Impact of Intimate Partner Violence on Unmet Need for Mental Health Care: Results From the NSDUH

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Raul Caetano, M.D., Ph.D.

Objectives: This study examined risk factors and ethnic differences in the relationship between intimate partner violence and unmet need for mental health treatment (perceived need for but did not receive treatment) in the general population. Methods: The 2002 National Survey on Drug Use and Health was used; the analysis presented here included black, Hispanic, and non-Hispanic white women ages 18 to 49 who were cohabiting (N=7,924). Logistic regression was used to calculate adjusted odds ratios (AORs) and 95% confidence intervals (CIs). Results: Victims of partner violence were twice as likely as nonvictims (AOR=2.11, CI= 1.41–3.16) overall to report unmet need, after analyses controlled for socioeconomic factors and substance abuse. In ethnic-specific models, only Hispanic and non-Hispanic white women who experienced partner violence were more likely than their nonabused counterparts to report unmet need for treatment (AOR 4.11, CI=1.34–12.60, and AOR=2.12, CI=1.34–3.35, respectively). Conclusions: This study suggests that women who experienced partner violence, especially Hispanic women, are at increased risk of not receiving needed mental health care. These findings highlight the need for culturally sensitive and specific outreach about the effects of partner violence on women's mental health and how to access these services. (Psychiatric Services 58:822–829, 2007)

Intimate partner violence is an important public health problem that has a substantial impact on the health of women. Partner violence may function as an acute or chronic stressor that leads to adverse mental health as well as physical health outcomes (1–8). Posttraumatic stress disorder, for example, is common among people who encounter intimate partner violence, with an average prevalence of 64% across studies (9,10). In contrast, the lifetime prevalence of posttraumatic stress disorder among women in the general population is estimated to be about 10% (11). Similarly, research studies evaluating depression among abused women report a mean prevalence of 48% (10), which is substantially greater than the 12-month prevalence among women in the general population (13%) (12).

Few studies have assessed the causal relationship between partner violence and mental health disorders (1,6,13), but physical violence by a partner has been associated with subsequent psychiatric disorders among women in the general population (13,14), and cessation of abuse among victims of partner violence has been associated with a decreased prevalence of depression (6). Conversely, prior trauma and comorbid mental disorders—that is, preexisting mental health problems—may influence a woman's vulnerability and response to partner violence (1). Women with mental health problems may be more likely to put themselves in unsafe environments and relationships (15). Thus partner violence may have a unilateral or reciprocal relationship with mental health problems as well as with other interpersonal violence (including family violence history), substance use, and sociodemographic characteristics.

Consequently, intimate partner violence may have a substantial impact on mental health care services. The National Violence Against Women Survey (16) estimated that nearly 1.5 million of the 5.5 million rapes, physical assaults, and stalking incidents perpetrated against women by intimate partners each year result in some type of mental health counseling. Nevertheless, the extant literature suggests that mental health care among abused women may be underutilized. Only one-fourth to one-third of women reporting intimate partner rape and physical violence in the U.S. general population obtain mental health care for partner violence (16). Abused women face several barriers to mental health care, not only those typically cited by the general population (such as affordability, accessibility, and acceptability) but also gender and power issues, including partners with controlling behavior who prevent health care utilization and perpetrate psychological
abuse that decreases a woman’s ability to take action (17,18).

Racial and ethnic disparities in mental health care utilization among abused women have not been well studied, although women of ethnic minority groups who are abused by their partners appear to seek help from community resources, including counseling and other supportive services, at lower levels than those of abused white women (19–22). The broader literature also suggests that these disparities play a role in who seeks or has access to care for mental health problems (23–27). Although the prevalence of mental health problems for ethnic minority populations varies by diagnostic category, race and ethnicity, ethnic subgroup, and immigration status (28–30), recent data suggest that mental health problems overall are more likely to affect the non-Hispanic white population (31). Nevertheless, people in ethnic minority groups are more likely to have no access, inadequate access, or delayed care for mental health and substance abuse problems (23,24,32). Given the heterogeneity among subgroups of ethnic minorities, access to and utilization of mental health care are likely to vary by a number of factors. Alegria and colleagues (33), for example, found that cultural and immigration characteristics play a significant role in service use among Latinos when mental health care appears to be discretionary (in other words, when no specific psychiatric diagnosis was present).

