

Rates of Intimate Partner Violence in the United States

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ABSTRACT

Objectives. Estimates of intimate partner violence in the United States based on representative samples have relied on data from one person per household or limited numbers of indicators from both partners. The purpose of this study was to estimate nationwide rates of intimate partner violence with data from both couple members by using a standardized survey instrument, the Conflict Tactics Scale.

Methods. A multistage probability sampling design was used to conduct separate face-to-face interviews in respondents' homes with both members of 1635 representative couples living in the 48 contiguous states.

Results. Both partners' reports were used to estimate the following lower- and upper-bound rates: 5.21% and 13.61% for male-to-female partner violence, 6.22% and 18.21% for female-to-male partner violence, and 7.84% to 21.48% for any partner-to-partner violence.

Conclusions. High rates of intimate partner violence in the United States corroborate previous claims that the amount of intimate partner violence is substantial. (*Am J Public Health*. 1998;88:1702-1704)

Awareness has been increasing in the United States that intimate partner violence is a serious public health concern. The National Family Violence Surveys of 1975, 1985, and 1992 estimated that nearly 1 in 6 US couples had experienced 1 or more episodes of intimate partner violence in the previous year.^{1,2} In economic terms alone, annual victim-related costs of adult domestic violence in the United States have been estimated at \$67 billion.³ This health problem has been described as an "unacknowledged epidemic in our country" and as "terrorism in the home."⁴

Intimate partner violence is especially problematic for women, because 1 in 3 will be assaulted by an intimate male partner during her lifetime.⁵ Male-to-female partner violence is more often repeated and is more likely to result in injury and death than female-to-male partner violence.⁵⁻⁸ For instance, women are victims of intimate partner homicide at a rate approximately 8 times that of men, and women are assaulted by armed intimates at a rate approximately 7 times higher than that of men.⁹ Therefore, it is important both to distinguish between male-to-female and female-to-male partner violence and to understand that male-to-female violence represents the more serious public health concern.

This study reports estimates of intimate partner violence based on a multistage probability sample of 1635 couples intended to represent married and cohabiting couples in the contiguous United States.

Methods

Trained, experienced surveyors at the Institute for Survey Research at Temple University collected data for a 1-year period beginning in April 1995. This study represents a separate component added to the ninth National Alcohol Survey conducted by the Alcohol Research Group, Berkeley, Calif, which was designed as a multistage probability (cluster) sample of adults residing in the 48 contiguous United States. A total of 1929 eligible married or cohabiting couples were identified from the original sample; 1635 couples participated. Initially, every other married or cohabiting couple was recruited, but to ensure an adequate sample size every couple was recruited after the first few months of the study. The

response rate of 85% represents the percentage of couples successfully interviewed out of all couples eligible for inclusion. Nonrespondents ($n = 294$) were couples in which at least 1 partner refused the interview, was incapacitated, could not be located, or could not be screened for inclusion.

Despite instructions to interviewers to question each couple member privately, 11 couples were excluded from the final analyses because interviewers reported that the presence of another person might have influenced the validity of 1 or both partners' responses. Homosexual couples ($n = 4$ couples) were excluded because of the small size of this subgroup, and 21 couples were excluded because of significant amounts of missing data. These exclusions resulted in a final sample size of 1599 couples.

Main respondents who were part of the National Alcohol Survey participated in 1-hour, face-to-face interviews conducted in the respondents' homes. Participants responded to questions about demographic characteristics, alcohol consumption patterns, and the occurrence of 11 violent behaviors during the previous year that they may have perpetrated against their partners or that their partners may have perpetrated against them. The violence items were adapted from the Conflict Tactics Scale, Form R, and included the following: threw something; pushed, grabbed, or shoved; slapped; kicked, bit, or hit; hit or tried to hit with something; beat up; choked; burned or scalded; forced sex; threatened with a knife or gun; and used a knife or gun.¹⁰

Weights were constructed to adjust the sample for unequal probabilities of selection (e.g., the Black and Hispanic oversamples, recruitment strategy) and differential levels of nonresponse across demographic subgroups. In addition, a poststratification weight was calculated to adjust the sample to known population distributions on certain demographic variables (ethnicity of the

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household informant, metropolitan status, and region of the country). Weights were applied to all estimated statistics given below.

