

# Violence and Injury in Marital Arguments: Risk Patterns and Gender Differences

## ABSTRACT

**Objectives.** Community-based research on violence against women typically focuses on marital arguments rather than on resulting injuries. This study investigated patterns of victimization, violence perpetration, and injury in marital arguments.

**Methods.** Data from the National Survey on Families and Households and binomial and multinomial logit models were used to analyze characteristics of those who experienced physical violence, as well as to determine who was the perpetrator and who was the victim.

**Results.** Men and women reported similar behaviors during verbal arguments. Young persons, urban dwellers, the less educated, those with low incomes, and Blacks were more likely to report that there had been physical violence in their marriages in the past year. Ethnicity, income, education, and number and age of children at home were not associated consistently with injury of the wife, the husband, or both.

**Conclusions.** Persons who report physical violence in their marriage are very similar to those who are at increased risk of interpersonal violence in general. The co-occurrence of street and other nonfamily violence with spousal violence may be a fruitful area for future research. (*Am J Public Health.* 1996;86:35-40)

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### Introduction

Men's violence against women is an increasingly acknowledged public health concern. In homicides in which the victim-to-suspect relationship is known, women are 3.7 times as likely to be killed by their male intimates as by strangers.<sup>1</sup> Most sexual assaults of women are by men known to the women<sup>2-7</sup>; a substantial proportion are by husbands or boyfriends. Community-based research estimates that nearly one in four married women will be struck by her husband at some time during the marriage.<sup>8</sup> One of the most common reasons a woman seeks emergency department care is for the treatment of injuries sustained at the hands of her husband or boyfriend.<sup>9,10</sup>

Self-reports of violent actions toward an intimate partner include an unexpected finding: physical violence of women toward their husbands or boyfriends is similar to men's toward their wives or girlfriends.<sup>11-13</sup> The validity and significance of gender symmetry in spousal violence are subjects of heated debate,<sup>14,15</sup> yet parties on each side (e.g., references 8, 14-16) acknowledge that equal rates of perpetration, regardless of motivation, may not translate into equal rates of injury. Taking into account factors including alcohol use, police reports indicate that women are more likely than men to sustain injury from spousal violence.<sup>17</sup> Although the need for information on injuries was observed over a decade ago (e.g., Steinmetz<sup>18</sup>), community-based research on spousal violence has continued to focus on the actions of the couple rather than the resulting injuries.

The purpose of the present study is to investigate patterns of and gender differences in reported victimization and perpetration of violence in marital arguments. This investigation extends previ-

ous community-based research on verbal and physical interactions of couples to include reports of injuries, the immediate health outcome of physical violence.

### Methods and Analysis

#### Sample

Data are from the National Survey of Families and Households, a cross-sectional survey conducted from March 1987 through May 1988. The survey's multi-stage probability sample of 10 000 households was supplemented by an over-sample of 3000 households of Blacks, Hispanics, absent-parent households, and recently married couples. A total of 13 017 primary respondents (randomly selected from each household) were surveyed; overall response rate was 74%. (Detailed information regarding National Survey of Families and Households methodology is provided elsewhere.<sup>19</sup>)

In addition to the in-person interview, parts of the survey were self-administered, including a subsection on couple relationships that only married respondents (53% of the sample) were eligible to complete. Among married respondents, 94% completed the couple relationship subsection, which included questions about arguments and physical violence. Subjects in the present investigation were the 6779 currently married White, Black, and Hispanic primary respondents. Analyses were conducted with characteristics of the primary respondent; thus, findings need to be interpreted as

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**TABLE 1—Demographic Characteristics of the National Survey of Families and Households Sample, Married Primary Respondents**

	Frequency <sup>a</sup>	%
<b>Residence</b>		
Urban	3906.0	70.2
Suburban	1070.4	19.2
Rural	589.7	10.6
<b>Gender</b>		
Men	2779.1	49.9
Women	2787.0	50.1
<b>Religion</b>		
Protestant	3608.2	64.8
Roman Catholic	1405.8	25.3
None	350.9	6.3
Other	166.0	3.0
Missing	11.4	0.6
<b>Education</b>		
Less than high school	1086.3	19.5
High school graduate	2213.9	39.8
Some college	1086.1	19.5
College graduate	1168.3	21.0
Missing	11.4	0.2
<b>Race/ethnicity</b>		
White (non-Hispanic)	4793.1	86.1
Black	410.7	7.4
Hispanic	362.2	6.5
<b>Age, y</b>		
18–29	916.7	16.5
30–49	2518.4	45.2
≥ 50	2129.2	38.3
Missing	1.8	0.0
<b>Children in the home</b>		
None	2708.4	48.7
0- to 4-year-olds	371.9	6.7
≥ 5-year-olds	2485.7	44.7
<b>Marriage duration</b>		
< 1 y	213.3	3.8
≥ 1 y	5352.8	96.2
<b>Household income, \$</b>		
0–14 999	963.0	17.3
15 000–24 999	870.3	15.6
25 000–39 999	1432.7	25.7
40 000–59 999	1270.3	22.8
60 000+	1029.7	18.5

