Prevalence of Violence Against Dating Partners by Male and Female University Students Worldwide

MURRAY A. STRAUS
University of New Hampshire

This article presents rates of violence against dating partners by students at 31 universities in 16 countries (5 in Asia and the Middle East, 2 in Australia-New Zealand, 6 in Europe, 2 in Latin America, 16 in North America). Assault and injury rates are presented for males and females at each of the 31 universities. At the median university, 29% of the students physically assaulted a dating partner in the previous 12 months (range = 17% to 45%) and 7% had physically injured a partner (range = 2% to 20%). The results reveal both important differences and similarities between universities. Perhaps the most important similarity is the high rate of assault perpetrated by both male and female students in all the countries.

Keywords: *dating violence; violence against dating partners*

It is now widely recognized that relationships between partners in marital, cohabiting, and dating relationships are often violent (Barnett, Miller-Perrin, & Perrin, 1997; Gelles & Straus, 1988).

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However, it is not as well known that dating couples are even more likely to be violent than married couples, despite the fact that the higher rate has been demonstrated by more than 50 studies, starting in the 1980s (Stets & Straus, 1989; Sugarman & Hotaling, 1989). Numerous studies in the United States and Canada have found an extremely high prevalence of physical assault on dating partners by university students. For example, in Canada and the United States, 20% to 40% of students report one or more assaults in the previous 12 months (Sugarman & Hotaling, 1989). University studies have also indicated similar rates of physical assault by men and by women (Sugarman & Hotaling, 1989), except for sexual assault when women are overwhelmingly the victims (Hines & Saudino, 2003; Zweig, Barber, & Eccles, 1997). For purposes of primary prevention (Cowen, 1978; A. O'Leary & Sweet-Jemmott, 1995), it is vital to increase our understanding of the etiology of this dating couple violence because it can establish patterns that persist over a lifetime (O'Leary et al., 1989; O'Leary, Malone, & Tyree, 1994).

An important step in this regard is to put the North American rates in some broader context. International comparisons, for instance, should help in understanding the cultural and social organizational roots of dating violence and begin identifying distinguishing correlates. This article provides preliminary data on the extent to which the high rates of dating violence are found in other countries and gender differences in dating partner violence in each of 31 university samples in 16 countries. These are the first sites of a planned 30-country study. We also present preliminary results on the cross-national reliability and validity of the measures of physical violence based on the revised Conflict

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Thomas W. Segady, Stephen F. Austin State University; Swati Shirwadkar, University of Pune; Christine Walsh, McMaster University; Susan J. Wurtzburg, University of Canterbury; Dalit Yassour-Borochowitz, Emek Yezreel College; Gyung Ja Yoon, Dongeui University. The study was only possible because of their contributions. They provided important advice and suggestions, translated and administered the questionnaire, and permitted use of their data for this article. Even with these data and assistance, the project would not have been possible without the dedicated and skilled contribution of the project staff at the University of New Hampshire. These include Drs. Emily M. Douglas, Patricia C. Ellerson, and Ignacio Luis Ramirez (NIMH-funded postdoctoral research fellows), and Rose A. Medeiros and Sarah A. Savage (graduate research assistants). For other publications on this and related issues and members of the Dating Violence Research Consortium, go to http://pubpages.unh.edu/~mas2. Financial support was provided by National Institute of Mental Health (Grant No. T32MH15161) and the University of New Hampshire.

Tactics scales (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996).

The International Dating Violence Study is focused on the dating relationships of university students for a number of reasons: (a) Data on university students can be obtained in a uniform way by inexpensive questionnaires. This puts participation in the study within the resources of investigators in many countries; (b) In many countries, heterosexual relationships in the form of "dating" are more likely to exist among university students than in other sectors of the population; (c) As indicated above, a large number of studies show that physical assaults occur very frequently among student dating couples; (d) Students constitute a sizeable population in many countries. In the United States, for example, there are about 15 million currently enrolled in colleges and universities; (e) Students are at a formative period in their lives, especially in relation to the development of appropriate patterns of behavior with a partner. The patterns manifested at this age are often enduring features of their relationship (Murphy & O'Leary, 1989; O'Leary et al., 1989; O'Leary et al., 1994; Pan, Neidig, & O'Leary, 1994).

DEFINITION OF DATING

For the purposes of this study, *dating* was defined as a dyadic relationship involving meeting for social interaction and joint activities with an explicit or implicit intention to continue the relationship until one or the other party terminates or until some other more committed relationship is established (e.g., cohabiting, engagement, or marriage). The social norms for dating and actual dating behavior differ according to many dimensions, including individual differences, racial/ethnic and socioeconomic group differences, historical era, and cultural context. Despite these differences, there are also some inherent structural similarities; for example, it is a dyadic relationship and the parties usually invest time and energy. Therefore, social interactional processes typical of dyads are likely to apply, regardless of whether the relationship was arranged by parents or friends, by newspaper or by Internet, or by one party initiating the development of a relationship. Thus, the principles of theories such as exchange theory and conflict theory could apply to these types of

relationships (whatever they are named) in diverse national contexts.

