

Prevalence of and Risk Factors for Intimate Partner Violence in China

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Violence against women includes all language, manner, and actions that violate one's physical body, sense of self, and sense of trust¹ and that happen regardless of age, race/ethnicity, or country. Violence against women by an intimate partner refers to "any behavior within an intimate relationship that causes physical, psychological or sexual harm to those in the relationship,"^{2(p89)} and such behavior includes physical aggression, psychological abuse, forced intercourse and other forms of sexual coercion, and various controlling behaviors. Population-based studies in the United States report an 8% to 12% prevalence of intimate partner abuse occurring within the previous year,^{3–6} with an 18% to 35% lifetime prevalence.^{7–11} Multiple risk factors, including young age, low education, low socioeconomic status, marital conflicts, history of abuse during childhood, and alcohol and drug abuse, have been found to be associated with women being abused by their partners.^{12–16}

In traditional Chinese families, family structure is hierarchical, and the husband has final authority on a variety of family issues, such as financial decisions, although husbands may give the illusion of power to their spouses.^{17,18} Chinese women's social and family status can be clearly depicted in the traditional Chinese aphorisms, such as "Beating is love, and scolding is intimacy." Even though China has little notion of individual privacy, violence against a woman by her husband is generally concealed and protected within the sphere of private life and, as such, is largely overlooked and ignored.¹⁹

In 1995, the US State Department estimated that at least 20% of wives in China had been abused by their husbands.²⁰ However, in China, violence against women was not fully recognized as a social problem until after the Third World Women's Conference in 1985.¹⁹ The few population-based studies available reported a lifetime prevalence of physical abuse

Objectives. We estimated the prevalence of and risk factors for intimate partner violence in China.

Methods. Our cross-sectional, comparative prevalence study used a face-to-face survey of randomly selected women attending an urban outpatient gynecological clinic at a major teaching hospital in Fuzhou, China. Multiple logistic regression models were used to assess risk factors for intimate partner violence.

Results. Of the 600 women interviewed, the prevalence of lifetime intimate partner violence and violence taking place within the year before the interview was 43% and 26%, respectively. For lifetime intimate partner violence, partners who had extramarital affairs and who refused to give respondents money were the strongest independent predictors. For intimate partner violence taking place within the year before the interview, frequent quarreling was the strongest predictor.

Conclusions. Intimate partner violence is prevalent in China, with strong associations with male patriarchal values and conflict resolutions. Efforts to reduce intimate partner violence should be given high priority in health care settings where women can be reached. (*Am J Public Health.* 2005;95:78–85. doi: 10.2105/AJPH.2003.023978)

of between 10% and 23%^{21–24} and 25% to 70% among divorced women (Z.H. Xie, "Violence against women in China," unpublished manuscript, Cambridge, Mass: Harvard University; 1992).^{21,22,25} No studies of abuse by intimate partners in China outside of Hong Kong have been conducted. This study was the first to consider the unique cultural traditions in the rest of China.

US studies found that women who experienced violence from an intimate partner were more likely to use health care services.^{26–29} Therefore, the purpose of our study was to determine the prevalence of intimate partner violence in mainland China and to investigate the associated risk factors, taking Chinese cultural traditions into consideration.

METHODS

Design and Sample

This health care–based, cross-sectional study used face-to-face interviews and was performed in an outpatient gynecological clinic at a major teaching hospital in Fuzhou, China, in 2000. Computer-generated random numbers were used to randomly select pa-

tients as they signed in with the nurse at the clinic if they met the study criteria and were interested in participating. Eligible women for the study were aged 18 to 60 years, gave informed consent, and could speak either the Mandarin or the Fuzhou dialect. Xiao Xu, PhD, RN, and a trained graduate medical student conducted the interviews.

A total of 8912 women were seen in the clinic during the 3-month data collection period; 685 of them were randomly selected to participate in the study. Of those selected, 612 women (89%) consented to participate. However, 12 of the 612 consenting women had incomplete data, so the final sample was reduced to 600 women (88%). The women in the final sample were similar in age (only comparison data were available) to those who refused to participate and the overall patient population. Most of the respondents were living in urban areas (74%), had at least a junior middle school (equivalent to grades 7–9 in the US) or higher education (78%), were married (87%), and had lived with only 1 partner in their lifetime (92%). Half of the patients had a worker position job, and three quarters earned their own income (Table 1).

TABLE 1—Demographic Characteristics of Respondents (N = 600) and Partners and Their Association With Lifetime and Past Year Intimate Partner Violence (IPV) as Reported With Univariate Regression Analyses

