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# Prevalence and demographic correlates of intimate partner violence in Asian Americans

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# Abstract

This study provides the first national estimates of the prevalence and correlates of intimate partner violence (IPV) among Asian Americans. Population estimates are based on data from 1470 Asian Americans interviewed for the National Latino and Asian American Study. Interviews were conducted in English, Chinese, Tagalog, or Vietnamese. Results suggest that rates of IPV among Asian Americans are low compared to the general U.S. population. Minor violence victimization by a current intimate partner was reported by 10.2% of women and 12.0% of Asian American men. Notably, a greater proportion of participants admitted having perpetrated IPV than having been a victim. Predictors of IPV included younger age, *higher* SES, alcohol- and substance-use disorders, depression, ethnicity, and being U.S.-born. Results suggest the need for additional research to examine the interactions between gender, ethnicity, and acculturation to develop group-specific models of IPV risk and resilience within diverse Asian American groups.

Surprisingly little research has been conducted on the demographic correlates and contexts of violence in different ethnic communities. This is especially true for Asian Americans. Although the population of Asian Americans has increased by 45% since 1990 (Barnes & Bennett, 2002), their relatively small numbers and intraethnic diversity pose methodological challenges to estimating the prevalence and predictors of intimate partner violence (IPV) in this group. Presenting data from the National Latino and Asian American Study (NLAAS), this investigation provides the first available national prevalence estimates of IPV among a diverse sample of Asian Americans. In addition, the study examines key demographic correlates of physical violence victimization and perpetration by both male and female Asian American respondents, with particular attention to two groups that may be especially vulnerable to IPV, namely foreign-born Asian Americans and Southeast Asians in particular.

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# Intimate Partner Violence in the United States

Over the past 30 years, several probability surveys have been conducted to estimate the scope of IPV among married or cohabitating respondents in the United States. Results suggest that 9 to 30% of women and 13% to 18% of men have been physically assaulted by an intimate partner in their lifetime (Kessler, Molnar, Feurer, & Appelbaum, 2001; Tjaden & Thoennes, 2000). Rates across studies vary as a result of differences in assessment methods used, as well as variation in inclusion criteria and sampling unit (household vs. individual respondents). As Tjaden and Thoennes (2000) point out, studies that tend to report higher rates of victimization for women explore only victimization within intimate relationships, whereas studies reporting similar rates of physical violence victimization for men and women survey respondents about their experiences of victimization as well as perpetration. As a recent example of the latter, the 1990–1992 National Comorbidity Survey (NCS) found that 17.4% of married or cohabitating women and 18.4% of their male counterparts reported a history of minor physical violence by their current intimate partner; rates for severe violence were 6.5% and 5.5%, respectively. In contrast, 17.7% of women and 15.4% of men reported perpetrating violence against their opposite-sex intimate partner; rates of perpetration for severe violence were 6.2% and 2.7%, respectively (Kessler et al., 2001). Ethnic differences in prevalence were observed, however there were insufficient numbers of Asian Americans in the sample to examine rates of IPV in this group.

#### Estimates of IPV in Asian American Communities

The 1995–1996 National Violence Against Women (NVAW) Survey, a nationally representative telephone survey of 8,000 men and 8,000 women, is the only large-scale epidemiologic survey to provide estimates of physical violence victimization for Asian Americans. According to the NVAW, 15.0% of Asian/Pacific Islander women and 3.0% of men reported being the victim of IPV in their lifetime, defined as rape, physical assault, or stalking. Although results showed that Asian/Pacific Islander women and men tended to report lower rates of intimate partner violence than did women and men from other minority backgrounds (Tjaden & Thoennes, 1998), the sample of Asian/Pacific Islanders was extremely small (*n*=133) and arguably not representative of the general population. Specifically, by restricting their sample to English or Spanish speaking Asian Americans, the NVAW Survey effectively excluded a large proportion of the nearly 70% of Asian Americans who are foreign-born and speak other languages (U.S. Bureau of the Census, 2000).

Several small nonprobability studies, utilizing multilingual data collection procedures, provide preliminary evidence that risk for IPV may be elevated in some Asian American groups (e.g., Raj & Silverman, 2002; Song-Kim, 1992; Tran, 1997; Yoshihama, 1999). For example, a history of IPV was reported by 60% of married Korean immigrant women in Chicago (Song-Kim, 1992), 53.3% of Vietnamese refugee women in New England (Tran, 1997), 40% of South Asian women in Boston (Raj & Silverman, 2002), and 33% of Japanese American women in Los Angeles (Yoshihama, 1999). While these studies have succeeded in calling attention to the problem of domestic violence within specific Asian American communities, the absence of comparable sampling and measurement procedures

as well as the geographic specificity of these studies limits our ability to draw conclusions regarding the prevalence of IPV and patterns of risk among Asian Americans. Finally, the majority of ethnic-specific studies emphasize factors associated with female victimization only, and have not included questions to assess the incidence of reciprocal violence frequently observed in many violent families (Kessler et al., 2001).

# Demographic Characteristics of Asian Americans and Sub-Ethnic Differences in IPV

The Asian American population encompasses a variety of ethnic subgroups that differ in immigration history and demographic characteristics. For example, some groups, such as Chinese, Japanese, Korean, and Filipino Americans have lived here for multiple generations and enjoy relative prosperity and acceptance in the U.S. Southeast Asians constitute the newest group of Asian arrivals to the U.S., with the majority arriving in two waves, after 1965 and following the fall of Saigon in 1975. The early wave of immigrants was comprised largely of educated, wealthy, and socially-connected Vietnamese, whereas the second, larger wave of migrants consisted primarily of Vietnamese boat people, Laotian, and other refugee groups with less economic and social capital. This latter group of arrivals has had significantly greater difficulties adjusting to life in the industrialized U.S., due to their limited education and English-language skills as well as exposure to war- and migration-related traumas. Post 1965, immigration from most Asian countries has grown steadily, with the exception of Japan. According to the 2000 Census, five groups make up approximately 80% of the Asian American population: Chinese (23.8%), Filipinos (18.3%), Asian Indians (16.2%), Vietnamese (10.9%), and Koreans (10.5%) (Reeves & Bennett, 2004).

