relationship satisfaction. Similarly, diminution in perpetrated relationship violence is associated with higher relationship satisfaction (Lawrence & Bradbury, 2007). This examination might have important practical implications. If changes in attachment are observed and they are associated with changes in relationship violence, then interventions targeting insecure romantic attachment may impede the cycle of violence and promote satisfying romantic relationships.

#### The Current Study

Among the critical issues plaguing research on relationship violence is the scarcity of studies investigating integrative models of the precursors of violence and longitudinal changes in these precursors, as well as their association with relationship satisfaction. Against this backdrop, the present study focuses on late adolescents and emerging adults to better understand factors associated with relationship violence and relationship satisfaction. Two main objectives are pursued. First, the study examines whether an integrative model of the mediational role of insecure attachment (i.e., anxious and avoidant attachment) linking early exposure to family violence and later relationship violence generalizes to adolescents and emerging adults. We hypothesized that the results observed in adult couples will be replicated in a model where (a) childhood exposure to family violence is related to insecure romantic attachment and the perpetration of relationship violence, (b) insecure attachment, in turn, is linked to higher levels of violence and lower levels of relationship satisfaction, and (c) relationship violence is related to lower satisfaction. The gender invariance of this hypothesized model will be tested across young men and women. Second, the study aims to examine if longitudinal variations in romantic attachment are associated with changes in relationship violence and satisfaction. In accordance with the hypothesized model, increases in attachment insecurities should be related to increased relationship violence. In turn, increased violence should lower relationship satisfaction.

#### Method

#### **Participants and Procedure**

The sample consisted of 1,252 French-Canadian adolescents and emerging adults (72.3% women, n=899; 27.7% men, n=345) aged between 15 and 25 years (M=18.08, SD=1.42) and engaged in a couple relationship. The mean relationship duration was 14.91 months (SD=14.76), and almost all participants were in a heterosexual relationship (97.6%, n=1175). The majority of the participants (88.5%, n=1108) did not live with their partner and 10 participants had children (0.8%). Participants were recruited from high schools and colleges (M=11.70, SD=1.48 years of education) in the province of Quebec, Canada. In Quebec, college education (generally 2 or 3 years) follows high school and precedes university undergraduate studies. Participants were solicited in classrooms and invited to complete a series of questionnaires; 98.2% agreed to participante. Participants were instructed to

complete the questionnaires at home and to return them by mail. They received five dollars for their participation in the study. The study was approved by the Université du Québec à Trois-Rivières's (UQTR) Institutional Review Board.

Participants who engaged in the study at Time 1 were contacted again 3 years later for a second wave of assessment. A proportion of these participants (24.8%, n=311) agreed to participate at Time 2. Among these 311 participants, 234 were in a relationship and provided valid data for the analyses (18.7% of the total sample). Of these 234 participants, 75.8% were in the same relationship as that at Time 1, whereas 24.2% were involved in a relationship with a new romantic partner. This subsample consisted of 195 women (83.3%) and 39 men (16.7%) aged between 18 and 28 years (M=21.03, SD=1.32) who had an average of 14.35 (SD=1.44) years of education. The average relationship duration was 33.43 months (SD=23.17). As stated above, the majority did not have children (4.27% had children, n=10) and were heterosexual (100%, n=234).

As expected, participants who engaged in the study at Time 2 were significantly older,  $t=1.97, p=.049 \ d=0.13 \ (M_I=18.23, SD_1=1.28 \ and \ M_2=18.05, SD=1.45)$  and had more years of education,  $t=3.73, p<.001, d=0.24 \ (M_I=11.97, SD_1=1.14)$  and  $M_2=11.64, SD_2=1.54$ . Compared with participants who did not complete Time 2 assessment, they were in longer relationships,  $t=2.88, p=.004, d=0.23 \ (M_I=17.88, SD_1=18.05)$  and  $M_2=14.21, SD=13.79$ ). In addition, compared with participants who left the study (69.7% of women and 30.3% of men), a higher proportion of women ( $\chi^2=17.61, p<.001$ ) were in a romantic relationship at Time 2 (83.3% of women and 16.7% of men). The subsamples did not differ on relationship status.

