

# A Meta-Analysis of Risk and Protective Factors for Dating Violence Victimization: The Role of Family and Peer Interpersonal Context

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Martine Hébert<sup>1</sup>, Marie-Ève Daspe<sup>1</sup>, Andréanne Lapierre<sup>2</sup>, Natacha Godbout<sup>1</sup>, Martin Blais<sup>1</sup>, Mylène Fernet<sup>1</sup>, and Francine Lavoie<sup>3</sup>

#### **Abstract**

Dating violence (DV) is a widespread social issue that has numerous deleterious repercussions on youths' health. Family and peer risk factors for DV have been widely studied, but with inconsistent methodologies, which complicates global comprehension of the phenomenon. Protective factors, although understudied, constitutes a promising line of research for prevention. To date, there is no comprehensive quantitative review attempting to summarize knowledge on both family and peer factors that increase or decrease the risk for adolescents and emerging adults DV victimization. The current meta-analysis draws on 87 studies with a total sample of 278,712 adolescents and young adults to examine effect sizes of the association between various family and peer correlates of DV victimization. Results suggest small, significant effect sizes for all the family (various forms of child maltreatment, parental support, and parental monitoring) and peer factors (peer victimization, sexual harassment, affiliation with deviant peers, and supportive/prosocial peers) in the prediction of DV. With few exceptions, forms of DV (psychological, physical, and sexual), gender, and age did not moderate the strength of these associations. In addition, no difference was found between the magnitude of family and peer factors' effect sizes, suggesting that these determinants are equally important in predicting DV. The current results provide future directions for examining relations between risk and protective factors for DV and indicate that both peers and family should be part of the development of efficient prevention options.

#### **Keywords**

meta-analysis, family, peers, risk factors, protective factors, child maltreatment, support

Dating violence (DV) is a serious public health concern that affects an important proportion of youths. The Centers for Disease Control and Prevention (2016) defines psychological violence as threats or harm to the partner's sense of self-worth by name-calling, shaming, humiliating, or attempting to isolate him or her from friends and family. Physical violence includes acts such as pinching, hitting, shoving, slapping, punching, or kicking. Sexual violence refers to attempts to engage the partner in unwanted sexual activities by means of force, threat, or pressure. Recent meta-analytic findings on the prevalence of DV (Wincentak, Connolly, & Card, 2016) estimate that 20% of adolescents aged 13–18 years have been physically victimized, while 14% of girls and 8% of boys have reported sustaining sexual violence. Regarding psychological violence, rates of victimization from nationally representative data suggest a prevalence of 40.9% for boys and girls (Ybarra, Espelage, Langhinrichsen-Rohling, Korchmaros, & Boyd, 2016). When prevalence rates are combined across types of violence, half of youths report having been victimized by a partner in their lifetime (Ybarra et al., 2016).

Among the numerous deleterious impacts of DV are poorer educational outcomes, depression, suicidal ideation, and substance use (Banyard & Cross, 2008; Exner-Cortens, Eckenrode, & Rothman, 2013). Evidence also suggests that DV tends to crystallize, so that victimization in adolescence predicts involvement in violent relationships later in life (Exner-Cortens et al., 2013; Gómez, 2011). The pervasiveness of DV as well as its deleterious impacts on physical and mental health has prompted a great deal of research dedicated to understanding

#### **Corresponding Author:**

Martine Hébert, Département de sexologie, Université du Québec à Montréal, CP 8888 Succursale Centre-Ville, Montréal, Quebec, Canada H3C 3P8. Email: hebert.m@uqam.ca

<sup>&</sup>lt;sup>1</sup> Département de sexologie, Université du Québec à Montréal, Montréal, Quebec, Canada

<sup>&</sup>lt;sup>2</sup> Département de psychologie, Université du Québec à Montréal, Montréal, Quebec, Canada

<sup>&</sup>lt;sup>3</sup> École de psychologie, Université Laval, Québec, Canada

its precursors (Capaldi, Knoble, Shortt, & Kim, 2012; Vézina & Hébert, 2007). Two contexts are particularly salient in shaping teenagers' development and victimization risk: the family and interpersonal peer context (Foshee et al., 2011). Another, less invested, line of investigation aims at identifying possible protective factors for the experience of violence in romantic relationships (e.g., Loeb, Deardorff, & Lahiff, 2014). Yet, the identification of both risk and protective factors is needed to guide the development of effective programs targeting DV. In this endeavor, the current meta-analysis aims at providing a robust estimate of the association between family and peer factors susceptible to either increase or decrease the risk for victimization in adolescents' and emerging adults' dating relationships.

## The Role of Interpersonal Context in Dating Victimization

Family risk and protective factors for DV. The quality of interactions with parents in childhood can either facilitate or impede the development and the transition through adolescence (Collins, Welsh, & Furman, 2009). These early interactions with caretakers shape representations of self and others in close relationships and are opportunities to learn conflict resolution skills as well as to form attitudes about violence. For example, child maltreatment in its various forms (e.g., psychological, physical or sexual abuse, neglect, witnessing violence) has frequently been identified as significant correlate of victimization in romantic relationships (Vézina & Hébert, 2007). According to social learning theory (Bandura, 1977), the experience of abuse in the family of origin leads to beliefs about the acceptability of violence as a normative way to resolve conflicts. Youths exposed to family-of-origin aggression may, therefore, be more likely to come to tolerate victimization in their romantic relationships. Briere's (2002) self-trauma model also posits that interpersonal trauma can impair youth's capacity to establish and maintain stable and healthy relationships later in life.

In a literature review of risk factors for dating victimization in young women, Vézina and Hébert (2007) reported that exposure to family violence, either witnessed or directly sustained, is associated with victimization in dating relationships. In adult population, meta-analyses examined the strength of the associations between family-of-origin aggression and intimate partner violence. Stith et al. (2000) found a global effect of r = .19for child abuse and r = .14 for witnessing interparental abuse in association with sustained spouse physical abuse. In a recent extension of this work. Smith-Marek et al. (2015) estimated a global effect for the relationship between family-of-origin aggression and sustained partner physical violence of r =.21, with a significantly stronger effect of child abuse in women (r = .23) than in men (r = .14). However, to date, no systematic effort has been done to quantitatively summarize knowledge regarding the impact of other forms of child maltreatment, such as neglect, or to document the unique association of various forms of abuse with different types of victimization (e.g., psychological, physical, and sexual) in young men's and women's dating relationships.