Because of the multistage design of the study, analyses were conducted with the sample reuse method known as "balanced repeated replication" to account for clustering effects.^{11,12} This method is implemented in the software WesVarPC provided to the research community by Westat, Inc.¹³ Correct nonresponse and poststratification weights for each replicate sample were calculated for the analyses that follow.

Statistics were calculated to determine the significance of differences in weighted observed vs expected proportions in the tables. The Rao-Scott χ^2 was computed to assist in accounting for the clustering due to the sampling design.¹⁴ In addition, to characterize the degree of the partners' agreement on the violence items, the Cohen κ (which adjusts for chance agreement) was estimated for each violence item.^{15,16}

Results

Ninety percent of the couples were married, and the median relationship length was 15 years. Median age was 42 years for female respondents and 45 years for male respondents. Overall, 16% percent of the respondents were younger than 30 years, 48% were aged 30 through 49 years, and 36% were 50 years or older. This age distribution is comparable to that of the married respondents of the 1987–1988 National Survey of Families and Households: 16.5% were younger than 30, 45.2% were 30 through 49, and 38.3% were 50 or older.⁸ In 6.6% of the couples, both partners were African American; in 6.8%, both partners were Hispanic, and in 78% of the couples, both members were White. Of the remaining couples, 7.2% were mixed-ethnicity couples and 1.4% were not. The ethnic breakdown of the couples was comparable to that of couples in the Public-Use Microdata Sample (5% of the 1990 Census), in which 6.6% of the partners were both African American, 2.6% were both Hispanic, and 86.3% were both White. Of the remaining couples, 2.5% were mixed-ethnicity couples and 2% were not. More than 50% of the respondents had at least a high school education.

Tables 1 and 2 show the rates of occurrence for each violent act for male-to-female and female-to-male partner violence. The percentages in the first and fourth columns, respectively, represent agreement between couple members that an act had occurred or that it had not occurred. The percentages in

TABLE 1—Rates of Male-to-Female Partner Violence, 48 Contiguous US States, 1994–1996

Violent Act	Occurrence of Each Violent Act in the Past Year				κ
	WYMY, %	WYMN, %	WNMY, %	WNMN, %	
Threw something ^a	1.15	2.22	1.51	95.12	0.36
Pushed, grabbed, or shoved ^a	4.00	3.85	3.25	88.90	0.49
Slapped ^a	0.62	1.16	0.75	97.47	0.38
Kicked, bit, or hit ^a	0.39	1.25	0.13	98.23	0.35
Hit or tried to hit with something ^a	0.28	1.21	0.47	98.05	0.23
Beat up ^a	0.07	0.36	0.06	99.51	0.22
Choked ^a	0.10	0.46	0.13	99.31	0.30
Burned or scalded	0.00	0.31	0.00	99.69	NC
Forced sex	0.05	0.53	0.14	99.28	0.15
Threatened with knife or gun	0.01	0.32	0.02	99.65	NC
Used knife or gun	0.00	0.24	0.03	99.73	NC
Any violence ^a	5.42	4.40	3.79	86.39	0.39 ^b

Note. WYMY = both partners report that an act occurred (woman yes, man yes); WYMN = woman reports that an act occurred; man reports that an act did not occur (woman yes, man no); WNMY = woman reports that an act did not occur; man reports that an act did occur (woman no, man yes); WNMN = both partners report that an act did not occur (woman no, man no); NC = not calculated, 2 or more cells very close to 0.

^aRao-Scott $\chi^2 P < .05$. This was computed as the typical Pearson's χ^2 statistic divided by a correction factor to compensate for the design effect, χ^2/b .¹³

^bThis κ was computed for the table of all 11 items.