Fewer studies have examined racial and ethnic disparities from a gender perspective, but they too suggest women in ethnic minority groups are disproportionately represented among the underserved (27,34,35). Kimerling and Baumrind (35), for example, found that among women with perceived need for mental health care, black and Asian women were less likely than white women to seek services. Among women who sought services, however, only Hispanic women were less likely than white women to obtain those services. Although the need for mental health treatment among abused women has been well documented in previous research, much less is known about the risk factors associated with unmet need. The behavioral model for vulnerable populations suggests several factors that may play a role in whether vulnerable populations, in this case abused women, access health services (36). The factors most relevant to partner violence include predisposing factors related to social structure (for example, race and ethnicity, nativity, acculturation, and socioeconomic status) and childhood and adult characteristics (such as mental illness and substance abuse), enabling factors (that is, personal, family, and community resources; for abused women these resources may be constrained by the controlling behaviors of their partners, low self-esteem or self-efficacy, and social isolation), need factors (including perceived health and health literacy), and health behavior (including personal health practices and partner-induced practices, such as forced and unprotected sex, substance abuse, self-care, and health care utilization).

A majority of studies addressing the relationship between partner violence and health care utilization have been clinic based or conducted among convenience samples of abused women, which introduces bias by including only those who access health care or seek help in regard to partner violence. Population-based studies are necessary in order to include women in the general population who may not access services. This article addresses these gaps in the literature by providing an analysis of the National Survey on Drug Use and Health (NSDUH), with a particular focus on the three major ethnic groups in the United States.

On the basis of extant literature, we hypothesized that women in the general population, particularly those in ethnic minority groups, who have experienced partner violence are more likely than those who have not to report gaps in mental health treatment. The study objectives, then, were to examine the relationship between intimate partner violence and risk factors in unmet need for mental health treatment and any ethnic differences in unmet need for treatment among non-Hispanic white, black, and Hispanic women in the general population.

Methods
Sample
The sample in our study was drawn from the 2002 NSDUH public use file (37). NSDUH is a cross-sectional survey conducted each year by the U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. The survey methodology has been reported elsewhere (38). Briefly, data are obtained from a representative sample of the noninstitutionalized civilian population of the United States through face-to-face interviews at their place of residence via computer-assisted administration of the questionnaire. Although the survey included individuals who were not married or cohabiting with their partner, questions about intimate partner violence were asked of only those who were married or cohabiting. This method increases the likelihood of equal probability of exposure to intimate partner violence among respondents and of unmet need for mental health care’s being affected by similar barriers, particularly power issues among couples previously noted. Thus non-Hispanic white, black, and Hispanic married or cohabiting female respondents ages 18 to 49 years of age were included in these analyses. The study sample was restricted to this age range because of the substantial decline in partner violence victimization in older age groups (39). The final sample size was 7,924, with the exception of the multivariate analyses, in which nine respondents had missing data on one or more variables and were not included in those analyses. The NSDUH public use file incorporated several measures to ensure respondent confidentiality. In addition, this study was approved by the Committee for Protection of Human Subjects at the University of Texas Health Science Center at Houston.

Measures
Outcome measure. The outcome measure for the study was unmet need for mental health treatment in the past
year. Respondents were asked, “During the past 12 months, was there any time when you needed mental health treatment or counseling for yourself but didn’t get it?”

**Exposure measure.** The exposure measure is defined as any intimate partner violence in the previous 12 months. Only women who were married or cohabiting with a partner at the time of survey were asked the following question in the survey regarding victimization: “How many times during the past 12 months did your spouse or partner hit or threaten to hit you?” Women who indicated that violence occurred one or more times were categorized as victims; those who indicated that violence did not occur were categorized as nonvictims. The measure was dichotomized because 95% of women reported no victimization and a majority (67%) of those who had experienced partner violence reported that it occurred one or two times.

**Substance use.** Alcohol and substance use measures were included to control for comorbid conditions. Alcohol measures included alcohol abuse or dependence as defined by DSM-IV criteria (40). Illicit drug measures included any illicit drug use in the previous 12 months and illicit drug abuse or dependence as defined by the DSM-IV (40).

**Sociodemographic characteristics.** These measures included respondents’ self-reported race or ethnicity, age group, marital status, education level, employment status in the past week (defined as full-time, 35 or more hours per week; part-time, less than 35 hours per week; unemployed and looking for work; and other or not in workforce, meaning disabled, full-time homemaker, in school or training, retired, or some other reason), household income, current health insurance type, number of children younger than 18 years of age in the household, and household density. Acculturation among Hispanics was measured by whether respondents were born in the United States, years lived in the United States (less than five years, five to nine years, and ten or more years or born in the United States), and language version (Spanish or English) of the questionnaire to which they responded.