Regarding family-related protective factors, the effects of parental support might decrease the risk of victimization from a romantic partner. Drawing on attachment theory (Bowlby, 1988), bonding and closeness with parents would foster a sense of self-worth that would reduce the likelihood of involving in or tolerating relationships with abusive partners (Alleyne-Green, Grinnell-Davis, Clark, Quinn, & Cryer-Coupet, 2014; Cleveland, Herrera, & Stuewig, 2003). Positive parental monitoring, such as effective discipline, setting of limits, open communication, conflict negotiation, and knowledge of the youth's activities, has also been linked to reduced risks of DV (Leadbeater, Banister, Ellis, & Yeung, 2008; Vézina et al., 2011). Parental awareness and involvement may also provide the youth with assistance and help, counteracting isolation in an abusive relationship (Leadbeater et al., 2008).

Peer risk and protective factors. The growing interdependency with peers in adolescence and early adulthood convey them a unique influence on the quality of romantic relationships. Unlike relationship with the parents, both relationships with peers and with romantic partners are affiliative in nature (Furman, Simon, Shaffer, & Bouchey, 2002). Through the former, there are many occasions to learn social skills, behaviors, and norms that tend to be generalized to the later. In addition, both peer and romantic relationships are expected to be mutual and equal in power. Experiences of reciprocity, closeness, and respect in relation to peers or, on the contrary, negative interactions and abuse are therefore likely to influence expectations in romantic relationships (Furman, Simon, Shaffer, & Bouchey, 2002). A meta-analysis has recently been conducted on peer risk factors for perpetrated and sustained DV in adolescence (Garthe, Sullivan, & McDaniel, 2016). Results suggested low to moderate effect sizes for the association between DV and peer DV, peer's aggressive behaviors, and peer victimization. For overall DV victimization, global effects were r = .28for all three types of risk factors. It is unknown, however, if the size of these effects varies across psychological, physical, and sexual DV.

With respect to protective factors, some studies have highlighted the role of affiliation with prosocial or supportive friends (Folger & Wright, 2013; Han & Margolin, 2016; Linder & Collins, 2005). Being involved in a positive social network could increase the likelihood of affiliating with romantic partners that fit this network. In addition, having positive relationships with peers may lead to similar expectations for romantic relationships.

#### Moderation Hypotheses

The current meta-analysis aims to account for potential moderators of the associations between risk and protective factors and sustained DV, namely, forms of DV, gender, and age. Studies having examined the risk and protective factors show some inconsistent results that could be explained by characteristics of the samples or definitions of DV used. For instance, studies vary in their inclusion of different types of DV. Some authors examine global or combined indexes of victimization

while others focus exclusively on one or two forms of violence. As a result, the specific associations of family and peer risk factors with psychological, physical, and sexual DV are unclear. In addition, significant gender differences both in terms of risk factors associated with dating victimization and in terms of potential protective factors were highlighted in past studies, underscoring our aim to further explore these gender differences in the meta-analysis. A recent meta-analysis (Smith-Marek et al., 2015) concluded that the link between experiencing family-oforigin violence and subsequent intimate partner victimization was significantly stronger for women than for men. Furthermore, Richard and Branch (2012) found that increased levels of support from friends was associated with significantly less DV victimization; however, when gendered models were explored, the protective role of social support was only identified for girls. Finally, given the focus of this meta-analysis on family and peer factors, age is hypothesized to moderate the associations examined. In fact, it has been suggested that, as a youth grow older, parental factors may come to play a lesser role in favor of peer factors (Arriaga & Foshee, 2004). An examination of the contribution of forms of DV experienced, gender and age could help clarify the contexts in which the different risk and protective factors are likely to play a salient role.

# The current meta-analysis

The current meta-analysis targets specifically sustained DV in adolescence and emerging adulthood and examines a range of risk and protective factors associated with family and peers relationships. Examining both family and peer factors allows for the comparison of effect sizes magnitude between these two classes of correlates. In addition to the estimation of global effect sizes for each factor, the objective is to examine (1) differential associations with psychological, physical, and sexual DV; (2) the role of gender; and (3) the role of age-group. To date, existing prevention programs vary in their focus on intrafamilial versus extrafamilial influences on DV (Foshee et al., 2012) and have been developed based on the results of multiple individual studies and few qualitative reviews. Yet, no comprehensive metaanalysis is available to quantitatively summarize the accumulating knowledge in the field of DV. Examining the magnitude of the effect of family and peer correlates of DV is an important step in identifying some of the most promising targets for prevention and intervention. Several authors (Godbout et al., 2017; Smith-Marek et al., 2015) have called upon future investigations to clarify the link between child maltreatment and dating/partner violence by providing an in-depth analysis of the social and personal contexts underlying victimization in intimate relationships. A meta-analysis is an excellent tool not only to summarize available knowledge but also to ascertain the power of explanatory factors and define priorities for intervention and research.

## **Method**

A literature review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses

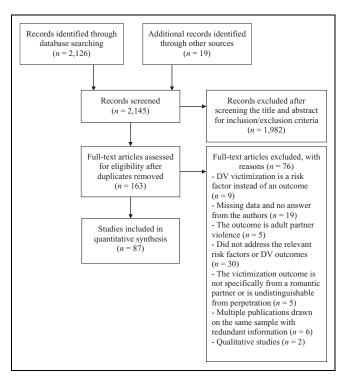


Figure 1. Flowchart of the systematic review process.

(PRISMA) guidelines (Moher, Liberati, Tetzlaff, Altman, & The PRISMA Group, 2009) and recommendations from the Cochrane Collaboration (Higgins & Green, 2011). This review identified relevant scientific studies examining family and peer risk factors for DV victimization in adolescence and emerging adulthood.

#### Literature Search

A computer search of the PsycInfo and Pubmed databases, Google Scholar, as well as other French databases available at was conducted between May and December 2015. A filter was specified to include only articles published from 2000 onward. Following the Cochrane collaboration guidelines (Higgins & Green, 2011), we included dissertations and research reports to minimize the publication bias (i.e., higher effect sizes observed in published studies) that could impact the results of our meta-analysis. Various key words served to identify relevant articles.<sup>2</sup> Titles and abstracts of manuscripts were screened for eligibility by two research assistants. When meeting inclusion criteria, entire articles were retrieved to ensure eligibility. This process led to a final sample of 87 studies (scientific articles, dissertations, and research reports; see Figure 1 for the flowchart).

## Coding Procedures and Data Extraction

A codebook was developed to gather information about study characteristics: sample (sample size, gender, and age of the participants), risk/protective factors, forms of DV (psychological, physical, and sexual), characteristics of the DV

measurement tool, type of DV outcome (continuous or dichotomous), study quality, country in which the sample was recruited, and data regarding effect sizes for each individual study. The five first articles were coded by three members of the team to ensure suitability of the codebook. All remaining studies were coded by a doctoral student supervised by the second author. Disagreements were resolved through discussion between the coders and when necessary, with the first author. Agreement rate between coders was 97%. When important information was missing in the published reports, authors were contacted by email.

