

# Prevalence and Stability of Physical Aggression Between Spouses: A Longitudinal Analysis

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Community couples ( $N = 272$ ) were assessed in a longitudinal study of early marriage. More women than men reported physically aggressing against their partners at premarriage (44% vs. 31%) and 18 months (36% vs. 27%). At 30 months, men and women did not report significantly different rates of aggression (32% vs. 25%). However, using either the self-report or the partner's report, the prevalence of aggression was higher for women than men at each assessment period. Modal forms of physical aggression for both men and women were pushing, shoving, and slapping. Conditional probability analyses indicated that the likelihood of physically aggressing at 30 months given that one had engaged in such aggression before marriage and at 18 months after marriage was .72 for women and .59 for men. Furthermore, 25-30% of the recipients of physical aggression at all three assessment periods were seriously maritally discordant at 30 months.

Physical aggression among married couples in the United States is quite common. In 1979, Schulman found that 10% of Kentucky women reported that physical aggression had been used against them in the previous year. In two representative national surveys (Straus & Gelles, 1986; Straus, Gelles, & Steinmetz, 1980), 12% of the women reported experiencing physical aggression within the previous year. Interestingly, no differences were found between men and women in overall self-reported rates of aggressing against their spouses (Straus & Gelles, 1986; Straus et al., 1980). However, using a hierarchical ordering of aggressive or violent behaviors, Straus et al. (1980) reported that, when the most severe forms of physical aggression used by women were identified, their husbands, on the average, were found to engage in even more severe forms of aggression. In addition, there is general agreement that the physical damage inflicted by men is greater than that inflicted by women (Berk, Berk, Loseke, & Rauma, 1983; Straus et al., 1980).

Retrospective reports of between 15% to 25% of women attending family violence centers have indicated that spousal ag-

gression starts during the engagement period (Dobash & Dobash, 1978; Rosenbaum & O'Leary, 1981). Furthermore, women in Walker's (1979) physically abused sample said that the abuse often began early in marriage and that the frequency of the physically abusive incidents increased across time.

In examining demographic correlates of marital violence, Straus et al. (1980) found that age and income were negatively correlated with dyadic physical aggression. However, like other family violence researchers (e.g., Hornung, McCullough, & Sugimoto, 1981), they emphasized that, although there are some demographic correlates of spousal aggression, such aggression clearly exists in all socioeconomic classes. Among a variety of family history and relationship factors, marital discord was found to be the strongest correlate of spousal aggression (Rosenbaum & O'Leary, 1981).

The overall purpose of our research program was to examine predictors and to evaluate models of spousal aggression using a longitudinal design (O'Leary, 1988). Engaged couples were recruited so that the early stages of the development of spousal aggression could be examined. To date, the frequency of spousal aggression during engagement and early marriage has not been documented. If aggression toward a partner exists, the prevalence of men and women who hit each other on one occasion and then stop or who engage in such aggression repeatedly is not known. We assessed the prevalence of physical aggression among couples 1 month prior to their marriages and examined the stability of physical aggression during the first 30 months of marriage. We also examined the association between relationship satisfaction and spousal aggression across the first 30 months of marriage. Although marriages characterized by repeated physical aggression are almost uniformly discordant (O'Leary & Curley, 1986), data from dating couples suggest that

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many individuals in physically aggressive relationships do not view their relationships as discordant (Arias, Samios, & O'Leary, 1987).

