

Mental Health Correlates of Intimate Partner Violence in Marital Relationships in a Nationally Representative Sample of Males and Females

Tracie O. Afifi

University of Manitoba

Harriet MacMillan

McMaster University

Brian J. Cox

University of Manitoba

Gordon J. G. Asmundson

University of Regina

Murray B. Stein

University of California, San Diego

Jitender Sareen

University of Manitoba

It is important to understand the epidemiology of intimate partner violence (IPV) experienced by both males and females. Data were drawn from the U.S. National Comorbidity Survey Replication. The relationships between physical IPV and child abuse, mental disorders, and suicidal ideation and attempts among males and females were examined. The results indicate that child sexual abuse was associated with IPV among males, whereas child physical and sexual abuse was associated with IPV among females. IPV was associated with poor mental health outcomes for males and females, although sex differences are noted. The sex differences indicate that females experience a wider range of poor mental health outcomes compared to males. Knowledge about correlates of IPV can be useful in identifying individuals exposed to violence. Further research is required to identify effective methods to reduce exposure to IPV and to adequately address the specific needs of male and female victims of IPV.

Keywords: *child abuse; intimate partner violence; mental disorders, suicidal ideation and attempts*

Violence within intimate partner relationships has been recognized as a serious public health problem (Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2006). To date, most of the research on intimate partner violence (IPV) has focused on male-perpetrated violence against female partners. These studies have shown that IPV is associated with poor mental and physical health outcomes among female victims (Bonomi et al., 2006; Campbell, 2002; Coker, Smith, Bethea, King, & McKeown, 2000; Gleason, 1993; Golding, 1999; Lang, Stein, Kennedy, & Foy, 2004; Ratner, 1993; Seedat, Stein, & Forde, 2005; Stein & Kennedy, 2001; Zlotnick, Johnson, & Kohn, 2006). Although numerous studies demonstrate an association between exposure to IPV among females and poor health, our knowledge about the negative correlates of IPV against males is limited. Because males also experience IPV (Coker et al., 2002; Schafer, Caetano, & Clark, 1998), it is possible that poor health outcomes among females also occur among males (Cronholm, 2006). However, it would be incorrect to assume equality or difference between males and females in health research (Ruiz-Cantero et al., 2007), making it necessary to study IPV stratified based on sex. It is important to understand the epidemiology of IPV experienced by both males and females in regard to child abuse histories and negative mental health correlates and to consider how these aspects differ among male and female victims of violence.

To date, only a few published studies have examined the negative mental health correlates of IPV among both males and females. Three studies using the National Violence Against Women Survey found that among victims of physical IPV, females were more likely to report poor mental and physical health outcomes than males, including depressive symptoms, post-traumatic stress disorder (PTSD) symptoms, substance use, and self-reported chronic physical and mental illness (Coker et al., 2002; Coker, Weston, Creson, Justice, & Blakeney, 2005; Carbone-Lopez, Kruttschnitt, & MacMillan, 2006). Another study using the same data found that physical

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assault against females compared to males in intimate relationships was more likely to result in medical treatment, hospitalization, and counseling (Tjaden & Thoennes, 2000). Other studies have also shown that female victims of IPV relative to male victims are more likely to report poor well-being (Dobash & Dobash, 2004) and greater levels of depressive symptoms (Cascardi, Langhinrichsen, & Vivian, 1992). Findings from a study of a birth cohort of 21-year-olds found that severe physical IPV was associated with substance use, antisocial personality disorder symptoms, and depressive symptoms among male victims, whereas severe physical IPV was associated with anxiety symptoms among female victims (Magdol et al., 1997). However, results from a longitudinal cohort study of young adults (aged 24 to 26 years) indicated that exposure to an abusive partner relationship was associated with some psychiatric disorders among females but not among males (Ehrensaft, Moffitt, & Caspi, 2006). Further investigation of the correlates of IPV among males and females is necessary given the inconsistencies in the current literature.