#### Inclusion and Exclusion Criteria

Participants. To be included, studies had to be conducted on participants in dating relationships, either adolescent or college student samples. We included studies conducted among participants aged 12 years and older. No upper age limit was specified because this criterion would have resulted in the exclusion of several relevant articles. However, studies that were not conducted on college student samples and specifically focused on adult intimate partner violence (as opposed to DV) in longterm adulthood or in enduring relationships were excluded. In the majority of studies involving older participants (e.g., college student sample including participants older than 30), a substantial proportion of the sample was emerging adults younger than 21 years old. Based on available information from the studies included in this meta-analysis, the mean age of college student samples is around 19 years old. Studies conducted on participants from other populations (e.g., youths recruited from child protection services and homeless youths) were also included.

Independent variables. The current meta-analysis focused specifically on family and peer risk/protective factors. Regarding family factors, the review identified studies examining various forms of child maltreatment, such as psychological, physical, and sexual abuse, neglect and witnessing interparental violence. Family protective factors included parental monitoring and parental support. Peer variables included affiliation with deviant peers, peer victimization, peer sexual harassment, and prosocial/supportive peers.

Outcomes. Studies were included if they assessed the occurrence of various forms of DV victimization: psychological, threats, physical, or sexual violence. Victimization had to be assessed separately from perpetration. Studies that did not treat DV as an outcome but rather as a predictor of DV perpetration were also excluded. Finally, to be included in the meta-analysis, studies had to assess victimization specifically from a romantic partner. Studies in which the identity of the perpetrator was not specified were excluded.

Multiple Publications Drawn From a Sample. When two or more articles reported studies conducted using a sample or a

subsample of the same participants, they were included if they examined different risk factors or presented nonredundant information. Different studies using a shared sample were treated as one single sample to avoid bias related to the overrepresentation of a sample when computing effect sizes.

## Quality of the Studies

Studies were evaluated using six criteria: sampling, representativeness, sample size, missing data, quality of the measurement tools, and selective reporting. The assessment of study quality was based on recommendations from the Cochrane collaboration (Higgins & Green, 2011) and adapted for the evaluation of observational studies. A study generally meeting good standard of quality for most criteria was considered at low risk of bias. Studies that failed to meet good standard of quality for several criteria or studies that evidenced a major flaw on one criterion that would be likely to influence the results were considered at high risk of bias. When a global judgment was hazardous due to a lack of information (i.e., N/ A for several criteria of study quality), studies were coded as unclear risk of bias. This classification was used to assess the impact of study quality on the computation of the global effect sizes (see the data analysis section).

# Data Analysis

Computation of global effect sizes. Analyses were conducted using Comprehensive Meta-Analysis (CMA) Version 3 (Borenstein, Hedges, Higgins, & Rothstein, 2005–2016). When a study provided various effect sizes (e.g., association between child sexual abuse and minor versus severe physical DV), they were aggregated to produce a single effect size for this study. The Pearson's r was chosen for the computation of global effect sizes, given that correlational data are frequently used in studies on DV and that correlation is an intuitive measure to account for the association between risk factors and DV. When other estimates of effect sizes were reported in individual studies (e.g., odd ratio), they were converted into r, so that each study yielded the same estimate for the computation of the global effect. For the estimation of the global effect and given that the variance of r depends strongly on the coefficient itself, authors (Borenstein, Hedges, Higgins, & Rothstein, 2009) recommend converting the coefficient reported in individual studies into Fisher's Z to compute global effect size and test the effect of the moderators. Values are then converted back into r to ease interpretation and Cohen's guidelines are used to interpret the magnitude of the effect: .10 is considered small, .30 average, and .50 large (Cohen, 1992).

The random-effects model was used for the estimation of the global effect. This model is appropriate when differences in studies' design and methodology are assumed to produce variations in effect sizes across individual studies. The assumption of the random-effects model is that the true effect sizes of individual studies vary from study to study and are normally distributed. The estimate of the global effect is assumed

to be the mean effect size of this distribution (Borenstein et al., 2009).

Heterogeneity of studies effect sizes. The Q statistic was used to examine heterogeneity of effect sizes across studies. A significant p value for the Q statistic indicates a meaningful heterogeneity. The  $I^2$  statistic is a variance ratio indicating what proportion of the observed heterogeneity is due to real variation in the individual studies effect sizes rather than to sampling error. Based on previous meta-analytic results on risk factors for DV and adult partner violence (Garthe et al., 2016; Stith, Smith, Penn, Ward, & Tritt, 2004), a substantial heterogeneity was expected and several moderators were examined in subgroup analysis.

Moderation analyses. We examined various potential moderators to the magnitude of the effect sizes. First, we examined whether types of DV (psychological, physical, and sexual) gender, and age-group (adolescents vs. emerging adults) influence the effect size for each risk and protective factor. Second, we investigated the impact of various methodological aspects of the studies: type of sample (community-based vs. clinical population), instrument used to assess DV, type of DV outcome (dichotomous vs. continuous), and study design (longitudinal vs. cross-sectional).

Publication bias. Publication bias for each global effect was examined using three methods: the funnel plot (Egger, Smith, Schneider, & Minder, 1997), the trim-and-fill method (Duval & Tweedie, 2000), and the cumulative meta-analysis. The funnel plot aims to determine the presence or absence of a publication bias by looking at the dispersion of studies around the mean effect. When an asymmetry is observed, generally created by smaller and therefore less precise studies, a publication bias is likely. The trim-and-fill method allows the estimation of a new global effect size that account for a publication bias. In addition to these methods, the cumulative meta-analysis has the advantage of being less influenced by outlier effect sizes (Borenstein et al., 2009) and, unlike other currently used procedures (e.g., Fail-safe N), can be estimated using a random-effect model. This procedure allows the computation of a new global effect with the addition of each study. A publication bias can be assumed if the inclusion of smaller studies leads to a shift in the value of the global effect size. If the global effect stabilizes with the inclusion of larger studies and stays similar when smaller studies are included, a publication bias is less likely.

Quality of the studies. The cumulative meta-analysis was also used to examine the impact of the quality of individual studies in the estimation of the global effect size. To do so, the global evaluation of study quality was used instead of the sample size to conduct the cumulative meta-analysis. The global effect size obtained with low risk of bias studies was compared to the global effect size obtained after the inclusion of high risk of bias studies.

## **Results**

## Overview of the Study Set

The 87 eligible studies (91% published and 9% unpublished) identified through the literature search yielded 76 independent samples, for a total sample size of 278,712 participants. Sample sizes in individual studies ranged from n=41 to 85,198 with a median of n=535. The majority of the samples were recruited in the United States (72%); 19% were recruited in Canada, and 9% were recruited in Asia (South Korea and India), Europe (Spain), and South America (Mexico, Chile, and El Salvador). Twenty-two percent of the samples were exclusively composed of female participants, 29% studies examined female and male participants separately, and 47% combined results for female and male participants. Only one sample was exclusively composed of males. Regarding age-groups, 62% of the samples were composed of adolescents, 33% were composed of emerging adults, and 5% were composed of both.