<sup>a</sup>Responses are weighted to the 1987 through 1988 US married adult population. Unweighted n = 6779.

the *primary respondent's* report of actions and injuries in that specific married couple.

The sample, representing the national population of married couples, is

composed largely of persons who are White, middle class, middle aged, have a high school education, and live in an urban area (see Table 1).

### Measures

Outcome variables consist of participants' responses to nine questions in the self-administered portion of the survey about verbal arguments, physical violence, and resulting injuries within the context of a marital disagreement.

Predictor variables include age, gender, household income, education, ethnicity, children at home, and duration of the marriage. The number and ages of the children appear to influence marital stability,<sup>20</sup> and the number of children may be inversely related to spousal violence.<sup>21</sup> Some research (e.g., reference 21) suggests that age, gender, income, education, and ethnicity are associated with wife beating. How these variables relate to injuries from domestic violence, however, is unknown. Religion and geographic residence (i.e., region of the country and Standard Metropolitan Statistical Area) also were explored in relation to marital violence. The present investigation, an expansion on previous analyses of these data,<sup>22</sup> focuses on the relationship between these nine predictors and the outcome variables related to spousal arguments, physical violence, and injury.

### Data Analysis

Sampling weights were applied to adjust for oversampling and nonresponse; when weighted, these data reflect the US population for the period of data collection. Although there is little difference between respondents who refused to respond and those who did respond,<sup>19</sup> failing to use sampling weights could potentially lead to biased estimates. (See reference 19 for more information about National Survey of Families and Households data weighting procedures.)

Univariate and bivariate frequencies were calculated. Binomial logistic regression was used to describe differences between primary respondents who did and did not report that any marital argument became physical in the past year. Then, to test a series of gender-related hypotheses about the perpetrator and victim within the subsample of those who reported some type of physical violence, we used a multinomial logit model for two separate outcomes. The first outcome variable—who hit, shoved, or threw things—was coded into four

mutually exclusive categories: (1) both wife and husband, (2) wife only, (3) husband only, and (4) neither spouse. "Neither spouse" was the default comparison group composed of respondents who indicated that there was violence in their relationship during the past year but that neither person hit, shoved, or threw things. The second outcome variable—who was injured—was coded into the same four mutually exclusive categories with the same default comparison group of neither spouse. The maximum-likelihood method was imposed to estimate the parameters and standard errors from which odds ratios (ORs) and their confidence limits were calculated. The odds ratios presented in the multinomial analysis used subjects who reported some physical violence in the past year and compared the odds of hitting/being injured to the odds of not being hit/injured for each category.

To explore gender differences in behavior (physical violence) and consequence (injury) in relation to various demographic characteristics, a second analysis was performed with findings from the two multinomial models. (We were interested in identifying gender differences in being hit/injured among those married persons who reported physical violence. One advantage of using a multinomial logit model is that it allows for just such a comparison simply by subtracting the parameter estimates from the categories of interest [i.e., wife-only category minus husband-only category].) The significance of the differences between the parameters measuring the effects of the covariates for women and men was tested by multiple two-tailed *t* tests with a specific SAS macro.<sup>23</sup>

### Results

Most respondents reported discussing disagreements calmly most of the time, arguing heatedly on occasion, and never striking one another (see Table 2). Married men and women reported almost identical styles of verbal interaction; they differed in their reports of physical violence. When asked whether their arguments had become physical during the past year, 4.9% of the men and 6.2% of the women responded in the affirmative. Women were slightly more likely than men to report that they had hit, shoved, or thrown something at their spouse in the previous year. Men and women were equally likely to report that they had been hit, shoved, or had something thrown at

them. In most of these circumstances, by reports of both men and women (45% and 40%, respectively), both partners were physically aggressive (data not shown). Women reported higher rates both of being injured and of causing injury (data not shown): three times as many women as men indicated that the husband was injured (6% vs 2%) and that the wife was injured (13% vs. 4%).

