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Assault and Injury of Dating Partners by University Students in 19 Countries and its Relation to Corporal Punishment Experienced as a Child

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ABSTRACT

This study tested the hypothesis that the more prevalent the use of corporal punishment by parents in a social setting, the higher is the prevalence of assault and injury of a dating partner. The sample is from 36 universities in 19 nations (N = 9549). The median percent of students who experienced corporal punishment was 56 percent (range 13–73 percent). The median rate of assaulting a dating partner was 30 percent (range 15–47 percent), and of injuring a dating partner 7 percent (range = 1–20 percent). The results indicate that settings in which the rate of corporal punishment experienced by university students is high, tend to be settings in which the rate of students assaulting and injuring a dating partner is also high. These findings are discussed in the context of theories to explain partner violence and for primary prevention of violence.

KEY WORDS

Attitudes about Violence / Children / Corporal Punishment / Partner Violence

Numerous studies have found extremely high rates of physical and sexual assault on dating partners by university students. The typical results show that from 20 to 40 percent of students physically assaulted a dating partner in the previous 12 months (Sugarman and Hotaling 1989; Sellers 1999; Katz et al. 2002). Most of these studies have been in the USA and Canada.

One objective of this study is to determine the extent to which these high assault and injury rates are found among students in other national settings around the world.

If high rates of violence against dating partners are found to be characteristic of university students in most or many countries, this adds urgency to research that can help explain why so many students engage in this type of behaviour. The research on this issue to be reported was stimulated by previous theoretical and empirical research which found that corporal punishment (henceforth, CP) experienced as a child is associated with a broad range of important behaviour problems, such as antisocial behaviour as a child (Simons et al. 1998; Straus et al. 1997) and, later in life, depression (Straus 1995a), physical aggression, violence and other criminal behaviour (Simons et al. 1994). These results led to what, for purposes of brevity of exposition, will be called the criminogenic theory of CP. This theory is presented in detail elsewhere (Straus 2001, 2006 in press), including specification of mediating and moderating processes and feedback loops. The research reported in this article was conducted to test the applicability of this theory to understanding cross-national and cross-cultural differences in violence against dating partners. Specifically, it was assumed that if the high rate of physical assault against dating partners found in the USA is also found elsewhere, part of the explanation might be because high rates of CP are also found around the world. If that is correct, we should find that the higher the percentage of students who experienced CP as a child, the higher will be the percentage who are violent to a dating partner. Thus, the main objective of this study was to investigate the extent to which the criminogenic theory of CP operates at the societal level in ways that are parallel to the link between CP and violence found at the individual level. An additional objective was to provide estimates for students in the 19 national settings of the prevalence of CP, of attitudes approving the hitting a partner, of actually assaulting a dating partner, and of injury inflicted on a dating partner.

Corporal punishment

The definition of CP that guided this research was 'the use of physical force with the intention of causing a child to experience pain, but not injury, for the purpose of correction or control of the child's behaviour' (Straus 2001: 4). This corresponds to the criminal code of all states of the USA and a number of other countries. These codes exempt parents from prosecution for criminal assault if their acts against their children are for purposes of

correction and control (see Straus 2001, for a discussion and illustrative statutes).

Evidence indicating that almost all American parents use CP on toddlers has been available for many years. Sears, Maccoby, and Levin (Sears et al. 1957), for example, found that 99 percent of the children they studied had experienced CP. Straus and Stewart (1999) found that 94 percent of US parents hit toddlers, and Bryan and Freed (1982) found that 95 percent of a sample of community college students had experienced CP. Numerous other studies (see Goodenough 1931 (reprint 1975); Wauchope and Straus 1990; Giles-Sims et al. 1995; Holden et al. 1995; Straus 2001) also show very high rates of CP. There is evidence that CP is also typical of the experience of children in many other countries (Levinson 1981; Rohner et al. 1996; Straus 1996; Tang 1998; Durrant 1999). However, the methods of measuring CP in these studies differ greatly, which prevents comparable assessments across society. The research presented in this article makes such comparisons possible because it uses the same measures of CP in all the countries in the study.

Corporal punishment, aggression and crime

As mentioned previously, there has been empirical research linking CP to physical aggression and other child behaviour problems for at least 50 years. This research has been summarized in a meta-analysis of 88 studies that reported 117 relationships between CP and child behaviours which concluded that, although CP secures a child's immediate compliance, it is associated with an increase in many negative outcomes for children (Gershoff 2002). For example, CP has been shown to be associated with an increased probability of hitting other children in kindergarten (Sears et al. 1957; Strassberg et al. 1994), antisocial behaviour and delinquency (Straus et al. 1997), non-family physical assaults (Straus 2001) and conviction for committing a major crime (McCord 1997). The studies that are most directly relevant to this research found that CP is related to adolescents physically assaulting a marital or dating partner (Straus and Yodanis 1996; Simons et al. 1998). These empirical studies, plus the theoretical analysis cited earlier, led to the hypotheses that students in social contexts where CP by parents is more prevalent have a higher rate of: (1) approving a husband slapping his wife and a wife slapping her husband; (2) assaulting a dating partner; and (3) injuring a dating partner.

These hypotheses were tested using 'macro-level' data that examined rates of CP and rates of violence against dating partners by students at 36 universities in 19 different countries.

Methods

The International Dating Violence Study

This research is part of the International Dating Violence Study, which is being conducted by a consortium of researchers in all major world regions. Each researcher used a core questionnaire that was translated and then back-translated to maintain 'conceptual equivalence' (Straus 1969) across the sites. A detailed description of the study, including the questionnaire and all other key documents, is available on the website <http://pubpages.unh.edu/~mas2>, and in previous articles reporting results from this study (Straus 2004; Straus and International Dating Violence Research Consortium 2004; Straus and Savage 2005).