TABLE 2—Rates of Female-to-Male Partner Violence, 48 Contiguous US States, 1994–1996

Violent Act	Occurrence of Each Violent Act in the Past Year				κ
	WYMY, %	WYMN, %	WNMY, %	WNMN, %	
Threw something ^a	3.33	5.32	2.95	88.39	0.40
Pushed, grabbed, or shoved ^a	3.94	5.59	2.58	87.89	0.45
Slapped ^a	1.22	3.13	1.27	94.38	0.34
Kicked, bit, or hit ^a	0.95	2.48	0.86	95.71	0.34
Hit or tried to hit with something ^a	0.98	3.15	1.46	94.41	0.28
Beat up	0.03	0.15	0.13	99.69	0.00
Choked	0.05	0.23	0.06	99.66	0.28
Burned or scalded	0.00	0.05	0.10	99.86	0.00
Forced sex	0.05	0.42	0.16	99.38	0.16
Threatened with knife or gun	0.05	0.72	0.12	99.12	0.13
Used knife or gun	0.02	0.01	0.08	99.89	NC
Any violence ^a	6.99	7.64	3.59	81.79	0.36 ^b

Note. WYMY = both partners report that an act occurred (woman yes, man yes); WYMN = woman reports that an act occurred; man reports that an act did not occur (woman yes, man no); WNMY = woman reports that an act did not occur; man reports that an act did occur (woman no, man yes); WNMN = both partners report that an act did not occur (woman no, man no); NC = not calculated, 2 or more cells very close to 0.

^aRao-Scott $\chi^2 P < .05$. This was computed as the typical Pearson's χ^2 statistic divided by a correction factor to compensate for the design effect, χ^2/b .¹³

^bThis κ was computed for the table of all 11 items.

the other 2 columns reveal disagreement between partners about the occurrence of a particular event. The final column contains the Cohen κ for each item.

The rates in Tables 1 and 2 indicate that reports of more severe violent behaviors (e.g., threatening to use or using a weapon) were relatively infrequent. Further, a significant amount of disagreement existed between partners regarding the occurrence or absence of each of the behaviors, as characterized by the low κ values.¹⁶ Women were

more likely than men to report that a violent act had occurred, regardless of the sex of the perpetrator ($\chi^2_1 = 61.94$).

Because the reports of the partners do not have a high degree of concordance, single point estimates of male-to-female, female-to-male, and total violence are not meaningful. Instead, lower- and upper-bound estimates of each type of violence index were constructed. Lower-bound estimates were calculated by counting only those violent behaviors that both partners reported or

agreed on. Upper-bound estimates were formed by counting violent occurrences that either partner reported, whether corroborated or not. This latter method has been suggested when reports from both partners are available.^{17,18} Thus, the following lower- and upper-bound rates were estimated: 5.21% and 13.61% for male-to-female partner violence, 6.22% and 18.21% for female-to-male partner violence, and 7.84% and 21.48% for any partner-to-partner violence.

Discussion

The results of the present study suggest that more than 1 in 5 couples in the United States experienced at least 1 episode of partner-to-partner violence, substantiating claims that intimate partner violence is prevalent in the United States.⁴ These data must be interpreted with caution. First, the upper-bound estimates are greater than the estimates from the National Family Violence Surveys of 1975, 1985, and 1992. These dissimilar estimates may be the result of including nonmarried, cohabiting couples and using additional, slightly modified, questions in the present study. Clearly, further validation of the estimates proposed here is necessary.

Second, considerable disagreement exists between couple members about the occurrence of violent behavior; women generally report more violent episodes than men do. The reason for this sex difference is not known, but men and women may vary in their habituation to, memory of, and willingness to disclose violent episodes, either as perpetrator or victim. Certainly, given that women are more likely to be repeatedly

abused, to be injured, and to die as a result of intimate partner violence, it seems adaptive for women to be especially concerned about this potential health risk. Finally, it is important to realize that the comparison of the rates of male-to-female and female-to-male partner violence may be inappropriate and misleading. As argued at the outset of this paper, these 2 indices of intimate partner violence are qualitatively different from each other, with male-to-female partner violence producing in general far greater physical harm. Additional limitations of this study include nonrandomized order of the questions. □

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