There are several limitations in the existing literature comparing mental health impairment among males and females exposed to IPV. First, although a small number of studies include measures of psychological well-being (Dobash & Dobash, 2004) or psychiatric symptoms (Coker et al., 2002; Coker et al., 2005; Magdol et al., 1997), they do not consider the assessment of psychiatric disorders. The one study that included several psychiatric disorders had a restricted sample age range (aged 24 to 26 years) and lacked information about relationship status (i.e., marital or dating), which limited generalizability of the findings (Ehrensaft et al., 2006). Among male victims, two important mental health symptoms that have not been well investigated are suicidal ideation and attempts. Past research has found that female victims of IPV, as compared to female nonvictims, are more likely to think about and attempt suicide (Pico-Alfonso et al., 2006). However, sex differences with regard to these two symptoms have not been widely examined in a representative sample of individuals exposed to IPV. Furthermore, some research has suggested that females in violent intimate relationships, when compared to females in nonviolent relationships, are more likely to have been abused in childhood, although the literature is conflicting (Bensley, Van Eenwyk, & Simmons, 2003; Fergusson, Boden, & Horwood, 2006; Thompson et al., 2006; Desai, Arias, Thompson, & Basile, 2002; Renner & Slack, 2006). It is possible that childhood abuse may also be associated with IPV in adulthood for males. However, few studies comparing IPV against males and females have provided information on child abuse histories. Finally, several studies that compare IPV against males and

females have used the same data sets (Carbone-Lopez et al., 2006; Coker et al., 2002; Coker et al., 2005; Tjaden & Thoennes, 2000). Studies involving a range of population samples are necessary to further our understanding of IPV against males and females.

The current study addresses some of the limitations of past research on IPV against males and females. Data available from the nationally representative U.S. National Comorbidity Survey Replication (NCS-R) includes assessments of several psychiatric disorders, as well as suicidal ideation or attempts, and self-reports of child abuse. Based on the previous research, we hypothesized that (a) exposure to abuse in childhood would be associated with IPV among males and females, (b) IPV exposure among males and females would be associated with psychiatric disorders and suicidal ideation and attempts, and (c) when comparing male and female victims of IPV, exposure to IPV among females would be associated with increased odds of mood and anxiety disorders, whereas IPV among males would be associated with increased odds of disruptive behavior disorders and substance use disorders.

Method

Participants

The sampling procedures for the NCS-R are described elsewhere (Kessler et al., 2004; Kessler, Berglund, Demler, Jin, & Walters, 2005). Briefly, the NCS-R data were collected in 2001 to 2003 (Part II $n = 5,692$; response rate = 70.9%) using a multistaged clustered sampling design and face-to-face interviews (Kessler, Chiu, Demler, & Walters, 2005). The NCS-R assessed individuals aged 18 years and older and was representative of the U.S. population on several census indicators (i.e., age, gender, race, education, marital status, region; see Kessler et al., 2003). The human participant committees from Harvard Medical School and the University of Michigan both provided ethical approval for recruitment and consent procedures, which included informed verbal consent from all participants (Kessler et al., 2003).

Measures

Sexual Orientation

Respondents were asked to indicate what best describes their sexual orientation based on the following categories: *heterosexual*, *homosexual*,

bisexual, something else, or not sure. In the total sample, only 48 individuals indicated that they were not heterosexual (35 in nonviolent relationships and 13 victims of violence). The small number of respondents reporting sexual orientation other than heterosexual did not allow for further investigation of IPV stratified by sexual orientation. Therefore, only individuals identifying themselves as heterosexual were included in the current analysis.