Samples

This article presents results for a convenience sample of students from the 36 universities and 19 countries listed in Table 1. The data were obtained by administering a questionnaire during regularly scheduled classes. The percentage of students in each class who completed the questionnaire ranged from 40 to 100 percent, with a mean of 86 percent. Most of the classes were in psychology, sociology, criminology, and family studies. The results describe what was found for the students in those classes in each country and cannot be taken as representative of students in general.

The questionnaires were scanned for aberrant response patterns such as an implausibly high frequency of rare events (for example, 10 instances of attacking a partner with a knife or gun in the past year); or inconsistent answers (for example, reporting an injury but no assault). Based on this screening method, 6.2 percent of the respondents were not used in this study. This left a total of 9549 students. The sample sizes for each university are shown in Table 1.

Questionnaire administration

The data were gathered using procedures reviewed by and approved by the boards for protection of human subjects at each of the universities in the study. The purpose of the study and the right to not participate were explained to all students. They were assured of anonymity and confidentiality, and given a debriefing form that explained the study in more detail and provided contact information for area social service agencies should they need assistance.

Measures of CP and violence approval

CP by parents and approval of partner violence by the students were measured using the questions from the Personal and Relationships Profile (Straus et al. 1999; Straus and Mouradian 1999). This instrument has scales to measure 23 risk factors for partner violence, such as Self-Control and Dominance (by one partner in the relationship). For this article, we used questions from the Violent Socialization scale and the Approval of Violence scale.

Corporal punishment

The question assessing experiences of CP was 'I was spanked or hit a lot by my parents before age 12'. The response categories were: (1) Strongly Disagree, (2) Disagree, (3) Agree, and (4) Strongly Agree. The CP rate at each university was measured by the percentage of students who did not 'strongly disagree'. This cutting point was based on the assumption that students who did not experience CP would most likely strongly disagree with the statement that they were 'spanked or hit a lot'. An exploratory analysis compared the correlation using this cutting point with greater than two as the cutting point. The results showed higher correlations using 'greater than one'.

Approval of partner violence

Two questions from the Violence Approval Scale of the Personal and Relationships Profile were used to measure approval of violence against a partner: 'I can think of a situation when I would approve of a husband slapping a wife's face' and 'I can think of a situation when I would approve of a wife slapping a husband's face'. The response categories for these questions were the same as for the CP question. The cutting points were again the percentage of students at each university who did not 'strongly disagree'. Exploratory analyses found stronger correlations using this cutting point than with other possible cutting points.

Measures of partner violence

The CTS2

Physical assault and injury were measured by the revised Conflict Tactics Scales or CTS2 (Straus et al. 1996). In the past 25 years, the CTS have been used in hundreds of studies, mostly in North America, but also in many other countries. It has demonstrated cross-cultural reliability and validity (Straus 1990a; Archer 1999; Straus 2004). This research used the

CTS2 scales for physical assault and physical injury, and the subscales for severe assault and severe injury. Most of the assaults and injuries were in the 'minor' category. Because severe violence is considered a unique phenomenon with a different etiology (Straus 1990; Johnson and Ferraro 2000) all analyses were conducted for the overall rates of partner violence, and then repeated for the rates of severe violence.

Physical assault

The CTS2 items to measure 'minor' assault are: (1) pushed or shoved, (2) grabbed, (3) slapped, (4) threw something at partner and (5) twisted arm or hair. The items in the 'severe' assault scale are: (1) punched or hit a partner, (2) kicked, (3) choked (4) slammed against a wall, (5) beat up, (6) burned or scalded, and (7) used a knife or gun or partner. The 'overall' rate of partner assault includes all of these items.

Injury

The CTS2 items to measure minor injury are: (1) felt physical pain the day after a fight with partner, and (2) had a sprain, bruise or cut after fight with partner. The items indicating a 'severe' injury are: (1) broken bone from fight with partner, (2) needed to see doctor because of fight with partner, (3) went to see doctor because of fight with partner, and (4) passed out from being hit on head by partner. The overall rate of injury includes all of these items.

The response categories for the CTS are: (1) once in the past year, (2) twice in the past year, (3) 3–5 times in the past year, (4) 6–10 times in the past year, (5) 11–20 times in the past year, (6) more than 20 times in the past year, (7) not in the past year, but it did happen before, and (8) this has never happened. Each scale was dichotomized to create a prevalence score, coded 1 if any of the acts occurred in the past year and coded 0 if there were no assaultive acts. The data used for this article are the percentage of students at each university with a score of 1, namely the percentage who assaulted or injured a dating partner.

The mean alpha coefficient of reliability for the overall physical assault scale for the samples in this study was .88. For the injury scale, the mean alpha coefficient was .89. The reliability coefficients for each university site and data on the cross-national validity of the CTS2 are given in Straus (Straus 2004).

Social desirability scale

In research on self-reported criminal behaviour, differences between groups could reflect differences in willingness to report socially undesir-

able behaviours as much or more than real differences in crime. To deal with this threat to validity, we used a scale that measures the tendency to minimize reporting of socially undesirable behaviour. This is the Social Desirability scale of the Personal and Relationships Profile (Straus et al. 1999; Straus and Mouradian 1999). This 13-item scale includes behaviours and emotions that are slightly undesirable but true of most people, such as 'I sometimes try to get even rather than forgive and forget'. The more items a respondent denies, the more likely a respondent will avoid reporting assaulting a partner. The theoretical range of the scale is 13 to 52. In this sample, the scores ranged from 15 to 52, (mean = 33.99, SD of 4.78). The analyses controlled for the mean social desirability scale score at each university site.

Demographic characteristics of the sites

Table 1 shows that the demographic composition of the universities varied greatly. The data analysis controlled for these differences because they might be confounded with the variables of theoretical interest.

Gender

Gender was measured as the percent of female participants at each university. About two-thirds of the students were female (68 percent) because the questionnaires were administered in social science courses that tend to have a heavy concentration of female enrolments. Because this study is focused on issues in which gender differences are important, the analyses either controlled for gender or were replicated for male and female students.