The first multivariate logistic analysis (see Table 3) indicates several significant sociodemographic differences between married respondents who report physical violence and those who do not. Married respondents who live in urban areas were over 40% more likely to report physical violence in the past year than those living in suburban areas; rural and suburban respondents did not differ. (Region of the country was not statistically significant in these or subsequent analyses and was dropped from the logistic model.) Compared with those who reported no religion, Protestants were significantly less likely to report violence; Catholics and those of other faiths did not differ from respondents who reported no religion. Compared with respondents whose highest education was a high school diploma, those who had less education were significantly more likely and those with a college degree were significantly less likely to report physical violence. Blacks were 1.58 times more likely and Hispanics 0.53 times less likely than Whites to report that physical violence occurred in their relationship in the past year. Age also was significant: respondents under 30 years of age were significantly more likely to report violence and those 50 years of age and older were significantly less likely to report violence compared with 30- to 49-year-olds. Finally, respondents in the two lowest household income categories were significantly more likely to report physical violence than those in the \$25 000 to \$39 999 range; there was no significant effect of income on physical violence at higher household income levels. Marriage duration and the presence of children in the home were not associated with physical violence in the marriage.

The next series of analyses focused specifically on those respondents who reported any physical violence in their marriage during the previous year, thus substantially reducing the total sample size. Two outcomes were examined: (1) who hit, shoved, or threw things; and (2) who was injured. Outcomes were classified into the four categories described previously: both partners, wife only, hus-

**TABLE 2—Married Primary Respondents' Responses to National Survey of Families and Households Questions about Verbal and Physical Intimate Violence, by Gender**

Question	Response	% Men	% Women
<b>Verbal</b>			
There are various ways that married couples deal with serious disagreements. When you have a serious disagreement with your husband/wife, how often do you:			
a. Just keep your opinions to yourself?	Never	18.4	22.0
	Seldom	21.7	23.0
	Sometimes	32.5	29.4
	Very often	16.1	13.4
	Always	3.0	2.9
	NA	8.3	9.3
b. Discuss your disagreements calmly?	Never	4.4	5.0
	Seldom	8.9	9.3
	Sometimes	34.1	35.3
	Very often	30.4	30.0
	Always	14.5	11.6
	NA	7.7	8.9
c. Argue heatedly or shout at one another?	Never	33.2	32.0
	Seldom	35.0	32.0
	Sometimes	20.1	20.6
	Very often	3.0	4.9
	Always	0.9	1.1
	NA	7.8	9.4
d. End up hitting or throwing things at each other?	Never	86.1	84.7
	Seldom	4.6	4.5
	Sometimes	1.1	1.1
	Very often	0.1	0.2
	Always	0.3	0.1
	NA	7.9	9.3
<b>Physical</b>			
Sometimes arguments between partners become physical. During the past year, has this happened in arguments between you and your husband/wife?	Yes	4.9	6.2
	No	86.2	83.0
	NA	9.0	10.8
During the past year, how many fights with your husband/wife resulted in you hitting, shoving, or throwing things at him/her?	None	2.3	2.8
	One	1.2	1.7
	Two	0.9	0.8
	Three	0.2	0.5
	Four or more	0.2	0.3
	NA	95.1	93.9
During the past year, how many fights with your husband/wife resulted in him/her hitting, shoving, or throwing things at you?	None	2.0	3.2
	One	1.1	1.4
	Two	1.1	0.7
	Three	0.4	0.4
	Four or more	0.3	0.4
	NA	95.2	93.9
Have you been cut, bruised, or seriously injured in a fight with your husband/wife?	Yes	0.3	1.1
	No	4.5	5.0
	NA	95.2	93.8
Has your husband/wife been cut, bruised, or seriously injured in a fight with you?	Yes	0.4	0.7
	No	4.4	5.5
	NA	95.1	93.8

Note. Percentages may not add to 100 because of rounding. Responses are weighted to the 1987 through 1988 US married adult population. Unweighted n = 6779. NA = not ascertained/applicable.

band only, and neither spouse. Note that additional behaviors (e.g., kicking, biting, scratching) are encompassed in the more

general question of whether there was any violence in the relationship. "Hit" and "hitting" are used to describe the behav-