In developing hypotheses regarding possible intracthnic differences in rates of IPV, we turn to the epidemiological literature for clues regarding the groups most likely to be demographically at risk. Specifically, previous studies of the general U.S. population have found that poverty, low education, unemployment, younger age, household density, and substance abuse disorders and other psychiatric conditions are positively associated with risk for IPV (Cunradi, Caetano, & Schafer, 2002; Kessler et al., 2001; Sorenson, Upchurch, & Shen, 1996; Straus, Gelles, & Steinmetz, 1980). Research is first needed to confirm that these demographic features are associated with IPV risk among Asian Americans. Replication of these findings in an Asian American sample would suggest that that groups that are overrepresented in these high-risk categories may be more likely to report elevated rates of IPV.

Two groups in particular—foreign-born Asian Americans and Southeast Asian populations —may be especially vulnerable to IPV due to their overrepresentation in demographic categories associated with IPV in the general population, as well as stresses associated with immigration and acculturation. For example, compared to U.S.-born populations, foreignborn individuals as a whole are more likely to live in larger family households, are more likely to be underemployed, and earn less money (Schmidley, 2003) – all of which have been associated with increased risk for IPV in the general population (Jasinski, Asdigian, & Kantor, 1997; Kessler et al., 2001; Schmidley, 2003; Straus et al., 1980). Beyond the

economic stresses and declines in social status that often accompany migration, immigrants must also negotiate changes in family roles and responsibilities, the loss of social networks, language barriers, and discrimination (Kim, Lau, & Chang, 2006). Echoing findings from the general literature, where high levels of stress have been linked to risk for wife abuse (Tolman & Bennett, 1990), challenges to traditional marital roles following immigration has been linked to marital conflicts in Asian immigrant families, particularly in the initial years following immigration (Min, 2001). For example, Song's (1996) study of abused Korean immigrant women found that although the abuse often predated their arrival in the U.S., it tended to become worse in the initial years after migration.

Drawing on past studies that have identified low socioeconomic status as a risk factor for IPV (Field & Caetano, 2004; Jasinski et al., 1997; Kessler et al., 2001; Schmidley, 2003; Straus et al., 1980), we hypothesize that Southeast Asians may be a second group demographically at risk for higher rates of IPV relative to other Asian Americans. Although Asian Americans have the highest level of educational achievement of any ethnic group in the U.S., Southeast Asians rank lowest on educational attainment of all Asian American groups (U.S. Census Breau, 2002). For example, only 19.4% of Vietnamese, 9.2% of Cambodians, and 7.7% of Laotians had attained a bachelor's degree or higher, compared to 63.9% of Asian Indians, 48.1% of Chinese, and 43.8% of Filipino Americans. Vietnamese and other Southeast Asian groups also report a lower rate of participation in the labor force, and higher rates of poverty compared to Chinese, Japanese, Korean, and Filipino Americans (Reeves & Bennett, 2004; Wong, 1986). In addition to their lower socioeconomic status, Southeast Asian refugee populations also tend to be younger on average than other Asian American groups, which has also been identified as a correlate of IPV (Kessler et al., 2001; Rennison, 2001; Sorenson et al., 1996). Finally, the high rates of depression, anxiety, and substance use disorders found in Southeast Asian refugee populations (Hauff & Vaglum, 1993; W. L. Hinton et al., 1993) and the association between such disorders and IPV (Cunradi et al., 2002; Kessler et al., 2001) also suggest a heightened vulnerability to IPV for these groups in particular.

# An Alternative Hypothesis: Immigration, Length of Residence and Risk for IPV

Although previous studies would suggest that foreign-born Asian Americans would be particularly vulnerable to IPV, it is worth considering an alternative scenario, drawn from studies of psychiatric morbidity and public health in Hispanic populations. Demographers recently have observed that foreign nativity appears to be protective against certain psychiatric and medical conditions, a pattern referred to as the "Hispanic health paradox" (Franzini, Ribble, & Keddie, 2001). The longer immigrants reside in the U.S. the worse their health and quality of life, with the poorest outcomes found in their U.S.-born counterparts. Although this phenomenon has primarily been observed in Hispanic populations (e.g., Vega et al., 1998), it is possible that Asian American immigrants will exhibit *lower* rates of IPV compared to their U.S.-born counterparts, with prevalence rates positively associated with length of residence. Indeed, community-based studies of Mexican Americans and Chinese Americans have found that U.S.-born women are at higher risk for IPV than their immigrant

counterparts (Firestone, Lambert, & Vega, 1999; Lown & Vega, 2000; Sorenson & Telles, 1991; Yick, 2000).

# The present study

In summary, the aims of this study are two fold. First, the prevalence of male- and femalereported perpetration and victimization of IPV is examined in a population-based survey of Asian Americans. Second, the sociodemographic correlates of IPV are explored with particular attention to sub-ethnic differences and the effect of nativity and length of residence. Results are compared to findings from the NCS (Kessler et al., 2003), which applied comparable sampling and measurement procedures to the general U.S. population..