Age

Students' ages ranged from 18 to 40. It is well established that younger ages are associated with higher rates of violent crime, including partner violence (Stets and Straus 1989). The mean student age each at each university site was used as the indicator of age for the macro-level analyses.

Relationship length

The mean length of relationship was 13 months, but the length of the relationships varied greatly. Five percent had been in their current relationship for only one month. More than a quarter (28 percent) had been in their relationships for over two years. Because relationships change over

time, it was important to control for this factor. For this article the mean number of months that students at each university had been in their current relationships was used as a control.

Data analyses

The analyses were performed using a 'macro-level' data file, in which the cases are the 36 university sites, not individual students in the sample. It would have also been possible to use the 19 nations as the units of study. We chose to use the 36 universities as the units for two reasons. First, the differences between universities in the nations with two or more universities are as great as, or greater than, the differences between nations. Examples include the French- and German-speaking sites in Switzerland and, in the USA, New Hampshire compared to 'historically black' universities. An additional reason for using university sites as the units is the greater statistical power of an N of 36, thus reducing the high risk of Type II error associated with an N of 19.

The macro-level data were created using the SPSS procedure AGGREGATE to produce a data file in which the cases are the 36 university sites and the variables for each case consist of summary statistics for the university site, such as the mean, median, or the percentage of students with a certain characteristic. Separate data files were created for males and females, based on aggregating the data for the males and females in each site, and the analyses were replicated using those files.

Partial correlation analysis was used to test the hypothesized relationships of CP to approval of slapping a spouse, perpetration of physical assault against a dating partner, and injuring a dating partner. The analyses controlled for age of respondent, length of the relationships, social desirability, socioeconomic status and, for analyses of the total sample, gender of the respondent.

Results

Prevalence rates by gender and university site

This section describes the extent to which students at each of the 36 universities (1) experienced CP as a child, (2) approved of violence against a dating partner, and (3) perpetrated violence against a dating partner. Results are presented for the entire sample, for each university, and by gender.

Table 1 Characteristics of university sites

University site	N	% of total		Mean age (years)	Mean relationship length (months)	Mean social desirability score
		N	% Male			
Total	9549	100.0	30.6	22.8	13.8	33.9
<i>Asia and Middle East</i>						
China, Hong Kong	220	2.3	39.5	23.8	12.5	33.3
India, Pune	230	2.4	36.4	22.0	13.9	33.2
Israel, Emek Yezreel	442	4.6	19.5	23.3	12.7	34.3
Singapore	280	2.9	31.2	24.8	17.2	32.8
South Korea, Pusan	314	3.3	36.4	24.2	10.4	31.7
<i>Australia and New Zealand</i>						
Australia, Adelaide	270	2.8	19.3	23.3	15.6	33.8
New Zealand Christchurch	134	1.8	23.7	21.2	12.6	32.2
<i>Europe</i>						
Belgium-Flemish	532	5.6	23.7	20.3	14.5	34.0
England, Leicester	231	2.5	16.5	19.7	14.7	33.1
Germany, Freiburg	169	1.8	42.6	23.8	13.5	32.1
Lithuania, Vilnius	438	4.6	34.2	20.3	12.6	32.5
Netherlands, Amsterdam	175	1.8	28.2	21.9	14.2	34.4
Portugal, Braga	200	2.1	61.5	22.0	15.6	35.4
Scotland, Glasgow	241	2.5	16.2	21.9	14.1	33.8
Swiss, Fribourg, French	291	3.0	33.0	21.8	16.0	33.3
Swiss, Fribourg, German	202	2.1	31.8	19.3	13.9	34.9
<i>Latin America</i>						
Brazil, São Paulo	433	4.5	35.2	21.3	13.2	34.6
Mexico, Northern	254	2.7	18.5	20.7	13.0	37.0
<i>North America</i>						
Canada, Hamilton	301	3.2	14.0	21.5	15.2	33.4
Canada, London	145	1.5	45.5	19.4	10.8	33.2
Canada, Montreal	330	3.5	22.2	23.6	16.9	34.5
Canada, Toronto	293	3.1	35.8	20.2	13.0	34.1
Canada, Winnipeg	165	1.7	12.7	22.1	15.0	33.2
USA, Cincinnati	407	4.3	52.0	20.5	13.3	34.1
USA, Indiana, Terre Haut	273	2.9	30.0	19.8	12.5	34.7
USA, Louisiana, Grambling	183	1.9	40.7	21.4	12.3	36.1
USA, Mississippi, Jackson	269	2.8	10.4	29.3	18.6	35.5
USA, New Hampshire (1)	744	3.9	34.2	19.8	9.1	33.5
USA, New Hampshire (2)	371	4.1	25.3	20.7	13.4	34.5
USA, Pennsylvania	253	2.6	25.7	20.1	11.2	33.5
USA, Texas, Houston	116	1.2	46.6	20.1	12.2	33.3
USA, Texas, Mexican-American	280	2.9	42.5	24.4	16.0	35.5
USA, Texas, Nacogdoches	132	1.4	28.0	20.8	13.2	33.2
USA, Texas, Non-Mexican American	269	2.8	46.4	23.7	15.3	34.2
USA, Utah, Logan	191	2.0	37.7	21.9	11.7	33.5
USA, Washington DC	95	1.0	14.7	20.4	14.5	33.2

Corporal punishment before age 12

The first row of Table 2 shows that, at the median university in this study, over half of the students did not 'strongly disagree' that they were 'spanked or hit a lot' by their parents as child (under age 12). The median for male students of 60.8 percent is 13 percent greater than the median for female students (53.4 percent). The rows for Range in Table 2, and the rank order of the university sites in Table 3 show that there were large differences between university sites in the percentage of students who experienced 'a lot' of CP. Table 3 shows the percentage who experienced CP in rank order for the total sample at each site, starting with the site where CP was most prevalent. The ranking ranged from a high of 72.6 percent of the students at one American university to a low of 12.9 percent for a university in

