

FEMALE PERPETRATION OF VIOLENCE IN HETEROSEXUAL INTIMATE RELATIONSHIPS

Adolescence Through Adulthood

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This article critically reviews 62 empirical studies that examine the prevalence of female-perpetrated intimate partner violence across three distinct populations (adolescents, college students, and adults). All studies were published between 1996 and 2006 and reported prevalence rates of physical, emotional, and/or sexual violence perpetrated by females in heterosexual intimate relationships. The highest rates were found for emotional violence, followed by physical and sexual violence. Prevalence rates varied widely within each population, most likely because of methodological and sampling differences across studies. Few longitudinal studies existed, limiting the extent to which we could identify developmental patterns associated with female-perpetrated intimate partner violence. Differences and similarities across populations are highlighted. Methodological difficulties of this area of inquiry as well as implications for practice, policy, and research are discussed.

Key words: *intimate partner violence; female perpetration; adolescents; college students; adults; prevalence*

INTIMATE PARTNER VIOLENCE (IPV), defined as physical, sexual, psychological, or emotional abuse, or threat of abuse, by a current or former spouse or partner, is a critical public health concern (Saltzman, Fanslow, McMahon, & Shelly, 2002). Nearly one quarter of U.S. women and 7.6% of men report having been raped and/or physically assaulted at some point in their lifetime by a current or past spouse, cohabitating partner, boyfriend, girlfriend, or date (Tjaden & Thoennes, 2000).

Women who experience IPV are significantly more likely to experience adverse health outcomes compared to those who have not experienced IPV (Bonomi, Anderson, Rivara, & Thompson, 2007). Health consequences of IPV include chronic gynecological, central nervous system, and stress-related health problems (Campbell et al., 2002; Kernic et al., 2002) as well as depression, posttraumatic stress disorder, substance abuse, and suicidality (Campbell, 2002; Dutton et al., 2006; Woods et al., 2005).

KEY POINTS OF THE RESEARCH REVIEW

- Female-perpetrated IPV is a common occurrence among adolescents, college students, and adults.
- Emotional abuse is generally the most common form of IPV reported by female perpetrators across populations, followed by physical and then sexual IPV.
- Few longitudinal studies exist examining the prevalence of female-perpetrated IPV across the lifespan, and no studies exist examining the developmental trajectory of this form of violence.
- A number of challenges exist in measuring female-perpetrated IPV, which lead to difficulties in comparing prevalence rates across studies.

To date, most studies on IPV have focused on the victimization of women and girls rather than their male counterparts. This is due to the fact that a greater proportion of women report experiencing IPV; women are victimized at about five times the rate of men (Rennison & Welchans, 2000). Similarly, females accounted for 84.3% of spouse abuse victims and 85.9% of victims of violence between boyfriends and girlfriends between 1998 and 2002 (Durose et al., 2005). Male-perpetrated IPV has also been shown to be more injurious for women and result in more severe short- and long-term sequelae (Tjaden & Thoennes, 2000). Consequently, women are also more likely to be killed as a result of IPV. In 2004, 32.7% of female homicide victims were killed by an intimate partner, whereas only 3.1% of male homicides were committed by female intimate partners (U.S. Department of Justice, Bureau of Justice Statistics, 2006).

Recent evidence has shown that IPV is not limited to adult populations but, unfortunately, is also quite common among adolescents and young adults. Exposure to IPV is now being documented at younger and younger ages. The Centers for Disease Control and Prevention (CDC, 2006) have estimated that between 12% and 20%, or nearly one fifth, of middle and high school students experience physical or psychological abuse in dating relationships. The prevalence of dating violence among adolescent

samples has been shown to vary by racial and ethnic subgroups, with African American female adolescents being at increased risk for victimization (Malik, Sorenson, & Aneshensel, 1997; Rickert, Wiemann, Vaughan, & White, 2004). As with adult victims, experience of dating violence among adolescents has been associated with increased participation in health risk behaviors, including sexual intercourse, attempted suicide, episodic heavy drinking, and physical fighting (CDC, 2006).

In recent years, researchers have begun to extend this body of research to examine female perpetration of violence in intimate relationships. There is increasing evidence to suggest that women commit as much or more IPV than men (Archer, 2000; Melton & Belknap, 2003). Among adolescents, research consistently shows that females perpetrate more acts of violence in intimate relationships than males (Arriaga & Foshee, 2004; Foshee et al., 1996; Hickman, Jaycox, & Aronoff, 2004; Lichter & McCloskey, 2004; Munoz-Rivas, Grana, O'Leary, & Gonzalez, 2007; Schwartz, O'Leary, & Kendziora, 1997; Spencer & Bryant, 2000; Wolfe et al., 2001). In addition, data also suggest that females who perpetrate IPV may experience more violent or frequent IPV victimization (Bennett & Fineran, 1998; Capaldi & Owen, 2001; Kernsmith, 2005; Luthra & Gidycz, 2006; Milan, Lewis, Ethier, Kershaw, & Ickovics, 2005).

The purpose of this review is to describe the prevalence of female-perpetrated violence in heterosexual intimate relationships, discuss the related methodological difficulties, and identify areas of future research. This review will also focus on how the perpetration of IPV by women differs across the lifespan and highlight areas for future prevention and treatment research.

METHOD

Search Strategy

To obtain articles from a wide range of disciplines, we searched the PubMed, PsychINFO, and Scopus databases. The keyword terms

included *female, domestic violence, family violence, partner abuse, dating violence, relationship violence, aggression, spouses, partner, and dating*. Because this review was focused on female perpetration of violence, we excluded articles with the keyword term *battered women*. These keywords were chosen based on their relevance to this review and because they were index terms for the databases. These searches were further limited by the following criteria: English language, published from 1996 to 2006, domestic (United States), and human subject research. This initial search yielded 2,303 citations. The titles and abstracts of these articles were then subject to further review. Articles were selected if they contained information on the prevalence of IPV perpetration by females.

Inclusion Criteria

Studies examining prevalence rates were included in the review if they included percentage data on female-perpetrated IPV during a specified time period. Studies presenting counts of violent acts or mean scores on violence scales were not included. Additionally, only those articles which included self-reported perpetration by women, rather than victimization reported by men, were included in this review, as some evidence suggests that men and women may report female-to-male partner violence differently, with females usually reporting more violence (Andrews, Capaldi, Foster, & Hops, 2000; Armstrong, Wernke, Medina, & Schafer, 2002; Caetano, Schafer, Field, & Nelson, 2002; Cunradi, Bersamin, & Ames, 2008; Perry & Fromuth, 2005; Schafer, Caetano, & Clark, 1998). For example, Caetano et al. (2002) found that 42% of White females reported perpetrating IPV whereas only 19% of their White male victims reported this perpetration. Some researchers suggest that this tendency for males to "underreport" their experiences of victimization is because they may be less likely to view the incident as abusive and be frightened or threatened by the act (Wolfe et al., 2001). Given the discrepancies often found in partner reports of abuse, we chose to focus only on reports by one partner (i.e., female reports of perpetration) to make the reported rates across studies as comparable as possible.

Sixty-two articles met these inclusion criteria. Fifteen articles focused on adolescents, 16 on college students, and 31 on adult women. These populations were selected based on distinctions made in the available literature.

Prevalence Rates of Female-Perpetrated Violence in Heterosexual Intimate Relationships

Table 1 presents information from the 62 articles that reported prevalence rates of female-perpetrated violence in heterosexual intimate relationships. These results are separated by sample population (adolescent, college, and adult) and type of violence perpetrated (physical, emotional, and sexual). The specific types of violence that composed these categories were self-defined by each research team and, therefore, may vary in definition, specificity, and severity. We applied the term *emotional* to describe verbal and psychological abuse reported in the reviewed studies; jealous behavior alone was not included in this definition. There were also large variations among these articles in the terms used for IPV (e.g., relationship violence, dating violence, courtship violence). For purposes of this review, we will use *IPV* as an all-inclusive term for violence occurring in heterosexual intimate relationships.