**TABLE 3—Sociodemographic Characteristics of Married Primary Respondents Reporting (vs Not Reporting) Physical Violence in Their Marriage in the Previous Year**

	Adjusted Odds Ratio	95% Confidence Interval
Urban vs suburban	1.42	1.02, 1.97*
Rural vs suburban	1.27	0.81, 2.01
Women vs men	1.23	0.96, 1.56
Protestant vs none	0.65	0.43, 0.98*
Catholic vs none	0.68	0.43, 1.08
Other vs none	0.82	0.36, 1.85
Less than high school vs high school	1.41	1.02, 1.96*
Some college vs high school	0.85	0.61, 1.18
College degree vs high school	0.68	0.47, 0.98*
Black vs White	1.58	1.08, 2.33*
Hispanic vs White	0.53	0.30, 0.92*
< 30 vs 30–49 years old	1.95	1.44, 2.64*
≥ 50 vs 30–49 years old	0.56	0.39, 0.83*
Has 0- to 4-year-old children vs no children	0.74	0.44, 1.27
Has older children vs no children	1.09	0.80, 1.49
≥ 1 y of marriage vs < 1 y of marriage	1.08	0.63, 1.86
\$0–\$14 999 vs \$25 000–\$39 999	1.49	1.02, 2.18*
\$15 000–\$24 999 vs \$25 000–\$39 999	1.72	1.19, 2.47*
\$40 000–\$59 999 vs \$25 000–\$39 999	1.21	0.83, 1.75
\$60 000+ vs \$25 000–\$39 999	1.28	0.86, 1.91

Note. Responses are weighted to the 1987 through 1988 US married adult population. The odds ratios were adjusted to control simultaneously for all other listed variables.

\* $P < .05$ .

iors (i.e., hitting, shoving, and throwing things) assessed in the question about physical violence during the previous year.

For both hitting as an outcome and injury as an outcome, very few respondent characteristics differed significantly from the characteristics of those respondents who reported any physical violence (the reference group). Religion, education, ethnicity, number of children, marriage duration, and income were not significant. However, the characteristics that differed significantly between the groups were strikingly consistent across reported gender differences in hitting—namely, geographic location and respondent's age. Respondents living in an urban setting were 2.6 times ( $P = .05$ ) more likely to report that both themselves and their partners were hit, 5.4 times ( $P = .05$ ) more likely to report that husbands only were hit, and 7.4 times ( $P = .05$ ) more likely to report that wives only were hit than those who lived in suburban areas and were physically violent in another way. Respondents who were 50 years of age or older were significantly less likely to report hitting by the wife, the husband, and both spouses than those who reported physical violence other than hitting

and were 30 to 49 years old. On the other hand, respondents under 30 years of age were 3.6 times ( $P = .05$ ) more likely to report that both partners hit than 30- to 39-year-olds who reported physical violence other than hitting.

The next analysis addressed injury as reported by the respondent; the comparison group was the same as that described above, except the outcome was injury. As with the previous analysis on hitting, few characteristics differentiated injured respondents from those who reported some type of physical violence but no injury. The statistically significant variables differ from those in the "hitting" analysis and are not as consistent across categories. Younger respondents and respondents with children over age 5 years were significantly less likely (OR = .21 and .18, respectively) to report that both partners were injured than respondents who were 30 to 49 years old or had no children and reported violence but no injury. Women were 3.9 times ( $P = .05$ ) more likely to report that they were the only one who was injured compared with men who reported some type of physical violence in the past year but no injury. Women who had been married 1 year or longer

(compared with those married less than 1 year) were significantly less likely to be the only injured party. Finally, respondents with children over 5 years old (compared with those with no children) were less likely to report that the husband was the only party injured (OR = .19;  $P = .05$ ) or that both parties were injured (OR = .18;  $P = .05$ ).

The final analyses explored gender differences in hitting and injury based on results obtained from the two multinomial analyses described above. Only one difference was statistically significant: persons with an annual household income of less than \$15 000 were more likely to report that the wife hit, shoved, or threw things at her husband rather than vice versa.

## Discussion

Most respondents reported calm disagreements, an occasional heated argument, and no physical violence in their marriages. When other sociodemographic characteristics were taken into account, married men and women differed little in their reports of physical violence. We were better able to characterize those respondents who experienced any physical violence at all than gender differences in those respondents who experienced hitting or injury. Among those respondents who reported some physical violence in the past year, there appears to be little difference between those who reported that both spouses were hit or injured, the wife only was hit or injured, or the husband only was hit or injured. The reduction in sample size to cases of physical violence may account for some of the lack of statistical significance, but it is also possible that once those respondents who experienced any recent physical violence are identified, they are relatively homogeneous, at least with respect to the characteristics we examined.