Table 2 Rates of corporal punishment, approval of violence and assaulting a dating partner by students at 36 universities

<i>Measure</i>	<i>Male %</i>	<i>Female %</i>	<i>Total %</i>
Hit a lot before the age of 12			
Median	60.8	53.4	55.6
Range	18.5–85.7	11.2–70.4	12.9–72.6
Approve of a husband slapping a wife			
Median	51.3	40.9	43.4
Range	24.1–85.9	23.7–75.6	23.9–79.7
Approve of a wife slapping a husband			
Median	78.4	75.3	76.9
Range	59.3–96.0	59.7–90.1	65.5–91.5
Overall assault against a partner			
Median	24.2	30.0	29.8
Range	11.9–50.0	9.76–49.5	14.5–44.6
Severe assault against a partner			
Median	8.5	9.6	9.7
Range	1.49–22.6	2.4–21.9	4.2–20.2
Overall injury perpetrated against a partner			
Median	7.2	6.1	6.6
Range	0.0–22.2	0.0–23.5	1.03–19.7
Severe injury perpetrated against a partner			
Median	1.8	1.1	1.7
Range	0.0–13.3	0.0–11.7	0.0–9.9

Table 3 Corporal punishment experienced before age 12 (N = 36 university sites)

University site	% Did not strongly disagree			
	Total	Male	Female	Female-male ratio
USA, Washington DC	72.6	85.7	70.4	82.1
Canada, Toronto	69.5	78.8	64.4	81.6
USA, Louisiana, Grambling	68.4	87.1	55.8	64.0
Canada, Winnipeg	66.5	81.0	64.3	79.5
Mexico, Northern	66.0	69.6	65.2	93.7
Singapore	65.6	68.6	64.2	93.6
USA, Texas, Nacogdoches	64.3	73.0	60.9	83.4
USA, Mississippi, Jackson	63.9	60.7	64.3	105.8
USA, Ohio, Cincinnati	63.5	69.4	57.4	82.7
China, Hong Kong	62.7	71.3	57.1	80.2
USA, Texas, Non-Mexican American	62.6	65.8	60.0	91.2
Germany, Freiburg	61.5	63.9	59.8	93.6
South Korea, Pusan	58.8	63.2	56.3	89.2
USA, Indiana, Terre Haut	58.5	75.3	51.3	68.1
USA, Utah, Logan	58.4	65.3	54.2	83.1
Canada, Hamilton	58.3	57.5	58.4	101.6
Canada, London	57.2	66.7	49.4	74.1
India, Pune	55.8	55.8	55.7	99.8
Scotland, Glasgow	55.6	56.4	55.4	98.3
USA, Texas, Mexican-American	54.4	56.9	52.5	92.3
USA, Pennsylvania, Small Town	54.4	60.9	52.1	85.5
New Zealand, Christchurch	53.9	51.3	54.7	106.6
England, Leicester	53.7	68.4	50.8	74.2
Australia, Adelaide	53.4	58.8	52.1	88.6
USA, Texas, Houston	51.8	57.4	46.6	81.1
Swiss, Fribourg, French	51.7	62.4	46.6	74.8
USA, New Hampshire (2)	49.3	60.4	45.5	75.3
Lithuania, Vilnius	47.9	56.7	43.4	76.6
USA, New Hampshire (1)	44.0	51.6	40.0	77.6
Swiss, Fribourg, German	35.2	37.9	33.9	89.3
Canada, Montreal	27.3	35.2	25.1	71.3
Portugal, Braga	23.5	30.1	13.0	43.2
Israel, Emek Yezreel	22.8	22.9	22.7	99.3
Netherlands, Amsterdam	19.7	33.3	14.4	43.2
Brazil, São Paulo	19.4	25.5	16.2	63.4
Belgium-Flemish	12.9	18.5	11.2	60.2

Belgium. The distribution is skewed to the high CP end. There were 12 sites where over 60 percent of the students were spanked or hit a lot during their childhood. The final column of Table 3 allows readers to see the female-to-male ratio of CP experiences. In almost all of the sites, a larger percentage of male than female students experienced CP (33 out of 36 sites).

Approval of husband slapping his wife

The second row of Table 2 shows the rates of approval of violence against a female partner as measured by the percentage of students who did not strongly disagree that there are situations when they 'would approve of a husband slapping a wife's face'. At the median university, almost half of the students did not strongly disagree with this statement. The rate was higher for male students (51.3 percent) than female students (40.9 percent). There were large differences between university sites. Table 4 shows that there were 12 sites in which over 50 percent of the students accepted a husband slapping a wife under some circumstances. The two sites with the lowest percent – Utah, USA (26 percent) and Houston, Texas (24 percent) – had rates less than half the rate of the sites with the highest rate of approval.

Approval of wife slapping her husband

Approval of wives slapping husbands was measured by the percent of students who did not strongly disagree that there are circumstances when they would 'approve of a wife slapping her husband's face'. The third row of Table 2 shows that the rates were extremely high – 77 percent at the median university. Table 5 shows that at every one of the 36 universities, over two-thirds of the students approved of a wife slapping her husband in some situations. At most sites, the percentage of males and females who approved of a wife slapping a husband was similar, but a larger percentage of male students approved at 20 of the 36 universities.

Assaulted a partner

The fourth row of Table 2 shows that at the median university, 29.8 percent of the students physically assaulted a partner within the past year. The median for severe assaults such as punching, kicking and choking was 9.7 percent. Table 6 shows that the highest overall rates of assault on dating partners were in northern Mexico, Washington DC, USA, Louisiana, USA and Leicester, Great Britain. At these four universities, the rates were at or above 40 percent. The three sites with the lowest overall assault rate were Utah, USA, Braga, Portugal and Houston, Texas, USA. Even the lowest assault rate in this study (14.5 percent) is still a high rate. This is evidenced by comparing the 14.5 percent rate with the rate of 3.8 percent for physical assault of a partner found by the US National Crime Victim-

ization Survey (Rennison 2002). Thus, the lowest rate in this study is almost four times higher than the rate for the US general population. This extremely high rate is typical of university student samples and other samples of young couples (Sugarman and Hotaling 1989; Katz et al. 2002).