METHOD

THE INTERNATIONAL DATING VIOLENCE STUDY

The International Dating Violence Study is being conducted by members of a research consortium located at universities in every major world region. A detailed description of the study, including the questionnaire and all other key documents, is available on the Web site http://pubpages.unh.edu/~mas2. The procedures to protect the rights and safety of the participants were reviewed by appropriate authorities at each university. These procedures included explaining the purpose of the study and the fact that the questionnaire contains questions on sensitive issues, including sexual relationships. The same information was printed on the cover page of the questionnaire.

The members of the International Dating Violence Research Consortium administered the dating violence questionnaire to students at their respective universities. There is a core questionnaire that each member of the consortium translated and then back-translated to maintain "conceptual equivalence" (Straus, 1969) across the sites. In addition, the questionnaire has space for members to add questions to measure variables that are uniquely important for their site or to measure constructs that are needed to test a theory of particular interest. These procedures allow the benefits of both standardized measures for all the sites and also the benefits of culturally informed investigations of unique issues in each university. The present article is primarily descriptive. However, future articles will focus on testing theories that might explain the differences in dating violence between universities and differences between individuals within universities.

SAMPLES

The 31 university sites used in this study are listed in Table 1. The number of cases at each site ranged from 132 to 741, with a mean of 279. The questionnaires were usually administered in classes taught by members of the consortium and in other classes

TABLE 1
Characteristics of Students by University

University Site	N	*% Female*	*Mean Age*	*Relationship Length (months)*	*Mean Social Desirability Scale Score*
Total	8,666	68.3	22.0	13.7	34.0
Asia & Middle East					
HKG-Hong Kong	220	60.5	23.8	12.5	33.3
IND-Pune	229	58.1	22.0	13.9	33.2
ISR-Emekzyrl	442	80.5	23.3	12.7	34.3
KOR-Pusan	313	63.6	24.2	10.4	31.7
SGP-Singapore	279	68.8	24.8	17.2	32.8
Australia & New Zealand					
AUS-Adelaide	270	80.7	23.3	15.6	33.8
NZL-Christchurch	134	77.6	21.2	12.6	32.2
Europe					
BEL-Flemish	532	76.3	20.3	14.5	34.0
CHE-French	288	67.0	21.8	16.0	33.3
CHE-German	201	68.2	19.3	13.9	34.9
DEU-Freiburg	169	57.4	23.8	13.5	32.1
NDL-Amsterdam	174	71.8	21.9	14.1	34.3
PRT-Braga	200	38.5	22.0	15.6	35.4
Latin America					
BRA-Sao Paulo	432	64.8	21.3	13.2	34.6
MEX-Juarez	254	81.5	20.7	13.0	37.0
North America					
CAN-Hamilton	300	86.0	21.5	15.2	33.4
CAN-London	145	54.5	19.4	10.8	33.2
CAN-Montreal	329	77.8	23.6	16.9	34.5
CAN-Toronto	293	64.2	20.2	13.0	34.1
CAN-Winnipeg	133	87.2	21.7	14.9	32.9
USA-Cincinnati	406	48.0	20.5	13.3	34.1
USA-Indiana	273	70.0	19.8	12.5	34.7
USA-Louisiana	182	59.3	21.4	12.3	36.1
USA-Mississippi	268	89.6	28.8	18.7	35.5
USA-NH 1	744	68.5	19.8	9.1	33.5
USA-NH 2	371	74.7	20.7	13.4	34.5
USA-Pennsylvania	215	75.8	20.1	11.2	33.4
USA-TX NCDCHS	132	72.0	20.8	13.2	33.2
USA-TX-Mexico	280	57.5	24.4	16.0	35.5
USA-TX-New Mexico	267	53.6	23.7	15.3	34.1
USA-Utah	191	62.3	21.9	11.7	33.5

for which they could make arrangements. Almost all were criminology, psychology, and sociology undergraduate courses. Thus, it is a convenience sample. 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.

Some of the characteristics of the students in each site are given in Table 1. Of the 8,666 students in Table 1, only those who had been in a dating relationship lasting a month or more were used for this article. This varied from 100% to less than one third in Pune, India, where heterosexual dating is not part of the culture. In addition, as in other surveys, not every student answered every question. To respect the privacy and the voluntary nature of participation, the instructions emphasized that respondents were free to not participate by putting a blank questionnaire in the box. Less than 2% chose that option. They were also told that they could omit any question they did not wish to answer. Of students who answered the questionnaire, there were few omissions. For example, 94% answered all the questions for the Conflict Tactics scales (CTS). Listwise deletion was used when computing the CTS scores, resulting in a loss from the sample of 6% of the students.

