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Authors
Rodriguez, Michael A
Heilemann, MarySue V
Fielder, Eve
et al.

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Intimate Partner Violence, Depression, and PTSD Among Pregnant Latina Women

Michael A. Rodriguez, MD, MPH[1]
MarySue V. Heilemann, PhD, RN[2]
Eve Fielder, PhD[3]
Alfonso Ang, PhD[3]
Faustina Nevarez, MD[4]
Carol M. Mangione, MD[3,5]

[1]Department of Family Medicine, University of California, Los Angeles, Los Angeles

[2]School of Nursing, University of California, Los Angeles, Los Angeles

[3]Department of Medicine, David Geffen School of Medicine, University of California, Los Angeles, Los Angeles

[4]Kaiser Permanente, Los Angeles, California

[5]School of Public Health, University of California, Los Angeles, Los Angeles

ABSTRACT

PURPOSE We undertook a study to describe factors related to depression and posttraumatic stress disorder (PTSD) among pregnant Latinas who were or were not exposed to intimate partner violence.

METHODS We interviewed 210 pregnant Latinas attending prenatal clinics located in Los Angeles, California. Latinas who did and did not have histories of intimate partner violence were recruited. We then assessed the women for strengths, adverse social behavioral circumstances, posttraumatic stress disorder (PTSD), and depression.

RESULTS Significantly more women exposed to intimate partner violence scored at or above the cutoff point for depression than women who were not (41% vs 18.6%; $P < .001$). Significantly more women exposed to intimate partner violence scored at or above the cutoff point for PTSD than women who were not (16% vs 7.6%; $P < .001$). Lack of mastery, which measures feelings of being in control of forces that affect life (odds ratio [OR], 0.72; 95% confidence interval [CI], 0.62-0.84), a history of trauma not associated with intimate partner violence (OR, 1.33; 95% CI, 1.08-1.63), and exposure to intimate partner violence (OR, 2.43; 95% CI, 1.16-5.11) were associated with depression after adjusting for age, language of interview, and site effects. Stress (OR, 1.72; 95% CI, 1.34-2.2) and a history of trauma (OR, 1.45; 95% CI, 1.03-2.04) were independently associated with PTSD, whereas higher income was associated with decreased risk of PTSD (OR, 0.10; 95% CI, 0.02-0.63), after adjusting for age, language of interview, and site effects.

CONCLUSIONS Intimate partner violence was significantly associated with depression and PTSD but was associated with depression only after controlling for other factors in the multivariate model. The risk for depression declined with greater mastery but increased with a history of trauma or exposure to intimate partner violence. Stress, a history of trauma not associated with intimate partner violence, and lower income were all independently associated with increased risk for PTSD.

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INTRODUCTION

Approximately 1.5 million women in the United States experience intimate partner violence every year.[1-13] The prevalence among pregnant women is estimated at 5.2%.[14] Thus, intimate partner violence is at least as common as gestational diabetes (2% to 3%) and approaches rates of preeclampsia (5.7% to 14.3%).[15] Moreover, 23% to 52% of women who experienced abuse during pregnancy were battered in the year before conception.[5,16,17] Women abused during pregnancy have 3 times the odds of attempted or completed homicide,[18] are more likely to have unplanned pregnancies and seek pregnancy care after 20 weeks, and are at greater risk for adverse birth outcomes[19] and maternal complications.[20-23] Intimate partner violence is also associated with such adverse health behaviors as smoking[24-26] and problem drinking.[26,27]

The prevalence of intimate partner violence among Latinas in the United States during pregnancy and the perinatal period is 6.2% and

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CORRESPONDING AUTHOR

Michael A. Rodriguez, MD, MPH
Department of Family Medicine
University of California, Los Angeles
10880 Wilshire Boulevard, Suite 1800
Los Angeles, CA 90024
mrodriguez@mednet.ucla.edu