Tables 2 and 7 also indicate that more females assaulted their partners than did males. Table 7 shows that the rate of perpetration of violence against a dating partner by female students was greater than the rate of perpetration by male students at 28 of the 36 sites. The median percentage by which women exceed the rate for men was 121 percent. At some sites the differences were very large. For example, at the universities in Singapore, Hong Kong and Scotland, the rate of assaults by women students exceeded the rate by male students by more than 200 percent.

Injured a partner

The injury rates displayed in Tables 2 and 7 indicate that more male students than female students inflicted an injury on a dating partner (median = 7.2 percent inflicted by male students compared to 6.1 percent for females). For severe injuries, the median rate was 1.8 percent for injuries inflicted by male students compared to 1.1 percent by female students. There were large site-to-site differences in rates of injury perpetration. Table 7 shows that students in London, Canada, Louisiana, USA and Pune, India, had the highest rate of injury perpetration in this study. The rates for those sites ranged from 17 percent to 20 percent for any injury. Students in Amsterdam, Netherlands, Braga, Portugal, and French-speaking students in Fribourg, Switzerland injured their partners the least, ranging from 1 to 2 percent. Although rates of 1 and 2 percent are only a fraction of the injury rates in the three highest sites, they nonetheless indicate that, even in the least violent of the universities, violence in dating relationships is a threat to the health of students.

Relationship between CP and partner violence

This section addresses the central theoretical focus of the study – the proposition that social contexts in which CP is prevalent have a greater degree of acceptance of other forms of interpersonal violence at both the normative level and the behavioural level. Figure 1 provides the results for the partial correlations analyses that were performed to test this theory.

Table 4 Approve of husband slapping a wife (N = 36 university sites)

University site	% Did not strongly disagree			
	Total	Male	Female	Female-male ratio
India, Pune	79.7	85.9	75.6	88.0
Singapore	64.8	60.7	66.7	109.8
Swiss, Fribourg, German	62.4	69.8	59.2	84.8
England, Leicester	61.7	65.8	60.9	92.6
Portugal, Braga	57.8	61.5	51.9	84.5
Lithuania, Vilnius	55.9	73.0	47.0	64.4
Swiss, Fribourg, French	55.5	55.9	55.3	98.8
Germany, Freiburg	55.0	52.8	56.7	107.4
South Korea, Pusan	54.2	64.3	48.5	75.4
New Zealand Christchurch	53.6	52.5	53.9	102.7
China, Hong Kong	53.2	63.5	46.6	73.4
Australia, Adelaide	51.1	56.9	49.8	87.5
Scotland, Glasgow	48.1	51.3	47.5	92.7
Canada, Toronto	47.1	55.8	42.2	75.6
USA, Washington DC	45.7	64.3	42.5	66.1
USA, Ohio, Cincinnati	44.9	50.5	39.3	77.7
USA, Louisiana, Grambling	44.8	51.5	40.6	78.7
USA, Texas, Nacogdoches	44.2	51.4	41.3	80.4
Brazil, São Paulo	42.7	52.1	37.7	72.4
Canada, Hamilton	42.2	37.5	43.0	114.6
Canada, London	42.1	51.5	34.2	66.3
USA, Texas, Mexican-American	41.5	40.5	42.1	104.0
Canada, Montreal	41.2	44.3	40.4	91.2
USA, Pennsylvania, Small Town	39.3	46.9	36.7	78.3
USA, New Hampshire (1)	39.0	40.6	38.2	94.1
USA, New Hampshire (2)	35.6	44.0	32.7	74.4
USA, Mississippi, Jackson	35.1	25.0	36.3	145.3
Mexico, Northern	34.8	51.1	31.2	61.0
USA, Texas, Non-Mexican American	34.6	41.9	28.6	68.2
Canada, Winnipeg	34.5	33.3	34.7	104.2
Israel, Emek Yezreel	34.0	35.7	33.6	94.1
USA, Indiana, Terre Haut	33.7	31.3	34.7	111.2
Netherlands, Amsterdam	32.9	37.5	31.1	83.1
Belgium-Flemish	31.0	39.2	28.5	72.6
USA, Utah, Logan	25.9	25.0	26.5	106.0
USA, Texas, Houston	23.9	24.1	23.7	98.6

Corporal punishment and approval of slapping a spouse

The paths in Figure 1 from CP to approval of slapping a partner do not support the theory tested in this study. Although five of the six partial correlations are in the expected direction, none is statistically significant.

Table 5 Approve of a wife slapping a husband (N = 36 university sites)