The completed questionnaires were examined for questionable response patterns, such as reporting an injury but not reporting any assaults as having occurred, or cases with an implausible response, such as attacking partner with a knife or gun 10 or more times in the past year. About 4% of the cases were identified as questionable and were removed from the sample.

MEASURES OF PARTNER VIOLENCE

Physical assault and injury were measured by the CTS2 (Straus et al., 1996). The CTS2 provides separate scores for "minor" and "severe" assaults and injury. The difference between the CTS2 score for minor and severe assaults is similar to the legal distinction between "simple" and "aggravated" assault. When rates are based on both the minor and severe acts, it will be identified as the "overall" or total rate.

PHYSICAL ASSAULT

The specific items in the CTS2 used to measure assault are: Minor assault: threw something at my partner that could hurt, twisted my partner's arm or hair, pushed or shoved my partner,

grabbed my partner, slapped my partner; severe assault: used a knife or gun on my partner, punched or hit my partner with something that could hurt, choked my partner, slammed my partner against a wall, beat up my partner, burned or scalded my partner on purpose, kicked my partner.

Injury. The items in the CTS Minor Injury scale are: had a sprain, bruise, or small cut because of a fight with my partner; felt physical pain that still hurt the next day because of a fight with my partner; and for the Severe Injury scale: passed out from being hit on the head by my partner in a fight; went to a doctor because of a fight with my partner; needed to see a doctor because of a fight with my partner, but I didn't; had a broken bone from a fight with my partner.

Prevalence rate. The CTS2 asks respondents how many times they committed any of the acts in the past year and how many times their partner had done so. The prevalence rate is the percentage of respondents who reported one or more of the acts in each scale.

MEASURES OF RESPONDENT CHARACTERISTICS

Gender. Males were coded as 1 and females as 2. About 2 out of 3 students in the sample are female. The predominance of females occurred because most of the classes in which the questionnaire was administered were courses in psychology and sociology, where women tend to predominate. However, there is also considerable variation among universities. For example, in the Portuguese sample, only 40% are female. Because of the predominance of women and because of the importance of gender differences, all analyses were replicated for each gender, and separate results for male and female students are reported.

Socioeconomic status (SES). A scale to measure socioeconomic status was computed using the number of years of education completed by the student's father and mother and family income. Each of these three variables was transformed to z scores and summed. The sum was transformed to a z score. This approach to

measuring SES provides a score that has the same interpretation at all sites regardless of variations in the educational system or the wealth or poverty of the nation. Specifically, the scores indicate the number of standard deviations above or below the mean of the families of all students in the sample at their university.

Social Desirability scale. Research that uses self-reported data needs to take into account the tendency of some respondents to minimize socially undesirable behavior. This study used the Social Desirability scale of the Personal and Relationships Profile (Straus, Hamby, Boney-McCoy, & Sugarman, 1999; Straus & Mouradian, 1999). This is a 13-item scale adapted from the Reynolds short form of the Marlowe-Crowne Social Desirability scale (Reynolds, 1982). The scale measures the degree to which a respondent tends to avoid disclosing undesirable behavior. The items in the scale consist of behaviors that are undesirable but true of almost everyone, such as "I have never deliberately said something that hurt someone's feelings." Consequently, the more of these almost universal items a respondent denies, the more likely the respondent is to also deny more seriously undesirable information, such as assaulting a partner and other forms of crime. The theoretical range of the Social Desirability scale is from 13 to 52. For this sample, the scores ranged from 18 to 52, with a mean of 34.2 and an *SD* of 4.8. Because of the importance of confounding with social desirability, all subsequent analyses control for score on the Social Desirability scale.

Age. The students ranged in age from 18 to 40. The mean was 21.9, but there were two universities where the students were significantly younger (Juarez, Mexico, and New Hampshire, United States). It is well established that the younger a couple is, the more likely there is to be violence in the relationship (Stets & Straus, 1989). Because the sites varied significantly in age, this variable was controlled in the analysis of university-to-university differences in violence against a partner.

Relationship length. The students had been in the relationship they described for periods ranging from 1 month to more than 2 years. The median number of months was 13, and the mean almost 14. Because the nature of a relationship can change over

time, it is important to control for this variable when comparing the universities.

DATA ANALYSIS

Because the purpose of this article is to describe the prevalence of violence against dating partners, the main mode of data analysis was to compute the rates at each of the 31 universities and present them in tables listing the 31 sites in rank order. The rank order tables permit easy identification of the sites that are low, middle, and high in physical assault and injury of dating partners. Because gender is such an important aspect of violence between partners, all tables provide separate rates for male and female perpetrators. The psychometric adequacy of the rates of assault and injury was investigated by computing the alpha coefficients of internal consistency reliability for each site. Correlation analyses, controlling for social desirability response bias, were used to provide preliminary evidence on construct validity. Because the *N* for the correlation analyses is low (31 sites), to minimize Type II error, the .10 level of significance was used to evaluate statistical significance.