	Descriptive Statistics	Lifetime IPV OR (95% CI)	Past Year IPV OR (95% CI)
Respondents			
Age, y, mean (SD) ^a	31.3 (7.5)	0.99 (0.97, 1.01)	0.98 (0.96, 1.01)
Education, y, mean (SD)	9.0 (3.5)	0.92* (0.88, 0.97)	0.91* (0.86, 0.96)
Migration, n (%)			
Grew up urban/suburban, lives in urban/suburban area	310 (51.7)	reference	reference
Grew up urban/suburban, lives in rural area	4 (0.7)	1.77 (0.25, 12.72)	4.44 (0.61, 32.18)
Grew up rural, lives in urban/suburban area	202 (33.7)	1.77* (1.23, 2.53)	2.30* (1.53, 3.47)
Grew up rural, lives in rural area	84 (14.0)	1.85* (1.14, 3.02)	2.22* (1.30, 3.80)
Time in current region, y, mean (SD)	18.8 (14.8)	0.98* (0.97, 0.99)	0.98* (0.97, 1.00)
Marital status, n (%)			
Single or widowed ^b	70 (11.7)	reference	reference
Married	522 (87.0)	0.73 (0.44, 1.22)	1.02 (0.58, 1.80)
Separated or divorced	8 (1.3)	2.74 (0.67, 11.30)	0.96 (0.18, 5.21)
Time with current partner, y, mean (SD)	8.2 (6.9)	1.01 (0.99, 1.04)	1.00 (0.97, 1.02)
No. of live-in partners, n (%)			
0 or 1	550 (91.7)	reference	reference
≥2	50 (8.3)	3.09* (1.67, 5.74)	1.00 (0.52, 1.94)
Earn own income, n (%)			
Yes	443 (73.8)	0.67* (0.46, 0.97)	0.91 (0.60, 1.37)
No	7 (26.2)	reference	reference
Job type, n (%)			
No job or retired or student	193 (32.2)	1.32 (0.91, 1.90)	0.92 (0.61, 1.40)
Owner or CEO	84 (14.0)	1.11 (0.68, 1.81)	0.96 (0.56, 1.67)
Manager or supervisor	26 (4.3)	1.08 (0.48, 2.44)	0.65 (0.24, 1.77)
Worker	297 (49.5)	reference	reference
Fertility and children status, n (%)			
Infertile or daughters only	197 (32.8)	0.79 (0.56, 1.11)	1.03 (0.70, 1.52)
Fertile with no children or have at least a son	403 (67.2)	reference	reference
Partners			
Age, y, mean (SD)	8.3 (6.9)	1.00 (0.98, 1.02)	0.99 (0.96, 1.01)
Education, y, mean (SD)	10.1 (3.4)	0.88* (0.84, 0.93)	0.88* (0.83, 0.93)
Migration, n (%)			
Grew up urban/suburban, lives in urban/suburban area	347 (57.8)	reference	reference
Grew up urban/suburban, lives in rural area	2 (0.3)	0.01 (0.00, 1.14E6)	0.02 (0.00, 2.56E6)
Grew up rural, lives in urban/suburban area	161 (26.8)	1.27 (0.87, 1.86)	1.51 (0.99, 2.30)
Grew up rural, lives in rural area	86 (14.3)	1.94* (1.20, 3.12)	1.76* (1.05, 2.93)
Job type, n (%)			
No job or retired or student	24 (4.0)	2.63* (1.10, 6.31)	2.32* (1.00, 5.35)
Owner or CEO	152 (25.3)	1.19 (0.81, 1.73)	1.05 (0.68, 1.60)
Manager or supervisor	65 (10.8)	0.40* (0.21, 0.73)	0.33* (0.15, 0.75)
Worker	359 (59.8)	reference	reference

Note. OR = odds ratio; CI = confidence interval; CEO = chief executive officer.

^aAge ranged from 18 to 54 in this sample and was also analyzed as a categorical variable. Categorical age was not significant in predicting either lifetime or past year IPV.

^bIn this sample, 11.1% of the respondents were single, and 0.5% were widowed. Neither group reached statistical significance for both lifetime and past year IPV when analyzed separately.

*Statistically significant ($P < .05$) ORs.

Measures

The data collection instrument was adapted from the World Health Organization (WHO) Multicountry Study on Women's Health and Life Experiences Questionnaire.³⁰ This questionnaire was developed for use in different cultures and to be cross-culturally appropriate. The instrument was forward translated into Chinese and backward translated into English and validated through a review panel process according to instrument translation guidelines.^{31,32}

Prevalence of violence by current or former intimate partner was assessed by timing (lifetime or past 12 months [past year]), frequency, and type (psychological or emotional, physical, and sexual abuse). WHO developed the abuse questions on the basis of a variety of other abuse assessment scales, such as the Index of Spouse Abuse and the Conflict Tactics Scale, which have strong reliability and construct validity.^{33,34} Physical abuse was assessed with 11 items: slapping, throwing things, pushing, and dragging were classified as less severe physical abuse behaviors, whereas hitting, kicking, beating, strangling, choking, burning, and threatening with a weapon or using a weapon (gun, knife, or object) were classified as severe.³⁴ Sexual abuse was assessed with 3 items: using physical force to have sexual intercourse when respondent did not want to, having sexual intercourse when respondent did not want to because she was afraid of what he might do, and making the respondent do something sexually that she found unnatural or distasteful. Psychological abuse was assessed with 6 items: insult or make one feel bad, belittle or humiliate in front of other people, do things to scare the respondent on purpose, threaten to hurt the respondent, threaten to hurt someone she cares about, and abuse or mistreat the respondent.

For each type of abuse, *lifetime abuse* was defined as the experience of 1 or more acts at any time from a current or former male intimate partner. *Abuse taking place within the previous year (past year abuse)* was defined as acts taking place within the past 12 months before the interview. *Intimate partner violence* was defined as physical or sexual violence, or both; the definition was similar to that set forth by the Centers for Disease Control and Prevention.³⁵ Internal reliability (Cronbach α coefficient) was 0.84 for the intimate partner

TABLE 2—Behavioral Characteristics and Potential Behavioral Factors of Lifetime and Past Year Intimate Partner Violence (IPV) as Reported With Univariate Regression Analyses (N = 600)