Adolescents

Fifteen studies reported the prevalence of female-perpetrated IPV among adolescents. Most of the studies were conducted with high school students, with the youngest samples consisting of eighth- to ninth-grade students (Arriaga & Foshee, 2004; Foshee, 1996; Wolf & Foshee, 2003). Samples were often racially diverse; however, few of the studies examined prevalence rates separately by race/ethnicity. The time orientation in these studies varied, with approximately half of the studies examining lifetime IPV perpetration and the other half examining IPV perpetration in the past year. As expected, those studies that measured past year

(text continues on p. 241)

TABLE 1: Prevalence of Female-Perpetrated Violence in Heterosexual Relationships by Adolescent, College, and Adult Samples

Source	Sample	Methods/ Measures	Type of Violence	Physical	Emotional	Sexual
Adolescent samples Arriaga & Foshee (2004)	N = 526 (280 females) eighth- to ninth-grades students attending a rural public middle school; 83% Caucasian, 13% African American, 1% Hispanic, 3% Other; longitudinal (6 months)	Revised Conflict Tactics Scale	Moderate and severe physical aggression (lifetime)	17.0 to 25.0 (moderate) 11.0 to 17.0 (severe)		
Bennett & Fineran (1998)	N = 463 (273 females) 9th- to 12th-grade students attending two high schools in the Chicago metro area; 34% African American, 27% Hispanic, 23% Caucasian, 16% Other	Three questions on the frequency of perpetrating severe physical violence and sexual violence against a dating or ex-partner	Severe physical and sexual aggression (past year); combined in one measure	4.0		
Chapple (2003)	N = 980 (500 females) 9th- to 11th-grade students attending a high school in a medium-sized suburban/rural city; 86.4% Caucasian, 5.2% African American, 2.7% Native American, 2.2% Asian, 3.5% Hispanic	One question on the frequency of hitting a dating partner	Physical (lifetime)	17.0		
Chase, Treboux, O'Leary, & Strassberg (1998)	N = 95 (34 females) 14- to 19-year-olds attending a dropout prevention program; 65% Caucasian, 14% African American, 9% Hispanic, 12% Other	Conflict Tactics Scale	Physical (past year)	68.0 to 79.0		
Coker et al. (2000)	N = 5,414 (2,836 females) stratified cluster sample of 9th- to 12th-grade students who took part in the South Carolina Youth Risk Behavior Survey; 49.4% Caucasian, 44.3% African American, 1.8% Hispanic, 1.1% Asian, 0.9% Native American, 2.6% Other	Youth Risk Behavior Survey	Severe physical violence (past year); forced sex (lifetime)	9.0		4.2

(continued)

TABLE 1: (continued)

Source	Sample	Methods/ Measures	Type of Violence	Physical	Emotional	Sexual
DuRant, Champion, & Wolfson (2006)	N = 2,228 (1,078 females) simple random sample of 9th- to 12th-grade students attending public high schools in one county system in North Carolina; 61.4% Caucasian, 29.4% African American, 2.8% Hispanic, 1.2% Native American, 0.9% Asian, 4.3% Other	Youth Risk Behavior Survey	Physical (past year)	9.4		
Feiring, Deblinger, Hoch-Espada, & Haworth (2002)	N = 254 (160 females) 9th- to 12th-grade students attending three public high schools in the Philadelphia metro area; 79% Caucasian, 17% African American, 4% Other	Conflict in Relationships Measure	Physical (past year)	29.0		
Foshee (1996) (lifetime)	N = 1,965 (990 females) 8th- to 9th-grade students attending 14 schools in a rural district of North Carolina; 75.9% Caucasian, 24.1% Other	18 questions on the frequency of perpetrating different forms of physical and sexual violence against a dating partner	Mild, moderate, and severe physical violence; sexual violence (lifetime)	27.8 (overall) 25.8 (mild) 16.4 (moderate) 11.1 (severe)		1.2
Milan, Lewis, Ethier, Kershaw, & Ickovics (2005)	N = 411 females (203 pregnant) 14- to 19-year-olds from 10 hospital, community, and high school clinics in Connecticut; 41% African American, 40% Hispanic, 9% Caucasian, 10% Other	Revised Conflict Tactics Scale	Mild and severe physical violence (past year)	14.0 (mild) 30.0 (severe)		
O'Leary & Smith Step (2003)	N = 206 (120 females) 10th- to 12th-grade students attending seven high schools in Suffolk County, New York; 59.2% Caucasian, 17.5% African American, 9.2% Hispanic, 3.3% Asian American, 10.8% Other	Modified Conflict Tactics Scale	Physical (current relationship)	30.6		
Ozer, Tschann, Pasch, & Flores (2004)	N = 247 (112 females) 16- to 20-year-olds randomly selected from membership in a large HMO; 51% Mexican Americans, 49% Caucasian	Revised Conflict Tactics Scale	Physical (past year)	12.5		

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TABLE 1: (continued)

Source	Sample	Methods/ Measures	Type of Violence	Physical	Emotional	Sexual
Schumacher & Smith Slep (2004)	N = 398 (227 females) 10th- to 12th-grade students attending seven high schools in Long Island; 53.7% Caucasian, 18.9% African American, 14.9% Hispanic, 1.8% Asian, 10.7% Other	Modified Conflict Tactics Scale	Verbal (current or most recent relationship)		94.0	
Schwartz, O'Leary, & Kendziora (1997)	N = 228 (106 females) high school students from two suburban public school districts; 86.8% Caucasian, 3.8% African American, 2.8% Asian, 2.8% Hispanic, 3.8% Other	Modified Conflict Tactics Scale	Physical (lifetime)	44.3		
West & Rose (2000)	N = 171 (88 females) 16- to 24-year-olds attending Job Corps training in a large Midwestern city; 100% African American	Modified Conflict Tactics Scale	Psychological aggression, mild and severe physical and sexual aggression (lifetime)	53.5 to 66.3 (mild) 16.3 to 47.1 (severe)	36.5 to 88.6	8.0 to 19.5 (mild) 4.6 to 10.3 (severe)
Wolf & Foshee (2003)	N = 1,405 (8th- to 9th-grade students attending schools in a rural county in North Carolina; 82% Caucasian, 18% African American	18 questions on the frequency of perpetrating different forms of physical and sexual violence against a dating partner	Physical and sexual violence, included in same scale (lifetime)	28.0		
College Samples Anderson (1996, 1998)	N = 461 females attending three New York City (East) colleges and one midized commuter university in Louisiana (South); 18- to 59-year-olds (mean age = 22.3)	Sexually Aggressive Behaviors Scale	Sexual coercion, sexual abuse, physically forced sexual contact (lifetime)			Overall: 34.1 (South); 46.2 (East) Coercion: 25.7 (South) 28.5 (East) Abuse: 7.3 (South); 21.1 (East) Force Contact: 1.6 (South) 7.1 (East)

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TABLE 1: (continued)

Source	Sample	Methods/ Measures	Type of Violence	Physical	Emotional	Sexual
Beyers, Leonard, Mays, & Rose (2000)	N = 480 (240 females) undergraduate students attending a large western university; mean age 19.4; 90% Caucasian, 10% Other	3 questions assessing the frequency and severity of perpetration of emotional, physical, and sexual violence in a dating relationship	Physical, Emotional, and Sexual (lifetime)	11.7	40.4	2.1
Cercone Beach, & Arias (2005)	N = 414 (225 females) undergraduate students attending a large southeastern university; mean age 19.0; 87% Caucasian, 8% African American, 3% Hispanic, 1% Asian, 2% Other	Revised Conflict Tactics Scale	Minor and severe psychological and physical aggression (lifetime)	38.7 (mild) 15.1 (severe)	89.3 (mild) 26.7 (severe)	
Cogan & Ballinger (2006)	N = 1,415 (958 females) undergraduate students attending a large southwestern university; mean age 18.7; 85.5% Caucasian, 12% Hispanic, 2.2% African American	Conflict Tactics Scale	Physical and Verbal (past year)	30.7	65.5	
Dye & Eckhardt (2000)	N = 347 (152 females) undergraduate students attending a medium-sized southern university; mean age 19.5; 91% Caucasian, 6.3% African American, 1% Asian, 0.8% Hispanic, 0.4% Native American	Modified Conflict Tactics Scale	Physical (past year)	25.3		
Fiebert & Gonzalez (1997)	N = 978 female undergraduate students attending community colleges and state universities in southern California; primarily between 20 to 30 years old; 50% Caucasian, 21% Hispanic, 16% Asian/Pacific Islander, 8% African American, 2% Native American, 4% Other	One question on the frequency of perpetrating physical violence against a boyfriend or spouse	Physical (past 5 years)	29.0		

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TABLE 1: (continued)