**Data analysis**
Chi square tests were used in bivariate analyses, and p<.05 was considered significant. Logistic regression analysis was performed to examine the relationship between the outcome variable, unmet need for mental health treatment (0, no; 1, yes), and the exposure variable, any intimate partner violence victimization. Adjusted odds ratios (AORs) with 95% confidence intervals (CIs) were computed. Substance use measures were individually assessed for confounding; a variable was considered a confounder if it altered the odds ratio of the crude estimate of partner violence and unmet need by 10% or more (41).

In modeling the relationship between partner violence and unmet need, sociodemographic factors found to be significant in the bivariate analysis were entered as a block first. Substance use factors determined to be confounders were entered next. A factor was retained if it altered the odds ratio of the outcome and the exposure by 10% or more or if the factor itself demonstrated a significant Wald chi square test at p≤.10. Finally, separate models were constructed for non-Hispanic white, black, and Hispanic respondents according to the general analysis plan. Acculturation measures were tested as potentially confounding factors and as independent risk factors in the Hispanic model; each measure found to be a potentially confounding factor was entered separately after the sociodemographic block.

All analyses were conducted with SUDAAN software, version 9.0 (42). SUDAAN takes into account the complex multistage sampling design to more accurately estimate the standard errors. The data were weighted to correct for the probability of selection into the sample, to correct for nonresponse, and to adjust the sample to known population distributions. The original records were randomly subsampled for the public use file to ensure confidentiality, and the remaining sample was adjusted to the known totals from the full file to increase precision.

**Results**

**Prevalence and correlates of intimate partner violence**

Among all women in the sample, 536 (5%, weighted) reported they had experienced partner violence in the previous 12 months, which represents more than 1.9 million victims in the U.S. population of married or cohabiting women. Several sociodemographic factors were significantly associated with partner violence (Table 1). Black women and, to a lesser extent, Hispanic women were more likely than non-Hispanic white women to report violence from partners. In addition, younger women, women not married to their cohabiting partner, women with lower education and income levels, the unemployed, and women with no health insurance or those with government-subsidized insurance were more likely to have experienced violence.

**Unmet need for mental health treatment**
The prevalence of unmet need for mental health treatment among victims of partner violence overall was 19%, compared with 5% among nonvictims (data not shown). After accounting for socioeconomic and substance use factors, we found that women who encountered partner violence were twice as likely as those who did not to report unmet need (Table 2). Ethnicity was independently associated with unmet need, with Hispanic women significantly less likely than non-Hispanic white women to report unmet need. Other independent risk factors for unmet need included alcohol abuse or dependence, illicit drug use, and illicit drug abuse or dependence.

**Ethnic-specific models**
The prevalence of unmet need for mental health treatment among women who experienced partner violence and those who did not varied significantly by race and ethnicity. The prevalence was 10% versus 7%, respectively, among black women; 18% versus 6%, respectively, among Hispanic women; and 22% versus 9%, respectively, among white women (data not shown). In ethnic-specific multivariate mod-
els of women who experienced partner violence, Hispanic and non-Hispanic white women, but not black women, were significantly more likely than their counterparts who did not experience violence to report unmet need for mental health treatment (Table 2). Hispanic women who experienced partner violence were four times as likely as nonabused Hispanic women to report unmet need. High school graduates, those employed full-time, and women who chose Spanish as the interview language were less likely to report unmet need. Hispanic women who reported using illicit drugs were 3.7 times as likely as nonusers to have unmet need for mental health treatment.

Among non-Hispanic white women, those encountering partner violence were twice as likely as nonvictims to report unmet need. White women with alcohol abuse or dependence were 2.6 times as likely to report unmet need; those reporting illicit drug use and drug abuse or dependence were 1.5 and 4.4 times as likely to have unmet need, respectively.

Black women who had experienced partner violence were not at increased risk of unmet need for mental health care, but lack of health insurance, employment status, and income level were independently associated with unmet need. Illicit drug use increased the odds of unmet need threefold.

Discussion
This is the first study to our knowledge that has addressed the issue of intimate partner violence and unmet mental health needs among women in the general population. One of the main findings in this study suggests that women experiencing partner violence are more likely than their nonabused counterparts to report unmet need for mental health care, but lack of health insurance, employment status, and income level were independently associated with unmet need. Illicit drug use increased the odds of unmet need threefold.