RELIABILITY AND CONFOUNDING WITH SOCIAL DESIRABILITY

Although the CTS has been used in hundreds of studies, most have been studies in North America, and the studies outside of North America have seldom reported reliability coefficients. The International Dating Violence Study provided an opportunity to examine the cross-national reliability and validity of the CTS. Tables giving the alpha coefficients of reliability for each of the 31 sites are in Straus (2004). The mean alpha coefficient for the Physical Assault scale was .88; for the Injury scale, it was .89. Although both of these are high average levels of internal consistency reliability, there was more variability for the Injury scale. For the Physical Assault scale, only 2 of the 31 sites had coefficients below .70, whereas for the Injury scale, five of the coefficients were below .70.

A scale that purports to measure socially undesirable behavior, such as perpetration of physical assaults or injury, might have a

high level of internal consistency reliability because some respondents consistently avoid disclosing that type of behavior. Consequently, it is important to determine whether the differences between sites are an artifact of confounding differences in willingness to disclose socially undesirable behavior and beliefs. The righthand column of Table 1 gives the mean Social Desirability scale scores for each of the 31 university sites. Correlation analysis found that the higher the score on the Social Desirability scale, the lower the rate of physical assault and injury, indicating that the Social Desirability scale is operating as intended. However, these correlations were low. The mean correlation for the Physical Assault scale was –.17 (range = –.03 to –.23) and –.09 for Injury (range = .00 to –.23). These correlations are not high enough to be an important threat to validity. Nevertheless, to be on the safe side, the correlations to be presented later controlled for score on the Social Desirability scale.

RESULTS

PREVALENCE OF PHYSICAL ASSAULT

Physical assault overall. The underlined number in the Total column of Table 2A shows that, at the median university, 29% of the students had physically assaulted a dating partner in the previous 12 months. In addition, comparing the bottom and the top figures in the Total column shows that the rates ranged from 17% to 45%. Thus, at the universities with the highest rates, physical assaults occurred about 2.5 times more often than at the universities with the lowest rates. Although this is an extremely large variation from university to university, it is also important that even at the university with the lowest rate, 17% of the students had physically assaulted a dating partner in the previous 12 months.

Gender differences. The columns for Males and Females in Table 2A show that the rank order of the sites was similar for male and female students. The last column of Table 2A shows that at 21 of the 31 universities, a larger percentage of women than men assaulted a dating partner. This confirms internationally a pattern that has been found in many studies of students at U.S.

TABLE 2
Physical Assault Rates at 31 Universities in Rank Order

A. Overall Assault Perpetration (%)

Site	Total	Gender of Student: Male	Gender of Student: Female	Female % of Male Score
USA-Louisiana	44.7	38.1	48.2	126.5
MEX-Juarez	42.0	30.8	44.3	143.8
IND-Pune	39.0	33.3	41.2	123.7
CAN-London	36.3	25.9	44.2	170.7
USA-Mississippi	34.5	24.0	35.7	148.8
KOR-Pusan	33.7	**24.7**	39.4	159.5
USA-Indiana	33.5	39.0	31.5	80.8
USA-TX-Mexico	33.1	34.0	32.4	95.3
USA-TX NCDCHS	31.3	42.4	26.8	63.2
BEL-Flemish	31.0	26.0	32.5	125.0
CAN-T USA-TX-Mexico	30.6	23.8	34.2	143.7
USA-TX-New Mexico	30.6	31.1	30.2	97.1
NDL-Amsterdam	30.2	31.4	29.7	94.6
DEU-Freiburg	29.5	37.1	24.0	64.7
CAN-Winnipeg	29.0	38.5	27.7	71.9
HKG-Hong Kong	**28.6**	19.5	34.6	177.4
USA-NH 1	28.5	24.7	30.2	122.3
NZL-Christchurch	26.6	16.7	29.2	174.9
USA-NH 2	26.5	26.1	26.6	101.9
CHE-French	24.5	30.2	22.5	74.5
USA-Cincinnati	24.5	22.8	26.1	**114.5**
CHE-German	23.9	18.5	25.2	136.2
BRA-Sao Paulo	23.3	22.4	23.8	106.3
CAN-Hamilton	23.0	13.5	24.5	181.5
CAN-Montreal	22.8	20.6	23.4	113.6
SGP-Singapore	22.7	11.6	**27.8**	239.7
USA-Pennsylvania	21.9	14.0	24.3	173.6
AUS-Adelaide	21.3	19.1	21.8	114.1
ISR-Emekzyrl	20.8	22.6	20.4	90.3
USA-Utah	17.7	16.4	18.4	112.2
PRT-Braga	17.1	17.4	16.7	96.0

