



# Violence between parents reported by male and female university students: prevalence, severity, chronicity and mutuality

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## ABSTRACT

The objective of this paper is to draw attention to and present statistics on the multiple aspects of violence between parents that should be addressed in research and treatment of such cases. In addition to whether the child had witnessed violence between parents, information is needed on the severity and chronicity of the violence witnessed, and whether only one or both parents were violent. Data on these aspects of inter-parental violence obtained from a sample of 1,313 university students is presented. Thirteen per cent of the students recalled one or more instances of physical violence between their parents when they were age 10 or 13, including six per cent who reported a severe assault. When violence occurred, in about half the cases it was chronic rather than a single isolated instance. In two thirds of the cases the violence was mutual. Both research on witnessing violence between parents and treatment are likely to be enhanced if they take into account the severity, chronicity and mutuality of the violence witnessed by children.

## KEY WORDS

Children; mothers; fathers; violence; domestic violence; witnessing violence.

## Introduction

Although there is a large literature on children witnessing violence between their parents (Kitzmann, Gaylord, Holt & Kenny, 2003; Margolin & Gordis, 2004; Stith, Rosen & Middleton, 2000), more attention needs to be paid to the methods used to measure violence witnessed by children. This paper describes some of the multiple aspects of violence between parents that should be addressed in the research and treatment of such cases and identifies a practical way of obtaining the necessary data. Many of the studies do not even indicate the prevalence of this phenomenon, ie. they do not give the per cent of children that have witnessed partner violence. Of 17 empirical studies examined for this paper, only eight provided prevalence data. The estimates from those studies ranged from three per cent to 49%.

In addition to the paucity of data, there are limitations to most of the estimates. Many studies report statistics that may under or overestimate the prevalence of witnessing violence and few provide data on the severity and frequency of violence between the parents, on which parent was violent, or whether the violence was mutual. Even the seemingly simple objective of estimating the per cent of children exposed to violence between their parents faces important problems. Some studies use samples that cannot be the basis for population estimates. For example, the study that found a 49% rate is based on couples with high risk of partner violence (Davis & Carlson, 1987). Studies that based their estimate on interviews with parents, such as Straus (1992), may assume that children in a household where one or both parents reported physical violence have witnessed that violence.

However, some violent parents may avoid physically attacking the other parent when children can see or hear it. Thus, in one sense, the percentage is an upper-bound limit. Conversely, lower-bound estimates result if the per cent witnessing is estimated on the basis of the violence rate for the total sample rather than for households in which there are children because couples with children are older, and the rate of partner violence decreases precipitously with age (Suitor, Pillemer & Straus, 1990).

Four of the 18 studies based their estimate on asking children themselves about violence between their parents. Three of four were retrospective studies of university students. Three of the four found very similar rates: 11% (Forsstrom-Cohen & Rosenbaum, 1985; Straus, 1974) and 14% (Jankowski *et al.*, 1999). The fourth study obtained data from 1,012 high school students in Los Angeles and found that 23% of a sample reported observing violence between parents. Not only is this rate about double the rate of the other three student studies, but in addition, the criterion for witnessing was an extremely high level of violence between the parents – above the 75th percentile of the sample. Consequently, if the criterion had been any act of violence between the parents, the rate would have been much higher. Part of the explanation of the much higher rate is probably the difference in socioeconomic status and community environment between children of parents who could send them to university and children attending high schools with a high proportion of low income Latino and African-American students in Los Angeles. Whatever the reason, additional estimates of the prevalence of witnessing violence between parents might help clarify the situation, and that is one of the purposes of this article.

An important addition to the estimates of children exposed to violence between parents is the study by McDonald *et al.* (2006). Their estimate is based on reports of partner violence by a sample of 1,615 dual-parent households with a child between birth and 17 living at home. They distinguished between any violence and severe violence and found that 29% of the children were in households with violent parents, and that 13% were in households with severe violence between parents.

## Child reports as a means of estimating and describing partner violence

In addition to providing an additional estimate of witnessing violence between parents, reports by children about violence between their parents can provide a useful additional estimate of the prevalence and nature of partner violence in the general population. Children might provide more accurate data than is obtained from interviewing the partners themselves because they may be more willing to disclose such events. The need for additional estimates can be seen from the huge discrepancies between the results of various studies into partner violence. Illustrative examples of the perpetration rates for male and female partners are presented below (see Straus, 1999, for an explanation of the large differences between these rates).