IPV

IPV was measured using questions assessing violence in the respondent's current marriage or common law union. Individuals who were married or living common law were considered as being in a marital relationship. The questions were prefaced with a statement that people handle disagreements in different ways, followed by two stems inquiring whether the respondent's partner ever did any of the following in the course of their current relationship: (a) pushed, grabbed, shoved, threw something, slapped, or hit; and (b) kicked, bit, hit with a fist, beat up, choked, burned, scalded, or threatened with a knife or gun. These indicators of violence were collectively taken from the physical assault items of the Conflict Tactics Scales (CTS), a widely used, valid, and reliable measure of family violence (Straus, 1979; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Additional questions were also asked to determine whether the respondent had ever been a perpetrator of any of the above forms of violence against his or her partner. Because of the relatively small numbers within each cell, despite the overall large sample size of the survey, it was not possible to investigate the following four categories of violence: no violence in marital relationship, victim of violence only, victim and perpetrator of violence (mutual violence), and perpetrator of violence only. Therefore, a dichotomous variable was computed to measure no violence (not a victim or perpetrator) versus being a victim of violence (including victims only and mutual violence). Based on the inclusion criteria for the study (being in a heterosexual marital relationship and either experiencing no violence or a being a victim of violence), the total sample size for the current analysis was $N = 2,254$ (1,116 males; 1,138 females).

Child Abuse and Witnessing Domestic Violence

Child physical abuse was assessed using the following question: "As a child, were you ever badly beaten up by your parents or the person who raised you?" Respondents reporting this event as occurring at age 16 years or younger were considered to have experienced child physical abuse.

Child sexual abuse was assessed using the following two questions: (a) Did anyone ever have sexual intercourse with you or penetrate your body with a finger or object against your will through use of threats, force or when you were too young to understand? and (b) Other than rape, were you ever touched inappropriately when you did not want to be touched? Respondents reporting either or both of these events occurring at the age of 16 or younger were considered to have experienced child sexual abuse. Respondents were asked whether they had, as a child, ever witnessed serious physical fights at home, such as “your father beating up your mother.” Individuals reporting this event at age 16 or younger were considered to have experienced witnessing domestic violence.

Psychiatric Disorders

Using the Composite International Diagnostic Interview 2.1 (CIDI), trained interviewers assessed the presence of numerous psychiatric disorders based on the criteria of the *Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition (DSM-IV)*; American Psychiatric Association, 1994). Past-year psychiatric disorders were assessed in groups. The groups of disorder included any mood disorder (major depression, dysthymia, mania, bipolar I disorder, and bipolar II disorder), any anxiety disorder (agoraphobia, social phobia, specific phobia, generalized anxiety disorder [GAD], PTSD, and panic disorder), any disruptive behavior disorder (oppositional defiant disorder and intermittent explosive disorder), any substance use disorder (alcohol abuse/dependence and drug abuse/dependence), any psychiatric disorder (including all aforementioned disorders), and comorbidity of any of the disorders (two or more past-year psychiatric disorders).

Suicidal Ideation and Attempts

Past-year suicidal ideation was measured using a question that asked respondents whether they had ever thought about committing suicide. Past-year suicide attempts were measured using a question that asked respondents whether they had ever attempted suicide.

Sociodemographic Covariates

It should be noted that even though the current investigation examines IPV among males and females, studying IPV based on ethnic, social, and economic divisions is also important and informative. More specifically,

ethnic, social, and economic variables may be equally informative in understanding IPV. As such, age, marital status, education, current household annual income, and ethnicity were included as covariates in all analyses. The age of the respondent was measured in years. Marital status was coded as *married*, *separated/divorced/widowed*, or *never married*. Education was measured in number of years of formal education. Current household annual income was in U.S. dollars. Ethnicity was coded as *White*, *Black*, *Hispanic*, or *other*.

Statistical Procedure

Statistical weights were applied in all analyses. In addition, because of the complex sampling design of the NCS-R, Taylor series linearization was used as a variance estimation technique for estimating standard errors (Shah, Barnswell, & Bieler, 1995).

To test Hypothesis 1, stating that exposure to abuse in childhood would be associated with IPV among males and females, adjusted logistic regression models were run separately for males and females to determine the relationships between child abuse (independent variable) and IPV (dependent variable). These models compared male victims of IPV to male nonvictims of IPV and female victims of IPV to female nonvictims of IPV. Models were first adjusted for sociodemographic variables, then sociodemographic variables and each type of child abuse.