B. Severe Assault Perpetration (%)

Site	Total	Gender of Student: Male	Gender of Student: Female	Female % of Male Score
IND-Pune	22.2	12.5	25.8	206.4
USA-Louisiana	21.0	18.0	22.5	125.0
USA-Mississippi	20.5	20.0	20.6	103.0
KOR-Pusan	17.4	9.9	22.2	224.2
CAN-London	15.6	13.8	16.9	122.5
MEX-Juarez	15.4	12.8	15.9	124.2
USA-Indiana	13.4	18.6	11.5	61.8
CAN-Toronto	12.4	8.5	14.4	169.4
USA-TX-New Mexico	12.3	11.8	12.8	**108.5**
HKG-Hong Kong	11.4	5.8	15.0	258.6
USA-Cincinnati	11.3	12.1	10.5	86.8
NZL-Christchurch	10.6	4.2	12.4	295.2
USA-TX NCDCHS	10.4	21.2	6.1	28.8
CAN-Hamilton	9.6	5.4	10.3	190.7
USA-TX-Mexico	9.6	10.8	8.9	82.4
ISR-Emekzyrl	**9.4**	9.7	9.4	96.9
AUS-Adelaide	9.2	9.5	**9.1**	95.8
USA-NH 2	9.0	9.0	9.1	101.1
CAN-Winnipeg	8.9	16.7	8.0	47.9
CAN-Montreal	8.8	7.9	9.1	115.2
CHE-German	8.7	7.4	9.0	121.6
USA-NH 1	8.2	4.3	10.0	232.6
BEL-Flemish	8.1	6.0	8.7	145.0
PRT-Braga	7.6	**9.4**	5.0	53.2
DEU-Freiburg	7.3	10.3	5.2	50.5
BRA-Sao Paulo	6.8	8.4	6.1	72.6
USA-Utah	6.1	4.5	7.0	155.6
SGP-Singapore	5.0	1.5	6.6	440.0
USA-Pennsylvania	4.9	4.7	5.0	106.4
CHE-French	4.5	8.0	3.3	41.3
NDL-Amsterdam	4.4	8.6	3.0	34.9

NOTE: For Section A, r: total male = 0.67, total female = 0.93, male-female = 0.39. For Section B, r: total male = 0.61, total female = 0.96, male-female = 0.37.

universities (Archer, 2000; Sugarman & Hotaling, 1989). A detailed analysis of gender differences in physical assault in 4 of the International Dating Violence Study sites is provided elsewhere (Straus & Ramirez, 2002).

SEVERE PHYSICAL ASSAULT

Most of the assaults in the overall measure were relatively minor attacks, such as slapping or throwing things at a partner. The Severe Assault subscale of the CTS2 permits comparing the universities with respect to more dangerous attacks, such as punching and attacks with objects. Table 2B gives the rates of severe assault at each of the 31 sites. At the median university, 9.4% of the students had severely assaulted a partner in the previous 12 months. At 3 universities, the rates were 20% or higher. Even at the universities with the lowest rates, more than 4% of the students had seriously assaulted a partner in the year covered by this study.

The rank order of severe assaults, although it is correlated .73 with the rank order of the overall assault rate, also differs in some important ways. For example, an important discrepancy occurs for the Amsterdam site. For overall assaults, Amsterdam is at the middle of the distribution, but for severe assaults, Amsterdam has the lowest rate. The opposite difference occurs for the Israeli site, for which the overall assault rate is among the lowest, but the severe assault rate is at the middle of the distribution.

The percentage of female students who severely assaulted a partner also tended to be greater than the percentage of male students, but this occurred less often than for the overall assault measure. For overall assaults (which were primarily minor attacks), the rate for women exceeded the rate for men in 21 of the 31 sites, whereas for severe assaults, the higher rate for perpetration by women occurred in somewhat fewer but still a majority of the sites (18 of the 31 sites).

PREVALENCE OF INJURY

Data on injuries is important because it provides an indication of the extent to which the assaults inflicted by university students on dating partners is a serious crime with harmful effects for victims. The rates of injury perpetrated by the students in this study

are extremely high. Table 3A shows that at the median university, 6.7% of the students had inflicted an injury on a dating partner in the previous 12 months, with a range of 1.5% to 20%. There was no university at which the injury rate was zero. Table 3B shows that there are 4 sites where no students reported perpetrating a severe injury, such as injuries that require medical attention. Nevertheless, the median is still very high—more than 2%—and there are 4 sites with rates of more than 5% severe injury.

Most research on injuries from partner violence shows much higher rates of injury inflicted by men than women (Stets & Straus, 1990; Straus, 1997). Table 3A shows that among the students in this study, although the rates for males were higher than those for females in 18 of the 31 sites (58% of the sites), the amount by which the male rate exceeds the female rate is often not very great.

For severe injuries, perpetration by male students was greater than the rate of injuries inflicted by female students in 21 of the 31 sites. However, there were no severe injuries at four sites. Among the 27 sites with at least one instance of severe injury, the perpetration rate was higher for males in 78% of the sites.