## Need for multidimensional measures of partner violence

In addition to the discrepancies between estimates, few studies go beyond identifying the presence or absence of violence. The estimates are usually for *any* physical assault, and do not distinguish between less and more severe violence. Second, they do not indicate the frequency of the assaults. Third, they rarely indicate whether the perpetrator is the father or the mother or by both partners. As the results for the six studies listed in *Table 1*, the per cent of women who are physically violent to a partner is similar to the per cent of violent men. Mutual violence is extremely important because previous research has found that mutual violence is the predominant type, and that it is associated with the highest probability of injury (Straus & Gozjolko, 2007; Whitaker *et al.*, 2007), and the lowest probability of cessation (Feld & Straus, 1989). For example, the 1975 National Family Violence Survey found that, among relationships

**Table 1: Partner violence prevalence rates**

	Male	Female
US National Crime Victim Survey (Bureau Of Justice Statistics, 2008)	0.8%	0.1%
US National Violence Against Women Survey (Tjaden & Thoennes, 2000)	1.3%	0.9%
British Crime Survey (Mirrlees-Black, 1999)	4.2%	4.2%
US National Family Violence Survey (Straus, Gelles & Steinmetz, 1980; 2006)	11%	12%
US National Co-morbidity Survey (Kessler, Molnar, Feurer & Appelbaum, 2001)	17%	18%
International Dating Violence Study (Straus, 2007)	24%	32%

in which there was violence, it was perpetrated by only the male partner in about one quarter of the cases, by only the female partner in another quarter of the cases, and by both partners in about half the cases (Straus, Gelles & Steinmetz, 1980; 2006). Similar percentages have since been found by many other studies. For a review of the studies, see Straus (2007; 2008).

These comments indicate that partner violence is a complex phenomenon with multiple facets that cannot be adequately represented by just one statistic. Others, such as Margolin and Gordis (2000), have urged that heterogeneity in the frequency, severity, age of onset, and chronicity of exposure be considered. The forgoing discussion indicates a need for a more fully rounded description of partner violence, including partner violence witnessed by children. This article is intended to contribute to that end by presenting data on these aspects of violence in the homes of children based on a study of reports of violence between the parents of university students. The aspects to be covered are the severity and chronicity of physical violence against the other parent, whether the violence was by the father or the mother, and the prevalence of mutual violence as reported by the students. Specifically, the data on violence between parents reported by the students in this study was used to answer the following questions.

1. How prevalent is partner violence as recalled by children, and how do those rates compare with rates obtained by other methods?
2. Do fathers and mothers differ in respect to the per cent who perpetrated violence, and in the severity and chronicity of violence?
3. Are there differences between male and female students in the amount of violence between parents reported?
4. In what per cent of families in which there was violence between the parents was it bi-directional, ie. both parents engaged in one or more physical assaults?

## Method

### Procedure

Participants were recruited from psychology courses at the University of New Hampshire in 2006 and 2007. As is the practice in many psychology departments in the United States, the students were offered an extra credit or partial course credit for participating

in the study. Data was gathered by means of a web-based questionnaire developed for the International Parenting Study (available online at <http://pubpages.unh.edu/~mas2/IPS.htm>). Students who indicated an interest in participating were sent a link to the study website. Those who were 18 or older were instructed to answer the questionnaire in a private setting. They responded anonymously through the website at a time and place of their own choosing. Several steps were taken to ensure anonymity, such as encryption of data, disabling 'cookies', and separation of identifying information from data.

All participants read the consent form and indicated their consent electronically. After completing the questionnaire, participants received a debriefing form explaining the purpose of the study and a list of mental health referrals. The procedures were reviewed by and approved by the University of New Hampshire Institutional Review Board.