Source	Sample	Methods/Measures	Type of Violence	Physical	Emotional	Sexual
Graves, Sechrist, White, & Paradise (2005)	N = 1,300 female undergraduate students attending a medium-sized university in a semi-urban setting in the Southwest; 75.1% Caucasian, 21.5% African American, 0.9% Native American, 1.2% Hispanic, 1.4% Asian; longitudinal (4 years)	Conflict Tactics Scale	Physical (during adolescence or past year)	51.4 (adolescent) 35.4 (Year 1) 34.9 (Year 2) 31.6 (Year 3) 25.5 (Year 4)		
Harned (2001)	N = 874 (489 females) undergraduate and graduate students; 17 to 52 years old (mean age 21.3); 76% Caucasian, 9% Asian American, 6% African American, 3% East Asian, 3% Hispanic, 3% Other	Revised Conflict Tactics Scale; Abusive Behavior Inventory; Sexual Experiences Survey	Physical, psychological, and sexual (since attending the university)	19.0	85.0	8.0
Hines & Saudino (2003)	N = 481 (302 females) undergraduate students attending a large northeastern predominantly upper-middle class university; mean age = 19.1; 77% Caucasian, 13% Asian, 5% Hispanic, 2% African American, 3% Other	Revised Conflict Tactics Scale	Minor and severe physical aggression, psychological aggression, and sexual coercion (past year)	35.0 (overall) 34.0 (minor) 7.5 (severe)	86.0	13.5
Lewis, Travea, & Fremouw (2002)	N = 300 female undergraduate students attending West Virginia University; 18- to 37-year-olds (mean age = 19.3); 94% Caucasian, 2% African American, 2% Hispanic, 2% Asian	Conflict Tactics Scale	Physical (past 18 months)	23.0		
Luthra & Gidycz (2006)	N = 200 (100 females) students attending a large Midwestern university; 18- to 24-year-olds (mean age 18.8); 93.5% Caucasian, 6.5% Other	Conflict Tactics Scale	Physical (current or most recent dating partner)	25.0		
C. M. Murphy & Blumenthal (2000)	N = 207 female university students; 18- to 25-year-olds (mean age = 20.0); 69% Caucasian, 15% African American, 10% Asian, 2% Caribbean or African descent, 1% Hispanic, 1% Native American, 2% Other	Conflict Tactics Scale	Physical (lifetime)	36.0		

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TABLE 1: (continued)

Source	Sample	Methods/ Measures	Type of Violence	Physical	Emotional	Sexual
Orcutt, Garcia, & Pickett (2005)	N = 457 female undergraduate students attending a large Midwestern university; 98% under 24 years old; 61% Caucasian, 25% African American, 6.4% Asian, 4.8% Hispanic, 0.4% Native American, 2.4% Other	Revised Conflict Tactics Scale	Physical (past year)	39.0		
Perry & Fromuth (2005)	N = 100 (50 couples) students attending a public Southeastern university; 18- to 24-year-olds (mean age = 19.0); 78% Caucasian, 18% African American, 4% Other	Revised Conflict Tactics Scale	Physical (current relationship)	36.0		
Straus & Ramirez (2004)	N = 653 (442 females) students attending a small Northeastern university; median age = 19.0; 97% Caucasian, 3% Other	Revised Conflict Tactics Scale	Physical (past year)	32.0		
Adult Samples Caetano et al. (2000, 2001); Cumradi, Caetano, Clark, & Schafer (1999)	N = 2,880 (1,440 couples) nationally representative probability sample; 18+-year-olds; 38.5% Caucasian, 24.9% African American, 36.6% Hispanic; longitudinal (5 years)	Revised Conflict Tactics Scale	Physical (past year)	30.0 (African American) 21.0 (Hispanic) 16.0 (Caucasian)		
Cano & Vivian (2003)	N = 498 (258 females) couples seeking marital therapy and community controls not seeking therapy; 33- to 40-year-olds	Modified Conflict Tactics Scale	Physical (past year)	15.9 (moderate) 41.5 (severe)		
Capaldi & Owen (2001)	N = 318 (159 females) male participants and their female partners in longitudinal study of at-risk youth in metropolitan area of Oregon; mean age = 20.8; 90% of male sample Caucasian	Conflict Tactics Scale	Physical (past year and during young adulthood)	13.0 (past year) 43.0 (during young adulthood)		

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TABLE 1: (continued)

Source	Sample	Methods/ Measures	Type of Violence	Physical	Emotional	Sexual
Chase, O'Farrell, Murphy, Fals-Stewart, & Murphy (2003)	N = 103 alcoholic females seeking couples-based outpatient treatment in Massachusetts; mean age = 40.0; 92% Caucasian, 3% African American, 3% Hispanic, 2% Native American	Conflict Tactics Scale	Physical (past year)	68.0 (overall) 50.0 (severe)		
Chermack, Fuller, & Blow (2000); Chermack, Walton, Fuller, & Blow (2001)	N = 252 (126 females) in substance abuse treatment; mean age = 37.6; 64.3% Caucasian, 23.4% African American, 4.8% Hispanic	Modified Conflict Tactics Scale	Physical (past year)	25.6 (moderate) 33.9 (severe)		
Drapkin, McCrady, Swingle, & Epstein (2005)	N = 218 (109 females) alcoholic patients and their male partners in New Jersey; mean age = 44.0; 96% Caucasian	Modified Conflict Tactics Scale	Physical (past year)	13.7 (kicked, bitten, or hit) 5.6 (beaten up)		
Ehrensaft et al. (2003); Ehrensaft, Cohen, & Johnson (2006)	N = 543 (298 females) individuals followed 20+ years through Children in the Community study in two New York counties; mean age = 31.0; 91% Caucasian	Modified Conflict Tactics Scale	Physical (past year)	22.0 7.0 (inflicted injury)		
Field & Caetano (2003)	N = 2,050 (1,025 racially homogeneous couples) married or cohabitating at two time points; nationally representative probability sample; 18+-year-olds; 38.5% Caucasian, 24.9% African American, 36.6% Hispanic; longitudinal (5 years)	Revised Conflict Tactics Scale	Physical (past year)	24.0 (African American, T1) 20.8 (Hispanic, T1) 13.1 (Caucasian, T1) 22.2 (African American, T2) 19.5 (Hispanic, T2) 9.8 (Caucasian, T2) 61.1 (overall) 27.6 (hit, threw something) 21.6 (hit, tried to hit with something) 8.3 (threatened with knife) 2.6 (used gun or knife against spouse)		
Giordano, Millhollin, Cernkovich, Pugh, & Rudolph (1999)	N = 721 (397 females) individuals followed from adolescence to young adulthood in Ohio; 12- to 19-year-olds; 47% Caucasian, 53% non-Caucasian	Modified Conflict Tactics Scale	Physical (past year)			

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TABLE 1: (continued)

Source	Sample	Methods/Measures	Type of Violence	Physical	Emotional	Sexual
Herrenkohl et al. (2004)	N = 644 (330 females) reporting involvement in an intimate relationship in the past year; 24 year olds; 47% Caucasian, 24% African American, 21% Asian, 9% Other	Three questions on the frequency of perpetrating types of physical violence	Physical (past year)	6.2 (pushed, grabbed, shoved) 6.7 (hit, threw something) 3.0 (kicked, bit, punched)		
Kim & Capaldi (2004)	N = 158 (79 couples) male participants and their female partners in longitudinal study of at-risk youth in metropolitan area of Oregon; mean age = 20.8 (Time 2) and 23.4 (Time 3); 90% of male sample Caucasian; longitudinal (6 years)	Conflict Tactics Scale; Adjustment With Partner Scale; Dyadic Social Skills Questionnaire; Family and Peer Process Code (for interaction tasks)	Physical (past year)	58.0 (Time 2) 49.0 (Time 3)		
Martino, Collins, & Ellickson (2005)	N = 509 females living with a partner or spouse at two time points; participants originally recruited from eight school districts in California and Oregon; mean age = 23.5 (Time 1) and 29.4 years (Time 2); 74% Caucasian, 10% Hispanic, 5% African American, 6% Asian	One question on frequency of hitting or threatening to hit a spouse or live-in partner	Physical (past year)	19.4 (Time 1) 17.0 (Time 2)		
McCarroll et al. (2000)	N = 26,835 (1,315 females) married Army soldiers living on 47 active duty Army installations in U.S.; 62.6% Caucasian, 37.4% non-Caucasian	Modified Conflict Tactics Scale	Physical (past year)	24.2 (moderate) 8.0 (severe)		
Merrill, Crouch, Thomsen, Guimond, & Milner (2005)	N = 963 (421 females) military personnel at a recruit training center in Illinois; participants followed for years postenlistment; mean age = 19.8 at baseline; 57% Caucasian, 19% African American, 13% Hispanic	Conflict Tactics Scale	Physical (past year)	20.0 (severe, Time 1) 12.0 (severe, Time 2)		

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TABLE 1: (continued)