	No. (%)	Lifetime IPV OR (95% CI)	Past Year IPV OR (95% CI)
Respondent smokes			
Yes	19 (3.2)	2.33 (0.91, 6.02)	1.69 (0.65, 4.38)
No	581 (96.8)	reference	reference
Respondent drinks alcohol			
Yes	75 (12.5)	1.82* (1.12, 2.97)	1.85* (1.11, 3.07)
No	525 (87.5)	reference	reference
Partner smokes			
Yes	358 (59.7)	1.54* (1.10, 2.15)	1.39 (0.95, 2.03)
No	242 (40.3)	reference	reference
Partner drinks alcohol			
Yes	371 (61.8)	2.19* (1.55, 3.10)	2.06* (1.38, 3.08)
No	229 (38.2)	reference	reference
Partner was drunk in past year			
Yes	249 (41.5)	2.54* (1.82, 3.54)	2.04* (1.41, 2.96)
No	351 (58.5)	reference	reference
Partner uses illegal drugs			
Yes	6 (1.0)	6.59* (1.78, 55.89)	1.43 (0.26, 7.88)
No	594 (99.0)	reference	reference
Partner is having extramarital affair			
No	431 (71.8)	reference	reference
Yes	78 (13.0)	5.55* (3.21, 9.57)	3.17* (1.92, 5.25)
Not sure or do not know	91 (15.2)	2.55* (1.61, 4.04)	2.22* (1.36, 3.61)
Frequency of quarreling between respondent and partner			
Never or rare	319 (53.2)	reference	reference
Sometimes or often	281 (46.8)	3.67* (2.61, 5.16)	3.39* (2.30, 4.99)

Note. OR = odds ratio; CI = confidence interval.

Only 0.3% of the respondents used illegal drugs; therefore, they were not included in the bivariate analyses.

*Statistically significant ($P < .05$) ORs.

violence items and 0.76 for the psychological abuse items.³⁶

Risk factors were examined for intimate partner violence separately for the previous year and lifetime in the following areas of risk: (1) demographic, (2) behavioral, and (3) socioeconomic and cultural. Table 1 shows a detailed description and response for each demographic variable. Behavioral factors are listed in Table 2, and Table 3 includes a detailed description and response for each socioeconomic and cultural risk factor variable.

Statistical Analysis

Descriptive statistics were used for the prevalence of different types of abuse. To ex-

plore explanatory risk factors, binary intimate partner violence (experienced intimate partner violence or did not experience intimate partner violence) was modeled with univariate logistic regression as a function of each demographic, behavioral, and socioeconomic and cultural factor. In addition, multiple logistic regression models were used for both past year intimate partner abuse and lifetime intimate partner violence. To avoid multicollinearity, the multiple logistic regression models included only items that correlated at lower than 0.8. Also, controlling behaviors and psychological abuse were excluded from the multiple logistic regression models because they were confounded with intimate

partner violence ($r=0.54$); therefore, it would be difficult to judge whether controlling behaviors and mental abuse were independent predictors or components of intimate partner violence.

RESULTS

Prevalence

Lifetime prevalence of physical and sexual abuse was 38% and 16%, respectively, and prevalence of past year abuse was 21% and 12%, respectively. The lifetime prevalence of severe physical violence was 14%, and the prevalence of past year severe physical violence was 6%. For less severe physical violence, the prevalence rates were 24% and 15%, respectively. Of the respondents who were physically abused in their lifetime, 29% also were sexually abused by their partners; of those physically abused in the previous year, 24% also were sexually abused in the previous year. The prevalence of lifetime intimate partner violence (physical abuse, sexual abuse, or both) was 43%, and the prevalence of past year intimate partner violence was 26%.

Among those who reported physical abuse in the previous year, 70% experienced less severe violence only. Among the less severe physical violence items, the most frequently occurring forms were “push/shove,” “drag,” and “slap” in 27%, 20%, and 13%, respectively, of the sample at least once during their lifetime and 14%, 12%, and 5%, respectively, in the previous year. For severe physical violence, the most frequently occurring acts were “hit with fist,” “kick,” and “choke” in 8%, 6%, and 6%, respectively, of the sample at least once during their lifetime and 4%, 3%, and 2%, respectively, in the previous year. Among the 3 sexual abuse items, the most frequently occurring was forced sex, with 14% of the women having been forced by their partners to have sexual intercourse in their lifetime and 10% in the previous year.

Risk Factors

Tables 1, 2, and 3 present the descriptive statistics as well as the univariate logistic regression results of the demographic, behavioral, and socioeconomic and cultural factors.

Demographic risk factors. Among the 7 demographic risk factors that were significant

TABLE 3—Socioeconomic and Cultural Characteristics and Potential Socioeconomic and Cultural Factors of Lifetime and Past Year Intimate Partner Violence (IPV) as Reported With Univariate Regression Analyses (N = 600)