5.1%, respectively.[28,29] Although a solid body of work focuses on Latinas and mental health, fewer studies focus on mental health in pregnant Latinas exposed to intimate partner violence. Depression, ranging from 38% to 51% among pregnant Latinas,[30,31] is the most common mental health outcome associated with intimate partner violence. There is also evidence of an association between intimate partner violence and posttraumatic stress disorder (PTSD),[32-37] but little is known about PTSD rates among pregnant Latinas or differences in depression or PTSD and exposure to intimate partner violence.[38-40] In addition, research is scarce on strength factors, such as extensive social networks or personal coping factors, that may protect Latinas from the negative effects of violence or trauma. Such research could have important policy implications, could inform interventions, and may be incorporated into service delivery methods that build on positive factors to improve services for Latinas. The Adverse Childhood Experiences study showed the relationship between experiencing adverse social behavior in childhood and decreased mental health outcomes in adults.[41] This study similarly examines the effects of adverse risks that these women continued to experience into adulthood, building upon this previous research.

This study's purpose is to describe factors related to depression or PTSD among pregnant Latinas and exposure to intimate partner violence. The primary research questions are (1) how is intimate partner violence related to the incidence of depression or PTSD among pregnant Latinas; (2) do strength factors (mastery, resilience, social support, or active coping) influence the association of intimate partner violence and depression or PTSD; and (3) do adverse social behavioral circumstances (perceived stress, social undermining, alcohol use, cigarette use, history of trauma not associated with intimate partner violence) magnify these associations?

METHODS

Data for this cross-sectional analysis were collected at participant entrance into a longitudinal cohort study. Adult, self-identified Latinas (defined as Hispanic or Latina, with examples of Mexican, Mexican-American, Chicana, Puerto Rican, Cuban, or other Hispanic or Latino group), who were at least 12 weeks' pregnant (ie, in either the second or third trimester), and who and planned to raise their child in Los Angeles County during the child's first year of life were eligible for study inclusion. The recruitment goal was to have roughly equal representation of pregnant women reporting previous exposure to intimate partner violence (positive) and women reporting no previous exposure to intimate partner violence (negative). The recruitment sites were private, nonprofit, health care organizations (1 private medical center and 1 health maintenance organization [HMO]) where more than 80% of the population was Latina. Institutional review board approval was obtained at both sites as well as from the University of California, Los Angeles (UCLA).

All women attending these obstetric clinics between January 2003 and January 2004 were approached by research staff and informed about the study while waiting for routine appointments (n = 1,728). At the HMO, the clinic staff would let each woman know that either someone from a research study would be approaching them when they were shown into an examination room at the time of appointment check in, or the staff would direct the woman to a private room where researchers would be screening them before being shown into an examination room. At the private medical center, the research assistant flagged the patient's registration paperwork to inform the front desk staff that the assistant would be approaching the patient and taking her aside to a private space to introduce her to the study.

The research assistant introduced herself as working on a research study to understand the needs of pregnant Latina women and their babies to help enhance health care services provided to them. To avoid stigmatization, the study was not labeled as a study of intimate partner violence, but it was made clear that the study would inquire into sensitive issues, including intimate partner violence. Potential participants were asked whether they could be screened to determine eligibility; if eligible, they were invited to participate. They were told that participation consisted of responding to 5 questionnaires (1 during pregnancy and then up to 4 during their infant's first 2 years).

Interested women who met the inclusion criteria were screened in a private area by the interviewer to determine study eligibility (n = 831); Of these 831 women, 83% agreed to be screened (139 refused), 46 reported no history of intimate partner violence, 9 women who were positive for intimate partner violence refused to participate, and 10 were lost between eligibility determination and consenting procedures. An additional 417 women who did not report intimate partner violence were screened after the quota for that sample of women had already been filled, leaving 210 eligible women who consented to participate. Thus, while there may have been some selection bias among the women who did not decline screening, the overwhelming majority of women agreed to be screened and selection effects should be small.