Of the 76 samples included in the meta-analysis, 76% examined one or more family risk factors, 26\% examined one or more family protective factors, 32% examined one or more peer risk factors, and 10% examined peer protective factors for DV victimization. Thirty-three percent of the studies examined psychological DV as an outcome, 70% examined physical DV, 16% examined sexual DV, and 33% of the studies combined more than one form of DV in a single outcome variable. The Conflict Tactic Scale (CTS; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) was the most commonly used measure (short or original forms) of DV victimization (41%), followed by The Conflict in Adolescent Dating Relationship Inventory (Wolfe, Scott, Reitzel-Jaffe, et al., 2001; 16%). Other validated measures, such as the Safe Dates (Foshee et al., 1998) or the Sexual experience survey (Koss et al., 2007; Koss & Gidycz, 1985), were used in 14% of the cases. The remaining (29%) used homemade questionnaires. Several studies used subscales from more than one measure to assess psychological, physical, and sexual violence.

## Family Risk Factors for DV Victimization

Global effect sizes for the relationship between each family risk factors and DV are reported in Table 1. Results indicate that the five individual risk factors examined are all significantly associated with DV victimization. A global effect size was also computed for combined child maltreatment. This allowed the inclusion of studies that did not treat each form of maltreatment individually and that have therefore not been included in previous analyses on single family risk factors. Studies examining either single forms of child maltreatment or combined maltreatment variables were used (k = 58). This larger pool of studies has the advantage of increasing power for the computation of the global effect size and for moderation analyses. Effect sizes for individual forms of maltreatment as well as for combined child maltreatment ranged from r = .141 to .178, suggesting associations of small magnitude.

Table 1. Global Effect Sizes for the Relationships Between Family and Peer Factors and Dating Violence.

Variables	Age-Group	Κ	N	r	95% CI	Þ	Q(p)	l <sup>2</sup>	$Q_B(p)$
Family risk factors									
CSA		18	21,825	.151	[.120, .182]	.000	34.033 (.008)	50.048	
	Adolescents	10		.168	[.119, .216]	.000	26.119 (.002)	65.542	1.999 (.157)
	EA	8		.127	[.096, .157]	.000	4.467 (.725)	0.000	
Psychological abuse		П	9,414	.141	[.109, .174]	.000	23.510 (.009)	57.466	
	Adolescents	2		.138	[.070, .206]	.000	2.042 (.153)	51.021	0.005 (.946)
	EA	9		.141	[.102, .180]	.000	20.413 (.009)	60.809	
Neglect		5	13,620	.143	[.024, .258]	.018	24.500 (.000)	83.673	
	Adolescents	3		.213	[.106, .316]	.000	3.423 (.181)	41.571	6.401 (.011)
	EA	2		.048	[023, .118]	.183	1.546 (.214)	35.320	` ,
Witnessing IPV		29	113,025	.178	[.142, .214]	.000	379.374 (.000)	92.619	
	Adolescents	16		.157	[.126, .189]	.000	105.683 (.000)	85.807	1.145 (.285)
	EA	13		.219	[.110, .323]	.000	262.236 (.000)	95.424	` ,
Physical abuse		27	112,828	.144	[.102, .185]	.000	319.528 (.000)	91.863	
	Adolescents	12		.158	[.098, .217]	.000	160.437 (.000)	93.144	0.707 (.400)
	EA	15		.127	[.087, .167]	.000	43.836 (.000)	68.062	, ,
Child maltreatment overall <sup>a</sup>		58	148,002	.171	[.141, .202]	.000	1,093.206 (.000)	94.786	
	Adolescents	31		.152	[.111, .192]	.000	789.597 (.000)	96.201	1.034 (.309)
	EA	24		.188	[.131, .244]	.000	279.793 (.000)	91.780	,
Peer risk factors									
Peer victimization <sup>b</sup>		9	43,265	.186	[.110, .260]	.000	372.893 (.000)	97.855	
Peer sexual harassment <sup>b</sup>		5	6,835	.297	[.151, .431]	.000	67.150 (.000)	94.043	
Deviant peers <sup>b</sup>		14	17,732	.250	[.185, .312]	.000	68.911 (.000)	81.135	
Protective factors									
Parental monitoring <sup>b</sup>		8	8,796	126	[221,028]	.012	75.128 (.000)	90.683	
Parental support		15	89,631	109	[168,049]	.000	642.804 (.000)	97.822	
	Adolescents	10	•	134	[207,061]	.000	605.786 (.000)	98.514	0.966 (.326)
	EA	5		073	[171, .026]	.148	21.984 (.000)	81.805	` '
Peer support		10	166,409	139	[217,060]	.001	544.357 (.000)	98.347	
	Adolescents	7	•	114	[204,022]	.015	534.125 (.000)	98.877	1.820 (.177)
	EA	3		199	[281,115]	.000	0.792 (.673)	0.000	( )

Note.  $\mathsf{EA} = \mathsf{emerging}$  adults;  $\mathsf{CI} = \mathsf{confidence}$  interval;  $\mathsf{CSA} = \mathsf{child}$  sexual abuse;  $\mathsf{IPV} = \mathsf{interparental}$  violence.

a Some studies (k=3) were conducted on samples composed of both adolescents and emerging adults. These studies were not included in moderation analyses based on age-groups. b Studies were conducted on adolescent samples only.

Significant heterogeneity in effect sizes was found for every family risk factor examined.

Investigation of moderation effects was sometimes impossible due to an insufficient number of studies in each group. Results nevertheless suggest that forms of DV moderated the effect of combined child maltreatment,  $Q_B(3) = 8.609$ , p =.035. Post hoc comparisons tests indicated that the relationship between child maltreatment and DV victimization was significantly stronger for combined forms of DV (r = .209) than for psychological (r = .144),  $Q_B(1) = 4.308$ , p = .038, physical (r = .038) .143),  $Q_B(1) = 7.009$ , p = .008, and sexual DV (r = .135),  $Q_B(1)$ = 6.051, p = .014. Regarding child sexual abuse (CSA), despite the absence of a significant moderation effect of the form of DV, the global effect size for the relationship between CSA and sexual DV did not reach significance, r = .112, 95% confidence interval [-.018, .237], p = .091. However, a heterogeneous set of only four studies (Q = 13.694, p = .003) with effect size in each of these studies ranging from .036 to .265 is likely to have led to an unprecise estimation of this global effect.

With respect to age, a significant moderation effect was observed for neglect,  $Q_B(1) = 6.401$ , p = .011, suggesting a stronger effect on DV victimization in adolescents (r = .213) compared to emerging adults (r = .048). Regarding gender, a significant moderation effect indicated that the relationship between physical abuse and DV is stronger for female participants (r = .121) than for male participants (r = .068),  $Q_B(1) = 4.246$ , p = 0.39.