## Method

### Subjects

Half of the couples were recruited in Onondaga County and half in Suffolk County (both in New York) via major newspaper and radio announcements of a study of first marriages designed to "contribute to our knowledge of marriage and the family." Subjects received \$40 for each complete assessment session. A methodology based on volunteer subjects made it difficult to obtain a sample with 25% of the subjects having less than a high school education, which is the proportion of residents who do not graduate from high school in the counties sampled. However, given the very small association between partner aggression and education found by Straus et al. (1980) and the absence of such an association in Hornung et al.'s survey (1981), subjects were included regardless of educational level. The sample was composed of all White couples, with a mean educational level of 14.7 years (for men,  $M = 14.7$ ,  $SD = 2.3$ ; for women,  $M = 14.7$ ,  $SD = 2.0$ ). All couples were about to be married for the first time. They were representative of the local population of engaged couples in age of first marriage (for men,  $M = 25.3$ ,  $SD = 3.7$ ; for women,  $M = 23.6$ ,  $SD = 3.0$ ) and religious affiliation (men = Catholic, 55%; Protestant, 21%; Jewish, 7%; other, 8%; None, 9%; women = Catholic, 61%; Protestant, 21%; Jewish, 8%; other, 7%; None, 3%).

Of the 399 engaged couples who presented themselves for participation 1 month prior to marriage, 6 were not married as planned due either to cancellation or to postponement of the wedding. Data collected from these couples were omitted from subsequent analyses. Our final sample at premarriage consisted of 393 couples. Of the total sample of couples, 272 couples completed all assessments at premarriage, 18 months, and 30 months. These couples hereafter are referred to as the continuing sample. Because the original sample and the continuing sample did not differ significantly in the prevalence of physical aggression at premarriage, data are included only on the continuing sample of 272 couples.<sup>1</sup>

### Instruments

In addition to providing general demographic information and data on their families of origin, participants completed the following assessment measures.

*Short Marital Adjustment Test (SMAT).* The SMAT (Locke & Wallace, 1959) is a widely used self-report measure assessing global relationship satisfaction that has been shown to discriminate distressed and nondistressed couples in numerous studies (O'Leary & Arias, 1987). Using the present sample, we found test-retest reliabilities of the SMAT to be .54 and .60 across a 6-month period for men and women, respectively.

*Conflict Tactics Scale (CTS).* The CTS (Straus, 1979) is a self-report scale of psychological and physical aggression in conflicts with a partner during the past year. It has been used in national surveys of the prevalence of marital violence (Straus & Gelles, 1986; Straus et al., 1980) and has shown significant interpartner agreement on reports of physical aggression (Jouriles & O'Leary, 1985; O'Leary & Arias, 1988). In factor analyses of clinical and community samples, one of the eight items of the Physical Aggression scale of the CTS, "use of a lethal weapon," did not occur with sufficient frequency to be used (Burling, O'Leary, Jouriles, Vivian, & MacEwen, 1987). Therefore, those seven items used were (a) "throwing something at partner"; (b) "pushing, grabbing, or show-

ing"; (c) "slapping"; (d) "kicking, biting, or hitting with a fist"; (e) "hitting or trying to hit with something"; (f) "beating up"; and (g) "threatening with a knife or gun." The CTS Physical Aggression scale has shown significant interpartner reliability (Jouriles & O'Leary, 1985; O'Leary & Arias, 1988). The main measure of spousal aggression used herein is a self-report of physical aggression, but because there are important reasons for one to deny aggression against a partner, we also report prevalence rates based on an index combining either a self-report of aggression or a partner report that the mate engaged in such aggression.

### Procedure

All couples were assessed 1 month prior to their marriages and 18 and 30 months thereafter. Participants were assured that their responses would be confidential. Questionnaires were completed by individuals in separate rooms or by both partners in an office with a research assistant present simply to ensure confidentiality and, consequently, to maximize candid self-reporting. A third of the sample was also interviewed, and these couples completed a couple's communication task after completing questionnaires. The following results are based on the questionnaire responses.