Design of the Structured Interview

Using a questionnaire, a bilingual Latina researcher who was trained to read the questions verbatim interviewed each respondent in person. All respondents received $20 to partially compensate for their time.

The questionnaire included a variety of validated assessment scales and screening tools already available in both English and Spanish. Final questionnaire modifications were made after a pilot interview with 30 Latinas.

Demographic questions elicited data regarding age, employment, partner status, birthplace (foreign/US born), years of formal education, and language of interview. Total family income was divided by the federal poverty guidelines for number of persons in the household to create the poverty index. Higher scores indicated a higher level of income above the poverty threshold.[42]

Intimate partner violence status was ascertained using questions from the 4-question Abuse Assessment Screen.[43] Questions inquired about psychological, physical, and sexual abuse, and a positive response to any of the abuse questions qualified a woman as being positive for intimate partner violence in this dichotomized variable. The Abuse Assessment Screen is a clinical screen for physical and sexual abuse within the last 12 months and was developed for both pregnant and nonpregnant women. This measure was adapted to assess lifetime experiences of being made to feel fearful or insecure, or of being physically or sexually abused by a partner. Criterion-related validity was established by comparing responses to individual items on the Abuse Assessment Screen with scores from other violence scales that have show reliability and validity and have been used in family violence research. A significant positive relationship ($P < .01$) was found between the Abuse Assessment Screen and the other instruments, and reliability was established at 97.5% using a test-retest method.[44]

Strength factors included sense of mastery, which was measured with a 5-item modified version of the Mastery Scale.[45] Item scores range from 5 to 20 with high scores indicating high mastery, which measures the extent to which a person feels they have control over forces that influence their lives. Resilience was measured with a 6-item modified version of the Acceptance of Self and Life subscale of the Resilience Scale.[30,46-48] Item scores range from 6 to 24 for the modified subscale of the Resilience Scale with high scores indicating high resilience. Social support was measured with a modified version of the Medical Outcomes Study Social Support Survey related to instrumental support (eg, receiving transportation favors) and emotional support (eg, having someone to talk to) from formal and informal sources.[49] Scores range from 9 to 45, with high scores indicating high social support. Active coping was measured with a subscale from the Medical Outcomes Study,[50] which included various types of coping strategies. Scores range from 6 to 30, with high scores indicating higher levels of active coping.

Adverse social behavioral circumstances included social undermining directed at a woman by her significant other, with scores ranging from 7 to 35, and high scores indicating exposure to high levels of social undermining aimed at diminishing the woman's sense of self-worth.[51] These questions are more specific yet are less severe than the screening question for psychological abuse; however, there are similarities in the underlying attitudes that these measures assess. Chronic stress level was assessed with the Perceived Stress Scale (PSS-4)[52] to assess perceived ability to handle "personal problems" and "important things in life," with scores ranging from 4 to 20, and high scores indicating high levels of perceived stress.

Trauma history was assessed with 6 items from the Trauma History Questionnaire[53] and 6 items from the Adverse Childhood Experiences Study Questionnaire.[41] For the purposes of this analysis, a history trauma other than intimate partner violence included exposure to past physical or verbal child abuse, witnessing domestic violence, experience of physical abuse that left marks, sexual abuse (not intimate partner violence), or loss of parent before age the of 18 years.

Other adverse social behavioral circumstances that were assessed included use of alcohol and tobacco before the pregnancy. Women were asked 2 questions regarding their consumption of any alcohol-containing drinks (no/yes) and whether they smoked at all during the 3 months before their pregnancy (no/yes).

Current depressive symptoms were measured with the Beck Depression Inventory Fast Screen (BDI-FS) for Medical Patients.[54-56] Total scores range from 0 to 21, with high scores indicating high levels of depression. A cutoff score of 4 and above yields 98% maximum clinical efficiency with 97% sensitivity and 99% specificity among outpatients when screening for major depression disorders.[55] For this study, a cutoff score of 4 or higher on the BDI-FS was used to define depression.