University site	% Did not strongly disagree			
	Total	Male	Female	Female-male ratio
Lithuania, Vilnius	91.5	96.0	89.1	92.9
Swiss, Fribourg, German	88.5	89.3	88.2	98.8
Swiss, Fribourg, French	87.4	82.1	90.1	109.7
India, Pune	85.6	81.4	88.6	108.9
Germany, Freiburg	84.6	79.2	88.7	112.0
Scotland, Glasgow	83.3	82.1	83.5	101.8
Singapore	82.8	82.1	83.2	101.2
England, Leicester	82.3	78.9	82.9	105.0
USA, Washington DC	81.9	64.3	85.0	132.2
USA, Pennsylvania, Small Town	80.9	84.4	79.7	94.4
New Zealand Christchurch	80.5	80.0	80.6	100.8
Australia, Adelaide	79.9	84.3	78.9	93.5
Portugal, Braga	79.4	81.3	76.3	93.9
USA, Texas, Mexican-American	78.8	78.8	78.8	99.9
Canada, Montreal	78.4	80.8	77.6	96.1
USA, Texas, Nacogdoches	78.3	86.5	75.0	86.7
USA, Texas, Non-Mexican American	77.6	80.3	75.2	93.6
USA, New Hampshire (1)	77.5	76.6	78.0	101.9
Canada, Toronto	76.3	78.8	74.9	95.0
Canada, Hamilton	76.3	72.5	76.9	106.0
South Korea, Pusan	75.6	76.3	75.3	98.6
China, Hong Kong	75.2	77.9	73.5	94.3
USA, Texas, Houston	74.3	77.4	71.7	92.6
USA, Ohio, Cincinnati	74.2	75.8	72.6	95.9
USA, Mississippi, Jackson	73.8	59.3	75.4	127.3
USA, New Hampshire (2)	73.6	74.7	73.2	98.0
Canada, Winnipeg	72.7	61.9	74.3	120.0
USA, Indiana, Terre Haut	72.1	67.9	73.8	108.7
Belgium-Flemish	71.4	69.4	72.0	103.9
USA, Utah, Logan	71.2	69.4	72.3	104.1
Israel, Emek Yezreel	71.1	60.0	73.8	123.0
Canada, London	71.0	72.7	69.6	95.7
Portugal, Braga	69.2	75.0	66.2	88.2
Netherlands, Amsterdam	66.9	85.4	59.7	69.9
Mexico, Northern	66.7	73.3	65.2	88.9
USA, Louisiana, Grambling	65.5	59.4	69.5	117.0

Assaulting a partner

The relationship between the prevalence of CP at each university site and the prevalence of assaulting a dating partner is displayed in the middle of Figure 1. For the overall assault rate, all of the correlations are in the

Table 6 Perpetration of partner assault (N = 36 university sites)

<i>University site</i>	<i>% Who assaulted a dating partner</i>			
	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Female-male ratio</i>
Mexico, Northern	44.6	29.0	47.4	163.3
USA, Washington DC	44.4	50.0	43.5	87.0
USA, Louisiana, Grambling	44.2	36.4	47.5	130.6
England, Leicester	40.2	34.6	41.1	118.7
China, Hong Kong	38.6	23.1	49.5	214.3
India, Pune	35.6	32.0	37.1	115.9
Canada, London	35.0	24.5	42.6	174.1
USA, Texas, Mexican-American	34.7	36.6	33.6	91.7
USA, Mississippi, Jackson	34.2	24.0	35.4	147.7
South Korea, Pusan	33.3	24.0	39.2	163.2
Scotland, Glasgow	32.3	16.1	34.9	216.5
Canada, Toronto	31.6	25.7	34.5	134.1
USA, Indiana, Terre Haut	31.6	35.2	30.3	86.0
Belguim, Flemish	31.4	26.5	32.7	123.4
USA, Texas, Non-Mexican American	31.3	30.2	32.2	106.5
USA, Texas, Nacogdoches	31.3	41.9	27.2	64.8
Netherlands, Amsterdam	30.4	32.4	29.7	91.8
Lithuania, Vilnius	30.0	19.1	35.2	184.5
Germany, Freiburg	29.5	37.1	24.0	64.5
USA, New Hampshire (1)	29.1	24.7	31.1	126.1
Canada, Winnipeg	29.0	29.4	28.9	98.3
New Zealand Christchurch	27.5	17.2	30.4	176.3
USA, New Hampshire (2)	26.1	25.0	26.4	105.6
Swiss, Fribourg, French	25.0	30.6	23.1	75.6
USA, Ohio, Cincinnati	24.4	20.9	27.6	132.1
Swiss, Fribourg, German	24.0	18.5	25.5	137.6
Brazil, São Paulo	23.4	22.2	24.0	108.0
Canada, Hamilton	23.3	15.2	24.5	162.0
Canada, Montreal	23.2	22.4	23.5	104.6
Singapore	23.1	11.9	28.2	236.1
USA, Pennsylvania, Small Town	21.0	16.3	22.4	137.0
Australia, Adelaide	20.9	19.5	21.2	108.9
Israel, Emek Yezreel	20.2	20.3	20.2	99.4
USA, Utah, Logan	18.1	14.8	20.0	135.6
Portugal, Braga	16.5	16.5	16.7	101.3
USA, Texas, Houston	14.5	20.0	9.8	48.8

expected direction and they are significant. Similar results are shown for severe assault. It is also noteworthy that the correlations based on the rate at which female students experienced CP are as strong as, or stronger than, the correlations based on the male rate of experiencing CP.

Table 7 Perpetration of injuring a partner (N = 36 university sites)

University site	% Who injured a dating partner			
	Total	Male	Female	Female-male ratio
Canada, London	19.7	14.3	23.5	164.7
USA, Louisiana, Grambling	17.0	15.6	17.5	112.0
India, Pune	16.9	9.5	19.4	203.2
USA, Indiana, Terre Haut	13.7	22.2	10.6	47.7
USA, Texas, Non-Mexican American	11.2	8.8	13.2	149.7
USA, Washington DC	11.1	16.7	10.1	60.9
Mexico, Northern	10.3	6.7	11.0	164.7
South Korea, Pusan	10.3	9.5	10.7	113.6
Canada, Toronto	9.9	10.3	9.7	94.4
USA, Mississippi, Jackson	9.1	16.0	8.3	51.8
USA, Texas, Nacogdoches	9.1	17.2	6.2	35.8
Canada, Hamilton	7.9	6.1	8.2	135.0
USA, Ohio, Cincinnati	7.8	9.4	6.5	69.0
Scotland, Glasgow	7.8	6.5	8.0	123.7
USA, Texas, Mexican-American	7.7	8.8	7.1	81.1
New Zealand Christchurch	6.9	10.3	5.9	56.9
Belguim, Flemish	6.8	5.1	7.3	143.3
Canada, Winnipeg	6.6	6.3	6.6	105.8
USA, New Hampshire (2)	6.4	7.6	6.0	79.8
China, Hong Kong	6.3	4.6	7.5	163.1
Israel, Emek Yezreel	5.8	6.8	5.5	81.6
Germany, Freiburg	5.4	8.6	3.1	36.5
England, Leicester	5.3	3.8	5.5	143.6
USA, New Hampshire (1)	5.1	4.2	5.5	131.3
Canada, Montreal	4.9	10.3	3.5	34.2
USA, Texas, Houston	3.9	5.7	2.4	42.7
Brazil, São Paulo	3.9	2.5	4.6	185.1
Singapore	3.7	4.5	3.4	74.9
USA, Pennsylvania, Small Town	3.3	8.2	1.9	22.8
Swiss, Fribourg, German	3.1	0.0	4.0	0.0
Lithuania, Vilnius	2.6	1.8	3.0	167.4
Australia, Adelaide	2.6	0.0	3.1	0.0
USA, Utah, Logan	2.4	3.3	1.9	58.1
Netherlands, Amsterdam	2.2	8.8	0.0	0.0
Portugal, Braga	2.2	3.8	0.0	0.0
Swiss, Fribourg, French	1.0	0.0	1.4	0.0