### Participants

The sample consisted of 1,313 students. Seventy-two per cent were female, which reflects the gender composition of psychology courses. Their mean age was 19.2 (SD 1.7). Consistent with the population of the state, 93% were Caucasian. Because one of the purposes of the study was to investigate links of early life experiences to delinquency and adult criminal behaviour, the version of the questionnaire to which 82% of the students responded asked about the behaviour of their parents when the student was aged 10, which is before the typical age of onset of delinquency. Only students living with two parents or step parents at that age were included in the study. This was both biological parents for 91.7% of the students. The average education of both parents was high: 53% of the mothers and 57% of the fathers had completed a four year college degree or a higher qualification.

### Measures of physical violence

Partner violence was measured by the short form of the revised Conflict Tactics Scales or CTS2 (Straus & Douglas, 2004; Straus *et al.*, 1996). In the past 25 years, the CTS has been used in over 400 studies, mostly in North America, but also in more than 50 other countries. It has demonstrated cross-cultural reliability and validity (Archer, 1999; Straus, 1990; 2004). The scale items and psychometric data are available in Straus *et al.* (1996). The short form has been shown to have high validity, but to underestimate prevalence (Straus & Douglas, 2004). Thus, the rates to be presented are lower-bound estimates.

The child-report form of the CTS2 asks participants about the behaviour of their father and their mother in a specific year. For most of the participants in this study, it was when the student was 10 years old, but for 18% of the students who responded to the first version of the questionnaire, it was for when they were aged 13. The physical assault scale of the short form has one item to measure 'minor' violence ('Your father pushed, shoved, or slapped your mother') and one to measure more severe violence ('Your father punched or kicked or beat-up your mother'). These two questions were also asked about the behaviour of the mother. The response categories were: This never happened; Not in that year, but it happened before or after; Once in that year; Twice in that year; 3–5 times in that year; 6–10 times in that year; 11–20 times in that year; More than 20 times in that year. These four items (two for the father and two for the mother) were used to create the following variables.

- *Prevalence in target year:* The per cent of parents who assaulted their partner during the year the student was 10 years old, regardless of whether it was once or many instances.

- *Prevalence ever:* The per cent of parents who had ever assaulted their partner.
- *Chronicity:* This variable was created only for cases with at least one act of violence. It indicates, for those cases, how many assaults occurred during the year. To create this variable, the response categories listed above were coded as the midpoints of each category, namely: 1, 4, 8, 15 and 25. Chronicity data is only available for what happened in the reporting year, which in this study is when the student was 10 years old.
- *Replications for gender and severity:* These three variables were scored for behaviour by the mother, by the father, for 'Any violence', and for 'Severe violence', ie. a total of 12 variables.
- *Mutuality.* The mutuality types described in Straus and Douglas (2004) were created for each case. The types are Father-only, Mother-only and Mutual (both violent). For this study, mutuality was computed for any violence, and for severe violence. The severe violence categorisation was based on relationships in which either or both of the partners were severely violent.

**Table 2: Prevalence and chronicity of violence between mothers and fathers of university students (N = 367 males, 941 females)\***

Measure of violence	Gender of student	Violence by:	
		Father	Mother
<b>Any violence prevalence (% violent)</b>			
Any – at age 10 or 13	Male	9.7	12.4
	Female	10.4	11.2
	Both	10.0	11.8
Any – ever	Male	13.0	15.0
	Female	12.9	13.2
	Both	13.0	14.1
<b>Severe violence prevalence (% violent)</b>			
Severe – at age 10 or 13	Male	6.1	6.1
	Female	6.4	6.3
	Both	6.2	6.2
Severe – ever	Male	7.4	6.9
	Female	7.7	6.8
	Both	7.5	6.9
<b>Chronicity</b>			
Any at age 10 or 13	Male	2.7	2.8
	Female	2.9	2.6
	Both	2.8	2.7
Severe at age 10 or 13	Male	3.8	4.1
	Female	2.6	2.1
	Both	3.2	3.1

\*Estimated from analyses of covariance.

### Data analysis

Repeated measures analysis of covariance was used to test the extent to which the students in this sample reported violence between their father and mother. The repeated measure was the students' reports of violence by each parent. The covariates controlled for the father's education, mother's education, and the student's score on the Limited Disclosure Scale of the Personal And Relationships Profile (Straus *et al.*, 1999 (Revised 2007)). This scale, which is a modification of the short form of the Marlowe-Crowne Social Desirability Scale (Reynolds, 1982), measures the degree to which the student was reluctant to disclose personal information.