To test Hypothesis 2, that IPV exposure among males and females would be associated with psychiatric disorders and suicidal ideation and attempts, adjusted logistic regression models were evaluated separately for males and females to examine the relationships between IPV (independent variable) and psychiatric disorders (dependent variables). Models were adjusted first for sociodemographic variables and then sociodemographic variables and significant child abuse histories. Next, adjusted logistic regression models were run separately for males and females to investigate the relationships between IPV (independent variable) and suicidal ideation and attempts (dependent variables). Models were first adjusted for sociodemographic variables and then sociodemographic variables, significant types of child abuse histories, and having any past-year psychiatric disorders.

To test Hypothesis 3—that when comparing male and female victims of IPV, exposure to IPV among females would be associated with increased odds of mood and anxiety disorders, whereas IPV among males would be associated with increased odds of disruptive behavior disorders and substance use disorders—adjusted logistic regression models were conducted

to compare male and female victims exposed to IPV. The models assessed the relationships between IPV and child abuse, psychiatric disorders, and suicidal ideation and attempts after adjusting for appropriate covariates.

Results

A total of 15.2% ($SE = 1.6\%$) of females ($n = 190$) and 20.3% ($SE = 2.1\%$) of males ($n = 216$) reported experiencing IPV in their current marital relationships. For descriptive purposes, Table 1 provides a summary of the sociodemographic information by sex and IPV status. Table 2 presents the prevalence of child abuse and odds ratios for the relationships between child abuse histories and IPV among males and females. Among males, exposure to child sexual abuse was associated with increased odds of IPV even after adjusting all covariates. Among females, exposure to child physical and sexual abuse was associated with increased odds of IPV when controlling for sociodemographic variables. When concurrently adjusting for sociodemographic variables and other types of child abuse, only child sexual abuse remained significantly associated with increased odds of IPV among females. However, it should be noted that the odds ratio for child physical abuse and IPV among females remained moderate in size in the fully adjusted models, even though it just failed to reach statistical significance based on the 95% confidence interval (AOR2a = 2.28; 95% CI = 0.99-5.24). In addition, interactions between sex and child abuse were tested but were not statistically significant.

Tables 3a and 3b presents the prevalence of psychiatric disorders and suicidal ideation and attempts and the odds ratios for the relationships between IPV and poor mental health outcomes among males and females. With regard to mental health, IPV among males was associated with increased odds of having any disruptive disorder, any substance abuse disorder, and psychiatric comorbidity (two or more past-year psychiatric disorders) in fully adjusted models. No statistically significant relationships were found between IPV among males and suicidal ideation and/or attempts. Among females, IPV was associated with increased odds of having any anxiety disorder, any disruptive behavior disorder, any substance use disorder, and any psychiatric disorder in fully adjusted models. Due to small cell counts, logistic regression models for IPV and suicide attempts among females could not be conducted. However, IPV among females was associated with increased odds of suicidal ideation after adjusting for sociodemographic variables, child physical abuse, child sexual abuse,

(text continues on p. 1410)