Injuring a partner

The lower two paths in Figure 1 show that the larger the percentage of students in a social context who experienced CP as a child, the higher the

percentage who injured a dating partner. This relationship applies to both male and female students. For male students it applies to both the overall injury rate and to the severe injury rate, but for female students it applies only to the overall injury rate.

Analyses at the nation-level

The analyses in this section were repeated, using ‘nation’, as opposed to ‘university’, as the unit of analysis. The findings were similar to those using the university-level data, but fewer were significant because of the N of 19, and the results were less consistent. For example, using nation as the unit of analysis, the relationship between CP and assaulting and injuring a partner was strong for females, but for males the relationship was smaller or not present at all. Although the nation level is interesting, because of the limited power and the inconsistencies, and for the reasons given in the data analysis section, we ultimately decided to focus on the findings from the university-level data.

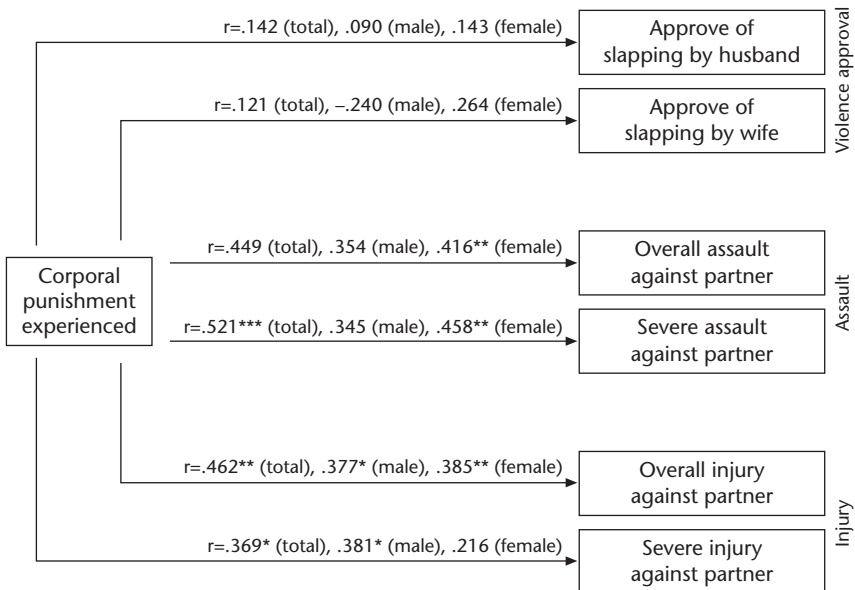


Figure 1 Links between corporal punishment experienced and three aspects of violence against a dating partner for total sample, males and females.

Note: All analyses controlled for gender, age, length of relationship, and social desirability.
 * $p \leq 05$, ** $p \leq 01$, *** $p \leq 001$.

Discussion

The first purpose of this study was to assess the prevalence of corporal punishment (CP) experienced by university students in 19 different national contexts, the degree to which students in those contexts approved of a man or woman slapping their partner, and the rate at which students physically assaulted and injured dating partners. The second purpose was to test what was called the criminogenic theory of CP. This theory asserts that CP, rather than producing more law-abiding citizens, increases the probability that individuals will engage in anti-social behaviour in childhood and, in violence and other criminal behaviour as adults (Straus 2001, 2006; In Press).

Prevalence of CP and violence against dating partners

We found large differences between the 36 university sites in the prevalence of CP; however, the median rate (56 percent) was high. The percentage of students who experienced childhood CP ranged from 13 percent to 73 percent. In respect to physically assaulting a dating partner, the rate ranged from 15 percent to 45 percent (median 30 percent) and for severe assaults, ranged from 4.4 percent to 20 percent (median 9.7 percent). The high rates of physical violence against dating partners confirms what has been found in USA and Canadian studies of university students and other young couples (Sugarman and Hotaling 1989; Katz et al. 2002). Also typical of other studies is the finding that, at more than three quarters of the sites in this study, a larger proportion of female than male students physically assaulted dating partners (Archer 2000). The median rate of partner assault was 21 percent higher for females than for males. Overall injury rates ranged from 1.0 percent to 20.0 percent (median 6.5 percent). The percentage of students who caused a severe injury ranged from 0 percent to 13 percent (median 1.7 percent). These findings point to an important public health and crime problem among youth from relatively privileged segments of the nineteen countries in this study.

Links between CP and violence against dating partners

The analyses did not support the hypotheses that social contexts in which CP is prevalent tend to also be contexts in which there is more approval of partner violence. On the one hand, part of this may be because approval of a husband slapping a wife and of a wife slapping a husband under certain conditions, such as infidelity, is so widespread that the skewed distribution restricted the size of the correlation. On the other hand, the results did strongly support the hypothesis that the larger the percentage of persons in

a social context who experienced CP the higher *is* the rate of physically assaulting *and of injuring* a dating partner.