#### Measures

Attachment. Two dimensions of attachment insecurity—avoidance and anxiety—were assessed using the French version of the Experiences in Close Relationships Questionnaire (Brennan et al., 1998; Lafontaine & Lussier, 2003). It includes 18 items that assess avoidant attachment and 18 that assess anxious attachment. Participants indicated their level of agreement with each item on a 7-point Likert (disagree/agree) Scale. Higher mean scores indicate higher anxiety and avoidance. The reliability, as well as the construct, predictive, and discriminant validity of the two scales has been repeatedly demonstrated for both the French and English versions (Godbout, Briere, Sabourin, & Lussier, 2014; Lafontaine & Lussier, 2003). In this study, the alpha coefficients were high, ranging from .87 to .90.

Relationship satisfaction. The four-item Dyadic Adjustment Scale (DAS-4; Sabourin, Valois, & Lussier, 2005) was used to assess relationship satisfaction (i.e., not thinking about ending the relationship; confiding in your partner; degree of happiness in your relationship; things between you and your partner are going well). The DAS-4, which has been found to be as effective as the original 32-item DAS (Spanier, 1976) in predicting couple dissolution, shows equivalent psychometric properties, but is significantly less contaminated by socially desirable responses (Sabourin et al., 2005). In the current study, the alpha coefficients were .75 at Time 1 and .78 at Time 2.

**Relationship violence.** Perpetrated psychological and physical violence were assessed using a short version of the Revised

Conflict Tactics Scales (CTS-2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The psychological and physical violence subscales were each composed of 6 items rated on a 7-point Likert scale ranging from 1 (*once in the past year*) to 7 (*not in the past year, but it did happen before*), indicating the frequency of perpetrated relationship violence. Midpoint scores were computed using the approximate midpoint of the frequency range for each item (i.e., 1 = 1, 2 = 2, 3 = 4, 4 = 8, 5 = 15, 6 = 25, 7 = 0). Higher scores reflect more frequent perpetration of violence in the last year. The CTS-2 has been used extensively in studies on relationship violence and demonstrated good reliability and validity (Godbout et al., 2009; Lussier, 1997; Straus et al., 1996). In the current study, alphas for physical and psychological violence ranged from .72 to .75.

Past experiences of family violence. Four single-item questions assessed experiences of family violence (Godbout, Lussier, & Sabourin, 2006): (a) witnessing physical violence as a child, "Was there physical violence between your parents (hitting or kicking with or without objects, fighting, etc.)?" (b) witnessing psychological violence as a child, "Was there verbal violence between your parents (shouting, putting down, etc.)?" (c) experiencing physical violence as a child, "During your childhood, were you hit or beaten by one or both of your parents?" and (d) experiencing psychological violence as a child, "Did your parents put you down or shout hurtful words at you?" Response choices ranged from 1 (never) to 4 (very often). As described in a previous study that used this measure (Godbout et al., 2009), scores on the four items were summed to compute a variable reflecting the severity of exposure to violence, with a higher score reflecting a greater exposure to violence. The measure showed satisfactory psychometric qualities in the previous study (e.g., Godbout et al., 2009). The alpha coefficient in the current study was .66.

#### **Data Analysis**

First, descriptive statistics were performed to report information on the prevalence of early exposure to violence and relationship violence. Second, departure from normality for some variables was handled using winsorization and logarithmic transformations. Third, zero-order correlations allowed the examination of associations between our variables and potential covariables (age and length of the relationship).