Table 1
Sociodemographic Variables in the Sample

Prevalence	Males:		Male		Females:		Female	
	No Violence	SE	Victim of Violence	SE	No Violence	SE	Victim of Violence	SE
Variables	%		%		%		%	
Age								
18 to 29	8.6	1.42	9.0	2.30	12.3	1.49	17.5	4.41
30 to 44	28.5	2.68	46.1	5.64	38.0	2.83	41.3	5.45
45 to 59	30.1	2.54	30.9	5.63	27.9	2.39	31.9	5.07
60-plus years	32.9	2.83	14.1	4.11	21.9	2.46	9.2	2.88
Marital status								
Married	90.0	1.78	89.0	2.86	92.1	1.11	88.9	2.53
Never married (common law)	4.8	1.13	6.2	2.12	4.6	0.93	8.1	2.12
S/W/D (common law)	5.1	1.44	4.8	1.96	3.3	0.60	3.0	1.38
Race								
Hispanic	8.6	1.99	6.3	2.42	7.3	1.54	8.5	2.97
Black	7.7	1.49	6.7	2.13	7.9	1.34	7.4	2.72
Other	3.8	1.12	1.5	0.74	2.2	0.78	3.6	1.41
White	79.9	2.50	85.5	3.28	82.6	2.07	80.4	4.06
Household income								
0 to \$19,999	8.5	1.61	7.0	2.58	10.2	1.76	8.7	2.98
\$20,000 to \$34,999	12.7	1.97	6.8	1.95	11.3	2.00	15.9	3.96
\$35,000 to \$69,999	36.3	2.87	31.3	4.97	35.6	2.61	38.5	5.63
\$70,000 plus	42.6	2.82	54.9	5.53	43.0	2.80	36.9	5.02
Education								
0 to 11 years	21.0	2.55	9.0	3.41	11.6	1.99	7.3	2.01
12 years	30.1	2.78	30.5	4.63	31.3	2.59	33.0	5.52
13 to 15 years	24.3	2.33	34.7	5.90	28.2	2.46	39.2	5.34
16-plus years	24.5	2.32	25.9	4.81	29.0	2.59	20.5	4.18

Table 2
Logistic Results for Childhood Abuse

	No Violence		Victim of Violence		AOR-1a	95% CI	AOR-2a	95% CI
	% (SE)	n	% (SE)	n				
Child abuse—males								
Physical abuse	4.8 (1.03)	33	8.9 (2.52)	18	1.89	0.86-4.16	1.58	0.63-3.99
Sexual abuse	3.0 (0.84)	21	10.0 (2.83)	17	3.82**	1.57-9.25	3.33*	1.30-8.52
Witnessing domestic violence	10.6 (1.58)	71	15.7 (3.64)	30	1.49	0.72-3.08	1.23	0.52-2.89
Child abuse—females								
Physical abuse	3.5 (0.66)	33	8.9 (2.43)	16	2.71*	1.27-5.76	2.28	0.99-5.24
Sexual abuse	14.7 (2.08)	109	27.3 (4.48)	45	2.01*	1.16-3.48	1.78*	1.01-3.13
Witnessing domestic violence	11.1 (1.87)	85	15.2 (3.21)	28	1.33	0.72-2.49	0.97	0.50-1.89

Note: Unweighted *n*. AOR-1a controlling for sociodemographic variables (age, race, education, household income, marital status); AOR-2a controlling for sociodemographic variables and each type of child abuse.

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

Table 3a
Logistic Results for Psychiatric Disorders and Suicidal Ideation and Attempts Among Males

	No Violence		Victim of Violence		AOR-1a	95% CI	AOR-2a	95% CI
	% (SE)	n	% (SE)	n				
Past-year disorders								
Mood disorders	4.7 (0.79)	44	8.0 (2.08)	20	1.49	0.76-2.89	NA	NA
Anxiety disorders	9.5 (1.24)	89	13.6 (2.74)	33	1.38	0.81-2.35	NA	NA
Disruptive behavior disorders	2.5 (0.52)	30	11.2 (2.62)	28	4.82**	2.20-10.54	3.88**	1.70-8.85
Substance use disorders	1.9 (0.47)	19	7.1 (2.08)	14	3.20*	1.31-7.86	2.76*	1.21-6.36
Any psychiatric disorder	14.2 (1.48)	135	24.2 (3.73)	64	1.67*	1.05-2.67	1.50	0.93-2.39
Two or more past-year disorders	5.0 (0.79)	50	13.5 (2.73)	32	2.62**	1.42-4.83	2.12*	1.17-3.87
Suicidal behavior								
Suicidal ideation	1.5 (0.42)	18	1.7 (1.06)	4	1.02	0.26-3.96	NA	NA
Suicide attempts	0.3 (0.16)	3	0.8 (0.84)	1	1.53	0.20-11.73	NA	NA

Note: Unweighted *n*: results based on small cell counts should be interpreted with caution. NA = not applicable; AOR-1a = adjusted odds ratios controlling for sociodemographic variables (age, race, education, household income, marital status); AOR-2a = adjusted odds ratios controlling for sociodemographic variables, and child sexual abuse (only significant type of abuse among males).