## Results

### Prevalence of Spousal Aggression

*Self-reports.* According to self-reports, 31% of the men and 44% of the women indicated that they had engaged in aggression against their partners in the year prior to marriage (see Table 1). At 18 months after marriage, the prevalences of spousal aggression during the year prior to the assessment were 27% and 36%, respectively, for men and women. At 30 months after marriage, the prevalences of spousal aggression for the previous year were 25% and 32% for men and women, respectively. Using McNemar tests of differences and a Bonferroni correction for the number of tests conducted ( $p < .017$ ), we found that the women had significantly higher rates of self-reported aggression than the men at premarriage,  $\chi^2(1, N = 272) = 10.68, p < .002$ , and at 18 months,  $\chi^2(1, N = 272) = 7.56, p < .007$ . At 30 months, using the Bonferroni correction just noted, we found that the women did not have significantly higher rates of spousal aggression than the men,  $\chi^2(1, N = 272) = 4.84, p < .029$ .<sup>2</sup>

There were significant reductions in the prevalence of spousal aggression from premarriage to 18 months for women,  $\chi^2(1, N = 272) = 6.82, p < .008$ , and from premarriage to 30 months for women,  $\chi^2(1, N = 272) = 10.92, p < .002$ . Using the Bonferroni correction noted earlier, we found a nonsignificant reduction in the men's aggression from premarriage to 18 months and a nonsignificant reduction from premarriage to 30 months,  $\chi^2(1, N = 272) = 3.51, p = .06$ .

<sup>1</sup> The subjects who did not attend the second assessment because of movement to another area, separation, or lack of interest were not different in their premarital rates of partner aggression from the subjects who remained in the study. The subjects who did not attend the third assessment did not have significantly higher rates of partner aggression at premarriage or at the second assessment than continuing subjects.

<sup>2</sup> The prevalence rates for the original sample were almost identical to those rates obtained with the continuing sample.

Table 1  
Prevalence of Aggressive Acts for Men and Women

Variable	Premarriage		18 months		20 months	
	Men	Women	Men	Women	Men	Women
Throwing something at partner	6.8%	12.6%	8.1%	14.2%	7.3%	14.2%
Pushing, grabbing, or shoving	27.5%	32.2%	18.9%	28.1%	21.4%	22.9%
Slapping	7.7%	20.7%	6.2%	15.8%	5.7%	10.7%
Kicking, biting, or hitting with fist	3.4%	12.6%	3.9%	10.8%	2.7%	7.6%
Hitting or trying to hit with something	2.3%	7.7%	3.9%	9.2%	1.9%	6.9%
Beating up	0.0%	1.1%	0.8%	0.8%	0.4%	1.1%
Threatening with a knife or gun	0.0%	0.0%	0.0%	0.8%	0.4%	1.5%
Overall prevalence <sup>a</sup>	31.2%	44.4%	26.8%	35.9%	24.6%	32.2%

Note. For men,  $n = 272$ ; for women,  $n = 272$ .

<sup>a</sup> Percentage of men and women reporting any of the behaviors. Because individuals often engage in more than one aggressive behavior, the overall percentage is less than the sums of the percentages itemized above.

As is evidenced in Table 1, equal or greater percentages of women than men reported engaging in all types of physical aggression assessed at each assessment period. Clearly, the most common forms of aggression for both men and women were pushing, grabbing, or shoving. Interestingly, the lower rates of overall aggression for men were not offset by higher rates of the more severe types of aggression.

*Reports of spousal aggression.* Because of concerns about the underreporting of physical aggression, we also examined the prevalence of spousal aggression by including reports of physical aggression by the partner. The prevalence rates obtained using reports of spousal aggression provided by the combination of reports either by an individual (about his or her own behavior) or by his or her partner about that individual's behavior for both men and women were higher than those given for only the self-reported rates of aggression. Comparisons of the two methods of computing prevalence rates of spousal aggression revealed that the either/or report method yielded approximately 10% higher prevalence rates than the self-report method for men and women at each of the three assessment phases. This result suggests that there was approximately 10% underreporting of aggression by both men and women.