#### Methods

#### Sample

Data for this study come from the NLAAS, the first psychiatric epidemiological and service use study of a nationally representative household sample of Latinos and Asians in the U.S. (Alegria, Takeuchi et al., 2004). As one of the three Collaborative Psychiatric Epidemiology studies (CPES), the NLAAS uses a common design, sampling framework, and instrument to allow comparisons between Latinos and Asian Americans, as well as Black Americans and Euro-American populations. The NLAAS survey population consisted of Latino and Asian-American adults, aged 18 and older, residing in households in the coterminous United States, Alaska, and Hawaii. A total of 27,026 sample housing units were screened for eligible respondents and a total of 4,649 interviews were completed, of which 2,095 were with Asian American respondents (Heeringa et al., 2004). Data collection for the Asian American sample took place between May 2002 and November 2003 and the final weighted response rate was 65.6% and the interview completion rate was approximately 96%. Sampling focused on four of the largest Asian American subgroups—Chinese, Vietnamese, Filipinos, and Other Asians. Among the "Other Asian" group, 30.0% identified themselves as Asian Indian, 21.2% as Japanese, 12.0% as Korean, and the rest as belonging to various smaller Asian ethnic groups (e.g., Native Hawaiian, Pacific Islander, etc.). A detailed description of the sampling design and data collection procedures have been published elsewhere (Heeringa et al., 2004; Pennell et al., 2004). In this report, data from 1,470 Asian American respondents (707 males, 763 females) who were married or living with an opposite-sex partner at the time of the interview were weighted for age and gender to provide population estimates of the prevalence and correlates of IPV (N=5,378,303). It is important to point out that unlike some surveys such as the National Crime Victimization Survey (Bachman & Saltzman, 1995) that assess both members of a couple (matched pairs), the male and female participants in this study represent independent (household) samples. Table 1 presents the sociodemographic characteristics of the final weighted sample.

#### Procedures

Face-to-face interviews were conducted by multilingual interviewers certified to be fluent in both English and either Chinese, Tagalog, or Vietnamese. Interviews were conducted in the participant's primary language or according to their language preference. The NLAAS

questionnaire was translated into Chinese, Tagalog, and Vietnamese and carefully adapted to achieve cultural relevance; semantic, content, and technical equivalence; and internal consistency across languages and ethnic subgroups. Details regarding the development, translation, and adaptation of instruments may be found in Alegria, Vila, et al. (2004).

#### Measures

Intimate Partner Violence-IPV was assessed using an adaptation of the minor and severe physical violence subscales of the original Conflict Tactics Scales (CTS) (Straus, 1979). Married or cohabitating respondents were presented with two lists of violent acts and asked (a) whether their spouse/partner had ever done any of these things to them, and (b) whether they had ever done any of these things to their current spouse/partner over the course of the relationship. Acts of minor violence included pushing, grabbing or shoving, throwing something, slapping or hitting. Acts of severe violence included kicking, biting or hitting with a fist, beating up, choking, burning or scalding, or threatening with a knife or a gun. The response choices were "often", "sometimes", "rarely", or "never". Respondents who reported both being a perpetrator as well as a victim of violence were asked to indicate whether the violence was primarily perpetrated by themselves, their spouses, or whether the violence was equally distributed. The CTS and its more recent revision have been used in numerous studies of family violence and have been associated with strong concurrent validity with measures of assault and injury (Straus, Hamby, Boney-McCoy, & Sugarman, 1996). International studies have reported a high level of consistency in the reliability and construct validity coefficients across 33 diverse sites, including Hong Kong, Japan, Korea, and India (Straus, 2004; Tang, 1994).

To assess the contexts surrounding the uses of minor and severe violence, an additional item was asked of individuals endorsing reciprocal violence within the relationship. Individuals were asked, "When your arguments get physical, who usually starts it?" Responses were recorded as "respondent", "spouse or partner", or "it varies".

**Sociodemographic characteristics**—The variables assessed were age, gender, ethnicity, educational background, household income, household poverty, employment status, marital status (married or cohabitating), family size, nativity (US-born vs. foreignborn), and number of years residing in the U.S..

**Mental disorders**—Lifetime incidence of alcohol abuse, alcohol dependence, drug abuse, drug dependence, and major depression were assessed using the diagnostic interview of the World Mental Health Survey Initiative version of the World Health Organization's Composite International Diagnostic Interview (WMH-CIDI) (American Psychiatric Association, 1994). The WMH-CIDI is a fully structured diagnostic tool administered by trained lay interviewers to generate psychiatric diagnoses based on criteria of the *Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> Edition* (DSM-IV) (Kessler & Ustun, 2004).

#### **Analysis procedures**

Analyses were conducted with SAS version 9 and SUDAAN version 9. Data were weighted to account for the complex survey design, stratification, and selection probability. To obtain

estimates of standard errors for IPV prevalence rates and logistic regression coefficients, the Taylor series linearization method was applied to adjust for clustering and weighting of cases.

Eight outcome variables were created, defined by the gender of the respondent (man or woman), the role of the reporter (victim or perpetrator), and the severity of violence (minor or severe). Four of the variables represent Female Victimization, as assessed by female reports of victimization and male reports of perpetration for both minor and severe violence. Another four corresponding outcomes were computed for Male Victimization. Each IPV variable was recorded dichotomously as either present (often, sometimes, or rarely) or absent (never). Using respondents' estimates of the frequency of violence victimization and perpetration, another six-category variable was constructed to examine patterns of reciprocal IPV.

Univariate logistic regression analyses were conducted to assess the associations between each demographic characteristic and the eight IPV outcomes. To facilitate interpretation, coefficients were transformed with an exponential function and expressed in terms of odd ratios (ORs). The univariate ORs of the predictors of domestic violence and their 95% confidence intervals (CIs) are presented separately for minor and severe IPV. Tests of significance were set at a 0.05 level for two-tailed tests.