Table 1
Sociodemographic characteristics of study participants by whether or not they had experienced violence from an intimate partner

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Violence (N=536)</th>
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<th>df</th>
<th>p</th>
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<td></td>
<td>%a</td>
<td>SE</td>
<td>%a</td>
<td>SE</td>
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<td>1.6</td>
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<td>96</td>
<td>.3</td>
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<td>.6</td>
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<td>.4</td>
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<td>.4</td>
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<td>95</td>
<td>.4</td>
<td>.16</td>
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<td>95</td>
<td>.6</td>
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<td>95</td>
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<td>.5</td>
<td>97</td>
<td>.5</td>
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* Percentages are weighted.
other supportive services as their black counterparts. Similarly, El-Khoury and colleagues (46) found that among abused women seeking formal help for partner violence (domestic violence courts or shelters), white women were twice as likely as black women to have called a mental health counselor to deal with violence or threats even after controlling for partner violence type and severity.

Our findings that female black victims were not at increased risk of unmet need for mental health treatment should be interpreted with caution, however, given that this group was smaller than the other two racial and ethnic groups in our study. This smaller sample may have contributed to the lack of statistical significance for unmet need among black women in both the main and ethnic-specific analyses. These findings, taken from a general population sample, likely reflect less severe partner violence as well as a more heterogeneous population in terms of socioeconomic status than would be found with clinical or convenience samples (47,48). For example, one study of abused low-income black women found that those with high levels of partner abuse were more likely than women with low levels of abuse to use nonemergency psychiatric care (49).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total (N=7,915)</th>
<th>Black (N=655)</th>
<th>Hispanic (N=1,093)</th>
<th>Non-Hispanic white (N=6,167)</th>
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<td>.4 (.1–1.5</td>
<td>1.0 (.6–1.6</td>
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<td>2.6 (.6–10.9</td>
<td>.2 (.1–7</td>
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<td>2.4 (.5–10.8</td>
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<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed full-time</td>
<td>.7 (.5–.93</td>
<td>.2 (.0–.6</td>
<td>.3 (.1–1.7</td>
<td>.8 (.6–11</td>
</tr>
<tr>
<td>Employed part-time</td>
<td>.9 (.6–1.2</td>
<td>.3 (.1–1.0</td>
<td>.3 (.1–1.0</td>
<td>1.0 (.7–1.5</td>
</tr>
<tr>
<td>Unemployed</td>
<td>.8 (4–.4</td>
<td>na</td>
<td>.5 (.1–2.8</td>
<td>1.2 (.6–2.4</td>
</tr>
<tr>
<td>Other (reference)</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Health insurance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>.9 (7–1.4</td>
<td>.0 (0–2</td>
<td>.5 (2–12</td>
<td>1.3 (9–18</td>
</tr>
<tr>
<td>Government</td>
<td>1.1 (.7–1.7</td>
<td>.3 (1–1.1</td>
<td>1.0 (3–3.2</td>
<td>1.4 (.8–2.3</td>
</tr>
<tr>
<td>Subsidized</td>
<td>na</td>
<td>na</td>
<td>.3 (.1–8</td>
<td>na</td>
</tr>
<tr>
<td>Private or other (reference)</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Language version</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanish</td>
<td>na</td>
<td>na</td>
<td>.3 (.1–8</td>
<td>na</td>
</tr>
<tr>
<td>English (reference)</td>
<td>na</td>
<td>na</td>
<td>1.0</td>
<td>na</td>
</tr>
<tr>
<td>Alcohol abuse or dependence</td>
<td>2.5 (1.7–3.7 &lt;.01</td>
<td>na</td>
<td>2.0 (.4–9.4</td>
<td>.39 (2.6</td>
</tr>
<tr>
<td>Illicit drug use</td>
<td>1.7 (1.3–2.4 &lt;.01</td>
<td>3.2 (1.2–8.4 &lt;.05</td>
<td>3.7 (1.2–11.2 &lt;.01</td>
<td>1.5 (1.1–2.0 &lt;.05</td>
</tr>
<tr>
<td>Illicit drug abuse or dependence</td>
<td>3.1 (1.8–5.2 &lt;.01</td>
<td>na</td>
<td>na</td>
<td>4.4 (2.5–8.0 &lt;.01</td>
</tr>
</tbody>
</table>

<sup>a</sup> Nine respondents were excluded from the analyses because data were missing for one or more variables.

<sup>b</sup> Odds ratios were adjusted (AOR) for all variables with values listed. Some variables (na) were not in the model.