The significant differences between the prevalence rates for men and women obtained using the self-reports were maintained when the either/or reports were used. Using McNemar tests of differences and the same correction for number of tests conducted used for self-report data, we found the prevalence rates for women to be significantly higher at premarriage,  $\chi^2(1, N = 272) = 7.01, p < .009$ ; at 18 months,  $\chi^2(1, N = 272) = 7.52, p < .003$ ; and at 30 months,  $\chi^2(1, N = 272) = 13.43, p < .001$ .<sup>3</sup>

Another way to assess the prevalence of aggression is to calculate the percentage of couples in which either the man or the woman reported that he or she had aggressed against his or her partner. This method was used to assess the percentage of cou-

ples as opposed to individuals who reported aggression. These percentages were 57%, 44%, and 41% across the premarriage, 18-month, and 30-month assessments. The percentages of men and women who engaged in exclusive or nonreciprocal aggression across the three assessments (respectively) were 13%, 8%, and 9% for men and 26%, 17%, and 16% for women.

### Stability of Aggression

One measure of stability is the relation between reports of aggression at one time and reports of aggression at another time corrected for chance agreement (kappa, interpreted as intraclass correlations; Fleiss, 1981). The data were obtained by categorizing subjects available at all three assessments according to their own reports of the presence or absence of aggression against a partner. The stability coefficients for men ( $n = 272$ ) were as follows: from premarriage to 18 months,  $r = .38, Z = 6.73, p < .001$ ; from 18 to 30 months,  $r = .41, Z = 6.73, p < .001$ ; from premarriage to 30 months,  $r = .31, Z = 5.11, p < .001$ . The corresponding stability coefficients for women ( $n = 272$ ) were as follows: from premarriage to 18 months,  $r = .44, Z = 6.98, p < .001$ ; from 18 to 30 months,  $r = .55, Z = 8.09, p < .001$ ; from premarriage to 30 months,  $r = .31, Z = 5.25, p < .001$ .

Another way to assess the stability of spousal aggression is to

<sup>3</sup> Alpha levels were adjusted for familywise error rates for the number of comparisons made. Family alpha was .017 for a set of means for men and women at three assessment periods. There is no single accepted way to correct for number of tests made, to select familywise alphas, or to determine what constitutes a family (Keppel, 1982; Miller, 1966). Significance levels are presented to allow the reader to place his or her own interpretations on the data. Mark Appelbaum (L. L. Thurstone Psychometric Laboratory, University of North Carolina) served as our statistical consultant on the use of Bonferroni correction procedures.

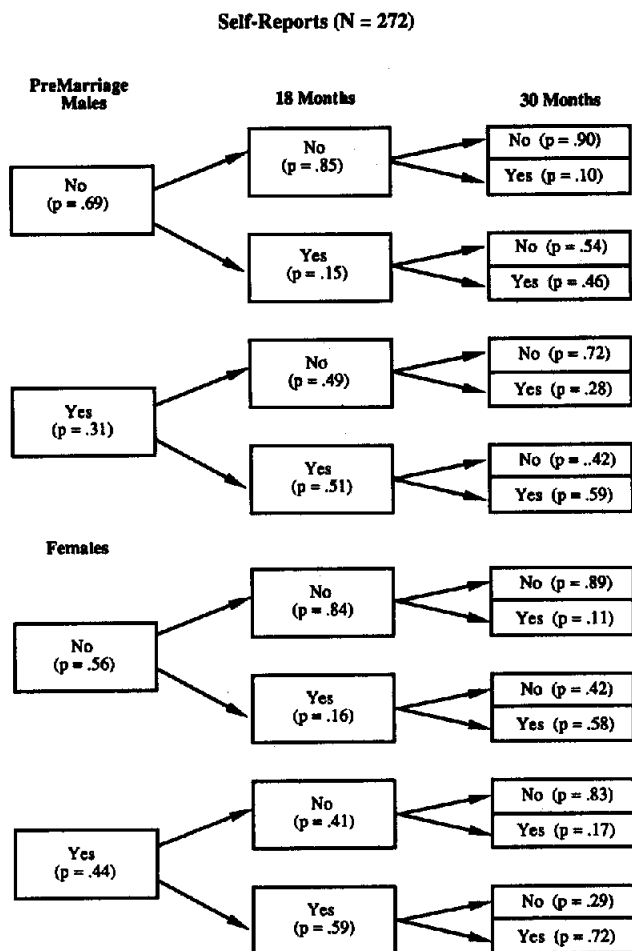


Figure 1. Conditional probabilities of physical aggression against a partner at 18 and 30 months after marriage given aggression or nonaggression at premarriage.