## Results

#### The prevalence of intimate partner violence in the total Asian American sample

Table 2 presents the weighted prevalence rates of minor and severe violence by the sex of the victim and the sex of the respondent. Group comparisons provide evidence of a response differential. The proportion of men admitting to perpetrating minor violence was significantly higher than the proportion of women reporting being a victim (14.7% vs. 10.2%, z=2.02, p=.04). Similarly, the percentage of women who reported having perpetrated minor violence (19.0%) was significantly higher than the percentage of men reporting being victimized (19.0% vs. 12.0%, z=2.66, p<.004). However, these differences were not significant for severe violence. Three mutually exclusive composite variables were created to summarize the findings for the total sample (see table).

#### Reciprocal violence

Table 3 provides a more detailed description of the relative proportion of violence committed by and experienced by men and women in the total sample. For minor violence, approximately 7% of women and men report some degree of reciprocal violence (sum of rows 1–3). For severe violence, less than 1% of women and men reported reciprocal violence in their relationship. A series of subgroup analyses for minor and severe violence found no gender differences in the frequency of (a) respondents reporting that their spouse was more violent than they were, (b) victims of violence who reported reciprocating violence against their partners, and (c) perpetrators of violence who reported also being victimized.

Responses to the question, "When your arguments get physical, who usually starts it?" revealed a general level of agreement in how men and women characterize their role and that of their partners in the conflict. The majority of respondents (65.2% of men, 54.2% of women) indicated that there was no clear pattern in terms of who typically initiated the violence. Approximately one in five respondents admitted that they typically start the fights (19.9% of men, 21.8% of women, *ns*); a similar proportion indicated that it was typically their partners who initiated the violence (15.0% of men, 24.0% of women, *ns*).

#### The prevalence of IPV by sub-ethnic group

Table 4 presents the weighted prevalence of IPV by ethnic group membership. Results indicate that reports of minor and severe violence tended to be lower among the Vietnamese sample compared to Filipino, Chinese, and Other Asian respondents. Univariate logistic regression analyses were conducted to test the association between ethnicity and the eight IPV outcomes and are reported in the following section.

#### Demographic correlates of minor and severe IPV

Tables 5 and 6 present the correlates of minor and severe violence among married or cohabitating respondents by the sex of the victim and sex of the respondent.

**Minor Violence: Female victim**—Demographic predictors of minor violence against women varied according to the sex of the respondent. Among Asian American women (see column 1), compared to women without a diagnosis, the odds of reporting victimization were more than five times as high among women with a diagnosis of substance abuse or dependence and more than three times as high among women with a history of major depression. Although nativity was not significantly related to odds of female victimization, foreign-born women's odds of reporting minor violence victimization increased by 1% with each subsequent year spent in the U.S. Somewhat surprisingly, having a high school level of education was marginally related to a *decrease* in odds of reporting minor violence compared to individuals with a college degree. Filipino-American women had a marginal increase in odds for reporting minor violence victimization, compared to Vietnamese women.

For Asian American men (see column 2), a DSM-IV diagnosis of substance abuse/ dependence were associated with a significantly higher odds of perpetrating minor violence against their female partners. Alcohol abuse/dependence was only marginally related to an increase in odds of perpetrating minor violence. Mirroring females' reporting of victimization, there was a marginally significant trend indicating an lower odds of perpetrating minor violence among males with lower education (0–11 years) compared to those with a college degree. Finally, compared to Vietnamese-American men, Chinese– American men had a higher odds of committing minor violence.

**Minor Violence: Male Victim**—Among Asian American men who reported being a victim of minor violence (column 3), substance abuse or dependence was significantly associated with IPV, as was the case for female victims. A middle-class household income (\$35,000–75,000) compared to upper-middle class (<\$75,000) also was associated with a

significantly higher odds, whereas low education (< high school) versus high education (college degree) was associated with a *lower* odds of male victimization. Vietnamese-American men had a significantly lower odds of victimization compared to Chinese- and other Asian-American men. The difference in odds between Vietnamese and Filipino men was marginal, but indicated a similar trend. Younger age (<34 years) versus older age (>45 years) was also associated with a marginally higher odds of victimization. There was also a marginally significant trend indicating that foreign-born men were less likely to report having been a victim of violence than their American-born peers.

For the most part, the predictors of female-reported minor violence perpetration (column 4) were similar to those of male reports of victimization (column 3). For example, the odds of committing violence were significantly higher among Asian-American women who were less than 34 years old versus those older than 45 and among those who were not ethnically Vietnamese. Lower odds were similarly associated with less education (12 years versus >16 years) and lower household income (<\$75,000 versus >\$75,000). Foreign-born women had a significantly *lower* odds of committing violence, but their odds increased by 2% with each year spent in the U.S. Whereas substance abuse/dependence was a significant predictor of male reports of victimization, it was only marginally related to the odds of female-reported perpetration of minor violence. However, women with a history of major depression were nearly three times more likely to report having perpetrated minor violence against their partners.

**Severe Violence: Female Victim**—Compared to minor violence, there were fewer significant demographic correlates of severe violence, due in part to its low prevalence. Among female victims of severe violence (Table 5, column 1), only substance abuse/ dependence and major depression emerged as significant correlates. In particular, the increase in odds was substantial for substance use disorders compared to those without such diagnoses (e.g., roughly 24:1). Alcohol abuse/dependence was marginally associated with female-reported victimization. In contrast to the trend indicating lower odds of minor violence among Vietnamese Americans, Chinese-American women had a significantly lower odds of reporting severe violence victimization than did Vietnamese-American women.

Among men, only substance abuse and alcohol problems were associated with a significant increase in odds of perpetrating severe violence against their partners.

**Severe Violence: Male Victim**—None of the demographic variables distinguished men who had reported experiencing severe violence from those who had not. However, there were a few predictors of female-reported perpetration of severe violence. Notably, cohabitation and a history of depression were related to a significant increase in odds, whereas a high school degree versus college was marginally associated with a *decrease* in odds of reporting severe violence perpetration.