	Descriptive Statistics	Lifetime IPV OR (95% CI)	Past Year IPV OR (95% CI)
Financial control			
Income spending, n (%)			
Self-choice or give part to partner	568 (94.7)	reference	reference
Give all to partner	32 (5.3)	1.26 (0.55, 2.89)	1.21 (0.49, 3.02)
Management of income, n (%)			
Respondent	163 (27.2)	reference	reference
Partner or parents-in-law	76 (12.7)	1.92 (0.99, 3.73)	1.52 (0.77, 2.99)
Independently	99 (16.5)	1.34 (0.74, 2.44)	1.69 (0.91, 3.14)
Together	262 (43.7)	0.65* (0.43, 0.90)	0.59* (0.37, 0.96)
Refused a job because of partner, n (%)			
Yes	128 (21.3)	2.43* (1.63, 3.62)	2.53* (1.67, 3.83)
No	472 (78.7)	reference	reference
Money taken away by partner, n (%)			
Yes	61 (10.2)	6.45* (3.35, 12.41)	5.03* (2.90, 8.71)
No	539 (89.8)	reference	reference
Partner refuses to give money, n (%)			
Yes	57 (9.5)	9.78* (4.54, 21.11)	4.33* (2.47, 7.57)
No	543 (90.5)	reference	reference
Status inconsistency			
Respondent's education in comparison to partner's, n (%)			
Higher than partner	114 (19.0)	1.57* (1.02, 2.43)	1.35 (0.84, 2.18)
Same as partner	199 (33.2)	1.16 (0.80, 1.67)	0.91 (0.60, 1.38)
Lower than partner	287 (47.8)	reference	reference
Respondent's income in comparison to partner's, n (%)			
Higher than partner	77 (12.8)	1.15 (0.66, 2.00)	1.43 (0.79, 2.58)
Same as partner	367 (61.7)	reference	reference
Lower than partner	151 (25.4)	0.76 (0.50, 1.16)	0.83 (0.51, 1.36)
Respondent's job status in comparison to partner's, n (%)			
Higher than partner	55 (9.2)	0.70 (0.38, 1.30)	0.82 (0.40, 1.67)
Same as partner	272 (45.3)	1.28 (0.91, 1.79)	1.39 (0.95, 2.03)
Lower than partner	273 (45.5)	reference	reference
Domestic authority			
A good wife obeys her husband, n (%)			
Disagree	453 (75.5)	reference	reference
Agree	147 (24.5)	1.38 (0.95, 2.00)	1.19 (0.79, 1.80)
It is important for a man to show his wife who is the boss, n (%)			
Disagree	395 (65.8)	reference	reference
Agree	205 (34.2)	1.76* (1.25, 2.48)	1.50* (1.02, 2.18)
Women are unable to choose their own friends, n (%)			
Disagree	425 (70.8)	reference	reference
Agree	175 (29.2)	1.21 (0.85, 1.72)	1.02 (0.68, 1.52)
It is a wife's obligation to have sexual intercourse with her husband, n (%)			
Disagree	370 (61.7)	reference	reference
Agree	230 (38.3)	1.83* (1.31, 2.56)	1.73* (1.19, 2.50)

Continued

($P < .05$) for lifetime intimate partner violence, respondents who grew up in rural areas (regardless of whether they migrated or stayed), who had 2 or more live-in partners, and who had an unemployed partner had the highest odds ratios (ORs=2.06, 3.09, and 2.63, respectively). Partners who had higher education and were in managerial or supervisory positions and respondents who earned their own income and who had longer length of stay in the current region were significant ($P < .05$) protective factors (ORs=0.88, 0.40, 0.67, and 0.98, respectively). Similar demographic risk and protective factors were found for the past year intimate partner violence, except for the number of live-in partners and the respondents' income status, but these factors failed to reach significance (Table 1).

After we controlled for other factors with the multiple logistic regression models, only 2 factors remained significant for intimate partner violence: having had 2 or more live-in partners (OR=3.08) and having partners who were in managerial or supervisory positions (OR=0.40). Having partners who were in managerial or supervisory positions (OR=0.35) and having grown up in a rural area (regardless of whether the respondent migrated or remained in the same area) (ORs=2.00, 2.13) remained significant ($P < .02$) for past year intimate partner violence (Table 4).

Behavioral risk factors. Among behavioral factors, intimate partner violence was significantly more likely to occur in respondents who drank alcohol, whose partners drank alcohol, and whose partners got drunk at least once in the prior year (Table 2). In particular, intimate partner violence was most likely to happen if the partners had extramarital affairs with other women (13%) (ORs=5.55 and 3.17 for lifetime and past year intimate partner violence, respectively) and if the respondents quarreled frequently (47%) with their partners (ORs=3.67 and 3.39 for lifetime and past year intimate partner violence, respectively). Also, partners who used illegal drugs were significantly more likely to abuse their spouses physically, sexually, or both in their lifetime (OR=6.59).

After we controlled for other factors, partners having extramarital affairs and frequent quarreling between respondents and part-

TABLE 3—Continued

Family privacy norm			
Family problems should be discussed only in the family, n (%)			
Disagree	179 (29.8)	reference	reference
Agree	421 (70.2)	0.62* (0.43, 0.88)	0.56* (0.38, 0.83)
Outsiders should not interfere if a man mistreats his wife, n (%)			
Disagree	398 (66.3)	reference	reference
Agree	202 (33.7)	1.06 (0.75, 1.48)	1.07 (0.73, 1.57)
Wife-beating cultural attitudes scale, ^a mean (SD)	0.7 (1.1)	1.46* (1.25, 1.71)	1.40* (1.20, 1.63)
Cultural attitudes on female role in sexual relations, ^a mean (SD)	0.6 (1.0)	1.17* (1.00, 1.37)	1.16 (0.98, 1.37)
Noncommunication, ^a mean (SD)	1.3 (1.4)	1.25* (1.11, 1.41)	1.21* (1.06, 1.38)
Controlling or mental abuse, ^b mean (SD)	2.4 (2.4)	1.57* (1.44, 1.71)	1.35* (1.26, 1.44)

Note. OR = odds ratio; CI = confidence interval.

^aRange from 0 (no problem) to 4 (problematic).

^bRange from 0 (no control) to 13 (worst control).

*Statistically significant ($P < .05$) ORs.

ners remained significant for both lifetime intimate partner violence (ORs=3.00 and 2.76, respectively) and past year intimate partner violence (ORs=2.45 and 3.18, respectively). In addition, partners who got drunk in the previous year also significantly predicted lifetime intimate partner violence (OR=2.15) (Table 4).

Socioeconomic and cultural risk factors. A woman was at higher risk for intimate partner violence if she had refused jobs because of her partner, the partner took money away from her, or the partner refused to give her money (ORs=2.43–9.78 for both lifetime and past year intimate partner violence). Notably, partners who refused to give money were almost 10 times more likely to abuse the respondents than were those who gave money. Joint management of money with the partner was protective for lifetime intimate partner violence (OR=0.65) (Table 3).