PTSD was assessed with the PTSD Checklist, civilian version (PCL-C).[57] PTSD symptoms are rated by how much women were bothered in the past month by the most traumatic situation of their life. Scores range from 17 to 85, with high scores indicating high PTSD symptoms. A score of 44 or above was found to be diagnostic among a predominantly female trauma sample with a sensitivity of 94% and a specificity of 86% and thus, a score of 44 was used to denote PTSD.[57]

English and Spanish language versions have general measurement equivalence.[58]

When available, standardized Spanish language versions of the scales were used. Items not previously translated were translated and reviewed by bilingual Spanish-speaking project staff and back-translated to check for agreement with the English version.

SAS version 9.1 was used for all analyses (SAS Institute, Cary, North Carolina). Univariate statistics were initially generated to examine the prevalence of exposure to intimate partner violence, the primary risk factor of interest, as well as the distribution of other demographic variables. A correlation matrix revealed no evidence of multicollinearity among predictors. χ^2 Tests were used to assess associations between intimate partner violence and demographic variables, as well as adverse social behavioral circumstances (alcohol and cigarette use before pregnancy, and trauma history). Bivariate analysis of variance (ANOVA) was done to compare strengths (mastery, resilience, social support, active coping), adverse social behavioral circumstances (social undermining, perceived stress, tobacco or alcohol use 3 months before pregnancy, trauma history), and mental health outcomes (depression, PTSD) by intimate partner violence status. Logistic regression models were fitted; all variables were tested as potential moderators. Potential mediators were identified in the literature and were tested (ie, perceived stress and social support).[59] Variables that were statistically significant on bivariate analysis, including intimate partner violence status, were entered as independent variables in multivariate logistic regression models to examine their association to depression and PTSD. A P value $\leq .05$ was considered statistically significant in our analysis.

Table 1. Comparison of Demographic Characteristics by Lifetime Intimate Partner Violence (IPV) Status, (n = 210)

Characteristic	IPV Positive n = 92 (44%)	IPV Negative n = 118 (56%)	*P* Value
Mean age, y, mean (SD)	29.4 (.62)	26.5 (.49)	<.001
Poverty index (higher is greater income), mean (SD)	1.43 (1.46)	1.22 (1.31)	.09
Employment status, % (No.)			
Full/part time	53.3 (49)	37.4 (44)	.023
Not working	46.7 (43)	62.6 (74)	
Parity, mean (SD)	2.4 (.20)	1.6 (.16)	<.001
Partner status, % (No.)			
Married	81.5 (75)	93.2 (110)	.009
Single/divorced/separated	18.5 (17)	6.8 (8)	
Birthplace, % (No.)			
United States	30.4 (28)	18.6 (22)	.05
Other	69.6 (64)	81.4 (96)	
High school diploma, % (No.)			
No	62.2 (56)	48.2 (54)	.05
Yes	37.8 (34)	51.8 (58)	
Language of interview, % (No.)			
English	46.7 (43)	33.9 (40)	.06
Spanish	53.3 (49)	66.1 (78)	

RESULTS

A total of 210 women agreed to participate in the study. Almost two-thirds (61.0%; n = 128) were recruited from the private medical center, and slightly more than one-third (39.0%; n = 82) was recruited from the HMO site. Ages ranged from 18 to 42 years; the mean age was 27.7 ± 5.8 years. Additional demographic information is displayed in Table 1. A larger percentage of women positive for intimate partner violence were born in the United States (30.4%) than were women negative for intimate partner violence (18.6%), and a larger percentage of positive women did not have a high school diploma (62.2%) as compared with negative women (48.2%).