#### Discussion

The results of this survey suggest that rates of IPV among married or cohabitating Asian Americans are on the low end compared to previous estimates for the general population. While we acknowledge that ten years have elapsed between the NCS and the NLAAS, a side-by-side comparison still provides a useful context for interpreting the results, given the comparable instrumentation and sampling procedures in the two surveys. Approximately 10.1% of Asian American women and 11.9% of Asian American men in the NLAAS reported being a victim of minor violence, compared to 17.4% of women and 18.4% of men in the NCS. Estimates of severe violence victimization were also found to be substantially lower in the Asian American sample. However, rates of perpetration of minor violence were comparable across the two population studies, ranging from 14.7% (NLAAS) to 15.4% (NCS) for male-perpetrated violence, and 19.0% (NLAAS) and 17.7% (NCS) for female-perpetrated violence.

The discrepancy between the higher rates of female-reported victimization and the comparatively lower rates of male-reported perpetration of violence in the NCS was interpreted by Kessler et al. (2001) as evidence of the underreporting of violence among male perpetrators. However in the present study, the reverse pattern was observed for both men and women with regard to minor violence. Specifically, the number of women reporting that they had been a victim of minor violence was substantially lower than then number of men reporting that they had perpetrated violence against their female partners. The same pattern was also found across male reports of victimization and female reports of perpetration, suggesting that among Asian Americans, the response bias is in the direction of underreporting victimization rather than perpetration, as was the case in the NCS.

These findings are consistent with previous research indicating that while IPV is not generally condoned in Asian American communities, there are some circumstances under which wife abuse in particular may be viewed as an acceptable response. In one study, onequarter to one-third of Chinese, Korean, Vietnamese, and Cambodian American adults indicated that violence was justified in certain situations, such as a wife's sexual infidelity, nagging, or refusal to cook or clean (Yoshioka, DiNoia, & Ullah, 2001). In addition, foreign-born respondents were significantly more likely than U.S.-born respondents to endorse the use of violence in certain situations, support male entitlement, and argue that abuse is not grounds for ending a relationship. Such results are frequently attributed to the Confucian-inspired emphasis on patriarchal family structures, conformity to social expectations, and acceptance of one's fate that characterizes many Asian cultures (Tran & Des Jardins, 2000). Asian women who internalize the traditional female virtues of duty, selfsacrifice, and stoic suffering (Ho, 1990) may blame themselves when abuse occurs or normalize certain violent responses as simply an unfortunate aspect of marital life (Liu & Chan, 1999; Tran & Des Jardins, 2000). Similarly, the expectation that men be the dominant authority figure in the family may also lead to significant feelings of shame among Asian men who are physically assaulted by their female partners. For both men and women, internalization of traditional sex-role expectations may result in greater stigma attached to being a victim of violence than a perpetrator of violence, and lead to a pattern of underreporting in population surveys such as this one.

Although not as prevalent as in previous population studies using the CTS (Kessler et al., 2001; Straus & Gelles, 1986; Straus et al., 1980), reciprocal violence remains a common occurrence in Asian American couples, accounting for 35% of the violence reported by men and women. The finding that Asian American females appear to engage in violent behaviors at a rate similar to that of Asian American men was unexpected, given previous international studies documenting significantly higher rates of male-to-female violence in Asian countries (e.g., Parish, Wang, Laumann, Pan, & Luo, 2004) and the traditional gender role dynamics assumed to characterize Asian intimate relationships (Ho, 1990). However, reciprocity cannot be interpreted as symmetry in the frequency, degree, or motivation underlying acts of interpersonal violence. As previous studies have reported (Curnadi, Caetano, & Schafer, 2002; Straus et al., 1980), female victims are much more likely than male victims of violence to sustain serious injuries, require medical treatment, and experience an assault that results in death.

Because we have no way of knowing whether cultural response styles affect men and women to the same degree, prevalence estimates should be interpreted with caution as they are likely to be a conservative estimate of IPV within the Asian American community. Moreover, it is unclear to what degree the face-to-face interviews may have lowered reporting due to concerns about disclosing intimate details of family life. Specifically, Johnson (1995) argued that national surveys such as the NVAWS, NCS, and the NLAAS are likely to have high rates of nonresponse from households where chronic and terroristic forms of violence are occurring. Furthermore, while the NCS provides a recent comparison sample for interpreting the present results given its similar sampling and measurement procedures, we acknowledge that rates of IPV in the general population may have declined due to changes in American society over the past ten years (e.g., Straus & Gelles, 1986). A more meaningful ethnic comparison will be possible following the release of data from the National Comorbidity Study-Replication and the ethnic-specific studies of the CPES.

Consistent with previous findings (Cunradi et al., 2002; Kessler et al., 2001; Sorenson & Telles, 1991; Sorenson et al., 1996), IPV was associated with younger age, substance- and alcohol-use disorders, and major depression. However, minor violence was positively associated with years of education, a finding that contradicts previous population studies that have identified low SES as a risk factor for IPV (Coleman, Weinman, & Hsi, 1980; Kessler et al., 2001). Also despite anecdotal reports that stresses associated with immigration and acculturation may increase vulnerability for IPV, there was a trend indicating that immigrant respondents, regardless of their length of residence, were less likely than U.S.-born respondents to report minor IPV in their current relationship. This finding, along with the incremental risk associated with each year in residence for female respondents in particular, is consistent with previous studies of Mexican and Chinese Americans (Firestone et al., 1999; Lown & Vega, 2000; Sorenson & Telles, 1991; Yick, 2000). Yet, it is unclear why the relationships between length of residence and IPV are stronger for women than men. Identification of the specific social and cultural changes that are associated with increased risk for IPV for women over time will be an essential topic for future exploration. For example, some studies have begun to examine gender-specific correlates of IPV among immigrant populations including family conflicts around acculturation goals, changing

gender role expectations, social support, and status loss following migration (Firestone, Harris, & Vega, 2003; Kibria, 1993; Rimonte, 1989).