In terms of domestic authority, attitudes, and cultural beliefs, respondents who believed the following were more likely to experience intimate partner violence: (1) it is important for a man to show his wife or partner who is the boss, (2) it is a wife's obligation to have sexual intercourse with her husband even if she does not feel like it, (3) there are good reasons to beat a wife, and (4) it is a wife's obligation to satisfy her husband sexu-

ally. Respondents who believed that family problems should be discussed only with people in the family were only three-fifths as likely to experience intimate partner violence (OR=0.62). Respondents who communicated less with their partners also were more likely to be abused (ORs=1.25 and 1.21 for lifetime and past year intimate partner violence, respectively). Also, for every increase in the respondents' experience of controlling behaviors from their partners, the chance of their being abused increased (Table 3).

After we controlled for other factors, the cultural belief in the wife's obligation to have sexual intercourse with her husband remained significant for lifetime intimate partner violence (OR=1.61), and the cultural belief that there are good reasons to beat a wife remained significant for both lifetime (OR=1.49) and past year (OR=1.29) intimate partner violence. Privacy norms that dictate that family problems should be discussed only in the family remained protective (OR=0.55) against both lifetime and past year intimate partner violence.

DISCUSSION

Prevalence

The current study of health care–based prevalence of intimate partner violence

showed that 2 out of 5 Chinese women between ages 18 and 60 years had experienced physical violence from a partner in their lives, and 1 out of 5 had experienced physical violence in the past year. Past year prevalence is often thought to be a more accurate assessment of intimate partner violence because of the assumption of less recall bias. But most experts in the field of family violence contend that both lifetime and past year (or annual) prevalence are useful to report because of the significant long-term consequences of intimate partner violence, including ongoing fear and stress from living with someone who has been violent toward a partner, even if long ago, and the epidemiological relevance of such prevalence data.³⁷ It also can be argued that being hit by a husband is of sufficient import to be remembered with great clarity.

These prevalence figures are comparable to or even higher than data gathered in US health care settings, where rates of lifetime intimate partner violence range from 30% to 39%,^{28,38–44} and rates of past year intimate partner violence range from 6% to 23%.^{14,26,28,29,40–42,45} A similar gynecological clinic study in 5 Nordic countries showed that Chinese women had much higher past year physical (16% vs 4%) and sexual abuse (12% vs 1%) prevalence rates than did the Nordic sample, whereas lifetime physical (38% vs 48%) and sexual abuse (21% vs 24%) prevalence rates were lower.⁴⁶ These figures are much higher than prior population-based estimates in China^{19,21–23,47} and Chinese American samples, which ranged from 12% to 26% (M.R. Yoshioka, PhD, J. DiNoia, PhD, "Attitudes toward marital violence among Chinese and Cambodian adults," unpublished manuscript, New York, NY: Columbia University; 2000),⁴⁸ but lower than the prevalence in Chinese divorce cases (30%–80%), as would be expected (Z.H. Xie, "Violence against women in China," unpublished manuscript, Cambridge, Mass: Harvard University; 1992).^{25,49} These higher rates in health care studies than in population-based studies in China are consistent with findings in the United States.⁴³

Demographic Risk Factors

Relatively young age, poverty, being divorced or separated, and prior victimization

TABLE 4—Multivariate Analysis of Predictors of Lifetime and Past Year Intimate Partner Violence (IPV) (N = 600)

	Lifetime IPV OR (95% CI)	Past Year IPV OR (95% CI)
No. of live-in partners		
0 or 1	reference	...
≥2	3.08* (1.48, 6.41)	
Partner's job type		
No job or retired or student	2.39 (0.76, 7.46)	1.49 (0.56, 3.99)
Owner or CEO	0.78 (0.50, 1.23)	0.73 (0.45, 1.18)
Manager or supervisor	0.40* (0.20, 0.83)	0.35* (0.14, 0.83)
Worker	reference	reference
Migration		
Grew up urban/suburban, lives in urban/suburban area	...	reference
Grew up urban/suburban, lives in rural area		6.45 (0.76, 54.93)
Grew up rural, lives in urban/suburban area		2.00* (1.26, 3.18)
Grew up rural, lives in rural area		2.13* (1.16, 3.88)
Partner was drunk in past year		
Yes	2.15* (1.46, 3.19)	...
No	reference	
Partner is having extramarital affair(s)		
No	reference	reference
Yes	3.00* (1.56, 5.75)	2.45* (1.40, 4.27)
Not sure or do not know	1.29 (0.75, 2.21)	1.52 (0.88, 2.62)
Frequency of quarreling between respondent and partner		
Never or rare	reference	reference
Sometimes or often	2.76* (1.87, 4.07)	3.18* (2.08, 4.85)
Respondent refused a job because of partner		
Yes	2.09* (1.30, 3.36)	2.10* (1.33, 3.33)
No	reference	reference
Partner refuses to give respondent money		
Yes	5.30* (2.25, 12.52)	...
No	reference	
It is a wife's obligation to have sexual intercourse with her husband		
Disagree	reference	...
Agree	1.61* (1.07, 2.41)	
Family problems should be discussed only in the family		
Disagree	reference	reference
Agree	0.55* (0.36, 0.85)	0.55* (0.36, 0.86)
Wife-beating cultural attitudes scale	1.49* (1.24, 1.79)	1.29* (1.08, 1.53)

Note. OR = odds ratio; CI = confidence interval; CEO = chief executive officer.
*Statistically significant ($P < .05$) ORs.

have been found across studies as characteristics of women that are associated with an increased risk for (rather than sequelae of) intimate partner violence.^{29,43,50} Surprisingly, age was not associated with even past year intimate partner violence in this investigation in contrast to what has been found in many US

studies.^{3,8,14,24,29,43} Reasons for this difference should be explored in future studies on Chinese populations. In this study, only 1.3% of the women were divorced or separated; thus, this subgroup might have been too small to detect an increased risk for intimate partner violence.