Then, SEM analyses using Mplus, version 7.0 (Muthén & Muthén, 1998-2015) were conducted to estimate the crosssectional associations between cumulative exposure to violence, attachment, relationship violence, and relationship satisfaction at Time 1. More precisely, a latent variable was created for perpetrated relationship violence based on two indicators (i.e., physical and psychological violence), whereas the two dimensions of attachment, relationship satisfaction and past experiences of family violence, were observed variables. SEM was also used to examine the links between longitudinal changes in romantic attachment, relationship violence, and relationship satisfaction. The scores reflecting changes between Time 1 and Time 2 were estimated by subtracting scores at Time 1 from scores at Time 2. Given that the age bracket targeted in this study ranges from middle adolescence to early adulthood, both cross-sectional and longitudinal models were computed controlling for the effect of the participants' ages on the dependent variables (i.e., relationship violence and satisfaction).

Several indices were used to determine whether the hypothesized models fit the observed data. A nonsignificant  $\chi^2$  indicates that the proposed model is consistent with the observed data. Because this statistic is sensitive to sample size, the ratio of chi-square to degrees of freedom ( $\chi^2/df$ ) was considered; values between 1 and 5 indicate a satisfactory fit, and a more severe cutoff value of 3 is ideal (Kline, 1998). The comparative fit index (CFI), which compares the hypothesized model with the null model, was calculated, with a value of .95 or higher indicating a good fit (Hu & Bentler, 1999). Finally, the root mean square error of approximation (RMSEA) considers the error of approximation in the population and estimates the difference between model-implied and actual variances and covariances, with values less than .06 and a 90% confidence interval ranging between .00 and .08 being preferred (Hu & Bentler, 1999).

To examine the mediational role of attachment anxiety and avoidance, we computed direct effects (i.e., path coefficient from childhood exposure to violence to relationship violence) as well as indirect effects (i.e., the product of the path coefficients from childhood exposure to violence to attachment and from attachment to relationship violence). To examine the significance of the indirect effects, 95% bootstrap confidence intervals were computed; when zero is not in the confidence interval, the indirect effect is considered significant (MacKinnon & Fairchild, 2009). We finally reported the proportion of the total effect that is mediated through attachment representation (indirect effect/total effect).

#### Results

#### Prevalence of Violence and Descriptive Data

A total of 38.8% (n=483) of the participants reported having experienced psychological violence by their parents (29.5%, n=367 sometimes, 9.3%, n=116 often or very often), and 16.5% (n=205) of the participants (14.4%, n=179 sometimes, 2.1%, n=26, often or very often) reported that their parents were physically violent to them. The proportion of participants having witnessed interparental violence was 48.5% (n=599) for psychological violence (35.3%, n=436 sometimes, 13.2%, n=163 often or very often) and 6.3% (n=78) for physical violence (4.8%, n=59 sometimes, 1.5%, n=19 often or very often). At Time 1, 68% of the participants (n=815) reported having perpetrated psychological violence toward their partner, whereas 25.6% (n=306) reported having perpetrated physical violence at least one time over the last year. The means, standard deviations, and correlation coefficients for the analyzed variables are presented in Table 1.2

### Early Exposure to Violence, Attachment, Relationship Violence, and Relationship Satisfaction: Cross-Sectional Analyses

Because some variables continued to demonstrate nonnormal distributions after transformations, a robust method of estimation was used. These maximum likelihood parameter estimates with robust standard errors provide fit indices that are adjusted for the nonnormality of the data (Yuan & Bentler, 2000).