Limitations

Before drawing conclusions from these results some important limitations need to be mentioned. Perhaps the most important limitation is that one cannot make generalizations about nations, or even about university students in the nations where the data was gathered. This is because students are not necessarily representative of a nation, and because the student samples were not chosen to be representative of all students. The only generalizations that can be made are about the applicability of the criminogenic theory of CP. The results showing that social contexts in which CP is prevalent tend to also be social contexts in which assaults on romantic partners is prevalent are consistent with that theory and extend the application of the theory to the societal level.

Second, approximately two-thirds of the sample is female. We reduced the potential problems resulting from this limitation by conducting separate analyses for males and females.

Last, there are potential problems with the measure of CP. The phrase 'hit a lot' is vague. The number of times the students had in mind for 'a lot' is unknown, and it probably varies between students and sites.

Why is CP linked to violence against a partner?

The results of the current study are consistent with other studies which have found that CP is associated with violence against dating and marital partners (for example, Straus and Yodanis 1996; Simons et al. 1998). We suggest that social learning processes are part of the explanation for the link between CP and partner violence. Children tend to model their behaviour on that of their parents, including following the model of what their parents did to correct misbehaviour. Studies such as Fiebert and Gonzalez (1997) and Miller (2001) have found that most of the violence against dating partners is a response to what the offender believes to be 'misbehaviour' by the partner, especially sexual infidelity. This is consistent with the idea that hitting a dating partner who engages in misbehaviour often follows the model set by parents who hit a child who misbehaves.

At the social system level, rather than the sequence in the life history of the students identified in the previous paragraph, a bi-directional process is likely. A society in which CP is prevalent is likely to be a society in which other types of violence are also prevalent. Levinson's study of the societies in the Human Relations Area Files (1989), for example, found a correlation of .32 between the extent to which CP was used and the extent of wife-

beating. This is consistent with the cultural spill over theory of violence (Baron et al. 1988; Baron and Straus 1989). This theory asserts that the more a society uses violence for socially legitimate purposes such as bringing up children or punishing criminals, the more individual citizens are likely to use violence for socially illegitimate and often criminal purposes. That is, violence in any sphere of life will tend to engender violence in other spheres of life. To the extent that this theory is correct, prevention of CP will contribute to prevention of partner violence and vice versa.

In the United States, both partner violence and CP have been decreasing (Straus and Gelles 1986; Straus, 1995b, 2006, In Press). The decrease in partner violence is in part due to the feminist-led effort to end wife-beating by raising public awareness, changes in police and judicial procedures, and establishing refuges for female victims. The decrease in CP is in part due to the expansion of parent education into all types of media that reach ever-larger sectors of the population. Important as have been the feminist effort to end wife-beating and the efforts of developmental psychologists and parent educators to improve parenting, both have serious weakness which need to be addressed.

A major weakness of the feminist effort to end domestic violence has been a refusal to take into account the overwhelming evidence from more than a hundred studies that have found that women assault their partners at about the same rate as men and that women initiate domestic violence as often as men (Archer 2000; Straus 2005b). That evidence is further confirmed by the results reported in this article. Given the fact that most domestic violence is mutual, and that as much, or more, is initiated by women, the effort to protect women from domestic violence is severely handicapped by a failure to address these facts. Moreover, as this and other studies have shown, among young couples, more women than men assault their partners. The family is a social system in which changing the system requires attention to all parts of the system, not just half of it. Current policy ignores the fact that violence is an interactive event. Some aspects of current efforts and policies explicitly prevent dealing with the social interaction aspect of partner violence; for example there are statutory prohibitions in some US states on couple or family therapy for partner violence.

The effort to end CP also has deliberate omissions that are crippling. This came to light with research showing that, although CP of older children has declined by at least half in the last generation, over 90 percent of American parents continue to smack toddlers (Straus and Stewart 1999). A major part of the explanation for this seeming anomaly is that that all but a tiny minority of parent-educators refuse to unequivocally advise parents to never use corporal punishment. It is part of their professional

ideology, as one paediatrician put it, not to impose their ideology on parents. Instead, those who are opposed to CP typically advise parents to 'avoid spanking if you can' – the best-known example is the hugely influential book *Baby and Child Care* (Spock and Rothenberg 1992), which avoids advising parents never to smack a child. That advice almost guarantees that the parent will use CP because, with a two-year old, the recidivism rate for whatever misbehaviour a parent corrects is about 80 percent within the same day (Larzelere et al. 1996). Since repetition of misbehaviour within the same day is almost inevitable, when it occurs after non-violent methods of correction, most parents wrongly conclude that it was the non-violent correction method that did not work. They do not know about the research that shows that the 80 percent repetition rate applies to all forms of correction and control with toddlers, including CP. They mistakenly think that smacking works when other methods do not, and parent-educators fail to inform them otherwise (Straus 2005a).

Policy implications

The research in this article revealed that, despite considerable progress towards ending partner violence, a large proportion of university students continue to physically attack a dating partner. To the extent that the results of this research are correct in identifying CP as a risk factor for partner-violence, further steps toward primary prevention of partner violence should include increased efforts to end all use of CP by parents. However, that requires a change in parent education efforts in the form of unequivocal advice to never smack, analogous to the unequivocal advice to never smoke. It also requires a change in feminist efforts to end violence against women by helping both partners in a relationship avoid violence. Finally, the high percentage of university students who are assaulted and injured revealed by this study calls for increased efforts to address those phenomena as serious health and crime problems at universities worldwide. One place to start could be based on the results of this study, which show that almost half of the students did not reject the idea that there are circumstances when it is appropriate for a husband to slap his wife, and more than three quarters did not reject that idea that there are circumstances when it is appropriate for a wife to slap her husband.

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