Consistent with Heise's analysis,⁵¹ after all other socioeconomic and cultural factors were controlled, the partner's unemployment was not significant in predicting intimate partner violence in this study. However, having partners who had a managerial or supervisory position was a protective factor for women being abused.

In contrast to expectations, infertility or having given birth to only female children was not associated with intimate partner violence in the current study. This finding contradicted the researcher's earlier finding from qualitative interviews of 30 women from the same clinic (unpublished data available from the authors). Further investigation of this association in future studies is warranted.

Behavioral Risk Factors

Although studies in the United States have found illegal drug use to be significantly related to intimate partner violence,¹⁴ only 0.3% of our respondents and 1.0% of their partners used illegal drugs. Even so, partner's illegal drug use was related to lifetime intimate partner violence.

In this study, a significantly higher number of abusive partners had extramarital affairs, and such affairs significantly predicted their wives being physically or sexually abused or both in their lifetime and in the previous year. An earlier study in Shanghai found that "allegations of extramarital affairs" or "third person problems" was the most frequent reason given by respondents for being beaten by their partners (32%).⁵²

Besides extramarital affairs, frequent quarreling significantly predicted both lifetime and past year intimate partner violence. A significantly greater number of women who experienced intimate partner violence had sometimes or often quarreled with their partners, compared with the women who did not experience intimate partner violence (65% vs 33%, $P < .001$). This finding is consistent with numerous prior studies that reported that marital conflict was highly predictive of wife assault, even after other variables were controlled.^{12,50,53-55}

Socioeconomic and Cultural Factors

Multiple studies have found that certain characteristics of male partners are associated

with intimate partner violence.^{13,18,56} The evidence on status inconsistency (a woman having a higher educational, occupational, or income level than her partner) has had mixed support in recent research in the United States,⁴³ and it was not found to be a significant risk factor in this investigation of Chinese women, similar to other international findings.⁵⁷ The partner's financial control was a particularly important aspect of controlling behaviors in this study. The findings of this study supported Levinson's small-scale societies study,⁵⁸ in which he found that wife beating is most frequent in societies in which men control wealth, especially the fruits of family labor. Gallin⁵⁹ also reported that women in Taiwan were beaten if they did not give their private money to their husbands for activities such as drinking and gambling.

Both respondents' and partners' beliefs that there are good reasons to beat a wife predicted both lifetime intimate partner violence and intimate partner violence occurring within the previous year. In this sample, all women, regardless of whether they are a victim of intimate partner violence, had a relatively high approval and tolerance of the phenomenon of wife beating. Thirty-six percent of the women agreed that if a man found out that his wife was unfaithful, it was acceptable for him to beat her (47% of the women who had experienced intimate partner violence agreed, and 29% of the women who had not experienced intimate partner violence agreed). Heise and colleagues⁶⁰ also reported similar rates of agreement among women in Singapore (33%) and women in rural Nicaragua (32%). Much higher levels of agreement with this question were reported in a study from Israel (71%), and relatively lower percentages were found in studies from Brazil, Chile, Colombia, El Salvador, and Venezuela (ranging from 5% to 19%), which indicates varying cultural influences.⁶⁰

Most women in this study agreed that it was acceptable for a married woman to refuse to have sexual intercourse with her husband if she did not want to, if he was drunk, if she was sick, or if he mistreated her. This attitude is a marked improvement over the traditional cultural values that required a woman to be obedient to her husband always, especially in terms of sexuality. Even

so, significantly more women who had experienced intimate partner violence than those who had not disagreed with the premise that a woman could refuse to have sexual intercourse with her husband if she did not want to. The fact that those women who had experienced intimate partner violence expressed views consistent with more traditional values was shown throughout this research.

It was surprising that a belief in not discussing family problems with outsiders was protective against both lifetime and past year intimate partner violence in both the adjusted and the bivariate analysis. Although this question tried to address social isolation as a risk factor for intimate partner violence, women may have misunderstood the intent of the question. They may have thought that they were endorsing support of family communication, which could be expected to be protective against intimate partner violence.

Conclusions

This study found that domestic violence is prevalent among Chinese women who come to this clinic and that women are willing to disclose intimate partner violence. However, the prevalence rates still could be underestimated because some women believed that family problems should be discussed only within the family. Those abused women we interviewed were not previously identified as being abused by others, and for them, the abuse was recurring.

The risk factors that predict intimate partner violence must be viewed within the Chinese cultural context. With current reform initiatives and the development of a "socialist market economy" in China, women are supposed to "hold up half of the sky," which is economic and political independence. However, the women treated in the clinic were not as supportive of gender equality, at least in terms of marital relationships, as the new Chinese constitution prescribes. Women still adhere to the norms of a male-dominant culture to some degree. Their belief in that traditional culture and the likelihood of abuse were strongly associated. Either the partner may be influencing the woman to accept more traditional beliefs, or the woman may tell herself that his dominance must be appropriate. Also, the reform has resulted in 30%

of these women being unemployed, which has increased their financial dependency on the partner and thus put them at further risk for being abused. Thus, one of the main problems for contemporary Chinese society is providing for women what was promised: "half of the sky." Without both kinds of independence, freedom and equality for Chinese women are unlikely. ■

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Contributors

X. Xu initiated, designed, and conducted the study; completed the analyses; and led the writing of the article. F. Zhu supervised all aspects of the study implementation. J. Campbell provided guidance for every step of the research and helped with the writing of the article. All authors helped to conceptualize ideas, advised on statistical analysis and interpretations of the findings, and reviewed and modified drafts of the article.