Integrative model. The model, with nonsignificant paths removed, provided a good fit to the data,  $\chi^2(8) = 10.60$ , p = .16,  $\chi^2/df = 1.51$ , CFI = 1.00, RMSEA = .02 with 90% confidence interval (CI) [.00, .04]. Exposure to violence in the family of origin led to perpetration of relationship violence both directly and indirectly through attachment anxiety (b = .10, 95% bootstrap CI [.05, .18]). The proportion of the effect of childhood exposure to violence on relationship violence through anxiety was 16%, suggesting partial mediation. The association between anxious attachment and relationship satisfaction was mediated by perpetrated relationship violence, with a significant indirect effect (b = -.01, 95% bootstrap CI [-.02, -.01]). Attachment avoidance was only related to lower couple satisfaction. This model explained 9% of the variance in violence in close relationships and 50% of the variance in relationship satisfaction. Multigroup analyses were conducted to examine whether the model is invariant across adolescence (age 17 or younger) and emerging adulthood (age 18 or older). The results indicated that adding equality constraints to the measurement model,  $\Delta \chi^2(1) = .29$ , p = .59 as well as on regression paths,  $\Delta \chi^2(5) = 6.47$ , p = .26, did not significantly decrease the fit of the model. This suggests that the integrative model of the associations between family violence, romantic attachment, relationship violence and relationship satisfaction holds for both adolescents and emerging adults. A significant chi-square difference was found when constraining variances and covariances across age groups. The results of Wald tests showed more variability in physical violence within the emerging adult group compared to the adolescent group, Wald(1) = 7.60, p = .006, indicating that the adolescent group presented a more homogenous level of physical violence than emerging adults.

Controlling for age and the length of the relationship. Because participant age and relationship length were significantly correlated with relationship violence and relationship satisfaction (see Table 1), they were included as covariables to control for their potential contribution to the outcome variables. The results (see Figure 1) showed that age and the length of the relationship positively predicted relationship violence. In addition, the length of the relationship was negatively related to relationship satisfaction. The addition of control variables made no meaningful difference in the significance, strength, or pattern of the model coefficients, nor in the fit of the model,  $\chi^2(15) = 41.00$ , p < .001,  $\chi^2/df = 2.73$ , CFI = 0.98, RMSEA = .04 with 90% CI [.02, .05]. This final model explained 23% of the variance in relationship violence and 51% of the variance in relationship satisfaction.

**Invariance across gender.** A series of multigroup invariance analyses were conducted, adding equality constraints on parame-

 $<sup>^1</sup>$  We conducted chi-square analyses to examine differences in the rate of participants reporting perpetration of relationship violence (a score of psychological violence above the mean of the sample and/or at least one episode of physical violence) according to the frequency of family violence experienced. Participants who reported having experienced various types of family violence "often" or "very often" were violent toward a romantic partner in a higher proportion (75.7%) than those who reported having "never" or "sometimes" experienced family violence (67.4%).  $\chi^2(1)=5.86,\,p=.016,\,\Phi_{\rm Cramer}=.07.$  This suggests that severe forms of family violence are more likely to be associated with relationship violence.

<sup>&</sup>lt;sup>2</sup> To ensure the theoretical validity of our composite score, we examined the correlations between the study variables and witnessing or experiencing family violence separately. Similar patterns of results were observed.

Table 1
Correlation Coefficients, Means, and Standard Deviations for Study Variables

| Variables                           | 1      | 2      | 3     | 4      | 5      | 6    | 7      | 8 | M     | SD    |
|-------------------------------------|--------|--------|-------|--------|--------|------|--------|---|-------|-------|
| 1. Family violence                  | _      |        |       |        |        |      |        |   | 1.44  | 1.76  |
| 2. Attachment anxiety               | .13*** | _      |       |        |        |      |        |   | 3.47  | 1.00  |
| 3. Attachment avoidance             | .05    | .25*** | _     |        |        |      |        |   | 1.92  | .78   |
| 4. Inflicted psychological violence | .12*** | .19*** | .07*  | _      |        |      |        |   | 7.93  | 14.45 |
| 5. Inflicted physical violence      | .11*** | .13*** | .08*  | .55*** | _      |      |        |   | 1.44  | 5.77  |
| 6. Relationship adjustment          | 04     | 25***  | 64*** | 30***  | .17*** | _    |        |   | 4.31  | .73   |
| 7. Age                              | 03     | 04     | 02    | .16*** | .06*   | 09** | _      |   | 18.08 | 1.42  |
| 8. Relationship length              | 03     | .01    | 12*** | .27*** | .10**  | 08** | .30*** | _ | 14.91 | 14.76 |

*Note.* Means and standard deviations are reported for the nontransformed variables. \* p < .05. \*\*\* p < .01. \*\*\* p < .01.