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

Table 3b
Logistic Results for Psychiatric Disorders and Suicidal Ideation and Attempts Among Females

	No Violence		Victim of Violence		AOR-1a	95% CI	AOR-2b	95% CI
	% (SE)	n	% (SE)	n				
Past-year disorders								
Mood disorders	6.7 (0.87)	73	11.9 (2.60)	27	1.78	0.99-3.18	NA	NA
Anxiety disorders	16.8 (1.54)	175	30.4 (4.30)	58	1.90*	1.17-3.11	1.73*	1.06-2.83
Disruptive behavior disorders	1.7 (0.38)	22	5.4 (1.68)	12	2.95*	1.24-7.02	2.75*	1.12-6.77
Substance use disorders	0.7 (0.28)	7	3.6 (1.59)	6	5.50**	1.57-19.25	4.69*	1.02-21.61
Any psychiatric disorder	20.7 (1.71)	217	36.6 (4.71)	72	1.96**	1.22-3.15	1.69*	1.04-2.73
Two or more past-year disorders	9.1 (1.05)	97	17.5 (3.22)	36	1.92*	1.14-3.24	1.65	0.99-2.77
Suicidal behavior								
Suicide ideation	0.6 (0.26)	7	4.7 (1.62)	10	7.72**	2.52-23.66	7.53**	2.70-20.96
Suicide attempts	NA	NA	NA	NA	NA	NA	NA	NA

Note: Unweighted *n*: Results based on small cell counts should be interpreted with caution. NA = not applicable; AOR-1a = adjusted odds ratios controlling for sociodemographic variables (age, race, education, household income, marital status); AOR-2b = adjusted odds ratios controlling for sociodemographic variables, child physical and sexual abuse (only significant type of abuse among females); AOR-2c = adjusted odds ratios controlling for sociodemographic variables, any psychiatric disorder, and child physical and sexual abuse.
 p* < .05. *p* < .01.

Table 4
Logistic Results Comparing Male (*n* = 216)
and Female (*n* = 190) Victims of Violence

	Intimate Partner Violence	
Child abuse	AOR-1a	95% CI
Physical abuse	0.78	0.32-1.93
Sexual abuse	3.64	1.57-8.43**
Witnessing domestic violence	0.70	0.32-1.53
Past-year disorders	AOR-1b	95% CI
Mood disorders	1.17	0.50-2.69
Anxiety disorders	2.48	1.29-4.78**
Disruptive behavior disorders	0.22	0.07-0.75*
Substance use disorders	0.14	0.03-0.67*
Any psychiatric disorder	1.48	0.79-2.76
Two or more past-year disorders	0.90	0.44-1.84
Suicidal behavior	AOR-1c	95% CI
Suicidal ideation	2.15	0.48-9.59
Suicide attempts	NA	NA

Note: Male victims of violence reference group in all models. Unweighted *n*. NA = not applicable; AOR-1a = adjusted odds ratios controlling for sociodemographic variables (age, race, education, household income, marital status) and each type of child abuse; AOR-1b = adjusted odds ratios controlling for sociodemographic variables, physical and sexual child abuse (only significant types of abuse); AOR-1c = adjusted odds ratios controlling for sociodemographic variables, any psychiatric disorder, and physical and sexual child abuse (only significant types of abuse).

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

and any past-year psychiatric disorder. Additionally, interactions between sex and IPV were tested but were not statistically significant.

Table 4 presents the results from the logistic regression models comparing male and female victims of IPV. The results indicate some statistically significant sex differences. Specifically, relative to males, exposure to child sexual abuse was associated with increased odds of IPV among females. With regard to mental health outcomes, IPV among females was associated with increased odds of any anxiety disorder compared to IPV among males after adjusting for sociodemographic variables, child physical abuse, and child sexual abuse. However, IPV among females was associated with decreased odds of having any disruptive behavior disorder and any substance use disorder relative to IPV among males in fully adjusted models. No statistically significant sex differences were found for IPV among males and females and suicidal ideation. Some sex differences did emerge in the

data when directly comparing male victims to female victims. However, the effects sizes for the sex differences were not large enough to produce significant interaction effects.