### Results

The answer to the question of the prevalence of violence between the parents of the students in this sample is that 13.1% reported violence perpetrated by either or both parents during the target year (when they were 10 or 13 years old). Male and female students reported comparable rates (14.1% by male 12.7% by female students (difference is not statistically significant)). The rates for severe assaults are lower (6.8% for the entire sample) and similar percentages were found based on the reports of males and females (7.1% for parents of male students and 6.7% for parents of female students).

Again, none of the differences were large enough to be statistically significant.

### Prevalence of violence by fathers and mothers

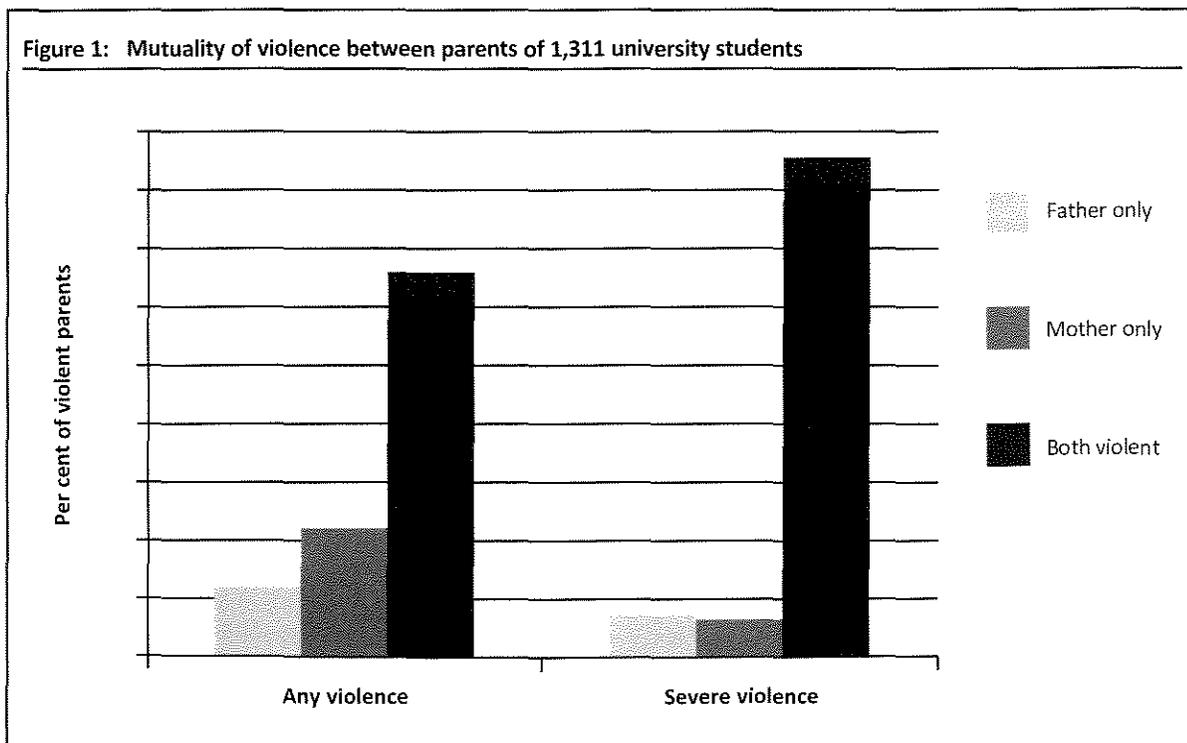
#### Prevalence of any violence

*Table 2* provides the data for the question about differences between fathers and mothers in the per cent violent. The first row shows that 9.7% of male students in this sample reported violence by their father against their mother, and 12.4% reported violence by the mother against the father. Each of the six rows in the first panel of *Table 2* shows a slightly higher per cent of mothers than fathers were violent but none of differences between fathers and mothers is significant.

#### Prevalence of severe violence

Moving down to the panel giving the prevalence of severe violence, all the rates are much lower. In general, the per cent severely violent is about half of the percentage in the any violence panel. The results for severe violence are similar to those for any violence in showing no significant difference between fathers and mothers. The approximate equal rate of perpetration of severe violence by mothers and fathers is consistent with previous studies of partner violence (see discussion).