Source	Sample	Methods/ Measures	Type of Violence	Physical	Emotional	Sexual
B. S. Murphy, Stevens, McGrath, Wexler, & Reardon (1998)	N = 98 females enrolled in a residential drug treatment center in Tucson, Arizona; mean age = 30.7; 64.3% Caucasian, 16.3% African American, 12.2% Hispanic, 7.1% Native American	Violence Questionnaire	Physical, Verbal, Sexual (lifetime)	8.8% (physical only) 66.7 (physical and verbal combined)	17.5% (verbal only)	0.0%
Newby et al. (2003)	N = 1, 185 married active duty female soldiers living on 38 military installments in U.S.; mean age = 30.1 years; 55.7 Caucasian, 44.3% African American	Conflict Tactics Scale	Physical (past year)	30.7 to 35.9 (any) 23.0 to 25.8 (moderate) 7.1 to 10.1 (severe)		
O'Keefe (1998)	N = 76 battered women incarcerated for criminal offenses in two California correctional facilities; mean age = 37.0; 51% Caucasian, 24% African American, 17% Hispanic, 1% Asian/Pacific Islander, 1% Native American	Conflict Tactics Scale	Physical	55.3 (homicide)		
O'Leary & Smith Slep (2006)	N = 453 couples married or cohabitating for at least 1 year and parenting a 3- to 7-year-old child; sample drawn via Random Digit Dial near Stony Brook, New York; mean age = 35.1; 81.9% Caucasian, 18.1% non-Caucasian	Revised Conflict Tactics Scale- Revised; Precipitants for Partner Aggression	Physical, Psychological (past year)	33.8 (mild) 11.5 (severe)	95.0 (mild) 26.9 (severe)	
Ridley & Feldman (2003)	N = 153 females in a relationship for at least six of the prior 12 months; recruited from a public health clinic; mean age = 26.9; 42.7% Caucasian, 39.3% Hispanic, 10.7% African American, 2.0% Native American, 1.3% Asian American	Abusive Behavior Inventory	Physical (past year)	67.3 (overall) 45.1 (pushing, grabbing, shoving, holding down) 41.2 (hitting, slapping, biting)		

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TABLE 1: (continued)

Source	Sample	Methods/ Measures	Type of Violence	Physical	Emotional	Sexual
Rosen, Parmley, Knudson, & Fancher (2002)	N = 576 (99 females) married active duty Army personnel living with spouse in Army installations in Alaska; mean age = 26.8	Modified Conflict Tactics Scale	Physical (past year)	38.0 (overall) 17.0 (severe)		
Schumacher & Leonard (2005)	N = 634 couples from a large northeastern city in their first marriage surveyed at the time of marriage and first and second anniversaries; mean age = 26.8; 62% Caucasian, 31% African American; longitudinal (2 years)	Revised Conflict Tactics Scale; Test of Negative Social Exchange	Physical (past year)	48.0 (baseline) 45.0 (Time 1) 41.0 (Time 2)		
Siegel (2000)	N = 136 females ages 0 to 12 years seen in the EDIPLS WRITE OUT] of a large northeastern city for sexual abuse followed for 15 years; mean age = 25.5 at follow-up; 86% African American	One question about physical violence experienced and perpetrated in romantic or sexual relationship	Physical (lifetime)	61.0		
Smith Slep & O'Leary (2005)	N = 453 couples married or cohabitating for at least 1 year and parenting a 3- to 7-year-old child; sample drawn via Random Digit Dial near Stony Brook, New York; mean age = 35.1 years; 81.9% Caucasian, 18.1% non-Caucasian	Revised Conflict Tactics Scale	Physical (past year)	44.4 (any) 20.0 (severe)		
Sugihara & Warner (2002)	N = 316 (155 females) in South Texas; mean age = 32.0; 100% Mexican American	Dominance Scale; Revised Conflict Tactics Scale	Physical, Psychological, Sexual Coercion (past year)	37.0	81.0	11.0
Temple, Weston, & Marshall (2005)	N = 835 females in heterosexual relationship for 1 year and living at 200% or less of the FPL[PLS WRITE OUT] in Dallas, Texas; mean age = 33.2; 96.2% Caucasian, 31.1% Mexican American	Severity of Violence Against Men Scale	Physical (past 6 months)	9.0		

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TABLE 1: (continued)

<i>Source</i>	<i>Sample</i>	<i>Methods/ Measures</i>	<i>Type of Violence</i>	<i>Physical</i>	<i>Emotional</i>	<i>Sexual</i>
White & Chen (2002)	N = 725 (400 females) in 16 New Jersey counties; 12- to 31-year-olds; 90% Caucasian	Modified Conflict Tactics Scale	Physical (past year)	18.0		
White, Merrill, & Koss (2001)	N = 2,784 (1,477 females) Navy recruits in Orlando, Florida; mean age = 20.1; 63% Caucasian, 23% African American, 7% Hispanic, 3% Asian American, 1.8% Native American	Conflict Tactics Scale	Physical, Psychological (past year)	47.0	88.0	

perpetration had slightly lower prevalence rates compared to those measuring lifetime prevalence, with the exception of one study (Chase, Treboux, O'Leary, & Strassberg, 1998).

Physical violence was the type of violence most often reported, with 14 of the 15 studies reporting these perpetration rates among adolescents. For all 14 studies, the prevalence rate for physical violence ranged between 4.0% and 79.0%. The wide range of prevalence rates appears to be a result of methodological and sampling differences across studies. For example, Bennett and Fineran (1998) found a low perpetration rate (4.0%) compared to other studies, possibly because their measurement of physical violence was relatively narrow, including only severe acts combined with reports of sexual violence. In addition, the two studies that reported the highest rates of female-perpetrated IPV were both conducted with samples considered at risk for violence (Chase et al., 1998; West & Rose, 2000). Specifically, Chase et al. (1998) examined physical IPV among 95 high school students who were referred to a dropout prevention program because of problems with aggression and other delinquent behaviors, and West and Rose (2000) examined IPV prevalence among 171 low-income African American youth, a population which is often at increased risk for violence. When these outlying rates are removed, the prevalence rates of the remaining 11 studies range from 9.0% to 44.3%.

Few studies reported prevalence rates for female perpetration of emotional or sexual violence in adolescent intimate relationships. Based on our inclusion criteria, two studies reported rates for emotional violence and three for sexual violence. Schumacher and Smith Slep (2004) examined the rates of self-reported verbal aggression among 398 ethnically diverse 10th- to 12th-grade students. Ninety-four percent of females stated that they had been verbally aggressive toward their current or most recent dating partner. West and Rose (2000) found that perpetration among females ranged from 36.5% to 88.6% depending on the type of aggression; females reported making their partner feel guilty most often and making them feel inferior least often.

West and Rose (2000) was also one of the few studies selected that measured the occurrence of sexual violence in adolescent intimate relationships. In this study, rates of sexual aggression perpetrated by females ranged from 4.6% to 19.5%, again depending on the specific behavior. The most common behavior reported was forced kissing, whereas the least commonly reported behavior was trying to force intercourse. The two other studies that measured sexual violence found lower rates of female perpetration. Coker et al. (2000) examined forced sex perpetration among 5,414 Caucasian (49.4%) and African American (44.3%) high school students who took part in the South Carolina Youth Risk Behavior Survey and found a lifetime prevalence rate of 4.2% for females. Another study investigating lifetime sexual IPV among eighth- and ninth-grade students ($N = 1,965$) in rural North Carolina reported a female perpetration rate of 1.2% (Foshee, 1996).

College

Fifteen studies examined female perpetration among college students. Although there was a wide range of ages in some of the studies, most of the samples reported a mean age between 18 and 21. The majority of samples were also predominately Caucasian. Multiple time frames were used to measure prevalence in college samples; the most common were past year or lifetime IPV perpetration, however some studies measured IPV perpetration within the past 5 years, while at the university, or in the current/most recent relationship. No major differences were observed in prevalence rates based on the measurement time frame.

Fourteen studies reported the prevalence of female-perpetrated physical IPV among this population, with rates ranging from 11.7% to 39.0%. These rates appeared to be more similar across studies than those found for adolescents, possibly because the samples were more homogenous.

Perpetration of emotional violence appeared to be very common in this population. Five studies reported rates of emotional IPV perpetration by college females, which ranged from 40.4% to 89.3%. Beyers, Leonard, Mays, and Rose (2000) found the lowest rate (40.4%) of

emotional violence perpetration in their study; however, their definition of this type of abuse differed from those used in other studies. Their study used a global experience measure and defined *emotional violence* as "the use of words to control, dominate, intimidate, degrade, and/or intentionally harm another psychologically" (Beyers et al., 2000, p. 456), whereas the other studies used either the Conflict Tactics Scale (CTS) or the Abuse Behavior Inventory, both of which defined emotional violence as specific behaviors. These other studies found perpetration rates greater than 65%. Cercone, Beach, and Arias (2005) were the only authors to include a measure of severe psychological aggression using the Revised CTS (e.g., "I destroyed something belonging to my partner") in their study of 414 predominantly Caucasian undergraduate students. Their findings showed that 26.7% of females reported perpetrating this type of violence against a dating partner at some point in their life.