Approximately 44% (92 of 210) of the women had positive histories of any of the 3 types of intimate partner abuse based on the Abuse Assessment Screen (ie, psychological, physical, or sexual). Among the women with positive histories, 80.4% (n = 74) reported that their partners or ex-partners had threatened them or made them feel afraid or unsafe, and almost three-quarters (71.7%; n = 66) reported they had been pushed, hit, slapped, kicked, or otherwise physically harmed by their partners or ex-partners. A smaller percentage (19.6%; n = 18) of participants with positive histories also reported being forced to partake in undesired sexual activity.

There were no significant differences in mastery and resilience when compared by intimate partner violence status. Active coping was significantly higher and social support was significantly lower among women who were positive for intimate partner abuse.

Women who were positive reported higher levels of social undermining and perceived stress. More women who were positive reported past trauma exposure and use of alcohol within the 3 months preceding pregnancy (Table 2).

Mental health outcomes were worse for women exposed to intimate partner violence. Significantly more women who were positive were depressed and had PTSD (Table 3).

Table 2. Strengths and Adverse Social Behavioral Circumstances of Latina Women by Intimate Partner Violence (IPV) Status, Unadjusted (n = 210)

Strengths and Adverse Circumstances	Range	IPV Positive (n = 92) Mean (SD)	IPV Negative (n = 118) Mean (SD)	*P* Value
Strengths, mastery	5–20 Higher is better	14.68 (± 2.70)	15.05 (± 2.50)	.31
Resilience	6–24 Higher is better	18.17 (± 2.35)	18.55 (± 2.28)	.24
Social support	9–45 Higher is better	35.45 (± 8.51)	38.59 (± 5.80)	.002
Active coping	6–30 Higher is better	17.67 (± .51)	15.08 (± .51)	<.001
Adverse risks, social undermining	7–35 Higher is worse	14.36 (± 0.79)	9.56 (± 0.55)	<.001
Perceived stress	4–20 Higher is worse	8.89 (± 0.36)	7.52 (± 0.31)	<.004
Non-IPV trauma history	1–6 Higher is worse	1.90 (± 1.89)	0.92 (± 1.47)	<.001
Non-IPV trauma history (<2 trauma events), %		57.9	80.5	<.001
Non-IPV trauma history (≥2 trauma events), %		42.1	19.5	<.001
Smoking 3 mo before pregnancy, %	...	7.6	3.39	.17
Alcohol use 3 mo before pregnancy, %	...	28.3	16.1	.03

Note: Higher scores indicate higher levels.

Logistic Regression Analysis

Mediation analysis, the process of examining the effect of a mediator (eg, perceived stress, social support or undermining) on the relationship between the initial variable (ie, intimate partner violence) on the outcome variable (ie, depression or PTSD), show the effect of the mediator on the path between the initial variable and the outcome. Perceived stress ($P = .019$) increased, social support ($P = .018$) decreased, and social undermining ($P = .001$) increased the adverse effect of intimate partner violence on depression. Social support ($P = .037$) decreased and social undermining ($P = .002$) increased the adverse effect of intimate partner violence on PTSD. Perceived stress did not mediate the effect of intimate partner violence on PTSD and no other mediators were found.

Logistic regression was used to test all variables for moderators. Interaction terms were created to test for significant moderators. Resilience moderated the association of intimate partner violence status and depression, thereby weakening the effect of intimate partner violence on depression (z score = 2.49, $P < .05$). No other significant moderators were found.

In the logistic model, after adjusting for age, language of interview, and site effects, 3 variables were significantly associated with depression (Table 4), mastery (OR, 0.72; 95% CI, 0.62-0.84), history of trauma (OR, 1.33; 95% CI, 1.08-1.63), and positive for intimate partner violence status (OR, 2.43; 95% CI, 1.16-5.11). Also after adjusting for age, language of interview, and site effects, 3 variables were found to be significantly associated with having PTSD. Perceived stress (OR, 1.72; 95% CI, 1.34-2.2) and history of trauma (OR, 1.45; 95% CI, 1.03-2.04) were independently predictive of PTSD, whereas poverty index (OR, 0.10; 95% CI, 0.02-0.63) showed how higher income is associated with decreased risk of PTSD (Table 4).