Discussion

The main findings from the current investigation are that (a) child abuse histories are associated with IPV among male and female victims (supporting Hypothesis 1), (b) IPV among males and females is strongly associated with some psychiatric disorders (partially supporting Hypothesis 2), and (c) the relationships between IPV and poor mental health outcomes differ according to sex (partially supporting Hypothesis 3).

The significant associations between exposure to abuse in childhood and IPV among males and females provide support for the continuation of abusive relationships for some individuals. It is possible that a direct causal relationship exists between child abuse and IPV. More specifically, having experienced child abuse may increase the likelihood of IPV because using violence to communicate or interact with others may seem normative. It has also been theorized that individuals who experienced abuse as children may be more likely to be victims in intimate relationships because of learned helplessness (Renner & Slack, 2006). Therefore, identifying children who are abused may also specify a group at risk for further victimization of violence in later intimate relationships. Although reports of exposure to child sexual abuse was associated with IPV among males and exposure to both child sexual and physical abuse was associated with IPV among females, witnessing domestic violence was not associated with IPV among males or females. A previous study involving a sample of young adults also found no relationship between witnessing domestic violence and being a victim of physical assault in an intimate relationship (Fergusson et al., 2006). However, the results from this past study are not directly comparable to the findings from the current investigation, as the previous study used a combined sample of young males and females (aged 25 years) and a different measure of domestic violence. It should be noted that contrary to the current findings, previous research has also indicated a significant correlation between witnessing domestic violence within childhood and IPV victimization (Renner & Slack, 2006). Because of the inconsistencies in the literature, firm conclusions regarding the relationship between witnessing domestic violence as a child and victimization of IPV cannot be made.

Consistent with past research (Carbone-Lopez et al., 2006; Coker et al., 2002), the current findings indicate that IPV is associated with poor mental health outcomes for males and females, although there are sex differences. It is possible that the stress and experience of IPV may lead to feelings of depression, anxiety, or aggression and may manifest as a psychiatric disorder. Our findings indicate that males experience a more narrow range of poor mental health outcomes compared to females. Male victims of IPV were more likely than males in nonviolent relationships to experience only externalizing disorders, including disruptive behavior disorders and substance use disorders. Female victims of IPV were more likely than females in nonviolent relationships to experience both externalizing disorders (disruptive behavior disorders and substance use disorders) and internalizing disorders (anxiety disorders) as well as suicidal ideation. The broader association with poor health outcomes among females found in this and prior research may be because of the sex differences in the types and severity of violence experienced (Carbone-Lopez et al., 2006). When comparing male and female victims of IPV, males were more likely to experience externalizing disorders (disruptive disorders and substance use disorders), whereas females were more likely to experience internalizing disorders (anxiety disorders). These findings suggest that the experience of IPV may manifest in different ways for males and females.

When considering the current findings, it is important to consider that the experience of violence in intimate partner relationships likely differs between male and female victims. Although some researchers report that the prevalence of IPV against males and females is similar (Capaldi & Owen, 2001; McNeely & Mann, 1990; Straus, 2005), others have stated that the experience of violence is not the same for males and females (Loseke & Kurz, 2005). More specifically, when comparing violence in intimate partner relationships, violence against females relative to violence against males is more likely to be chronic, severe, and result in injury (Brush, 1990; Dobash & Dobash, 2004; Tjaden & Thoennes, 2000). Furthermore, a meta-analytic review of the literature of mainly young dating couples indicated that females were more likely to use physical aggression, whereas males were more likely to inflict injuries (Archer, 2000). Our current analysis is limited because of the lack of data on the experience of violence or context in which the violence occurs.