Four studies reported prevalence rates of sexual IPV perpetration by female college students ranging from 2.1% to 46.2%. These studies used widely varying measures of sexual aggression. As with verbal aggression, Beyers et al. (2000) used a global experience measure for sexual abuse as opposed to specific behaviors, possibly accounting for the lower prevalence rate (2.1%) reported in this study. Anderson (1996, 1998) reported the highest levels of sexual IPV (34.1% to 46.2% overall) in his study, however his measure asked about attempted sexual IPV and therefore may be an overestimate compared to the other studies, which did not include attempted behaviors in their measures.

Adults

Thirty-one articles presented prevalence estimates of female-perpetrated IPV among adult populations. Similar to studies with adolescents and college populations, physical violence was the most commonly studied type of aggression among adults (all 31 studies); only 4 studies reported estimates for emotional or verbal abuse, and 1 study reported on sexual aggression perpetrated by women.

Prevalence estimates for physical IPV perpetrated by women varied significantly across the studies possibly because of the divergent recall periods (e.g., past year, ever), respondent groups (e.g., race/ethnicity), and degrees of violence (e.g., moderate, severe) documented. Furthermore, some of the largest estimates were obtained from particularly high-risk subject populations. Estimates for past year female-perpetrated physical IPV ranged from 13.0% to 68.0%, although the highest rate reported was obtained from a sample of women seeking alcohol treatment, a documented risk factor for IPV perpetration and victimization (Chase, O'Farrell, Murphy, Fals-Stewart, & Murphy, 2003). Race/ethnic specific estimates suggest that African American and Hispanic women report higher rates of IPV perpetration compared to Caucasian women. A nationally representative survey found the prevalence of female-perpetrated IPV to be 30.0% among African Americans, 21.0% among Hispanic, and 16.0% among Caucasian women (Caetano, Cunradi, Schafer, & Clark, 2000; Caetano, Schafer, & Cunradi, 2001; Cunradi, Caetano, Clark, & Schafer, 1999).

As expected, past year prevalence estimates for physical IPV also varied by severity: ranging from 15.9% to 25.8% for moderate abuse and 7.1% to 26.9% for severe abuse. Higher estimates were observed for some subject populations. For example, Chermack et al. (Chermack, Fuller, & Blow, 2000; Chermack, Walton, Fuller, & Blow, 2001) found that more than one third of the females in a substance abuse treatment program reported perpetrating severe physical abuse against an intimate partner, whereas half of all alcoholic women seeking outpatient treatment in a study by Chase et al. (2003) reported perpetrating severe IPV against their partners.

As noted earlier, very few of the selected articles provided prevalence estimates for emotional or sexual abuse. However, based on this limited evidence, it appears that adult women commonly use psychological abuse, alone or in combination with physical aggression, against their intimate partners. General estimates of past year psychological aggression by women range from 81.0% to 88.0% (Sugihara & Warner, 2002; White & Chen, 2002), however O'Leary and Smith Slep (2006) reported past year prevalence of mild psychological aggression to be as

high as 95%. The same study reported the prevalence of severe psychological aggression to be just over one quarter. Finally, only one study reported on the prevalence of sexual aggression perpetrated by women. In a sample of 316 Mexican American women, Sugihara and Warner (2002) found that 11% reported perpetrating sexual violence against an intimate partner in the past year.

DISCUSSION

Similarities and Differences Across Populations

The information gained from this review indicates that female-perpetrated IPV is a common occurrence among adolescents, college students, and adults. In all three populations, emotional violence appears to be the most prevalent, followed by physical and then sexual violence. Given the wide range of prevalence rates within each study population, however, it is difficult to determine the developmental trajectory of female-perpetrated IPV from these studies.

In this review, we only found a few studies that reported prevalence rates of IPV perpetration among females at two or more time points, making it difficult to obtain a clear picture of the developmental patterns associated with this type of violence. Only one study reported prevalence rates over time for female-perpetrated IPV among adolescents (Arriaga & Foshee, 2004). This study found a significant increase in prevalence during a 6-month period; however, they measured lifetime perpetration of IPV, and therefore, it is unclear if there was an actual increase or simply an accumulation of violence. Graves, Sechrist, White, and Paradise (2005) provided the only study that examined IPV prevalence rates at multiple time points for college students (past year prevalence for 4 years) and, in fact, also included a measure of prevalence during adolescence. They measured prevalence during adolescence as IPV occurring from the age of 14 up to the point of the first survey administration and prevalence during college as past year prevalence every year for 4 years. The highest prevalence was found for adolescence (although this may be due to the

larger time period of measurement) and a decreasing trend during college. Among the studies examining IPV perpetration in adult female populations, five reported prevalence rates at two time points (Field & Caetano, 2003; Kim & Capaldi, 2004; Martino, Collins, & Ellickson, 2005; Merrill, Crouch, Thomsen, Guimond, & Milner, 2005; Schumacher & Leonard, 2005). All five studies showed IPV perpetration to be relatively stable or to follow a decreasing trend over time.

Together, these studies provide very limited evidence that female perpetration of IPV may follow a similar developmental trajectory as other forms of violence. Developmental researchers have shown that the onset of violent behaviors usually follows one of two paths, one in which violence occurs during early adolescence, peaks during midadolescence, and decreases in late adolescence to young adulthood (referred to as "adolescent limited" or "late onset") and the other in which violence emerges during early childhood, escalates to more serious forms of violence by adolescence, and persists into adulthood (referred to as "life course persistent" or "early onset") (Elliott, 1994; Moffitt, 1993; United States Department of Health and Human Services, 2001). The adolescent limited or late onset trajectory is the most common trajectory found among youth. Much of what is known about the development trajectory of violent behavior comes from a few longitudinal surveys following youth during the course of several years (United States Department of Health and Human Services, 2001). These trajectories, however, have been more clearly defined for males, possibly because the studies primarily looked at forms of violence more characteristic of males, such as serious violence (e.g., aggravated assault, robbery, gang fights, rape) (Elliott, 1994; Moffitt, 1993; United States Department of Health and Human Services, 2001). There is evidence, however, indicating that the developmental trajectories for the emergence of violence differ for males and females (United States Department of Health and Human Services, 2001). Therefore, more longitudinal research is needed to see how the development of female-perpetrated violence in intimate relationships is similar and different from the development of other forms of violence.

Methodological Issues

Several important methodological issues in the measurement of female-perpetrated IPV were identified during the course of this review. First, significant discrepancies exist in the definition of IPV and the periodicity examined. These differences are largely related to the instrument used to collect data. Many of the studies included in this review used some form of the CTS. Because the CTS collects data for the prior 12 months and provides standardized definitions of *mild*, *moderate*, and *severe abuse*, studies using this instrument yielded prevalence estimates with a greater degree of comparability. Limitations of the CTS have been identified previously (Kurz, 1989), however in the absence of a widely accepted, validated instrument, it remains a critical mechanism for measuring IPV events. Unfortunately, many of the studies included in this review used modified or alternative instruments, making it difficult to accurately compare prevalence estimates. For example, studies that used a more limited definition of abuse (e.g., only severe acts) or a shorter recall period (e.g., current relationship) often yielded lower prevalence estimates than those that included multiple forms of violence (e.g., threats of violence; mild, moderate, and severe acts) and longer recall periods, particularly those that focused on lifetime perpetration of violent acts toward a partner. Additionally, we found relatively few studies that examined forms of female-perpetrated IPV other than physical. Only 11 out of the 62 articles included in this review examined some form of emotional violence and eight measured sexual violence. No other forms of female-perpetrated IPV were found in this review. There is a growing body of research indicating that when females perpetrate violence, they are more likely to engage in forms other than physical violence, such as emotional violence or relational aggression (Archer, 2004; Crick & Grotpeter, 1995; Osterman et al., 1994; Xie, Farmer, & Cairns, 2003). Therefore, more research is needed that examines perpetration in intimate relationships of the forms of violence that are more salient among females.

Second, prevalence estimates varied widely depending on the population. Investigations of

IPV have often relied on purposive or convenience sampling strategies targeting those individuals at highest risk for victimization and perpetration. Research with these populations can be critical to the development of effective programs and policies targeting individuals at greatest risk, however resulting prevalence estimates and other data may be highly skewed and therefore difficult to compare to more representative estimates, such as those obtained through randomized sampling. Few studies in this review used randomized sampling in their studies. Only three studies reported using some type of randomization for selecting participants among adolescent populations (Coker et al., 2000; DuRant, Champion, & Wolfson, 2006; Ozer, Tschann, Pasch, & Flores, 2004), whereas no studies used random sampling among college students. Four independent studies used a random sampling procedure to identify adult respondents (Caetano et al., 2000; Caetano et al., 2001; Field & Caetano, 2003; Ehrensaft et al., 2003; Ehrensaft, Cohen, & Johnson, 2006; Giordano, Millhollin, Cernkovich, Pugh, & Rudolph, 1999; O'Leary & Smith Slep, 2006), and only one of these reported nationally representative results (Caetano et al., 2000, Caetano et al., 2001; Field & Caetano, 2003).