Table 3. Mental Health Outcomes by Intimate Partner Violence (IPV) Status (n = 210)

Outcome	IPV Positive (n = 92) % (n)	IPV Negative (n = 118) % (n)	*P* Value
Depression	41.3 (38)	18.6 (22)	<.001
PTSD	16.3 (15)	7.6 (9)	<.001

PTSD = posttraumatic stress disorder.

Finally, a model was developed to assess the possibility that trauma may have a dose-response relationship with PTSD and depression and that women experiencing more trauma would have more symptoms than those experiencing less trauma. Initially, the sample was split into 4 groups: women who were negative for intimate partner violence and who experienced fewer than 2 traumatic events, women who were negative for intimate partner violence who had experienced more than 2 traumas, women who were positive for intimate partner violence who had experienced fewer than 2 traumas, and women who were positive for intimate partner violence who had experienced more than 2 traumas.

Because the group of women who were negative for intimate partner violence and had fewer than 2

Table 4. Logistic Regression Models for Depression and PTSD

Variables	Adjusted OR	95% CI	*P* Value
Depression (n = 204)			
Mastery	0.72	0.62-0.84	<.001
Trauma history (other than IPV)	1.33	1.08-1.63	.008
IPV status	2.43	1.16-5.11	.02
Age	0.99	0.94-1.06	.85
Language	0.80	0.36-1.77	.58
Site	0.78	0.34-1.76	.54
PTSD (n = 177)			
Perceived stress	1.72	1.34-2.20	<.001
Trauma history	1.45	1.03-2.04	.03
Poverty index	0.10	0.02-0.63	.01
IPV status	3.91	0.91-16.88	.07
Resilience	1.16	0.83-1.61	.38
Language	1.82	0.42-7.90	.42
Age	0.96	0.84-1.10	.54
Site	1.69	0.31-9.36	.55

CI = confidence interval; IPV = intimate partner violence; OR = odds ratio; PTSD = posttraumatic stress disorder.

traumatic events was very small and not statistically significant, the 2 groups of women who had not experienced intimate partner violence were collapsed into 1 category and used as the reference group. We also removed age and language from the PTSD model, as they were insignificant previously, in an attempt to derive the most parsimonious model.

Poverty (OR, 0.12; 95% CI, 0.02-0.69) and perceived stress (OR, 1.72; 95% CI, 1.36-2.16) remained significant, and the variable for being positive for intimate partner violence and more than 2 traumas was also significantly associated with greater PTSD symptoms (OR, 5.97; CI, 1.25-28.5). We examined the effect of these newly created variables on the depression model as well, finding that mastery remained significant (OR, 0.72; CI, 0.62-0.83) and those experiencing intimate partner violence and having 2 or more traumas also had more depressive symptoms (OR, 6.31; CI, 2.44-16.30).

DISCUSSION

Pregnant Latinas who were positive for intimate partner violence had more than twice the odds of reporting high levels of depressive symptoms or PTSD symptoms and were exposed to more trauma (eg, child abuse), social undermining, and stress with less social support than women negative for intimate partner violence. Despite such adversity, Latinas who were positive reported similar levels of resilience and mastery as Latinas who were negative. Latinas reporting intimate partner violence engaged in more active coping behaviors, such as talking to a professional or making a plan of action. Engagement in these activities suggests a significant level of coping strength amid difficulties and threats.