examine the conditional probabilities of such aggression. Conditional probabilities provide different information from the kappa coefficients just discussed. They indicate the direct probability that one will or will not engage in aggression given one's prior history of aggression. These conditional probabilities are presented in Figure 1 using self-reports. Recall that the base rates or unconditional probabilities of aggressing at 30 months for men and women were .25 and .32, respectively. It is evident that the presence of prior aggression aided in the prediction of aggression. If an individual aggressed at 18 months, the probability that he or she aggressed at 30 months ranged from .46 to .72 across the groups. If a man engaged in aggression both at premarriage and at 18 months, the probability of aggressing at 30 months was .59. For women, the probability of the same event was .72.

#### Stable Aggression and Marital Satisfaction

We next examined whether stably aggressive individuals, that is, those who reported spousal aggression at every assessment

phase, differed in marital satisfaction from those who never reported spousal aggression. Seventeen percent of the women and 8% of the men were identified as being stably physically aggressive. Fifty percent of the men and 39% of the women were not aggressive at any of the three assessments. To assess differences in marital satisfaction of the partners of stably aggressive and nonaggressive individuals over the three assessments,  $2 \times 3$  (Group  $\times$  Assessment) analyses of variance (ANOVAs) were conducted separately for men and women, with partner's marital satisfaction as the dependent variable. For both men and women, there were significant effects for aggression,  $F(1, 150) = 13.64, p < .001$ , and  $F(1, 157) = 5.11, p < .026$ , and assessment period,  $F(2, 149) = 12.42, p < .001$ , and  $F(2, 156) = 12.82, p < .001$ . Both men and women who were partners of the stably aggressive individuals had lower marital satisfaction scores than partners of stably nonaggressive individuals. Second, for both men and women, there was a significant decrease in marital satisfaction across time.

Using a cutoff score of 90 on the SMAT, a cutoff score recommended as the optimal discriminator between clinically distressed and nondistressed couples (Jouriles, Ramirez, & O'Leary, 1986), 30% of the partners of the stably aggressive men and 24% of the partners of the stably aggressive women fell at or below such a cutoff at the 30-month assessment. Alternatively, only 11% and 9% of the partners of the stably nonaggressive men and women had marital satisfaction scores  $< 90$ . A higher proportion of partners of stably aggressive men and women had scores  $< 90$  than did the partners of stably nonaggressive men and women respectively,  $Z = 2.12, p < .018$ , and  $Z = 2.17, p < .016$  (Snedecor & Cochran, 1980, pp. 126-127).

#### Discussion

The rates of premarital aggression reported here are 3-4 times higher than those found among married couples during a 1-year period (Straus & Gelles, 1986; Straus et al., 1980). On the other hand, in a large, nationally representative sample of young adults (Elliot, Huizinga, & Morse, 1986), 37% of the men and 43% of the women reported aggressing against their married or cohabitating partners in the past year (D. Huizinga, personal communication, February 26, 1987). Their subjects were 18-24 years old and, thus, were very similar in age to our subjects. Their prevalence data are remarkably similar to the prevalence rates obtained herein, although their study was conducted for very different purposes, namely, to assess delinquent behavior, alcohol, and drug abuse.