Finally, the effect sizes for the different family risk factors were compared. Moderation analyses indicated no significant difference, suggesting that the strength of the relationship to DV was similar across the family risk factors examined. (Detailed results from the moderation analyses are available from the authors.)

Moderation analyses: Sample, measurement characteristics, and study design. Given that most of the moderators examined did not account for the significant heterogeneity in the observed effect sizes, further analyses were conducted to assess the

impact of the type of sample (general vs. clinical population), characteristics of the measurement tools (measures used and scoring as dichotomous or continuous variables), and study design (cross-sectional vs. longitudinal). Given the small number of studies drawn on clinical samples, only the association between overall child maltreatment and DV could be examined. Results suggest no difference in effect size between studies conduct on sample from the general population and studies conducted on clinical samples.

With respect to the measures, global effect sizes were compared between studies using the CTS (Straus et al., 1996), the Conflict in Adolescent Dating Relationships Inventory (CADRI; Wolfe, Scott, Reitzel-Jaffe, et al., 2001), other validated questionnaires (e.g., Foshee et al., 1998; Koss et al., 2007), or homemade questionnaires. For the other validated questionnaires subgroup, samples were collapsed given the small proportion of studies identified in this meta-analysis that used these measures. For power consideration, moderation analyses were conducted without differentiating for forms of DV. Consequently, effect sizes for all forms of DV reported in individual studies were aggregated and studies that did not use the same instrument across all types of DV examined (n = 9)could not be included in the analyses. Except for neglect and emotional abuse, for which an insufficient number of studies using various instruments precluded moderation analysis, all family risk factors were examined. Result showed no difference in effect sizes across studies with respect to the instrument used to assess DV.

Moderation analyses: Sample, measurement characteristics, and study design. Moderation analyses were next conducted to examine difference in global effect sizes between studies that used dichotomous variables of DV and those that used continuous variables of DV. Result suggested no effect of the type of outcome for all family risk factors examined. Finally, global effect sizes computed from cross-sectional studies and longitudinal studies were compared. Significant differences were observed for physical abuse,  $Q_B(1) = 5.460$ , p = .019(r = .150 for cross-sectional vs. r = .068 for longitudinal)studies), witnessing Intimate partner violence (IPV),  $Q_B(1)$ = 5.326, p = .021 (r = .188 for cross-sectional vs. r = .118for longitudinal studies), and overall child maltreatment,  $Q_B(1) = 9.278$ , p = .002 (r = .180 for cross-sectional vs. r= .082 for longitudinal studies). The insufficient number of longitudinal studies examining psychological abuse and CSA precluded moderation analyses for these risk factors.

Impact of Publication Bias and Study Quality. The funnel plot, the trim-and-fill method, and the cumulative meta-analysis showed no evidence of a publication bias, except for witnessing IPV and physical abuse. The various methods suggested slight differences in the estimation of global effect sizes when smaller or less precise studies were considered. However, these possible publication biases are not likely to meaningfully influence the interpretation of these global effects,

which remain of small magnitude with or without accounting for smaller studies.

To examine the impact of the individual studies' quality on the estimation of the global effect sizes, cumulative metaanalyses were performed with studies classified according to their risk of bias. Results show no evidence that studies with high risk of bias influenced the estimation of the global effects for the various family risk factors examined. For neglect, however, a shift in the global effect was observed after the inclusion of two high-risk-of-bias studies, going from r = .20 to .14. This suggests that the inclusion of these high-risk-of-bias studies tend to decrease the magnitude of the effect size. However, this does not influence the interpretation of this effect, which remains of small magnitude.

## Peer Risk Factors for DV Victimization

Global effect sizes for the relationship between peer risk factors and DV are reported in Table 1. Results showed that each of the three risk factors examined was significantly related to DV victimization. The effect sizes ranged from r=.186 to .297, suggesting that these associations are of small to moderate magnitude. Significant heterogeneity in effect sizes was observed for each peer risk factor. Moderation analyses suggest that gender significantly moderated the association between sexual harassment by peers and DV victimization, showing a stronger association for girls (r=.264) than for boys (r=.138),  $Q_B(1)=6.719$ , p=.010. No other moderation effect was found.

Finally, the effect sizes for the different peer risk factors were compared. Moderation analyses indicated no significant difference, suggesting that the strength of the relationship to DV was similar across the peer risk factors examined. Moderation analyses were also conducted on both family and peer risk factors. Again, results showed no significant difference across all studied risk factors.

Moderation analyses: Sample, measurement characteristics, and study design. Moderation analyses regarding the type of sample could not be conducted on peer risk factors, given the absence of studies drawn from clinical samples. With respect to the characteristics of the measurement of DV, result suggested that the strength of the relationships between peer victimization and DV is significantly moderated by the instrument used to asses DV,  $Q_B(2) = 10.028$ , p = .007. Post hoc tests indicated that studies using the CADRI showed significantly higher effect sizes than studies using homemade questionnaires (r = .208and r = .142, respectively),  $Q_B(1) = 8.031$ , p = .005. No effect size difference was found between studies using the CADRI and studies using other well-known measures of DV. Moderation analyses could not be conducted for sexual harassment given the insufficient number of studies using the various questionnaires. For deviant peer, result suggested no difference in effect sizes according to the instrument used to assess DV,  $Q_B(1) = .328$ , p = .567. With respect to the type of outcome, moderation analysis showed no significant difference in effect

size between studies using dichotomous versus continuous variables. Finally, the insufficient number of longitudinal studies examining peer risk factors for DV precluded moderation analyses regarding the study design.

Impact of Publication Bias and Study Quality. The funnel plot, the trim-and-fill method, and the cumulative meta-analyses suggest small publication bias for the global effects of peer victimization, peer sexual harassment, and affiliation with deviant peers. For each of these risk factors, inclusion of smaller or less precise studies led to a slight decrease in the global effects estimated. However, these changes are not likely to meaningfully influence the interpretation of the effects, which remain of small magnitude with or without accounting for the smaller studies.

Examination of the impact of study quality was undertaken using the cumulative meta-analysis. Peer victimization and sexual harassment are not likely to be influenced by the quality of the studies, given that the set of studies used to estimate these global effects all evidenced a low risk of bias. For affiliation with deviant peers, the inclusion of high-risk-of-bias studies did not lead to a shift in the global effect, suggesting no impact of study quality on its estimation.

# Family and Peer Protective Factors

Global effect sizes for the relationship between family and peer protective factors and DV are reported in Table 1. Results showed that each of the three protective factors examined was significantly related to DV victimization. The effect sizes ranged from r=-.109 to -.139, suggesting that these associations are of small magnitude. Significant heterogeneity in effect size was observed for every family protective factor.