A final finding worth commenting on is the significantly lower prevalence rate of female-tomale minor violence associated with the Vietnamese sample. Whereas previous studies suggest that the high rates of trauma exposure, substance use, and psychiatric diagnoses among Vietnamese refugee populations (Hauff & Vaglum, 1993; D. Hinton et al., 2001; W. L. Hinton et al., 1993) would predict high rates of IPV, the present study found that Vietnamese Americans were generally *less* likely than other Asian-American respondents to report IPV. Although comprehensive studies are needed in order to untangle the combination of risk and protective factors that produce lower rates for this group, qualitative studies of IPV in Vietnamese refugee families suggest a number of hypotheses.

First, because of the traumatic personal losses and fragmentation of families during migration, Vietnamese refugee women may work harder to preserve traditional family ways of life in an attempt to guard against further losses and ensure group survival. In Kibria's (1993) ethnographic study of Vietnamese immigrant adaptation for example, women tended to support the preservation of traditional patriarchal structures despite their increased economic and decision-making power within the family. Internalization of traditional patriarchal values may contribute to minimization and underreporting of IPV, even beyond that of other groups. Yoshioka et al.'s (2001) survey of community attitudes also reported that Vietnamese American respondents were more likely than other groups to endorse statements in support of male privilege and wife abuse in certain prescribed situations. For example, 54.2% of Vietnamese respondents agreed with the statement "a husband should have the right to discipline his wife," compared to 22.4% of Cambodian, 22.8% of Korean, and 14.3% of Chinese respondents. In addition, a qualitative study of IPV in Vietnamese American women found that in general, respondents felt that their husbands were justified in beating them because they had failed to fulfill their husband's demands (Tran, 1997). These studies suggest that among Vietnamese Americans, patriarchal values and communal commitment to cultural preservation may either lead to minimization (and underreporting) of IPV or actually reduce risk for female-to-male IPV relative to other populations.

In conclusion, the present study provides the first population-based estimates of the prevalence of IPV in Asian Americans. Although the NLAAS design includes a number of innovations in cross-cultural assessment, it is important to note that the assessment of IPV is restricted to mainstream definitions of physical violence. While important for comparative purposes, a number of studies have identified culture-specific definitions of abuse that could drastically alter prevalence estimates among Asian American subgroups (Yoshihama, 1999; Yoshioka, 2006). Future studies should consider including culture-specific assessments of behaviors that may be considered abusive within particular sub-ethnic groups. Finally, results point to the need for additional research to examine the interactions between gender, ethnicity, and acculturation to develop group-specific models of IPV risk and resilience within diverse Asian American groups.

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Demographic characteristics of the sample (Weighted N = 1,470)

	Weighted %	s.e.
Gender		
Men	47.02%	1.20
Women	52.98%	1.20
Age	Mean=44.44	0.86
18-34 years	27.77%	2.44
35-44 years	27.87%	2.08
45 years	44.36%	2.90
Education		
0-11 years	16.79%	2.06
12 years	16.60%	1.46
13-15 years	22.79%	1.50
16 years	43.82%	2.35
Household income		
< \$15,000	9.53%	0.91
\$15,000-35,000	10.69%	0.97
\$35,000-75,000	29.38%	1.75
> \$75,000	50.40%	2.37
Employment status		
Employed	77.53%	1.67
Unemployed	6.12%	0.95
Out of the labor force	15.87%	1.53
Other	0.48%	0.17
Relationship status		
Married	94.59%	0.84
Cohabitating, not married	5.41%	0.84
Family size	Mean = 2.98	0.07
DSM-IV Alcohol Abuse/Dependence	2.39%	0.38
DSM-V Substance Abuse/Dependence	1.20%	0.18
DSM-IV Major Depressive Episode	6.53%	0.93
Nativity		
Foreign-born	82.87%	3.01
U.Sborn	17.13%	
Years in US	Mean = 21.02	1.20
Asian Ethnicity		
Vietnamese	13.97%	2.24
Filipino	21.09%	2.34
Chinese	28.83%	2.94
Other Asian	36.11%	2.96

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Prevalence of minor and severe violence by sex of the victim and sex of the respondent (Weighted N = 1470)

	Minor Viole	ence	Severe Viole	ence
	Weighted %	s.e.	Weighted %	s.e.
Female victim				
Female respondent	10.15%	1.24	1.49%	0.41
Male respondent	14.65%	1.85	1.78%	0.78
Male victim				
Female respondent	19.02%	2.00	2.40%	0.42
Male respondent	12.00%	1.72	2.60%	0.96
Summary variables				
Male-to-female	5.02%	0.84	0.71%	0.25
Female-to-male	8.48%	0.97	1.54%	0.39
Reciprocal	7.24%	1.13	0.92%	0.26
All forms	20.74%		3.17%	

Reciprocation of minor and severe violence among Asian American respondents (Weighted N = 1,470)

		Minor V	/iolence			Severe	violence	
	Female respo	ndent	Male respon	dent	Female respo	ndent	Male respon	dent
	Weighted %	s.e.	Weighted %	s.e.	Weighted %	s.e.	Weighted %	s.e.
Both do the same	5.53%	1.18	6.28%	1.41	0.43%	0.21	0.51%	0.31
I do more	0.74%	0.31	0.27%	0.18	0.13%	0.13	0.42%	0.34
Spouse does more	1.10%	0.45	0.58%	0.36	0.22%	0.22	0.09%	0.09
· Only spouse	2.87%	0.86	4.85%	1.05	0.73%	0.30	1.53%	0.66
Only me	11.84%	1.60	7.51%	1.25	1.57%	0.43	0.70%	0.38
Neither	77.92%	1.83	80.51%	2.01	96.92%	0.48	96.76%	1.11
otal	100.00%		100.00%		100.00%		100.00%	