### Study Strengths and Limitations

The National Survey of Families and Households provided a unique opportunity to examine the prevalence of violent behaviors and outcomes in the context of marriage; most national surveys do not include the topic. The large national sample was weighted to the population so findings can be generalized to the nation.

The survey questions, patterned after the widely used Conflict Tactics Scale,<sup>24</sup> limit the ability to make important distinctions in the findings. The questions do not assess who initiated the violence or whether the action was in self-defense,

and some of the questions include a range of behaviors (e.g., hitting, shoving, throwing an object) that have very different potential injury outcomes. The questions assume, not necessarily accurately, that physical violence occurs in the context of a verbal argument. Moreover, the survey relied on respondent definitions so that a "yes" response could encompass outcomes from a relatively minor bruise to multiple injuries requiring hospitalization.

Because there is no "gold standard" for determining whether violent actions ever occurred in a marriage and because multiple constraints preclude monitoring behavior in the home, this and other epidemiologic surveys of intimate violence rely on self-report data. Therefore, one cannot dismiss the possibility that the observed data patterns may be due, to an unknown degree, to differential willingness to report certain actions and outcomes. For example, gender symmetry in violent behaviors in marital arguments may be a true result, an artifact related to problems in the data collection instrument itself (such as those identified in the previous paragraph), or due to differential response patterns (e.g., women's greater willingness to acknowledge and disclose certain information). The reliance on self-report data is not a limitation unique to the present investigation. Individuals' reports of their own experiences in relationships constitute the best data source for a broad range of violent behaviors and outcomes.

### Implications

Consistent with previous research that indicates that the risk of spousal assault declines gradually with age for married women,<sup>25</sup> risk of marital violence appears to be inversely related to age: rates of violence and injury during the past year were highest among those under 30 years of age and lowest among persons who were 50 or more years old. This finding of age differences may be a true difference or may (1) reflect a cohort effect (i.e., younger generations may be more likely to be violent or to disclose information about violence in intimate relationships than their older counterparts); (2) be due to attrition (i.e., violent marriages may have ended in divorce or separation; thus, ongoing long-term marriages [which would occur in older persons] would, in general, be less violent); or (3) be due to other factors that cannot be tested in the present data. The risk of marital violence does not appear to be

mediated by length of the relationship, at least in terms of whether the relationship was less than 1 year in duration.

Urban areas appear to be important for prevention: although injury outcomes did not differ by geographic residence (i.e., rural, suburban, urban), urban dwellers were more likely than suburbanites to report that either or both spouses were physically violent in the previous year. There were no differences by geographic region (e.g., Northwest, South). Thus, general patterns of risk of marital violence appear to be consistent across the United States.

Ethnicity, income, and education each predict physical violence within the context of marriage, but their predictive utility regarding resulting injuries is limited. Blacks were at higher risk and Hispanics were at lower risk of physical violence in marriage than Whites. Lower annual household incomes (<\$25 000) were associated with increased risk of physical violence in marriage. Education was inversely related to physical violence in marriage. Among couples who had any physical violence in the previous year, ethnicity, household income, and education were not related to who was hit or who was injured (i.e., the wife only, the husband only, or both). Ethnicity, income, and education may help identify those at risk of physical violence in marriage but are less useful in predicting who is hit or injured. The one statistically significant gender difference with respect to hitting—in households with an annual income less than \$15 000, wives were more likely to hit husbands than vice versa—suggests that further study is needed to understand gender dimensions of violence perpetration and victimization in marriage, especially within low-income strata.

### Conclusions

Violence and resulting injuries are not uncommon within marriage. These analyses indicate that nearly 3 million US married couples had some form of physical violence in their relationship during the past year and that one or both partners in approximately 500 000 couples sustained injury from the violence. Better measures of violent behaviors and injury are needed in subsequent investigations.

This research identifies subgroups of married people who are likely to be physically violent toward their spouse—urban dwellers, Blacks, persons with less than a high school education, those with

an annual household income less than \$40 000, and those under 30 years of age. (Few gender differences were found.) These characteristics are very similar to those of persons who are at increased risk of interpersonal violence in general. The co-occurrence of street and other nonfamily violence with spousal violence may be a fruitful area for future research. □

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