ters across boys and girls. The chi-square difference test between the unconstrained model and constrained measurement model was nonsignificant  $\Delta\chi^2(1)=.35,\ p=.56$ , indicating no gender differences regarding the measurement model. Adding equality constraints on structural paths did not significantly change the fit of the model  $\Delta\chi^2(6)=.8.72,\ p=.19$ . Finally, constraining variance and covariance across gender also resulted in a marginally, nonsignificant chi-square difference  $\Delta\chi^2(7)=.14.06,\ p=.05$ . These results support the gender invariance of the model, suggesting that the structural paths are similar in young men and women.

#### Longitudinal Links Between Changes in Attachment, Relationship Violence, and Relationship Satisfaction

Descriptive analyses were conducted on the main variables to examine the impact of attrition. The results indicated that participants who left the study reported having experienced significantly more family violence (M = 1.51, SD = 1.84) than participants who remained in the study at Time 2 (M = 1.15, SD = 1.37), t(435.95) = 3.30, p = .001, d = 0.20. The completer and attrition

groups did not differ on anxiety, avoidance, psychological violence, physical violence, and relationship satisfaction.

Changes from Time 1 to Time 2. Pairwise t tests were conducted on transformed variables to examine differences in the study variables between Time 1 and Time 2. The results showed significant decreases (Bonferroni adjusted p values) in attachment anxiety, t(233) = 4.44, p < .005, r = .28 (M = 3.44 and SD = .005) 1.03 at Time 1, M = 3.15 and SD = 1.04 at Time 2), and attachment avoidance, t(233) = 3.15, p = .01, r = .20 (M = 1.86and SD = 0.68 at Time 1, M = 1.69 and SD = 0.55 at Time 2). No significant difference was observed for relationship satisfaction (M = 4.33 and SD = 0.63 at Time 1, M = 4.31 and SD = 0.64 atTime 2). Because psychological and physical violence remained skewed after transformation, nonparametric analyses were conducted. The results of the Wilcoxon signed-ranks test (Bonferroni adjusted p values) showed a significant decrease in physical violence, t = 2264.00, p = .045, r = -.12 (Mdn = 0 at Time 1 and Mdn = 0 at Time 2), whereas no difference was observed for psychological violence. At Time 2, 73.9% of participants (n =

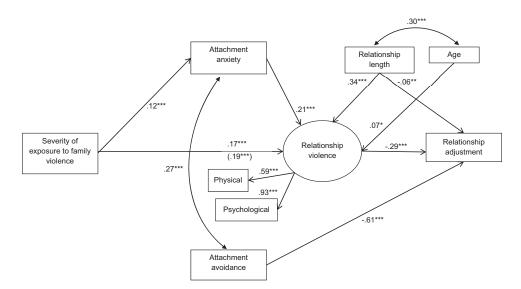


Figure 1. Structural equation model of the associations between severity of exposure to family violence, attachment anxiety and avoidance, relationship violence, and relationship adjustment. Path coefficient for the direct model before the inclusion of the mediators are in parentheses. \* p < .05. \*\*\* p < .01. \*\*\* p < .001.

173) reported having perpetrated psychological violence toward their partner, whereas 20.5% (n=48) reported having perpetrated physical violence at least once over the last 12 months. The majority of participants (75.8%) were in a relationship with the same partner, and independent sample t tests were conducted to examine potential group differences (with the same partner or with a new partner at Time 2). The results indicated a significant difference for changes in psychological violence, t(205)=2.22, p=.027, d=0.34. On average, participants who stayed in the same relationship showed an increase in the perpetration of psychological violence between Time 1 and Time 2 (M=4.68, SD=17.03) whereas participants who were in a different relationship showed a decrease in psychological violence (M=-1.90, SD=21.62). No difference was observed for romantic attachment, perpetration of physical violence or relationship satisfaction.