<sup>c</sup> Because of small cell size, an estimate could not be calculated separately and has been combined with employed part-time.
Nevertheless, McFarlane and colleagues (19) and West and colleagues (20) found that resource use for partner violence was lowest among Hispanic (primarily Mexican and Mexican-American) women compared with black or Anglo-American women. The study by West and colleagues (20) also revealed that low acculturation, as measured by language preference, was the only significant cultural barrier to Latinas’ help seeking for abuse. This finding contrasts with our finding that Hispanic women who preferred the Spanish-version questionnaire were in fact less likely to report unmet need for mental health treatment. Although the study by West and colleagues (20) was based on national survey data, the study outcome was help seeking for abuse, rather than mental health care. It is possible, however, that acculturation is related to felt needs or mental health literacy as well as access to care. Less acculturated women also may be less likely to use specialty mental health care (50). Furthermore, abused Hispanic women may face unique social, cultural, and political barriers to care for recovering from partner violence, especially if they are immigrants (51). These factors were not assessed in this study.

Finally, comorbid substance abuse was clearly a factor in unmet need for mental health treatment in the total sample as well as in ethnic-specific analyses, above and beyond the impact of intimate partner violence. These findings are consistent with previous studies that suggest a strong relationship between substance abuse and mental health problems (52). It is possible that comorbidity impedes an individual’s ability to access care, although few studies have yet to assess this relationship. In a previous analysis of the NSDUH, Harris and Edlund (53) found that although a substantial proportion of adults with comorbid mental health problems and a substance use disorder did not receive any treatment, the use of mental health care services was comparable among those with and without a co-occurring substance use disorder.

The NSDUH has a number of limitations that must be considered. First, only one question regarding partner violence was used in the NSDUH, which does not allow for the complete portrayal of partner violence. This may explain, in part, the low prevalence of partner violence in this survey in comparison with a majority of other surveys (54–57). Further, partner violence was assessed among only married or cohabiting respondents, potentially biasing the estimate downward. Noncohabiting women may also experience partner violence with a current or previous partner and separation may increase the risk and severity of violence (58–61). Nonetheless, Tjaden and Thoennes (62) found comparable rates of partner violence victimization among cohabiting or married women and all female respondents in the National Violence Against Women Survey (63). The effect of this bias might be to weaken the association between partner violence and unmet need for mental health treatment. As previously noted, it is also likely that partner violence is less severe in a general population sample and that less severe violence may not have the same impact as severe violence with regard to mental health care utilization.

Second, the measure of unmet need for mental health treatment was assessed with only one measure. Although this measure took into account the perceived need of the respondent, it did not address the perceptions of individuals in the respondent’s social networks or recommendations from health care providers. Third, the limited acculturation measures in this study restricted our ability to fully explore the relationship between acculturation and service utilization.

Fourth, the small samples of women from ethnic minority groups, particularly the black population, in this study may have limited our ability to detect ethnic disparities and to perform ethnic-specific analyses. These populations were not oversampled in the NSDUH, which constrained our ability to detect important differences among ethnic groups and within subgroups. The NSDUH also does not survey homeless or institutionalized persons who may have more severe mental health problems or experiences of partner violence and thus greater needs. The main aim of the study, however, was to assess unmet need of the general population rather than among those who access services. Finally, causality cannot be established because of the cross-sectional study design, with both the outcome and exposure of interest assessed for the previous 12 months.

**Conclusions**

The findings in this study add to the current literature regarding the substantial unmet need for mental health treatment—not only among abused women in the U.S. population overall, but also among Hispanic women in particular. Reducing physical abuse directed at women by male partners and increasing the proportion of adults with mental disorders who receive treatment are both objectives addressed in the Healthy People 2010 initiative (64). As suggested by Miranda and colleagues (65), much remains to be accomplished in the development of strategies to improve access to mental health care and availability of appropriate care for ethnic minority populations. This is perhaps even more important for abused women, given the additional burden of partner violence and abuse on the lives of all abused women and the cultural milieu in which ethnic minority women experience this violence. Further, an abused woman’s ability to manage a crisis of partner violence, her ability or motivation to terminate an abusive relationship or make safety plans, and her overall psychosocial functioning may be significantly affected by untreated comorbid mental health problems (66). Comprehensive, trauma-informed treatment programs have the potential to improve mental health and substance abuse as well as trauma outcomes for abused women (67).

Our findings highlight the need for developing culturally sensitive and specific outreach to ethnic minority communities about the effects of partner violence on women’s mental health and how to access these services. In order to effectively accomplish these goals, further research is vital. Future research questions should address issues related to sociocultural factors (such as perceptions...
of mental health, gender roles, accul-
turation, stigma, and social networks
and support) as well as to structural
factors (such as availability, accessi-
bility, acceptability and cultural con-
cordance, and cost) that may impede
access to or utilization of mental
health treatment services. These and
other important issues, raised in the
context of mental health care utiliza-
tion in the general population
(65,68–70), must focus on barriers to
mental health care specifically relat-
ted to partner violence, particularly
among ethnic minority women, to
guide the development of effective
policies and programs.

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