Significant moderation effects of forms of DV were observed. For parental monitoring,  $Q_B(2) = 36.273$ , p < .001, associations with psychological,  $Q_B(1) = 25.398$ , p < .001, and physical victimization  $Q_B(1) = 14.974$ , p < .001, showed stronger effect sizes (r = -.211 and r = -.135, respectively) than the association with combined types of DV (r = .081). For parental support,  $Q_B(2) = 6.518$ , p = .038, post hoc tests indicated that studies examining combined types of DV showed higher effect sizes (r = -.152) than studies examining psychological DV (r = -.029),  $Q_B(1) = 6.482$ , p = .011. Combined and physical types of DV did not differ significantly. No significant moderation effect of gender or age was found. Finally, global effect sizes for the association between the three protective factors and DV victimization were compared. Result indicated no significant difference in the magnitude of the effects.

Moderation analyses: Sample, measurement characteristics, and study design. Only one study examined the association between parental and peer support and DV victimization using clinical samples, and no study achieved this for parental monitoring. Comparison of global effect sized from studies conducted on general versus clinical samples was therefore not possible. Regarding the measure used to assess DV, results showed a

significant moderation effect for peer support,  $Q_B(3) = 19.240$ , p = .000. Post hoc tests indicated that studies using the CTS yielded lower effect sizes (r = -.001) than studies using the CADRI (r = -.167),  $Q_B(1) = 3.853$ , p = .050, homemade questionnaires (r = .190),  $Q_B(1) = 12.324$ , p < .001, and other well-known measures (r = -.185),  $Q_B(1) = 11.000$ , p < .001. With respect to the type of outcome, results suggested again a significant moderation effect for peer support with studies that used dichotomous variables of DV showing higher effect sizes (r = -.206) than studies that used continuous variables (r = -.084),  $Q_B(1) = 3.920$ , p = .048. The insufficient number of longitudinal studies examining these protective factors precluded moderation analyses regarding the study design.

Impact of Publication Bias and Study Quality. The funnel plot, the trim-and-fill method, and the cumulative meta-analyses all suggested a possible publication bias for the relationship between parental monitoring and DV. First, the funnel plot indicates an asymmetry toward the left. Second, using the trim-and-fill method to account for the publication bias lead to the estimation of a trivial global effect (r = -.053). Finally, the cumulative meta-analysis shows a shift toward a reduction in the global effect size when smaller studies are considered.

The various methods do not show evidence of a publication bias regarding the association between parental support and DV. For peer support, the funnel plot and the trim-and-fill method suggest very slight asymmetry toward the right (with global effect going from r=-.139 to -.100 when accounting for the possible publication bias) and the cumulative meta-analysis suggests a shift in global effect sizes when smaller studies are considered. Taken together, these indices suggest that accounting for possible bias, the global effect for peer support falls to a small effect size of around r=.100.

Regarding study quality, the cumulative meta-analysis suggests that the global effect for parental monitoring is slightly influenced by the inclusion of high-risk-of-bias studies (r = -.100 to -.126). Similar results are obtained for parental support (with a slight shift from r = -.081 to -.109). Finally, the cumulative meta-analysis suggests a shift in the global effect size for peer support after the inclusion of high-risk-of-bias studies, with r = -.084 to -.140).

## **Discussion**

The aim of this meta-analysis was to provide pooled effect sizes regarding the influence of the interpersonal context on DV victimization in adolescence and young adulthood. More specifically, we examined the strength of the associations between DV and various family and peer risk as well as protective factors. Previous narrative reviews (Leen et al., 2013; Wolfe, Crooks, Chiodo, & Jaffe, 2009) and meta-analyses (Garthe et al., 2016) have helped circumscribe relevant family and peer risk factors for DV victimization. However, the current meta-analysis expands on this work in several aspects. First, we examined if the strength of the associations between the various factors and DV differs according to the specific

form of violence sustained. Second, we quantitatively summarized two classes of determinants of DV, namely family and peer factors, in one study, allowing the comparison of effect sizes between the two groups of factors. Finally, we are aware of no systematic effort to summarize knowledge about the family and peer-related protective factors for DV. The current meta-analysis is the first to explore both risk and protective factors in an attempt to provide a more comprehensive picture of the multiple ways positive and negative experiences with family and friends influence involvement in an abusive dating relationship.

## Family Context

Risk factors. With respect to family risk factors, results show significant associations between all forms of maltreatment (sexual abuse, psychological abuse, neglect, witnessing IPV, and physical abuse) and DV victimization, with effects sizes of small magnitude. The results also suggest no difference in the strength of the associations across the various types of maltreatment and DV, suggesting that no particular form of childhood abuse or neglect seems to have a greater influence than the others on DV and also that each form of DV was impacted in a similar way by the risk and protective factors included in this meta-analysis.

Regarding associations between maltreatment and specific forms of DV, only one significant difference was found: when using an overall index of child maltreatment, studies that combined different forms of DV in a single variable showed higher effect sizes than studies examining single forms of DV. This suggests a methodological impact of aggregating across various forms of DV when examining associations with child maltreatment. It is also noteworthy that despite the absence of difference in the strength of the relationships between CSA and the various types of DV, the specific association between CSA and sexual DV did not reach significance, possibly related to the small number of studies (n = 4) examining this association. The relationship between CSA and sexual revictimization is well-documented (Banyard, Arnold, & Smith, 2000; Maker, Kemmelmeier, & Peterson, 2001), but most studies have considered victimization from any perpetrator, including, but not restricted to, the romantic partner. The inclusion criteria for the current meta-analysis have considerably reduced the number of eligible studies examining this association. It is therefore likely that low power as well as high heterogeneity in the studies effect sizes account for the nonsignificant results.

Moderation analyses examining gender differences suggest a stronger association between childhood physical abuse and DV victimization in young women compared to young men. A similar gender difference has been observed by Smith-Marek et al. (2015) in their meta-analysis on adult partner violence, who concluded that growing up in a violent home is a stronger predictor of later romantic victimization for women than for men. Regarding age-groups, the effect size of the association between neglect and DV was only significant in adolescent samples.

In sum, the effect size obtained for the relationship between maltreatment and DV is consistent with previous observations. Associations of small magnitude have been reported in metaanalysis examining family violence and partner violence in adulthood (Smith-Marek et al., 2015; Stith et al., 2000). These small effect sizes suggest that not all youths who have been victimized in their family of origin experience DV in their romantic relationships, and that crucial mediators (e.g., emotion regulation, attachment representations) may come into play in the association between family factors and dating victimization. This also suggests that a developmental cascade might exists, through which abuse and neglect in the family of origin generate a chain of further risk factors in various developmental periods and different interpersonal contexts that, ultimately, leads to DV victimization (Fosco & Feinberg, 2015; Logan-Greene, Nurius, Hooven, & Thompson, 2015).