CONSTRUCT VALIDITY

The large differences between sites presented above suggest that the measures of violence between dating partners have adequate sensitivity. As discussed previously, the measures also have acceptable to high reliability and are not importantly confounded with social desirability response bias. These are necessary characteristics, but they are not sufficient. There must also be evidence of validity. This section, therefore, summarizes some preliminary results on the construct validity of the assault and injury measures, and assault and approval of violence (tables showing those results can be downloaded from the Web site http://pubpages.unh.edu/~mas2). The procedure to evaluate construct validity is to examine the correlation of the measure of interest with variables that are known to be related to this variable or for which there are theoretical grounds for expecting it to be related (Campbell & Fiske, 1959). Correlations that fit the expected pattern provide evidence of construct validity.

A zero-order correlation ($r = 0.85$) shows that the higher the percentage of students at a university who severely assaulted a

TABLE 3
Injury Rates at 31 Universities in Rank Order

A. Overall Injury Perpetration (%)

Site	Total	Gender of Student: Male	Gender of Student: Female	Female % of Male Score
IND-Pune	20.0	13.0	22.4	172.3
CAN-London	19.3	13.8	23.4	169.6
USA-Louisiana	18.0	17.1	18.5	108.2
USA-Indiana	14.8	25.4	10.8	42.5
USA-TX-New Mexico	11.5	9.9	12.8	129.3
MEX-Juarez	10.4	7.9	10.9	138.0
KOR-Pusan	10.1	8.9	10.9	122.5
USA-TX NCDCHS	9.7	19.4	**6.1**	31.4
CAN-Toronto	9.5	8.6	10.0	116.3
USA-Cincinnati	9.3	12.7	6.1	48.0
USA-Mississippi	9.3	16.0	8.5	53.1
CAN-Hamilton	7.8	5.4	8.2	151.9
USA-TX-Mexico	7.6	8.8	6.9	78.4
CAN-Winnipeg	7.1	**8.3**	6.9	83.1
NZL-Christchurch	7.1	8.3	6.7	80.7
BEL-Flemish	**6.7**	5.0	7.3	146.0
USA-NH 2	6.3	7.5	5.9	**78.7**
ISR-Emekzyrl	5.9	8.1	5.4	66.7
HKG-Hong Kong	5.5	5.8	5.3	91.4
DEU-Freiburg	5.4	8.6	3.1	36.0
USA-NH 1	5.0	3.9	5.5	141.0
CAN-Montreal	4.8	9.5	3.5	36.8
BRA-Sao Paulo	4.2	3.6	4.4	122.2
SGP-Singapore	3.6	4.4	3.3	75.0
PRT-Braga	3.5	5.9	0.0	0.0
CHE-German	3.1	0.0	3.9	—
AUS-Adelaide	2.9	0.0	3.6	—
USA-Pennsylvania	2.7	4.7	2.1	44.7
NDL-Amsterdam	2.2	8.6	0.0	0.0
USA-Utah	2.2	3.0	1.8	60.0
CHE-French	1.5	2.0	1.3	65.0

B. Severe Injury Perpetration (%)

Site	Total	Gender of Student: Male	Gender of Student: Female	Female % of Male Score
IND-Pune	12.5	8.7	13.9	159.8
CAN-London	8.9	10.3	7.8	75.7
USA-Louisiana	7.6	15.4	3.8	24.7
USA-Indiana	7.4	13.6	5.1	**37.5**
USA-TX NCDCHS	5.3	9.7	3.7	**38.1**
USA-Cincinnati	5.0	9.0	**1.2**	13.3
KOR-Pusan	4.4	2.5	5.6	224.0
USA-Mississippi	3.9	8.3	3.4	41.0
CAN-Toronto	3.3	3.7	3.1	83.8
USA-TX-New Mexico	3.1	5.0	1.6	32.0
CAN-Hamilton	3.0	5.4	2.6	48.1
ISR-Emekzyrl	2.7	3.2	2.5	78.1
USA-TX-Mexico	2.5	6.6	0.0	0.0
DEU-Freiburg	2.4	4.4	1.0	22.7
HKG-Hong Kong	2.3	5.8	0.0	0.0
USA-NH 2	**2.1**	**3.1**	1.8	58.1
BRA-Sao Paulo	1.9	2.4	1.7	70.8
MEX-Juarez	1.8	2.6	1.6	61.5
USA-Pennsylvania	1.6	4.7	0.7	14.9
CHE-German	1.6	0.0	2.0	—
CAN-Winnipeg	0.9	0.0	1.0	—
USA-NH 1	0.8	0.4	1.0	250.0
CAN-Montreal	0.7	1.6	0.4	25.0
CHE-French	0.5	2.0	0.0	0.0
BEL-Flemish	0.5	2.0	0.0	0.0
SGP-Singapore	0.5	1.5	0.0	0.0
AUS-Adelaide	0.4	0.0	0.5	—
NDL-Amsterdam	0.0	0.0	0.0	—
NZL-CHRISTCH	0.0	0.0	0.0	—
PRT-Braga	0.0	0.0	0.0	—
USA-Utah	0.0	0.0	0.0	—