Integrative model of changes in attachment, relationship violence, and relationship satisfaction. The model (see Figure 2) showed good fit indices,  $\chi^2(4) = 3.56$ , p = .56,  $\chi^2/df = 0.89$ , CFI = 1.00, RMSEA = .00 with 90% CI [.00, .09], and suggested that increases in anxious attachment are associated with increases in relationship violence. Increases in relationship violence were, in turn, related to lower relationship satisfaction. The indirect link from attachment anxiety to relationship satisfaction through relationship violence was significant (b = -.10, 95% bootstrap CI [-.18, -.03]). Increases in avoidance also predicted decreases in relationship satisfaction. This model accounted for 6% of the changes in relationship violence and 57% of the changes in relationship satisfaction. Again, the addition of the control variables (i.e., age and length of the relationship) made no meaningful difference in the significance, strength, or pattern of coefficients,

nor in the fit of the model,  $\chi^2(13) = 12.66$ , p = .47,  $\chi^2/df = 0.97$ , CFI = 1.00, RMSEA = .00 with 90% CI [.00, .06]. Age was unrelated to changes in relationship violence and satisfaction, whereas violence was more frequent in relationships of longer duration. This final model accounted for 11% of the changes in relationship violence and 56% of the changes in relationship satisfaction. The small number of male participants (n = 39) at Time 2 precluded the examination of gender invariance using multigroup analyses.

#### Discussion

The goal of the present study was to test an integrative model of the associations between early exposure to family violence, romantic attachment, relationship violence, and relationship satisfaction in late adolescents and emerging adults. The study also aimed to examine longitudinally whether variations in attachment are associated with variations in relationship violence and relationship satisfaction. The results supported the hypothesis that higher exposure to family violence was predictive of attachment insecurity, which in turn increased the risk to perpetrate relationship violence and experience poorer relationship satisfaction. The hypothesized model was supported in both cross-sectional and longitudinal analyses, with the models accounting for a large portion of the variance in relationship satisfaction (50% to 57%).

These findings suggest that exposure to parental violence is associated with inflicted relationship violence, specifically through the development of anxious attachment representations. Being a victim of violence or witnessing violence in childhood, especially with key attachment figures, such as parents, are increasingly

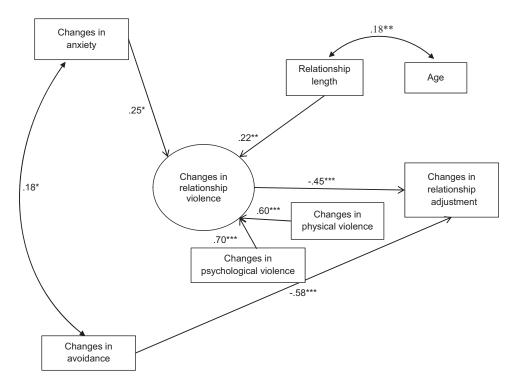


Figure 2. Longitudinal changes in attachment, relationship violence, and relationship adjustment. \* p < .05. \*\* p < .01. \*\*\* p < .001.

conceptualized as potential relational trauma (Godbout, Runtz, MacIntosh, & Briere, 2013), "violation of human connections" (Herman, 1992) or "high betrayal trauma" (Freyd, DePrince, & Gleaves, 2007). These violent experiences tend to intensify the need for protection and caring from attachment figures, and at the same time, significantly reduce the survivor's ability to trust caretakers (e.g., Hesse & Main, 2006), which is the basis of secure attachment. An increase in abandonment fears adds to the survivor's coexisting need for human connection and increase their vulnerability to experiencing further relational distress, especially in the context of early romantic relationships (Godbout et al., 2006; Pearlman & Courtois, 2005). In addition, survivors may have few resources to cope with these distressing situations as traumatic interpersonal experiences may lead to impaired affect regulation (Briere, Hodges, & Godbout, 2010). In this context, relationship violence can be an attempt to keep the partner close and regulate proximity ("pursuit strategy", Allison et al., 2007; Godbout et al., 2009). As a result, dysfunctional externalizing strategies, such as coercive behaviors, initiate a cycle of violence in romantic relationships and jeopardize couple satisfaction in developmental periods that provide crucial learning experiences for future adult challenges (e.g., Collins & Read, 1990). By fostering insecure attachment, child maltreatment may increase the likelihood of falling into "coercion traps," which are defined as dysfunctional interaction styles and spirals of negative reciprocity that lead to violence and relationship distress (Godbout et al., 2009).