Protective factors. Parental monitoring and support were examined, as previous studies underlined their protective effect with respect to victimization in dating relationships (Alleyne-Green et al., 2014; Vézina et al., 2011). Results suggest that both factors showed evidence of an association of small magnitude with DV. Differences in effect sizes according to the form of DV were observed. For parental monitoring, studies that examined its association with an aggregated variable of DV showed lower effect sizes than studies that examined different types of DV separately. For parental support, studies that examined its association with an aggregate variable of DV showed higher effect sizes than studies examining psychological DV. No study investigated the associations between these family protective factor and sexual DV, underlying the fact that sexual violence from a romantic partner remains understudied in comparison with other forms of DV.

#### Peer Context

Risk factors. Peer victimization, sexual harassment from peers, and affiliation with deviant peers were examined as potential risk factors for victimization in dating relationships. All three factors evidenced an association a small magnitude with DV, with peer sexual harassment almost reaching the threshold for a moderate effect. These observations are consistent with those of Garthe, Sullivan, and McDaniel (2016) who found similar effect sizes regarding peer risk factors for DV victimization. A significant moderation effect of gender was found for the relationship between peer sexual harassment and DV, with a higher effect size for girls than for boys. Girls experience the more overt forms of sexual harassment, perceive more threats, and harassment comes from more sources than in the case of boys (Fineran & Bennett, 1999). Sexual harassment from peers is also associated with more negative outcomes in girls, including low self-esteem/confidence, selfharm, and psychological distress (Boivin, Lavoie, Hébert, & Gagné, 2014; Chiodo, Wolfe, Crooks, Hughes, & Jaffe, 2009; Hand & Sanchez, 2000), which may be associated with a

heightened vulnerability to victimization in romantic relationships (Boivin et al., 2014).

Protective factor. Affiliation with supportive and prosocial friends was examined as a protective factor against dating victimization in youths. Results indicated an association of small magnitude, with no significant difference with respect to the strength of the association with various types of DV. Moderation analyses also suggest that this association do not differ according to gender or age-group.

# Family Versus Peer Factors

One aim of the current meta-analysis was to compare family and peers factors with respect to the strength of their association with dating victimization. On the one hand, violent experiences and various forms of child maltreatment have been the most extensively studied risk factors for DV victimization (Vézina & Hébert, 2007). The potential protective role of parental monitoring and warmth has also been demonstrated (Cleveland et al., 2003; Vézina et al., 2011). On the other hand, some have argued that peers have a greater influence on attitude and behaviors than the family of origin (Harris, 1995). Moreover, when facing violence in their romantic relationships, youth would be more prone to seek help from peers than from other adults (Moore, Sargeton, Ferranti, & Gonzalez-Guarda, 2015). A nonviolent social network well equipped to support the victim might be an important factor to counter victimization in romantic relationships (Richards & Branch, 2012). This significant role of peers in preventing DV is underlined in programs that rely on bystanders' actions (Storer, Casey, & Herrenkohl, 2016).

Results of the current meta-analysis revealed no differences in the strength of the effect sizes between family and peer risk and protective factors. This suggests that both classes of determinants are equally important in predicting victimization in romantic relationships. However, these results should be interpreted with caution, in the context of a significant heterogeneity in individual studies sample sizes and a small number of studies examining some of these factors, therefore reducing power to detect significant differences. Nevertheless, results suggest that both class of determinants show associations of small magnitude with DV. It is possible that, taken, individually, the different risk and protective factors examined here have a significant but small impact on the experience of DV, but the complex interplay among them might be a better predictor of victimization. Looking at the synergistic effect of both risk factors and protective factors that the youth experience in various interpersonal contexts could be a more accurate evaluation of the risk to be involved in an abusive dating relationship.

#### Methodological Issues

Heterogeneity. Substantial heterogeneity in individual studies was observed for every factors examined in the metaanalysis. In addition to moderation analyses conducted on forms of violence, gender, and age-group, potential moderators regarding methodological aspects of the individual studies were examined: type of sample, measure used to assess DV, type of outcome variable, and study design. With very few exceptions, these potential moderators did not account for the heterogeneity observed in studies effect size. This suggests that other characteristics of the studies might explain the high variability in results and underscore a methodological issue in the DV literature. High heterogeneity in interpersonal violence research has already been discussed along with the limitations it imposes on the ability of systematic reviews to adequately inform prevention and intervention efforts (Hockenhull et al., 2015). For example, 30\% of the studies included in our metaanalysis used homemade questionnaires, which introduces variability in the assessment of DV as well as limitations regarding the psychometric quality of the measures. The results of this meta-analysis must therefore be interpreted in light of this significant heterogeneity, which may also underscore the complexity of the phenomenon.

Publication bias and study quality. Examination of publication biases and study quality suggested no meaningful impact on the estimated effect sizes for family and peer risk factors. For protective factors, however, a publication bias seems possible regarding the effect of parental monitoring on DV, indicating that examining only published studies might lead to an overestimation of the effect size for this association. Study quality also seems to influence the estimation of effects sizes regarding parental monitoring, parental support, and peer support, who evidence trivial effect sizes when only high-quality studies are taken into account.

#### Limitations

Despite significant strengths, the current meta-analysis has some limitations that need to be considered when interpreting its results. First, the significant heterogeneity in individual studies results calls for caution when concluding about the global effect sizes. Future studies should attempt to target other potential moderators of these effect sizes in order to clarify the discrepancy in individual studies' findings. Second, the very small number of studies having examined some of the family and peer factors might also influence the results obtained. This is especially true for the moderation analyses, where sample sizes were sometimes as small as two. Such small sample sizes reduce the power to detect significant effects and might have limited our ability to explain the significant heterogeneity in effect sizes. Finally, as for every types of systematic review, it is possible that some relevant studies have been missed in the literature search. Relatedly, despite the inclusion of nonpublished studies (dissertations and research reports) and systematic efforts to contact the authors of studies for which more information was needed, an important proportion (45%) of the authors did not reply, which might influence the results obtained. Our metaanalysis did not include cybervictimization, an emerging phenomenon that may take on many forms including cyber-stalking

or sexual blackmail and may involve a former dating partner (Zweig, Lachman, Yahner, & Dank, 2014). Indeed up to now, the vast majority of studies conducted on cybervictimization did not distinguish between the perpetrators of cybervictimization and thus do not offer the specific information needed to derive an effect size for cybervictimization perpetrated by a romantic partner. Finally, the present meta-analysis aimed the identification of a limited set of factors related to victimization in dating relationships namely those related to the family and the peer contexts. Other factors, including individual-level variables (e.g., attitudes, alcohol, and drug consumption) as well as community/societal-level variables (e.g., neighborhood, economic disadvantage, social norms, media influence) have also been identified as potent predictors of victimization in the context of early romantic relationships.