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This study was approved by the institutional review boards of The Johns Hopkins Medical Institute and The First Hospital Affiliated to Fujian Medical University.

References

1. Campbell JC. Adult response to violence. In: Campbell JC, ed. *Violence: A Plague in Our Land*. Washington, DC: American Academy of Nursing; 1995:19–29.
2. Krug EG, Dahlberg LL, Mercy JA, Zwi AB, Lozano R, eds. *World Report on Violence and Health*. Geneva, Switzerland: World Health Organization; 2002.
3. Plichta SB. Violence, health and use of health services. In: Falik MM, Collins KS, eds. *Women's Health and Care Seeking Behavior: The Commonwealth Fund*

- Survey. Baltimore, Md: Johns Hopkins University Press; 1996:237–270.
4. Schulman MA. *A Survey of Spouse Violence Against Women in Kentucky*. Washington, DC: US Dept of Justice; 1979.
 5. Straus MA, Gelles RJ. Societal change and change in family violence from 1975 to 1985 as revealed by two national surveys. *J Marriage Fam*. 1986;48:465–479.
 6. Teske R, Parker M. *Spouse Abuse in Texas: A Study of Women's Attitudes and Experiences*. Houston, Tex: Criminal Justice Center, Sam Houston State University; 1983.
 7. Centers for Disease Control and Prevention. Lifetime and annual incidence of intimate partner violence and resulting injuries—Georgia, 1995. *MMWR Morb Mortal Wkly Rep*. 1998;47(40):849–853.
 8. Centers for Disease Control and Prevention. Intimate partner violence among men and women—South Carolina, 1998. *MMWR Morb Mortal Wkly Rep*. 2000;49(30):691–694.
 9. Centers for Disease Control and Prevention. Prevalence of intimate partner violence and injuries—Washington, 1998. *MMWR Morb Mortal Wkly Rep*. 2000;49:589–592.
 10. Klein E, Campbell J, Soler E, Chez M. *Ending Domestic Violence: Changing Public Perception/Halting the Epidemic*. Thousand Oaks, Calif: Sage Publications; 1997.
 11. Schafer J, Caetano R, Cook CL. Rates of intimate partner violence in the United States. *Am J Public Health*. 1998;88:1702–1704.
 12. Aldarondo E, Sugarman DB. Risk marker analysis of the cessation and persistence of wife assault. *J Consult Clin Psychol*. 1996;64:1010–1019.
 13. Martin SL, Tsui AO, Maitra K, Marinshaw R. Domestic violence in northern India. *Am J Epidemiol*. 1999;150:417–426.
 14. McCauley J, Kern DE, Kolodner K, et al. The “battering syndrome”: prevalence and clinical symptoms of domestic violence in primary care internal medicine practices. *Ann Intern Med*. 1995;123:737–746.
 15. Roberts GL, Lawrence JM, Williams GM, Raphael B. The impact of domestic violence on women's mental health. *Aust N Z J Public Health*. 1998;22:796–801.
 16. Roberts GL, O'Toole BI, Lawrence JM, Raphael B. Domestic violence victims in a hospital emergency department. *Med J Aust*. 1993;159:307–310.
 17. Ho M. *Family Therapy With Ethnic Minorities*. Newbury Park, Calif: Sage Publications; 1987.
 18. Yick AG, Agbayani-Siewert P. Perceptions of domestic violence in a Chinese American community. *J Interpers Violence*. 1997;12:832–846.
 19. Sun XM. The cause of violence in Chinese families and its prevention. Paper presented at: The Conference on Domestic Violence, the Chinese Women's College and the Chinese Psychological Association; October 1997; Beijing, P.R. China.
 20. *China Human Rights Practices 1994, 43 (February)*. Washington, DC: US State Department; 1995.
 21. Sun XM. Studies of domestic violence in China. Paper presented at: International Conference on Opposing Violence Against Women; June 1995; Washington, DC.
 22. Tan CY. The current status, reasons and strategies for domestic violence from 358 cases. Paper presented at: Against Domestic Violence Meeting; September 1997; Beijing, P.R. China.
 23. Tang CS. Prevalence of spouse aggression in Hong Kong. *J Fam Violence*. 1994;9:347–356.
 24. Tang CS. Wife abuse in Hong Kong Chinese families: a community survey. *J Fam Violence*. 1999;14:173–191.
 25. Pi XM. White paper on domestic violence. *Chinese Women*. 1991;2:9–11.
 26. Abbott J, Johnson R, Koziol-McLain J, Lowenstein SR. Domestic violence against women: incidence and prevalence in an emergency department population. *JAMA*. 1995;273:1763–1767.
 27. Campbell J, Jones AS, Dienemann J, et al. Intimate partner violence and physical health consequences. *Arch Intern Med*. 2002;162:1157–1163.
 28. Coker AL, Smith PH, Bethea L, King MR, McKeown RE. Physical health consequences of physical and psychological intimate partner violence. *Arch Fam Med*. 2000;9:451–457.
 29. Dearwater SR, Coben JH, Campbell JC, et al. Prevalence of intimate partner abuse in women treated at community hospital emergency departments. *JAMA*. 1998;280:433–438.
 30. *WHO Multicountry Study on Women's Health and Life Experiences Questionnaire (Version 9)*. Geneva, Switzerland: World Health Organization; 2000.
 31. Herdman M, Fox-Rushby J, Badia X. A model of equivalence in the cultural adaptation of HRQoL instruments: the universalist approach. *Qual Life Res*. 1998;7:323–335.