Prevalence of minor and severe domestic violence among married or cohabiting respondents by ethnic group (Weighted N = 1,470)

	Vietnamese	Filipino	Chinese	Other Asian
		Minc	or IPV	
Female Victim				
Female Report	3.25% (0.99)	6.42% (1.40)	5.62% (1.51)	5.39% (1.24)
Male Report	4.52% (1.12)	5.50% (1.43)	8.56% (1.49)	7.28% (1.55)
Male Victim				
Male Report	1.78% (0.68)	4.87% (1.23)	6.46% (1.27)	6.94% (1.56)
Female Report	4.32% (1.35)	12.07% (1.61)	8.92% (1.70)	12.07% (2.11)
		Sever	e IPV	
Female Victim				
Female Report	1.36% (0.74)	0.97% (0.55)	0.36% (0.26)	0.81% (0.41)
Male Report	0.26% (0.25)	0.82% (0.45)	0.63% (0.59)	1.23% (0.56)
Male Victim				
Male Report	0.04% (1.76)	1.33% (0.59)	1.11% (0.62)	1.62% (0.87)
Female Report	1.17% (0.65)	2.04% (0.74)	1.10% (0.48)	1.00% (0.44)

Sociodemographic predictors of minor domestic violence among married or cohabiting respondents (Weighted N = 1,470)

		Female Victin	a (minor v	riolence)		Male Victin	ı (minor vic	lence)
	Femal	e report, (victim)	Male re	port, (perpetrator)	Male r	eport, (victim)	Female r	eport, (perpetrator)
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Weighted prevalence		10.15%		14.65%		12.00%		19.02%
Age								
18–34 years	1.39	(0.74 - 2.62)	0.73	(0.30 - 1.75)	$2.02^{+}$	(0.91 - 4.46)	$1.83^{*}$	(1.04 - 3.21)
35-44 years	1.14	(0.44 - 2.90)	0.66	(0.37 - 1.19)	0.76	(0.36 - 1.60)	1.25	(0.55 - 2.83)
45+ years	1.00		1.00		1.00		1.00	
Education								
0–11 years	0.61	(0.24 - 1.58)	$0.49^{+}$	(0.21 - 1.10)	$0.09^{**}$	(0.02 - 0.36)	$0.51^{+}$	(0.26 - 1.02)
12 years	$0.43^{+}$	(0.16 - 1.17)	0.51	(0.21 - 1.24)	0.92	(0.40 - 2.13)	$0.37^{+}$	(0.14 - 1.03)
13–15 years	1.35	(0.77 - 2.37)	0.79	(0.40 - 1.57)	0.65	(0.35 - 1.19)	1.42	(0.81 - 2.50)
16+ years	1.00		1.00		1.00		1.00	
Household income								
< \$15,000	1.11	(0.40 - 3.10)	1.07	(0.38 - 3.04)	1.28	(0.48 - 3.44)	0.67	(0.27 - 1.64)
\$15,000–35,000	0.56	(0.27 - 1.13)	0.77	(0.27 - 2.16)	0.66	(0.16 - 2.67)	$0.38^{**}$	(0.21 - 0.69)
\$35,000–75,000	0.85	(0.44 - 1.64)	1.17	(0.58 - 2.37)	$2.14^{*}$	(1.13 - 4.06)	$0.57^{+}$	(0.32 - 1.01)
>\$75,000	1.00		1.00		1.00		1.00	
Employment status								
Unemployed	0.36	(0.09 - 1.48)	0.61	(0.17 - 2.23)	0.27	(0.06 - 1.33)	1.27	(0.42 - 3.90)
Out of the work force	0.66	(0.30 - 1.44)	0.96	(0.41 - 2.26)	0.65	(0.26 - 1.65)	0.56	(0.28 - 1.12)
Other	0.78	(0.08 - 7.27)	2.14	(0.17 - 26.23)	ł	:	0.75	(0.13 - 4.35)
Employed	1.00		1.00		1.00		1.00	
Relationship status								
Cohabitating only	1.21	(0.50 - 2.90)	0.73	(0.35 - 1.52)	1.31	(0.62 - 2.79)	$3.06^*$	(1.20 - 7.78)
Married	1.00		1.00		1.00		1.00	
Family size	1.04	(0.86 - 1.25)	1.02	(0.86 - 1.22)	0.96	(0.80 - 1.16)	1.14	(0.97 - 1.33)
Alcohol Abuse/Dependence	3.58	(0.36 - 36.04)	2 00+	(0.99 - 4.01)	2.03	(0.82 - 5.05)	0.98	(0.07 - 14.69)