Third, as previously discussed, only a small proportion of the studies were longitudinal in design or reported prevalence rates at more than one time point, limiting the extent to which it was possible to identify clear differences in the trajectory of female-perpetrated IPV over time. A better understanding of when and under what circumstances female-perpetrated IPV develops can help researchers to better target prevention strategies.

Finally, it is important to note that even though we focused this review on female-perpetrated IPV, these acts are usually not isolated or one-sided but most often reflect a reciprocal or mutual pattern of relationship violence. Studies with all age groups indicate that bidirectional violence is more the norm than the exception. However, research indicates that the patterns of mutual aggression among heterosexual couples are complex and remain difficult to tease out given the limitations of cross-sectional and even longitudinal study designs. Evidence suggests that previous partner aggression remains one of the

strongest predictors for future aggression by both males and females (Anderson, 1996; Bennett & Fineran, 1998; Caetano, Ramisetty-Mikler, & Field, 2005; Cercone et al., 2005; Field & Caetano, 2003; Graves et al., 2005; Hines & Saudino, 2003; Luthra & Gidycz, 2006; Milan et al., 2005; O'Leary & Smith Slep, 2006; Schumacher & Leonard, 2005; Smith Slep & O'Leary, 2005; White, Merrill, & Koss, 2001). Although these findings may help us to better understand the broad patterns of IPV, they do not necessarily help us to understand the nuances of situational factors associated with individual events. Specifically, the importance and temporal association between initiation, retaliation, and self-defense is not always evident. For example, although numerous studies have suggested that women's violence is more likely to be in self-defense, others have found that younger females in particular may be more likely to initiate physical aggression (Capaldi, Kim, & Shortt,

2007). Similarly, although most studies report that males are more likely than females to perpetrate severe acts of violence against their partner, at least one study with female alcoholics found that despite similar overall rates of violence perpetration, female-perpetrated violence was generally more severe and more frequent (Drapkin, McCrady, Swingle, & Epstein, 2005). Finally, studies with couples have highlighted the importance of relationship and family dynamics in determining patterns of mutual violence among heterosexual couples (Capaldi & Owen, 2001; Smith Slep & O'Leary, 2005). Taken together, the findings presented in this review suggest that although female-perpetrated IPV may contribute to broad patterns of bidirectional violence that have been observed, significant gaps remain in our understanding of the situational and background factors associated with women's use of violence in their intimate relationships at all age levels.

IMPLICATIONS FOR PRACTICE, POLICY, AND RESEARCH PRACTICE

- The evidence reviewed here suggests that girls and women perpetrate a significant amount of IPV against their male partners. Although the focus of this review was not on interventions to prevent or disrupt the cycle of female-perpetrated violence (or IPV more generally), a recent review by Whitaker et al. (2006) suggests that primary prevention strategies have not, to date, been targeted to girls or provided sex-specific curriculum. Future efforts to prevent dating violence among adolescent and young adult populations should, at the very least, explicitly include content on female perpetration and, when available and appropriate, provide sex-specific interventions.
- At least one nationally representative survey of young adults has shown that among relationships that included some violence, nearly 50% were reciprocally violent (Whitaker, Haileyesus, Swahn, & Saltzman, 2007). These findings suggest that a substantial number of women seeking services for victimization may also be perpetrators of IPV. Taken in light of recent findings related to the increased risk for frequent and severe IPV victimization among female perpetrators, service providers who treat battered women may also need to consider addressing perpetration of IPV with their clients.
- Although policy initiatives have traditionally, and rightfully, focused on generating and targeting resources toward meeting the needs of female victims of IPV and their families, the results from this review suggest that resources focused on the prevention of female-perpetrated partner violence may provide new opportunities for family violence prevention. Such policy initiatives could include public awareness campaigns about all types of IPV, demonstration or pilot programs to test sex-specific IPV prevention programs, and promotion of educational programs focusing on the development of healthy relationships. We do not propose a cut in existing resources for violence against women programs but rather a shift—or partial shift—in the foci of those programs to include a critical consideration of women's use of violence in their intimate relationships and the development of appropriate responses.
- The evidence reviewed in this article suggests that further research is needed on the development and maintenance of violent behaviors in female youth. Although female-perpetrated IPV has been studied in populations across the lifespan, none of the studies reviewed examined the same individuals for a long enough period of time to determine the developmental trajectory of IPV perpetration among females. This gap in the evidence base could be addressed through longitudinal research with both nationally representative and "at risk" populations. Specifically, researchers can improve rigor in this area of inquiry through the use of well-defined measures, well-defined samples, and random sampling techniques. Additional research is needed on the timing and predictors of the initiation of violence behaviors toward intimate partners as well as potential mediators of continued IPV perpetration by females. Longitudinal research is needed to better understand the association between individual, relationship, and contextual factors that contribute to female-perpetrated IPV across the lifespan. Such efforts, pursued in conjunction with rigorous evaluation of primary prevention strategies, are needed to extend the current evidence base and support the development of effective programs and policies to prevent and address female perpetration of IPV.

REFERENCES

- Anderson, P. B. (1996). Correlates of college women's self-reports of heterosexual aggression. *Sexual Abuse: Journal of Research and Treatment, 8*, 121-131.
- Anderson, P. B. (1998). Variations in college women's self-reported heterosexual aggression. *Sexual Abuse: Journal of Research and Treatment, 10*, 283-292.
- Andrews, J. A., Capaldi, D., Foster, S. L., & Hops, H. (2000). Adolescent and family predictors of physical aggression, communication, and satisfaction in young adult couples: A prospective analysis. *Journal of Consulting and Clinical Psychology, 68*(2), 195-208.
- Archer, J. (2000). Sex differences in aggression between heterosexual partners: A meta-analytic review. *Psychological Bulletin, 126*, 651-680.
- Archer, J. (2004). Sex differences in aggression in real-world settings: A meta-analytic review. *Review of General Psychology, 8*(4), 291-322.
- Armstrong, T. G., Wernke, J. Y., Medina, K. L., & Schafer, J. (2002). Do partners agree about the occurrence of intimate partner violence? A review of the current literature. *Trauma, Violence, & Abuse, 3*(3), 181-193.
- Arriaga, X. B., & Foshee, V. A. (2004). Adolescent dating violence: Do adolescents follow in their friends', or their parents', footsteps? *Journal of Interpersonal Violence, 19*, 162-184.
- Bennett, L., & Fineran, S. (1998). Sexual and severe physical violence among high school students. Power beliefs, gender, and relationship. *American Journal of Orthopsychiatry, 68*, 645-652.
- Beyers, J. M., Leonard, J. M., Mays, V. K., & Rose, L. A. (2000). Gender differences in the perception of courtship abuse. *Journal of Interpersonal Violence, 15*, 451-466.
- Bonomi, A. E., Anderson, M. L., Rivara, F. P., & Thompson, R. S. (2007). Health outcomes in women with physical and sexual intimate partner violence exposure. *Journal of Women's Health, 16*, 987-997.
- Caetano, R., Cunradi, C. B., Schafer, J., & Clark, C. L. (2000). Intimate partner violence and drinking patterns among white, black, and Hispanic couples in the U.S. *Journal of Substance Abuse, 11*, 123-138.
- Caetano, R., Ramisetty-Mikler, S., & Field, C. (2005). Unidirectional and bidirectional intimate partner violence among White, Black and Hispanic couples in the U.S. *Violence and Victims, 20*, 398-406.
- Caetano, R., Schafer, J., & Cunradi, C. B. (2001). Alcohol-related intimate partner violence among White, Black, and Hispanic couples in the United States. *Alcohol Research and Health, 25*, 58-65.
- Caetano, R., Schafer, J., Field, C. A., & Nelson, S. (2002). Agreements on reports of intimate partner violence among White, Black and Hispanic couples in the United States. *Journal of Interpersonal Violence, 17*, 1308-1322.
- Campbell, J. C. (2002). Health consequences of intimate partner violence. *Lancet, 359*, 1331-1336.
- Campbell, J., Jones, A. S., Dienemann, J., Kub, J., Schollenberger, J., O'Campo, P., et al. (2002). Intimate partner violence and physical health consequences. *Archives of Internal Medicine, 162*, 1157-1163.
- Cano, A., & Vivian, D. (2003). Are life stressors associated with marital violence? *Journal of Family Psychology, 17*, 302-314.
- Capaldi, D. M., Kim, H. K., & Shortt, J. W. (2007). Observed initiation and reciprocity of physical aggression in young at-risk couples. *Journal of Family Violence, 22*(2), 101-111.
- Capaldi, D. M., & Owen, L. D. (2001). Physical aggression in a community sample of at-risk young couples: Gender comparisons for high frequency, injury, and fear. *Journal of Family Psychology, 15*, 425-440.
- Centers for Disease Control and Prevention. (2006). Physical dating violence among high school students—United States, 2003. *MMWR Morbidity and Mortality Weekly Report, 55*, 532-535.
- Cercone, J. J., Beach, S. R., & Arias, I. (2005). Gender symmetry in dating intimate partner violence: Does similar behavior imply similar constructs? *Violence and Victims, 20*, 207-218.
- Chapple, C. L. (2003). Examining intergenerational violence: Violent role modeling or weak parental controls? *Violence and Victims, 18*, 143-162.
- Chase, K. A., O'Farrell, T. J., Murphy, C. M., Fals-Stewart, W., & Murphy, M. (2003). Factors associated with partner violence among female alcoholic patients and their male partners. *Journal of Studies on Alcohol, 64*, 137-149.
- Chase, K. A., Treboux, D., O'Leary, K. D., & Strassberg, Z. (1998). Specificity of dating aggression and its justification among high-risk adolescents. *Journal of Abnormal Child Psychology, 26*, 467-473.
- Chermack, S. T., Fuller, B. E., & Blow, F. C. (2000). Predictors of expressed partner and nonpartner violence among patients in substance abuse treatment. *Drug and Alcohol Dependence, 58*, 43-54.
- Chermack, S. T., Walton, M. A., Fuller, B. E., & Blow, F. C. (2001). Correlates of expressed and received violence across relationship types among men and women substance abusers. *Psychology of Addictive Behaviors, 15*, 140-151.
- Cogan, R., & Ballinger, B. C. (2006). Alcohol problems and the differentiation of partner, stranger, and general violence. *Journal of Interpersonal Violence, 21*, 924-935.
- Coker, A. L., McKeown, R. E., Sanderson, M., Davis, K. E., Valois, R. F., & Huebner, E. S. (2000). Severe dating violence and quality of life among South Carolina high school students. *American Journal of Preventive Medicine, 19*, 220-227.
- Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development, 66*, 710-722.
- Cunradi, C. B., Bersamin, M., & Ames, G. (2008). Agreement on intimate partner violence among a sample of blue-collar couples. *Journal of Interpersonal Violence* (E-pub ahead of print).
- Cunradi, C. B., Caetano, R., Clark, C. L., & Schafer, J. (1999). Alcohol-related problems and intimate partner violence among white, black, and Hispanic couples in the U.S. *Alcoholism: Clinical and Experimental Research, 23*, 1492-1501.
- Drapkin, M. L., McCrady, B. S., Swingle, J. M., & Epstein, E. E. (2005). Exploring bidirectional couple violence in a clinical sample of female alcoholics. *Journal of Studies on Alcohol, 66*, 213-219.