NOTE: For Section A, *r*: total male = 0.73, total female = 0.96, male-female = 0.53. For Section B, *r*: total male = 0.83, total female = 0.91, male-female = 0.55.

partner, the higher the percentage of students at the university who were injured. In addition, a partial correlation analysis controlling for score on the Social Desirability scale found correlations that were the same as the zero-order correlation. The same relationship held for both males and females (partial *r* for males = .81; females = .82). The control for Social Desirability helps rule out the possibility that the correlation reflects site-to-site differences or gender differences in willingness to disclose socially undesirable behavior rather than site-to-site differences in violence against dating partners. These correlations can be taken as evidence that the data on physical assault at the 31 sites refers to more than trivial events.

The International Dating Violence Study also examined cultural approval of violence as a correlate for violence rates. For this purpose, a question asked students whether they agreed or disagreed with the statement, "I can think of a situation when I would approve of a husband slapping a wife's face." At the median university, 42% agreed at least to some extent, and the range was 26% to 79%. Further evidence bearing on construct validity comes from partial correlations showing that the higher the percentage of students at a university who agreed, the higher the percentage of students who assaulted a dating partner. The partial correlation of .26 (holding constant score on the Social Desirability scale) is consistent with the theory that cultural norms and social behavior are interrelated. However, with an *N* of 31, it was not statistically significant.

The International Dating Violence Study also included a question that asked students whether they had been "spanked or hit a lot" by their parents when they were children younger than 12. At the median university, 57% reported having been spanked or hit a lot as a child (range = 13% to 73%). A zero-order correlation and accompanying scatterplot provide further data on construct validity. It shows that the larger the proportion of students who reported that they had experienced frequent corporal punishment, the higher the percentage who had hit a dating partner in the past year ($r = 0.43$). This result also provides cross-national confirmation of the many American studies, including prospective studies, that show that corporal punishment as a child is a risk factor for violence later in life (Gershoff, 2002; Straus, 2001). (For scatterplots, see the Web site http://pubpages.unh.edu/~mas2).

DISCUSSION

PREVALENCE OF PHYSICAL ASSAULT AND INJURY

At the median university in this study, 29% of the students had physically assaulted a dating partner in the previous 12 months. This is consistent with a large number of studies of Canadian and U.S. students. As in previous studies, most of the assaults on dating partners by students are relatively minor, such as slapping and shoving a partner in anger. However, the rate of more dangerous assaults, such as punching, choking, and attacks with weapons, although much lower (10%), was still alarmingly high.

There were large differences between universities, with the percentage of offenders ranging from 17% to 45%. The former is considerably lower, and the latter is somewhat higher than what has usually been found in Canada and the United States. But even the lowest of these rates indicates that in all these diverse cultural settings, a substantial percentage of university students are physically abusive to their partners.

Male and female students were remarkably similar in the proportion who physically assaulted a partner (25% of men and 28% of women at the median university). The similarity in rates also applies to perpetration of severe assaults (9% of both male and female students at the median university). Thus, with respect to both minor and severe assaults, women assaulted their partners at about the same rate as did male students. This confirms internationally a controversial result of many studies (Archer, 2000; Felson, 2002; Moffitt, Caspi, Rutter, & Silva, 2001; Straus, 1999).

Data on injuries are important because they provide an indication of the extent to which assaults on dating partners by university students is a serious crime that has harmful effects for victims. At every one of the 31 universities, there were students who physically injured a dating partner. At the median university in this study, almost 7% of the students inflicted an injury on a dating partner. There were very large differences between universities, with the rates ranging from 1.5% to 20%. Because the median assault rate was 29%, a 7% injury rate can be interpreted as showing that about one quarter of these assaults resulted in an injury.

Male students inflicted more injury on dating partners than did female students, but the rate for women was also high (median of 8% by men and 6% by women students). For severe assaults, male students inflicted injury at a rate that was 2.6 times greater than by women, but even for severe assaults, the median rate of severe injury inflicted by women was not trivial (3.1% by men and 1.2% by women). Although the rate of injury inflicted by women is lower, it is a large enough proportion of the injuries and deaths to be a severe social and public health problem by itself. For example, the National Violence Against Women Survey (Tjaden & Thoennes, 2000) found that women's violence led to 40% of all the past year's injuries, created 27% of the injuries requiring medical attention, and accounted for 38% of the victims who lost time from work and 31% of the victims who feared bodily injury. A third of all homicides of domestic partners in the United States are perpetrated by women (Rennison, 2000).