Figure 1: Mutuality of violence between parents of 1,311 university students



### Chronicity of violence between parents

When there is violence, in over half the cases, only a single instance was reported by the students in this study. Nevertheless, the chronicity panel of *Table 1* shows that the minority who did it more than once did it frequently enough to push the mean number of times to about three times, and this applies to both any violence and severe violence.

### Mutuality of violence witnessed

*Figure 1* shows that the most prevalent pattern of violence between the parents of these students was mutual, ie. bi-directional violence. This is consistent with many other studies that report data for both the male and female partner (Straus, 2007). However, previous studies have tabulated mutuality for the overall occurrence of violence, whereas *Figure 1* shows both the overall rate and the extent to which mutual violence occurs when there is severe violence such as punching and choking. What is new in these results is the finding that mutual violence is even more prevalent when one of the partners is severely violent.

*Table 3* carries the analysis one step further by investigating whether the gender of the student reporting on violence between their parents makes a difference. It shows that, for both any violence and severe violence, according to both male and female students, the predominant pattern is for violence to be mutual. Despite agreement of male and female students on the predominance of mutual violence, the chi-square tests shows significant differences in what is reported by male and female students. For any violence, the gender difference is that more female than male students reported the father as the only violent parent, and more male than female students reported that the mother was the only violent parent. For severe violence the gender difference is that even more female than male students reported bi-directional violence.

## Discussion

The first question posed for this study was on the prevalence of witnessing partner violence as reported by adult children, and whether the rates of witnessing partner violence obtained in this way differ from rates obtained by other methods. The results show that the rate from this study (13%) is in the general range of population surveys, but at the low end of the range. The lower rates are probably a result of the relatively high education level of the parents relative to the general population (Straus, Gelles & Steinmetz, 1980; 2006), a result of some of the events which occurred at age 10 or 13 being forgotten by the 19 or 20 year old, and a result of the use of the short form of the Conflict Tactics Scales, which is known to underestimate prevalence (Straus & Douglas, 2004).

The second question was whether fathers and mothers differ in respect to the per cent who perpetrated violence, and in the severity and chronicity of violence. Despite a sample of more than a thousand, there was no significant difference between the mothers and fathers in respect to any of these measures. Thus, the results from this study are consistent with more than 200 other general population studies in showing approximately equal rates of perpetration by male and female partners (Archer, 2000; Fiebert, 2004; Straus, 2007).

The third question focused on just those parents where at least one violent act was reported. The question is, when there is violence between the parents, to what extent is it bi-directional, ie. both parents engaged in one or more physical assaults? The results showed that, according to the students in this sample, mutual violence was the predominant pattern. If any violence is the criterion, two thirds of the violent parents were mutually violent. If severe violence is the criterion, mutual violence characterises more than four out of five parents who were severely violent. These results are consistent with 13 other studies which investigated mutuality in the general population, all found that mutual

**Table 3: Mutuality of violence between parents as reported by male and female students**

Mutuality type	Any violence as reported by:		Severe violence as reported by:	
	Males	Females	Males	Females
Father only	9.6	13.3	11.5	6.3
Mother only	28.8	19.2	11.5	4.8
Both violent	61.5	67.5	76.9	88.9
	Chi-square = 2.15, p .34		Chi-square = 2.19, p .33	

violence is the predominant pattern, for example: the National Co-morbidity Survey found 54% were mutually violent (Kessler *et al*, 2001); the National Longitudinal Study of Adolescent Health (Whitaker *et al*, 2007) found 50% mutual; the International Dating Violence Study found 55% mutual (Straus, 2007); and a representative sample of 453 couples with young children found 66% mutually violent (Slep & O'Leary, 2005).

The fourth research question was whether there are differences between male and female students in what they report about violence between their parents? It is often claimed that male respondents under-report their own violence more than women, thus distorting gender comparisons. However, in this study, because the students were not describing their own behaviour, there is little reason to expect a difference, and none was found. Moreover, despite the concern about male under-reporting, most empirical research on this issue has found very similar rates regardless of whether the data were provided by males or females (see the reviews in O'Leary and Williams (2006) and Straus and Ramirez (2007)).