In the present study, avoidance of intimacy, on the other hand, was not predicted by a history of childhood family violence. Other studies also observed that the model of self (attachment anxiety) is particularly altered in survivors of child maltreatment, whereas the model of others (attachment avoidance) might be preserved, suggesting a strong tendency for self-blame in survivors (Godbout et al., 2006). In addition, the role of avoidant attachment in the perpetration of relationship violence was marginally, nonsignificant. This may suggest that, in adolescence and early adulthood, the contribution of avoidant attachment in relationship violence perpetration is small or only detectable when the contributions of other factors are considered. Other researchers observed that adult relationship violence may be used by avoidant individuals as a deactivating strategy, which is learned as a way of coping with previous unsuccessful proximity-seeking attempts and is mainly used as a way of keeping the partner from becoming too intimate or in response to the partner evoking internal fear and anxiety (e.g., Allison et al., 2007; Godbout et al., 2009). This mechanism, which was observed mostly in adults' intimate partner violence, might be less characteristic of earlier romantic relationships. Indeed, young couples are generally in relatively new unions (M = 14 months in the current study, compared to 7 years in the adult sample of Godbout et al., 2009) and usually less committed to one another. As such, younger partners are probably less susceptible to feel strong urges to push the partner away, maintain greater distance, or perceive the partner as to being too close or intrusive; hence, they use violence as a distancing strategy in the early stages of intimate relationships.

Attachment avoidance, however, showed the strongest association, along with relationship violence, to relationship satisfaction. Those results were confirmed in both cross-sectional and longitudinal models. Avoidant individuals typically feel discomfort with closeness and prefer to distance themselves to maintain independence and prevent rejection from an intimate partner. As a result, they are less prone to rely on their partner for emotional support, to provide support for their partner and to engage in open communication and conflict resolution, which are likely to create barriers in the development of satisfying relationships regardless of whether the partners are adolescents, emerging adults, or adults (Brassard, Lussier, & Shaver, 2009; Mikulincer & Shaver, 2007). Consistent with past studies, relationship violence was also found to be strongly associated with relationship distress. Child maltreatment was only indirectly related to relationship satisfaction through anxious attachment and relationship violence, highlighting the key role of risk and protection variables in the link between child maltreatment and couple satisfaction. Overall, the current findings generally replicate the model developed by Godbout et al. (2009) and are consistent with the work of Lee et al. (2014) on emerging adults.

#### **Gender Invariance**

The current study provides further support for a gender invariant model in which child maltreatment is related to an increased risk of relationship violence and distress, through attachment anxiety, in late adolescents and emerging adults. The current results parallel those of Godbout et al. (2009) who, using multigroup invariance analyses, found evidence for a gender invariant model of the associations among exposure to family violence, romantic attachment, intimate partner violence, and dyadic satisfaction in adult couples. However, in their integrative model, Lee et al. (2014) found that parent-to-child physical violence was related to anxious and attachment avoidance only in young women, but their small sample of men called for further study. Lee et al. (2014) also observed that attachment anxiety was associated to relationship violence in both men and women, although they had not formally tested multigroup gender invariance. Our results underline the important role of attachment, and specifically abandonment anxiety, in the trajectory leading from child maltreatment to relationship violence in both genders.