# **Practical Implications**

Practitioners and researchers can now rely on an impressive number of research reports that converge to conclude that DV is a crucial public health issue. A meta-analysis can offer a synthesis of scholarly reports that can disentangle the main findings for both researchers and practitioners. Given its high prevalence and the devastating negative repercussions associated, DV needs to be adequately addressed through effective prevention programming. Our analysis highlights that both family and peer-related factors are associated with a higher risk of sustaining violence in early romantic relationships.

The majority of initiatives designed to prevent DV are universal programs implemented in school settings (De Koker, Mathews, Zuch, Bastien, & Mason-Jones, 2014). Our results argue for the relevance of additionally opting for selective prevention efforts for youth who have experienced child maltreatment. In experiencing their first romantic relationships and the accompanying challenges related to intimacy, youth victims of psychological, physical, sexual abuse, or who have witnessed interparental violence in childhood present a heightened risk for victimization. Selective programs (e.g., *Youth Relationship Project*, Wolfe et al., 2003; *Expect Respect*, Ball et al., 2015) or adaptation of universal programs (e.g., *Safe Dates* program for youth who have witnessed interparental violence, Foshee et al., 2016) represent valuable options.

We need to underline that while the present meta-analysis found a significant effect size linking child maltreatment to risk of DV, the effect size is of small magnitude. Thus, not all youth experiencing child maltreatment will be victimized in the context of their early romantic relationships, which offers a sense of hope for survivors of interpersonal trauma. Still needed is research that can identify why and how some will escape the revictimization trajectory and uncover the mechanism involved. Yet, prevention programs can contribute to challenging the self-fulfilling prophecy that growing up in a violent family will necessarily lead to experiencing violence. In addition, intervention targeting maltreated youth need to consider not only treating trauma-related symptoms but also attempt to integrate tools to prevent revictimization.

The meta-analysis also identified factors related to the peer context (peer victimization, sexual harassment, deviant peers) as salient factors for risk of dating victimization. The significant association with other victimization experiences such as sexual harassment suggests that programs may need to address different forms of victimization simultaneously. Finally, the present meta-analysis provides support for prevention initiatives that promote the supportive roles of both peers and parents. Storer, Casey, and Herrenkohl (2016) reviewed programs addressed to bystanders and found only two programs specifically developed for DV (Mentors in Violence Prevention, Katz. Heisterkam, & Fleming, 2011: Bringing in the Bystander, Moynihan, Banyard, Arnold, Eckestein, & Stapleton, 2011). Yet, bystanders programs represent a promising intervention option, as they may increase the proportion of violent acts stopped by a witness and contribute to social norms condemning violence (Storer et al., 2016). Also, prevention programs rarely target parents. Results of this meta-analysis underscore the need to involve families, for example, while integrating some components aiming to develop parents' support and monitoring.

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## Notes

- 1. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement is a guideline aiming at improving the clarity and transparency of systematic reviews and meta-analyses. It provides standards for the reporting of items regarding the goals, conduct, and results of systematic reviews (Moher et al., 2009). The Cochrane Handbook for Systematic Reviews of Interventions (Higgins & Green, 2011) offers guidance for the preparation and conduct of rigorous intervention reviews in regard to inclusion criteria, literature search, data collection, statistical analyses, as well as interpretation and discussion of the results. For the current meta-analysis, these guidelines were adapted for the review of nonexperimental studies.
- 2. We used various combinations of the following key words: dating violence, dating victimization, dating aggression, intimate partner violence, partner abuse, partner violence, dating abuse, romantic abuse, risk factors, correlates, polyvictimization, child\* maltreatment, child\* abuse, child\* neglect, interparental violence, witnessing IPV, child sexual abuse, CSA, sexual victimization, peers, peers relations, friendship, deviant peers, delinquen\*, bully\*, peer victimization, protective factors, resilience, parent\* support, family support, parent\* monitoring, peer support, friend\* support, social support, adolescen\*, teen\*, youth, and romantic relationships.

3. Following the Cochrane Collaboration's guidelines (Higgins & Green, 2011), a classification of studies according to their risk of bias was used rather than the computation of a continuous summary score that assume weights for each criteria and can lead to misleading evaluations of the study quality. For example, a study with a major flaw that could clearly bias the results on only one specific criterion would have a higher summary score of quality than a study with more minor flaws on two criteria.

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#### **Author Biographies**

Martine Hébert, PhD in psychology, is the Tier I Canada Research Chair in Interpersonal Traumas and Resilience and the coholder of the Marie-Vincent Interuniversity Chair in Child Sexual Abuse. She is also the director of the Sexual Violence and Health Research Team and a full professor at the Department of sexology, Université du Québec à Montréal (UQAM), Canada. Her research projects focus on the diversity of profiles in survivors of interpersonal traumas and the evaluation of intervention and prevention programs.

Marie-Ève Daspe, PhD, was a postdoctoral researcher at the Department of sexology, UQAM, at the time of this study. She is currently a postdoctoral researcher at the Department of psychology, University of Southern California. Her research focuses on the contribution of partners' past experiences and individual characteristics to relationship functioning and partner violence.

Andréanne Lapierre (PhD candidate) holds a bachelor's degree in special education and is a clinical psychology student at UQAM. She is a member of Sexual Violence and Health Research team and is interested in interpersonal violence. Her doctoral research centers on conflict resolution in adolescent dating relationships and on the contextual processes leading to dating violence perpetration.

**Natacha Godbout**, PhD, is an associate professor at the Department of Sexology, UQAM. She is a permanent researcher at the Interdisciplinary Research Centre on Intimate Relationship Problems and Sexual Abuse (CRIPCAS) and the Sexual Violence and Health Research Team. Her research and clinical work center on the impacts of child

interpersonal trauma on adults' psychological, sexual, and relational functioning.

Martin Blais, PhD, is a full professor at the Department of Sexology, UQAM. He is a permanent researcher at the Interdisciplinary Research Centre on Intimate Relationship Problems and Sexual Abuse (CRIPCAS). His research focuses on interpersonal violence among youth, and among sexual-minority youth in particular, and its impact on psychosocial adjustment and health.

Mylène Fernet (MA in sexology and PhD in public health) is a full professor in the Department of Sexology at UQAM. Her research interests focus on romantic relationships and sexuality development

during adolescence. Her current research program is on adolescents and emerging adults who are vulnerable to interpersonal violence.

Francine Lavoie, PhD, is a full professor in community psychology at Université Laval, Canada. Over the years, she has received grants on marital violence, dating violence, and mutual aid groups. She has developed and evaluated two prevention programs on dating violence (ViRAJ and PASSAJ) for high schools students. Her more recent work was on violence in Nunavik and on sexualized social activities in adolescence. She is a fellow of the Society for Community Research and Action (American Psychological Association).