CONSTRUCT VALIDITY

Preliminary evidence of construct validity was provided by the scatter plots and correlations showing that universities with a high assault rate also tend to have a high injury rate and that the larger the percentage of students at a university who experienced frequent corporal punishment as a child, the higher the percentage of students who physically assaulted a dating partner. These correlations controlled for scores on the Social Desirability scale, thus making it unlikely that the correlations reflect university-to-university or gender differences in willingness of students to disclose socially undesirable behavior.

In addition, the alpha coefficients of reliability for the Physical Assault and Injury scales were high in all but 2 of the 31 sites. At all sites, the correlations of these scales with scores on a social desirability response bias scale were low and did not differ importantly from university to university or between men and women, which is consistent with a meta-analysis of research on the relation between social desirability response sets and violence as measured by the CTS (Sugarman & Hotaling, 1996). Consequently, it can be concluded that site-to-site differences in the willingness of students to disclose violence against a dating partner is not an important threat to the validity of the results in this article.

CULTURAL CONTEXT AND VIOLENCE AGAINST PARTNERS

One of the main advantages of a cross-national comparative study is the ability to investigate the relation of the social context to crime. The International Dating Violence Study was designed to do this using two types of social context variables. One type consists of measures of social organization and social experiences, such as site-to-site differences in corporal punishment of children. The other type consists of site-to-site differences in the strength of cultural norms and beliefs accepting or approving violence in partner relationships.

The 42% of students at the median university who approved of a husband slapping his wife under some circumstances can be compared with the rates by women in underdeveloped countries in the Demographic and Health Surveys (Measure Inc., 2003). The women in that study were asked whether it was acceptable for a husband to hit his wife for any of the following reasons: burns food, argues with him, goes out without telling him, neglects children, and refuses to have sex with him. The percentages ranged from 30% to 72%. In the median country, 40% of the women agreed with at least one of these as acceptable. This is almost identical with the median of 42% of students in the International Dating Violence Study who approved of a husband slapping his wife under some circumstances. Thus, even among a highly educated elite group such as university students, there is a long way to go in changing the cultural norms tolerating violence in partner relationships.

Corporal punishment by parents is part of both the informal norms and the legal norms of all the countries in the International Dating Violence Study at this point. It is also a prevalent aspect of family violence, as indicated by the fact that 57% of students were spanked or hit a lot by parents. Corporal punishment is a behavior intended to correct and teach children and is done at least in part for the benefit of the child. Unfortunately, it also has unintended and harmful side effects. These include a subsequent increase in antisocial behavior by children (Straus, 2001; Straus, Sugarman, & Giles-Sims, 1997) and in acceptance of hitting family members to stop objectionable behaviors. That acceptance tends to spill over to relationships between dating and marital partners

and is associated with higher rates of partner violence (Simons, Lin, & Gordon, 1998; Straus, 2001; Straus & Yodanis, 1996).

LIMITATIONS

All research has limitations, and the International Dating Violence study is no exception. The most serious of the limitations is that the study cannot make generalizations about nations or even about university students in the nations where the data were 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. For example, almost all were social science students, and they may be different from physical or biological science students or engineers. However, the primary focus of the International Dating Violence Study is not on describing nations but on testing theories. This was illustrated by the analysis of the relation between corporal punishment as a child and assaulting a dating partner. Two other limitations are, first, at 2 of the 31 sites, the standard procedure of administering the questionnaire during a class period was replaced by distributing questionnaires that students completed outside of class. Second, the definitions of dating vary from site to site.

The approach of the International Dating Violence Study is to make generalizations based on conceptualizing each university as a social entity whose characteristics, such as the percentage who experienced corporal punishment as a child, differ. For this article, the characteristics of each of the universities were measured as the mean of students at each university (e.g., their mean age) or as the percentage of students with a certain characteristic such as the percentage who approve of a husband slapping his wife under some circumstances. We also plan to measure social context variables using archival data, such as the Gender Equality Measure provided by the United Nations, and to analyze the data using multilevel modeling (Bryk & Raudenbush, 1992).

CONCLUSIONS

Data from the International Dating Violence Study for students at 31 universities in 16 countries reveal both important differences between universities and important similarities across

universities. Perhaps the most important similarity is the high rate of physical violence against dating partners by both male and female students in all the universities. These results document internationally what has been known for a long time—that physical assaults against partners in dating and marital relationships are by far the most prevalent type of violent crime (Straus, Gelles, & Steinmetz, 1980). Even the universities that had lower rates relative to other universities, in absolute terms, had a high rate of physical assault. Moreover, the fact that the 31 universities in this study are located in every major world region indicates that this generalization holds in many diverse social settings.

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Murray A. Straus, Ph.D., is the founder and co-director of the Family Research Laboratory at the University of New Hampshire. His theoretical articles in the early 1970s and his book Violence in the Family *(Steinmetz & Straus, 1974) helped create family violence as a field of social science research. In 1975, he directed the first national survey of family violence in the general population. He has been elected president of three scientific societies, has been a member of a National Academy of Sciences panel, and has published many articles and 13 books on family violence.*