## Longitudinal Changes in Attachment, Relationship Violence, and Relationship Satisfaction

One way to test the strength of the integrative model proposed in the current study was to examine whether the observed associations were robust when considering longitudinal variations in romantic attachment, perpetration of violence, and relationship satisfaction. Our findings suggest that romantic attachment changes during adolescence and emerging adulthood. The quality of the first romantic experiences may shape the internal working models of adolescents and emerging adults in several ways. For instance, painful distressing romantic experiences, including abuse, betrayal, or violence, may exacerbate attachment insecurities that were already present or trigger periods of insecurities in previously securely attached individuals. On the other hand, safe romantic relationships in which individuals feel that their partner is caring, reliable, and trustworthy might strengthen the basic internalized sense of security or even provide a healing opportunity to experiment a new, positive type of intimate relationship that promote more secure romantic attachments. The current examination of the determinants of relationship violence and distress, during a critical period in which the individual experiences his or her first romantic relationships, is an important contribution to the developmental understanding of violence toward a romantic partner.

As hypothesized, the current study found that when participants reported increased fear of abandonment (i.e., more attachment anxiety), their level of relationship violence also increased. The results also highlighted that becoming more avoidant was associated with experiencing more relationship distress. As the attachment system is progressively redirected toward the romantic partner, positive early love experiences (e.g., feeling safe and valued by a present and responsive partner) might not only be predictive of satisfying, free-of-violence relationships, but they may also promote secure attachment later on. These results confirm that secure attachment representations in adolescence and emerging adulthood might constitute a strong protective factor for the quality of couple relationships.

#### **Strength and Limitations**

The conclusions of this study should be tempered by consideration of its limitations. First, attrition limited the generalizability of the results and precluded replication of gender invariance tests in the longitudinal model. The individuals who declined to participate at Time 2 did not differ in anxiety, avoidance, psychological violence, physical violence or relationship satisfaction, but they reported more family violence then the participants who remained in the study. Hence, our results might not be representative of subgroups of victimized participants and the associations found could have been stronger within the entire sample. Second, participants who were currently experiencing relationship violence may have been primed to remember more exposure to early life family violence. Our findings should be replicated in studies using multiple sources of information (e.g., child protective services reports) and assessing family violence in a more comprehensive manner (including for instance experiences of sexual abuse, violence perpetrated by the siblings) with reliable measures. Third, to better understand the emerging patterns of relationship violence, further studies should examine the systemic dynamic of young couples using the couple as a unit of analysis. Fourth, the age range of the current study may also limit the implications of the results and future studies should explore the proposed model in late adolescents (15-16 years) to better target their first relational experiences. Finally, future studies examining other variables could help to better understand the mechanisms that account for perpetration of violence and relationship satisfaction in youth survivors of child maltreatment (e.g., emotion regulation, motives of perpetrators).

#### **Practical Implications**

It is important to circumscribe the mechanisms of abusive relationships in young couples, given that adolescence and early adulthood are crucial periods during which individuals develop their expectations for long-term romantic relationships (Wekerle & Wolfe, 1999). Given the high prevalence of relationship violence observed in this nonclinical sample of youths, the present findings support the importance of social policies informed by rigorous research to guide efficient education and prevention programs

aimed at youths, parents, school/college personnel, law enforcement officials, health care providers, and the general population (Clark, Biddle, & Martin, 2002). Child maltreatment is related to relationship violence, which, if left unaddressed, might crystallize or escalate into severe partner violence. The current results highlight the importance of including attachment-focused intervention (Johnson, 2002) and adequate emotion regulation and communication skills coaching (Linehan, 1993; Rathus & Miller, 2015) in prevention efforts and treatment strategies. The findings also support the importance of assessing and attending to unresolved outcomes of childhood trauma, including but not limited to attachment insecurities, concurrently or prior to addressing relationship violence. Given the current results, such interventions might include cognitive-behavioral and relational treatments that have been shown to increase affect regulation capacities or reduce experiential avoidance (Cloitre, Koenen, Cohen, & Han, 2002; Linehan, 1993). Finally, the findings suggest that health professionals must pay attention to the inner psychological experiences of relationships in young patients to help them cope with attachment-related anxiety and establish more satisfying, violencefree intimate relationships.

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