 32. Ware JE Jr, Keller SD, Gandek B, Brazier JE, Sullivan M. Evaluating translations of health status questionnaires: methods from the IQOLA project. *International Quality of Life Assessment. Int J Technol Assess Health Care*. 1995;11:525–551.
 33. Hudson WW, McIntosh SR. The assessment of spouse abuse: two quantifiable dimensions. *J Marriage Fam*. 1981;43:873–888.
 34. Straus M. Measuring intrafamily conflict and violence: The Conflict Tactics Scale. *J Marriage Fam*. 1979;41:74–85.
 35. Saltzman LE, Fanslow JL, McMahon PM, Shelley GA. *Intimate Partner Violence Surveillance: Uniform Definitions and Recommended Data Elements, Version 1.0*. Atlanta, Ga: National Center for Injury Prevention and Control; 1999.
 36. Xu X, Campbell J, Koziol-McLain J. Measuring abuse among women in China: a study of cross-cultural equivalence. Paper presented at: 7th International Family Violence Research Conference; July 2001; Durham, NH.
 37. Helie S, Clement M-E, Larivee M-C. Epidemiological considerations in the conceptualization and utilization of “prevalence” and “incidence rate” in family violence research: a reply to Bronridge and Halli (1999). *J Fam Violence*. 2003;18:219–226.
 38. Coker AL, Smith PH, McKeown RE, King MR. Frequency and correlates of intimate partner violence by type: physical, sexual, and psychological battering. *Am J Public Health*. 2000;90:553–559.
 39. Feldhaus KM, Koziol-McLain J, Amsbury HL, Norton IM, Lowenstein SR, Abbott JT. Accuracy of 3 brief screening questions for detecting partner violence in the emergency department. *JAMA*. 1997;27:1357–1361.
 40. Elliott BA, Johnson M. Domestic violence in a primary care setting: patterns and prevalence. *Arch Fam Med*. 1995;4:113–119.
 41. Gin NE, Ruker L, Frayne S, Cygan R, Hubbell FA. Prevalence of domestic violence among patients in three ambulatory care internal medicine clinics. *J Gen Intern Med*. 1991;6:317–322.
 42. Hamberger LK, Saunders DG, Hovey M. Prevalence of domestic violence in community practice and rate of physician inquiry. *Fam Med*. 1992;24:283–287.
 43. Jones AS, Gielen AC, Campbell JC, et al. Annual and lifetime prevalence of partner abuse in a sample of female HMO enrollees. *Womens Health Issues*. 1999;9:295–305.
 44. Tollestrup K, Sklar D, Frost FJ, et al. Health indicators and intimate partner violence among women who are members of a managed care organization. *Prev Med*. 1999;29:431–440.
 45. McLaughlin SA, Crandall CS, Fullerton L, Brokaw J, Olson LM, Sklar DP. Comparison of intimate partner violence reporting between an emergency department and a clinic setting. *Acad Emerg Med*. 2000;6:1292–1295.
 46. Wijma B, Schei B, Swahnberg K, et al. Emotional, physical, and sexual abuse in patients visiting gynaecology clinics: a Nordic cross-sectional study. *Lancet*. 2003;361(9375):2107–2113.
 47. Hester M. Domestic violence in China. In: Radford J, Friedberg M, Harne L, eds. *Women, Violence and Strategies for Action: Feminist Research, Policy and Practice*. Buckingham, UK: Open University Press; 2000: 149–166.
 48. Yick AG. Domestic violence in the Chinese American community: cultural taboos and barriers. *Fam Violence Sex Assault B*. 1999;15(4):16–23.
 49. China forum [transcript]. Voice of America. January 12, 1998.
 50. Hotaling GT, Sugarman DB. A risk marker analysis of assaulted wives. *J Fam Violence*. 1990;5:1–14.
 51. Heise LL. Violence against women: an integrated, ecological framework. *Violence Against Women*. 1998;4:262–290.
 52. Chang XY. On domestic violence against women and countermeasures to fight it. In: Ma YN, ed. *Women and the Law*. Beijing, China: University of Beijing and British Council; 1996.
 53. Cascardi M, O'Leary KD, Lawrence EE, Schlee KA. Characteristics of women physically abused by their spouses and who seek treatment regarding marital conflict. *J Consult Clin Psychol*. 1995;63:616–623.
 54. Hoffman KL, Demo DH, Edwards JN. Physical wife abuse in a non-Western society: an integrated theoretical approach. *J Marriage Fam*. 1994;56:131–146.
 55. McCarroll JE, Ursano RJ, Liu X, et al. Deployment and the probability of spousal aggression by U.S. Army soldiers. *Mil Med*. 2000;165:41–44.
 56. Leung WC, Leung TW, Lam YY, Ho PC. The prevalence of domestic violence against pregnant women in a Chinese community. *Int J Gynaecol Obstet*. 1999;66:23–30.
 57. Counts DA, Brown JK, Campbell JC, eds. *Sanctions & Sanctuary: Cultural Perspective on the Beating of Wives*. Boulder, Colo: Westview Press Inc; 1992.
 58. Levinson D. *Family Violence in Cross-Cultural Perspective*. Newbury Park, Calif: Sage Publications; 1989.
 59. Gallin RS. Wife abuse in the context of development and change: a Chinese (Taiwanese) case. In: Counts DA, Brown JK, Campbell JC, eds. *Sanctions & Sanctuary: Cultural Perspective on the Beating of Wives*. Boulder, Colo: Westview Press Inc; 1992:219–227.
 60. Heise L, Ellsberg M, Gottemoeller M. The world takes notice. *Popul Rep*. 2000;XXVII(4):3–5.