- DuRant, R. H., Champion, H., & Wolfson, M. (2006). The relationship between watching professional wrestling on television and engaging in date fighting among high school students. *Pediatrics, 118*, e265-e272.
- Durose, M., Harlow, C., Langan, P., Motivans, M., Rantala, R., & Smith, E. (2005). *Family violence statistics including statistics on strangers and acquaintances* (NCJ 207846). Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Dutton, M. A., Green, B. L., Kaltman, S. I., Roesch, D. M., Zeffiro, T. A., & Krause, E. D. (2006). Intimate partner violence, PTSD, and adverse health outcomes. *Journal of Interpersonal Violence, 21*, 955-968.
- Dye, M. L., & Eckhardt, C. I. (2000). Anger, irrational beliefs, and dysfunctional attitudes in violent dating relationships. *Violence and Victims, 15*, 337-350.
- Ehrensaft, M. K., Cohen, P., Brown, J., Smailes, E., Chen, H., & Johnson, J. G. (2003). Intergenerational transmission of partner violence: A 20-year prospective study. *Journal of Consulting and Clinical Psychology, 71*, 741-753.
- Ehrensaft, M. K., Cohen, P., & Johnson, J. G. (2006). Development of personality disorder symptoms and the risk for partner violence. *Journal of Abnormal Psychology, 115*, 474-483.
- Elliott, D. S. (1994). Serious violent offenders: Onset, developmental course, and termination. The American Society of Criminology 1993 presidential address. *Criminology, 32*, 1-21.
- Feiring, C., Deblinger, D., Hoch-Espada, A., & Haworth, T. (2002). Romantic relationship aggression and attitudes in high school students: The role of gender, grade, and attachment and emotional styles. *Journal of Youth and Adolescence, 31*, 373-385.
- Fiebert, M. S., & Gonzalez, D. M. (1997). College women who initiate assaults on their male partners and the reasons offered for such behavior. *Psychological Reports, 80*, 583-590.
- Field, C. A., & Caetano, R. (2003). Longitudinal model predicting partner violence among White, Black, and Hispanic couples in the United States. *Alcoholism: Clinical and Experimental Research, 27*, 1451-1458.
- Foshee, V. A. (1996). Gender differences in adolescent dating abuse prevalence, types and injuries. *Health Education Research, 11*, 275-286.
- Foshee, V. A., Linder, G. F., Bauman, K. E., Langwick, S. A., Arriaga, X. B., Heath, J. L., et al. (1996). The Safe Dates Project: Theoretical basis, evaluation design, and selected baseline findings. *American Journal of Preventive Medicine, 12*, 39-47.
- Giordano, P. C., Millhollin, T. J., Cernkovich, S. A., Pugh, M. D., & Rudolph, J. L. (1999). Delinquency, identity, and women's involvement in relationship violence. *Criminology, 37*, 17-40.
- Graves, K. N., Sechrist, S. M., White, J. W., & Paradise, M. J. (2005). Intimate partner violence perpetrated by college women within the context of a history of victimization. *Psychology of Women Quarterly, 29*, 278-289.
- Harned, M. S. (2001). Abused women or abused men? An examination of the context and outcomes of dating violence. *Violence and Victims, 16*, 269-285.
- Herrenkohl, T. I., Mason, W. A., Kosterman, R., Lengua, L. J., Hawkins, J. D., & Abbott, R. D. (2004). Pathways from physical childhood abuse to partner violence in young adulthood. *Violence and Victims, 19*, 123-136.
- Hickman, L. J., Jaycox, L. H., & Aronoff, J. (2004). Dating violence among adolescents: Prevalence, gender distribution, and prevention program effectiveness. *Trauma, Violence, & Abuse, 5*, 123-142.
- Hines, D. A., & Saudino, K. J. (2003). Gender differences in psychological, physical, and sexual aggression among college students using the revised conflict tactics scales. *Violence and Victims, 18*, 197-217.
- Kernic, M. A., Holt, V. L., Wolf, M. E., McKnight, B., Huebner, C. E., & Rivara, F. P. (2002). Academic and school health issues among children exposed to maternal intimate partner abuse. *Archives of Pediatric and Adolescent Medicine, 156*, 549-555.
- Kernsmith, P. (2005). Exerting power or striking back: A gendered comparison of motivations for domestic violence perpetration. *Violence and Victims, 20*, 173-185.
- Kim, H. K., & Capaldi, D. M. (2004). The association of antisocial behavior and depressive symptoms between partners and risk for aggression in romantic relationships. *Journal of Family Psychology, 18*, 82-96.
- Kurz, D. (1989). Social science perspectives on wife abuse: Current debates and future directions. *Gender & Society, 3*, 501-513.
- Lewis, S. F., Travea, L., & Fremouw, W. J. (2002). Characteristics of female perpetrators and victims of dating violence. *Violence and Victims, 17*, 593-606.
- Lichter, E. L., & McCloskey, L. A. (2004). The effects of childhood exposure to marital violence on adolescent gender-role beliefs and dating violence. *Psychology of Women Quarterly, 28*, 344-357.
- Luthra, R., & Gidycz, C. A. (2006). Dating violence among college men and women: Evaluation of a theoretical model. *Journal of Interpersonal Violence, 21*, 717-731.
- Malik, S., Sorenson, S. B., & Aneshensel, C. S. (1997). Community and dating violence among adolescents: Perpetration and victimization. *Journal of Adolescent Health, 21*, 291-302.
- Martino, S. C., Collins, R. L., & Ellickson, P. L. (2005). Cross-lagged relationships between substance use and intimate partner violence among a sample of young adult women. *Journal of Studies on Alcohol, 66*, 139-148.
- McCarroll, J. E., Ursano, R. J., Liu, X., Thayer, L. E., Newby, J. H., Norwood, A. E., et al. (2000). Deployment and the probability of spousal aggression by U.S. Army soldiers. *Military Medicine, 165*, 41-44.
- Melton, H. C., & Belknap, J. (2003). He hits, she hits: Assessing gender differences and similarities in officially reported intimate partner violence. *Criminal Justice and Behavior, 30*, 328-348.
- Merrill, L. L., Crouch, J. L., Thomsen, C. J., Guimond, J., & Milner, J. S. (2005). Perpetration of severe intimate partner violence: Premilitary and second year of service rates. *Military Medicine, 170*, 705-709.
- Milan, S., Lewis, J., Ethier, K., Kershaw, T., & Ickovics, J. R. (2005). Relationship violence among adolescent mothers: Frequency, dyadic nature, and implications