### Limitations

Although this study provides data on more aspects of violence between parents than is usually reported in research on witnessing partner violence, it is far from a complete account of what children might have witnessed; for example, there is no data on injury and psychological aggression between parents.

There are grounds for believing that these results underestimate the per cent of American children who witness violence between their parents. Although the rates are high, they are at the low end of what is often found for community surveys of married and cohabiting couples. As pointed out previously, this may be the result of the relatively high educational level and income of the parents and of data based on recall of what happened at age 10 or 13. There is more violence in households with younger children because, on average the parents are younger, and partner violence declines rapidly with age of the partner. It also reflects using the short form of the CTS2, which is known to identify less occurrences of violence than the full CTS. In addition, these are lower bound estimates because, regardless of the method of obtaining the data, it is probably safest to assume that a substantial proportion of cases are missed. Research such as the study by Slep and O'Leary (2005), suggests that if these questions were included in assessment for the previous 12 months, as is often done, it is likely to reveal rates that are at least double those found in this study.

Applying the term 'witnessed' is not entirely correct. Some may know about the violence between their parents from things said by their parents, but not actually seen or heard this. In respect to the prevalence of mutual violence, there is no data on the extent to which violence by the mothers in this sample was in self-defence. However, there is now sufficient research on that issue to suggest that in only a minority cases was the violence by the female partner self-defence. Although self-defence has often been stated as an explanation for high rates of female violence, the empirical research has found that it explains only a small proportion of PV perpetrated by women (and men) (Carrado *et al*, 1996; Felson & Messner, 1998; Pearson, 1997; Sarantakos, 1998; Sommer, 1996). For example, using a college student population, Follingstad (1991) found that perpetrators reported that their motivation was self-defensive about 18% of the time (17.7% for men, 18.5% for women). A similarly low percentage (20%) was found for severe assaults by women in a sample of couples presenting for marital therapy (Cascardi & Vivian, 1995).

### Conclusions

This study expanded information about violence witnessed by children by providing data which showed that, even among highly educated parents of high achieving children, a substantial proportion of the violence was severe, and that when violence between parents did occur, it was often chronic rather than a single isolated incident, and was usually mutual. Both research and clinical work need to take into account severity, chronicity and mutuality because these are likely to be part of the explanation for the adverse effects of witnessing, and part of what needs to be addressed in treatment and research. For example, mutual violence has been found to be associated with a much higher probability of physical injury than male only or female only violence (Straus & Gozjolko, 2007; Whitaker *et al*, 2007). This might also apply to psychological injury from witnessing violence between parents.

Fortunately, it is practical to obtain data on all these aspects of violence because the information can be measured using the short form of the Conflict Tactics Scales. This takes only three minutes to complete and also provides data on other variables such as injury and psychological aggression. An even briefer assessment (less than one minute) is possible with just the four questions used for this article.

Obtaining information on severity, chronicity and mutuality can provide a basis for more in-depth analyses of the antecedents and consequences of witnessing violence between parents. For example, the questionnaire for this article is being used in the International Parenting Study. This will provide information on the extent to which the violence witnessed by children in the 40 nations planned for that study follows the same or a different pattern than shown in this article. In clinical work, obtaining data that goes beyond just the presence of violence to identify the degree of severity, chronicity and mutuality could provide a basis for family therapy based on a more complete picture of the nature of the violence to which children are exposed at home.

### Implications for policy-making, practice and research

- Measure multiple facets of violence, not just prevalence. These including severity, chronicity and whether it was by the father, the mother, or both; and if possible, whether there was a physical injury and who was injured.
- Provide rates by age of child and the referent period, such as past year or ever, because these can importantly influence the results, and to enable investigating whether children are more vulnerable to adverse effects at certain ages.
- When the data is from parents and violence is reported, ask the parents if they think the children knew about or witnessed it. This is helpful but not entirely adequate data because the parents may not realise the children had witnessed their violence or knew about it.
- When the data is from children, ask whether they had actually seen it themselves or learned about it in some other way, such as from a sibling or from the parent.

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