Although method differences may have contributed to the difference in rates of reported spousal aggression between our study and those of Straus and colleagues, we believe that age was the most important factor. More specifically, as is evident from data presented in Straus et al. (1980, p. 141), the prevalence rate of aggression was approximately 16% for individuals in the 30 year and under age bracket, whereas the rate for individuals between the ages of 31 and 50 was approximately 5%. Furthermore, studies of college students have indicated that rates of physical aggression against a current mate are 20-35% (cf. Arias et al., 1987; Rose & Marshall, 1985) and all forms of physical assault decrease dramatically with age.

The higher prevalence rates of spousal aggression for women than men were surprising. Although we presented the data in terms of occurrence, we analyzed the data in terms of severity in several ways, and we found that women engaged in all forms of aggression, as assessed by the CTS, at rates equal to or greater than those for men (Malone, Tyree, & O'Leary, in press). The types of aggression engaged in by women indicated that, by far, the most common types of aggression were pushing, grabbing, and shoving or slapping. Less than 2% of this population of men or women "beat up" their partners at any assessment phase. However, the higher rates of aggression for women must be interpreted with caution. The psychological and physical significance of interspousal aggression is, in all likelihood, simply different for men and women. Women's aggression engenders less fear (O'Leary & Curley, 1986) and inflicts less physical harm than men's aggression (Berk et al., 1983). Furthermore, an understanding of the relative rates of spousal aggression must eventually take intent, frequency, reciprocity, psychological impact, and physical damage into account. It is very likely that most male-to-female aggression has different psychological and physical consequences than most female-to-male aggression, and these differences should be examined.

Some might wonder whether the higher rates of female aggression obtained here are the result of women defending themselves. As was evident from couple data analyses, women engaged in aggression against their partners in the absence of any partner aggression (exclusive aggression) at a higher rate than men at premarriage. It is unclear from this research, however, whether, among couples in which both partners engage in aggression, a particular incident of aggression is reciprocated or not. The CTS measures self-reports or partner reports of spousal aggression over a period of 1 year. Fine-grained analyses of incidents of aggression are necessary before one can reach firm conclusions about the extent of reciprocal aggression.

When all subjects were used, the 1-year kappa coefficients (18–30 months) obtained herein reflected fair-to-good stability using the Fleiss (1981) guide for evaluating kappas (.55 for women and .41 for men), but the kappas over a 30-month period reflected statistically significant but poor stability when that stability was evaluated in terms of the absolute magnitude of the kappas. On the other hand, when individuals were classified as aggressive or nonaggressive at premarriage for later classification purposes, this subject breakdown reflected greater stability than that when all subjects were considered as a group. In most cases, the behavior of stably aggressive and stably nonaggressive individuals was the most predictable. The physical aggression of men and women who were reported to have aggressed against their partners at one time but not at another time was less predictable.

Individuals married to stably aggressive persons were less satisfied with their relationships than those who were in stably nonaggressive relationships. Furthermore, their marital satisfaction declined across time. This association between physical aggression and marital discord was expected and understandable given our model of spousal aggression (O'Leary, 1987). However, it was surprising that not more than a third of the men and a quarter of the women married to stably aggressive partners were maritally discordant. This finding raises the im-

portant issue of the perceived meaning of physical aggression in marriages. Our clinical interviews with the partners of physically aggressive individuals indicate that the recipients of the physical aggression generally minimize the importance of the physical aggression; attribute the cause of the aggression to factors such as alcohol, frustration, and stress; and do not believe that there was intent to cause serious physical injury.

These data support the contention of other researchers that spousal aggression is quite common. Both men and women push, shove, and slap their partners at rates that warrant very serious concern. Moreover, a pattern of repeated physical aggression often occurs early in a relationship and is associated with serious marital discord.<sup>4</sup> The origin of spouse abuse and a concomitant weakening of marital bonds appear to be rooted in the formative stages of marriage. Hence, clinical interventions for individuals or couples in abusive relationships seem appropriate in the early stages of a marriage.<sup>5</sup>

<sup>4</sup> Additional data are available from the authors.

<sup>5</sup> Information on local treatment facilities was included in assessment materials at the first and second assessments.

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