- for relationship dissolution and mental health. *Psychology of Women Quarterly*, 29, 302-312.
- Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review*, 100, 674-701.
- Munoz-Rivas, M. J., Grana, J. L., O'Leary, K. D., & Gonzalez, M. P. (2007). Aggression in adolescent dating relationships: Prevalence, justification, and health consequences. *Journal of Adolescent Health*, 40, 298-304.
- Murphy, B. S., Stevens, S. J., McGrath, R. A., Wexler, H. K., & Reardon, D. (1998). Women and violence: A different look. *Drugs & Society*, 13, 131-144.
- Murphy, C. M., & Blumenthal, D. R. (2000). The mediating influence of interpersonal problems on the intergenerational transmission of relationship aggression. *Personal Relationships*, 7, 203-218.
- Newby, J. H., Ursano, R. J., McCarroll, J. E., Martin, L. T., Norwood, A. E., & Fullerton, C. S. (2003). Spousal aggression by U.S. Army female soldiers toward employed and unemployed civilian husbands. *American Journal of Orthopsychiatry*, 73, 288-293.
- O'Keefe, M. (1998). Posttraumatic stress disorder among incarcerated battered women: A comparison of battered women who killed their abusers and those incarcerated for other offenses. *Journal of Traumatic Stress*, 11, 71-85.
- O'Leary, S. G., & Smith Slep, A. M. (2003). A dyadic longitudinal model of adolescent dating aggression. *Journal of Clinical Child and Adolescent Psychology*, 32(3), 314-327.
- O'Leary, S. G., & Smith Slep, A. M. (2006). Precipitants of partner aggression. *Journal of Family Psychology*, 20, 344-347.
- Orcutt, H. K., Garcia, M., & Pickett, S. M. (2005). Female-perpetrated intimate partner violence and romantic attachment style in a college student sample. *Violence and Victims*, 20, 287-302.
- Osterman, K., Bjorkqvist, K., Lagerspetz, K. M., Kaukiainen, A., Huesmann, L. R., & Fraczek, A. (1994). Peer and self-estimated aggression and victimization in 8-year-old children from five ethnic groups. *Aggressive Behavior*, 20, 411-428.
- Ozer, E. J., Tschann, J. M., Pasch, L. A., & Flores, E. (2004). Violence perpetration across peer and partner relationships: Co-occurrence and longitudinal patterns among adolescents. *Journal of Adolescent Health*, 34, 64-71.
- Perry, A. R., & Fromuth, M. E. (2005). Courtship violence using couple data: Characteristics and perceptions. *Journal of Interpersonal Violence*, 20, 1078-1095.
- Rennison, C. M., & Welchans, S. (2000). *Bureau of Justice Statistics special report: Intimate partner violence* (Rep. No. NCJ 178247). Washington, DC: U.S. Department of Justice.
- Rickert, V. I., Wiemann, C. M., Vaughan, R. D., & White, J. W. (2004). Rates and risk factors for sexual violence among an ethnically diverse sample of adolescents. *Archives of Pediatric and Adolescent Medicine*, 158, 1132-1139.
- Ridley, C. A., & Feldman, C. M. (2003). Female domestic violence toward male partners: Exploring conflict responses and outcomes. *Journal of Family Violence*, 18, 157-170.
- Rosen, L. N., Parmley, A. M., Knudson, K. H., & Fanher, P. (2002). Gender differences in the experience of intimate partner violence among active duty U.S. Army soldiers. *Military Medicine*, 167, 959-963.
- Saltzman, L. E., Fanslow, J. L., McMahon, P. M., & Shelly, G. A. (2002). *Intimate partner violence surveillance: Uniform definitions and recommended data elements, Version 1.0*. Atlanta, GA: Centers for Disease Control and Prevention.
- Schafer, J., Caetano, R., & Clark, C. L. (1998). Rates of intimate partner violence in the United States. *American Journal of Public Health*, 88(11), 1702-1704.
- Schumacher, J. A., & Leonard, K. E. (2005). Husbands' and wives' marital adjustment, verbal aggression, and physical aggression as longitudinal predictors of physical aggression in early marriage. *Journal of Consulting and Clinical Psychology*, 73, 28-37.
- Schumacher, J. A., & Smith Slep, A. M. (2004). Attitudes and dating aggression: A cognitive dissonance approach. *Prevention Science*, 5, 231-243.
- Schwartz, M., O'Leary, S. G., & Kendziora, K. T. (1997). Dating aggression among high school students. *Violence and Victims*, 12, 295-305.
- Siegel, J. A. (2000). Aggressive behavior among women sexually abused as children. *Violence and Victims*, 15, 235-255.
- Smith Slep, A. M., & O'Leary, S. G. (2005). Parent and partner violence in families with young children: Rates, patterns, and connections. *Journal of Consulting and Clinical Psychology*, 73, 435-444.
- Spencer, G. A., & Bryant, S. A. (2000). Dating violence: A comparison of rural, suburban, and urban teens. *Journal of Adolescent Health*, 27, 302-305.
- Straus, M. A., & Ramirez, I. L. (2004). Criminal history and assault of dating partners: The role of type of prior crime, age of onset, and gender. *Violence and Victims*, 19, 413-434.
- Sugihara, Y., & Warner, J. A. (2002). Dominance and domestic abuse among Mexican Americans: Gender differences in the etiology of violence in intimate relationships. *Journal of Family Violence*, 17, 315-340.
- Temple, J. R., Weston, R., & Marshall, L. L. (2005). Physical and mental health outcomes of women in nonviolent, unilaterally violent, and mutually violent relationships. *Violence and Victims*, 20, 335-359.
- Tjaden, P., & Thoennes, N. (2000). *Full report of the prevalence, incidence, and consequences of violence against women: Findings from the national violence against women survey*. Washington, DC: National Institute of Justice.
- United States Department of Health and Human Services. (2001). *Youth violence: A report of the Surgeon General*. Retrieved September 21, 2007, from <http://www.surgeongeneral.gov/library/youthviolence>
- U.S. Department of Justice, Bureau of Justice Statistics. (2006). *Homicide trends in the U.S.: Intimate partner homicide*. Retrieved October 1, 2007, from <http://www.ojp.usdoj.gov/bjs/homicide/intimates.htm>
- West, C. M., & Rose, S. (2000). Dating aggression among low income African American youth: An examination of gender differences and antagonistic beliefs. *Violence Against Women*, 6, 470-494.

- Whitaker, D. J., Haileyesus, T., Swahn, M., & Saltzman, L. S. (2007). Differences in frequency of violence and reported injury between relationships with reciprocal and nonreciprocal intimate partner violence. *American Journal of Public Health, 97*, 941-947.
- Whitaker, D. J., Morrison, S., Lindquist, C., Hawkins, S. R., O'Neil, J., Nesius, A. M., et al. (2006). A critical review of interventions for the primary prevention of perpetration of partner violence. *Aggression and Violent Behavior, 11*, 151-166.
- White, H. R., & Chen, P. H. (2002). Problem drinking and intimate partner violence. *Journal of Studies on Alcohol, 63*, 205-214.
- White, J. W., Merrill, L. L., & Koss, M. P. (2001). Predictors of premilitary courtship violence in a Navy recruit sample. *Journal of Interpersonal Violence, 16*, 910-927.
- Wolf, K. A., & Foshee, V. A. (2003). Family violence, anger expression styles, and adolescent dating violence. *Journal of Family Violence, 18*, 309-316.
- Wolfe, D. A., Scott, K., Reitzel-Jaffe, D., Wekerle, C., Grasley, C., & Straatman, A. L. (2001). Development and validation of the Conflict in Adolescent Dating Relationships Inventory. *Psychological Assessment, 13*, 277-293.
- Woods, S. J., Wineman, N. M., Page, G. G., Hall, R. J., Alexander, T. S., & Campbell, J. C. (2005). Predicting immune status in women from PTSD and childhood and adult violence. *Advances in Nursing Science, 28*, 306-319.
- Xie, H., Farmer, T. W., & Cairns, B. D. (2003). Different forms of aggression among inner-city African-American children: Gender, configurations and school social networks. *Journal of School Psychology, 41*(5), 355-375.



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