Some of the victims of violence in the current analysis are also perpetrators of violence, whereas others are not. The perpetration of violence may be a result of instigation or self-defense. Previous research has indicated that

11.6% of male victims of IPV reported initiating physical force or threatening physical violence compared to 7.1% of female victims of IPV ($p < .003$; Coker et al., 2002). However, because of limited information in the current study about the context of violence and insufficient sample size to conduct analyses on perpetrators of violence, it was not possible to further investigate the circumstances in which violence occurred. Therefore, our current findings do not allow us to comment on the experience of violence among males and females. Nevertheless, they do indicate that violence in intimate partner relationships has negative associations with poor mental health among both males and females. It is clear that the experience of violence likely differs for males and females, underscoring the need to examine the context of all violence occurring within a household.

The findings from the current investigation should be considered in light of several study limitations. First, even though a temporal relationship between child abuse and IPV was established, the cross-sectional nature of the NCS-R does not allow for inferences about causal relationships. Therefore, it cannot be concluded that exposure to child abuse leads to IPV or that IPV causes poor mental health outcomes. Rather, it can only be determined that associations between IPV and child abuse, psychiatric disorders, and suicidal ideation do exist. Second, the retrospective study design may introduce recall and reporting bias. However, it has been stated that although retrospective research may introduce some sampling error, there is evidence supporting the validity and accurate recall of adverse childhood events (Hardt & Rutter, 2004). Third, the assessment of child physical abuse, sexual abuse, witnessing domestic violence, and victimization of IPV were each determined using only one or two items, thereby restricting the amount of information gathered about violence. Although the assessment of IPV was an amalgamation of items from a valid, reliable CTS (Straus, 1979), the use of one item to assess IPV is limiting. Using valid and reliable measures to determine exposure to child abuse and IPV would be ideal and allow for greater comparison with other studies. Next, despite the large overall sample size of the NCS-R, the size of the male and female subsamples selected for the current research did not allow for comparison of individuals who experienced victimization of violence only, who were perpetrators of violence only, and who were in mutually violent intimate relationships. In addition, the relatively small sample size did not allow for the investigation of violence occurring in heterosexual relationships compared to nonheterosexual relationships. Finally, the NCS-R only provided data on physical IPV. Sexual and psychological IPV are also important and may have different associations with mental health outcomes. It is

important to include measures of a broad range of IPV in future nationally representative samples.

IPV is a serious public health problem. Victimization from physical violence in an intimate relationship increases the likelihood of poor mental health outcomes for males and females. Efforts to prevent IPV may include interventions for abused children, as the risk for future IPV may be greater among these individuals (Renner & Slack, 2006). Also, investigating approaches to detect IPV and developing effective interventions for those exposed to IPV is essential. Previous research has indicated that screening women in a health care setting for exposure to IPV using self-completed surveys was preferred over face-to-face interviewing (MacMillan et al., 2006); knowledge about correlates of IPV can be useful in assisting clinicians during diagnostic assessments to identify those patients exposed to violence even though development and evaluation of evidence-based treatments still require further research (Wathen et al., 2007). In addition, research has determined that women found emergency room clinicians inquiring about violence and known correlates of IPV to be acceptable (Wathen et al., 2007). Hopefully, future research will determine whether IPV screening in a health care setting is effective in actually reducing violence and improving quality of life. It is important to recognize that intervention strategies for those exposed to IPV may differ for males and females. Further research is required to identify effective methods to reduce the incidence and prevalence of IPV and to adequately address the specific needs of male and female victims of IPV.

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Tracie O. Afifi, MSc, is a PhD candidate in the department of community health sciences at the University of Manitoba in Winnipeg, Canada.

Harriet MacMillan, MD, is a professor in the departments of psychiatry and behavioral neurosciences and pediatrics at McMaster University in Ontario, Canada.

Brian J. Cox, PhD, is a professor in the department of psychiatry at the University of Manitoba.

Gordon J. G. Asmundson, PhD, is a professor in the department of psychology at the University of Regina in Saskatchewan, Canada.

Murray B. Stein, MD, MPH, is a professor in the departments of psychiatry and family & preventive medicine at the University of California, San Diego.

Jitender Sareen, MD, is an associate professor in the department of psychiatry at the University of Manitoba.