		Female Victim	t (minor vi	olence)		Male Victim	(minor vio	lence)
	Female	report, (victim)	Male rep	ort, (perpetrator)	Male re	port, (victim)	Female re	port, (perpetrator)
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Substance Abuse/Dependence	5.56**	(1.78 – 17.31)	3.72**	(1.44 - 9.63)	5.36 <sup>***</sup>	(2.21 – 13.02)	5.84 <sup>+</sup>	(0.90 - 37.90)
Major Depressive Episode	3.72**	(1.50 – 9.26)	1.56	(0.59 - 4.10)	2.01	(0.68 - 5.98)	$2.99^{**}$	(1.37 - 6.49)
Nativity								
Foreign-born	0.62	(0.29 - 1.32)	1.12	(0.41 - 3.05)	$0.47^{+}$	(0.21 - 1.05)	$0.42^{**}$	(0.22 - 0.79)
U.Sborn	1.00		1.00		1.00		1.00	
Years in the U.S.	$1.01^*$	(1.00 - 1.03)	1.00	(0.98 - 1.03)	1.01	(0.99 - 1.04)	$1.02^*$	(1.00 - 1.03)
Asian Ethnicity								
Filipino	$2.22^{+}$	(0.95 - 5.21)	1.16	(0.51 - 2.64)	2.75+	(0.98 – 7.70)	3.51**	(1.66 – 7.43)
Chinese	1.99	(0.81 - 4.85)	$1.87^{*}$	(0.96 - 3.64)	3.64 <sup>**</sup>	(1.49 - 8.85)	2.51*	(1.12 – 5.62)
Other Asian	1.84	(0.77 - 4.43)	1.60	(0.83 - 3.07)	4.09**	(1.55 - 10.79)	3.54**	(1.55 - 8.05)
Vietnamese	1.00		1.00		1.00		1.00	
$^{+}.05$								
* p < .05,								
** p < .01,								
*** p < 001								

Sociodemographic predictors of severe domestic violence among married or cohabiting respondents (Weighted N = 1,470)

		Female Victim (	(severe vic	olence)		Male Victi	m (severe v	riolence)
	Female	: report, (victim)	Male rej	port, (perpetrator)	Male 1	report, (victim)	Female r	eport, (perpetrator)
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Weighted prevalence		1.49%		1.78%		2.60%		2.40%
Age								
18–34 years	0.84	(0.25 - 2.75)	0.74	(0.28 - 1.98)	1.39	(0.26 – 7.42)	1.73	(0.79 - 3.80)
35-44 years	0.58	(0.13 - 2.65)	0.72	(0.19 - 2.69)	1.12	(0.37 - 3.40)	0.36	(0.09 - 1.51)
45+ years	1.00		1.00		1.00		1.00	
Education								
0–11 years	0.97	(0.19 - 4.87)	0.30	(0.03 - 3.05)	÷	÷	0.65	(0.20 - 2.11)
12 years	0.61	(0.10 - 3.87)	1.35	(0.14 - 13.38)	0.52	(0.10 - 2.63)	$0.17^{+}$	(0.03 - 1.20)
13-15 years	1.65	(0.34 - 7.98)	1.74	(0.33 - 9.12)	0.69	(0.18 - 2.64)	1.17	(0.51 - 2.71)
16+ years	1.00		1.00		1.00		1.00	
Household income								
< \$15,000	0.42	(0.05 - 3.62)	÷	:	÷	÷	0.28	(0.03 - 2.59)
\$15,000–35,000	2.03	(0.50 - 8.24)	1.60	(0.54 - 4.73)	0.31	(0.03 - 2.95)	0.91	(0.19 - 4.28)
\$35,000-75,000	0.20	(0.02 - 1.75)	1.17	(0.27 - 5.18)	1.13	(0.26 - 4.85)	0.95	(0.33 - 2.72)
>\$75,000	1.00		1.00		1.00		1.00	
Employment status								
Unemployed	:	:	:	:	:	:	0.63	(0.07 - 5.38)
Out of the work force	0.91	(0.17 - 4.96)	1.04	(0.26 - 4.17)	0.28	(0.05 - 1.60)	1.15	(0.30 - 4.39)
Other	÷	:	:	:	÷	÷	÷	:
Employed	1.00		1.00		1.00		1.00	
Relationship status								
Cohabitating only	2.77	(0.46 - 16.71)	2.50	(0.77 - 8.19)	0.69	(0.08 - 5.70)	4.79*	(1.28 - 17.97)
Married	1.00		1.00		1.00		1.00	
Family size	0.72	(0.48 - 1.08)	1.07	(0.88 - 1.30)	1.08	(0.77 - 1.51)	0.86	(0.66 - 1.12)
Alcohol Abuse/Dependence	$16.05^{+}$	(0.70 - 366.22)	$4.18^{*}$	(1.24 - 14.14)	1.06	(0.20 - 5.62)	:	:

		Female Victim (	severe viol	(ence)		Male Victi	m (severe v	iolence)
	Female r	eport, (victim)	Male rep	ort, (perpetrator)	Male	report, (victim)	Female r	sport, (perpetrator)
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Substance Abuse/Dependence	24.60 <sup>***</sup>	(5.90 - 102.62)	6.38 <sup>**</sup>	(1.80 – 22.67)	2.60	(0.44 - 15.35)	÷	÷
Major Depressive Episode	5.67*	(1.47 - 21.88)	1.79	(0.59 - 5.48)	0.53	(0.06 - 4.29)	4.15*	(1.31 – 13.12)
Nativity								
Foreign-born	0.62	(0.17 - 2.19)	0.36	(0.06 - 2.23)	0.38	(0.09 - 1.60)	0.60	(0.16 - 2.21)
U.Sborn	1.00		1.00		1.00		1.00	
Years in the U.S.	1.02	(0.99 - 1.04)	1.01	(0.97 - 1.05)	1.02	(0.99 - 1.04)	1.02	(1.00 - 1.03)
Asian Ethnicity								
Filipino	0.75	(0.15 - 3.65)	2.98	(0.34 - 25.81)	4.87	(0.60 - 39.38)	1.86	(0.47 - 7.35)
Chinese	$0.29^*$	(0.08 - 1.02)	2.19	(0.15 – 32.53)	3.91	(0.43 - 35.78)	1.02	(0.24 - 4.28)
Other Asian	0.62	(0.13 - 2.98)	4.47	(0.57 - 34.88)	5.95	(0.67 – 52.94)	06.0	(0.23 - 3.51)
Vietnamese	1.00		1.00		1.00		1.00	
+.05 < p < .10,								
* p < .05,								
** p<.01,								
*** p < 001								