Not surprisingly, the presence of a strength factor was beneficial to women, whereas lack of strengths or resources had an adverse effect on mental health. The strength factor of mastery was independently associated with a lower likelihood of having high levels of depressive symptoms, and both intimate partner violence exposure and a history of any trauma was associated with a greater likelihood of having high levels of depressive symptoms. Research has shown that resilience and mastery are important for the mental health of pregnant Latinas[47] and for the mental health of trauma-exposed Latinas.[60] Exploring these factors in pregnant Latinas exposed to intimate partner violence may provide an opportunity to focus on patient strengths amid otherwise adverse conditions. These findings underscore the important role strength factors, such as resilience, mastery, social support, and active coping, have on mental health.

Risk factors, such as social undermining, stress, alcohol use, and poverty, have been shown to be extremely important in determining the mental health outcomes of adults who experienced trauma as children and continue to prove to be potent ingredients in the harsh milieu experienced by women exposed to intimate partner violence. The Adverse Childhood Experiences study found that adults who had experienced adverse social behavioral circumstances as children continued to be plagued by diminished mental health outcomes, including a greater propensity toward depression and higher rates of attempted suicide when compared with adults who suffered fewer or no adverse childhood experiences.[41] The current study showed similar effects when examining the adverse risks that these women continued to experience into adulthood, further compounding these deleterious mental health outcomes. Compared with Latinas who were not exposed to intimate partner violence, those exposed were more often the victim of social undermining (eg, criticism, anger, insults) from their partners. Social undermining exacerbated the effects of intimate partner violence on symptoms of depression and PTSD. Although alcohol use is very low among Latinas[32] and even lower during pregnancy,[33] Latinas who were positive for intimate partner violence in our sample consumed more alcohol in the months before conception than Latinas who were negative. This finding may indicate attempts at coping with multiple hardships.

Although poverty was associated with greater PTSD symptoms, lower educational attainment did

not have the same association with intimate partner violence, higher levels of PTSD symptoms, or higher levels of depressive symptoms. Latinas positive for intimate partner violence were more likely to have graduated from high school, contrary to literature that shows intimate partner violence is associated with lower educational attainment.[56] Thus, higher education or US birthplace may not lead to a reduction in trauma exposure for Latinas or lower rates of higher levels of depressive symptoms or higher levels of PTSD symptoms.[33] In fact, previous studies have found that Latinas exposed to intimate partner violence may be more likely to have been born in the United States.[33]

These cross-sectional data are limited to a baseline analysis at a single moment in time, and they do not allow us to establish the long-term effects of intimate partner violence on mental health. Future studies, however, will examine factors associated with depression or PTSD over time, as well as how recency of exposure to intimate partner violence may affect mental health outcomes. Longitudinal analysis will provide a deeper understanding of violence in the context of a time in a woman's life when dramatic life changes occur. Mental health outcomes as well as other outcomes, such as the need for social services or health care utilization, will be examined to gain a more in-depth understanding of the effects of exposure to violence, starting with pregnancy and continuing through the years after the child's birth. Doing so will allow for an understanding of whether certain factors change during pregnancy and further elucidate differences between pregnant and nonpregnant Latinas, much of which remains unknown in this seldom-researched population.

An additional limitation of this study is that the trauma measure does not include all possible trauma associated with adverse mental health outcomes. If a bias does exist, however, it is biased toward the null, because these traumas are unaccounted for and mental health outcomes will not be associated with them here. Another limitation is that respondents provided self-reported answers; therefore, their responses were prone to recall and response bias. In addition, the sample size for this cross-sectional analysis was limited.

Our results affirm the link between mental health and trauma and underscore the importance of screening Latina patients at clinical sites. Screening for intimate partner violence may also identify those at risk for depression or PTSD and screening for depression and PTSD may identify Latinas at risk for intimate partner violence. Our data show that Latinas exposed to intimate partner violence were likely to have a history of trauma exposure, which also may be linked to depression or PTSD symptoms. These data support screening interventions to incorporate intimate partner violence, trauma, depression, and PTSD. Screening for these risk factors was recently endorsed by the American College of Obstetricians and Gynecologists Committee on Health Care for Underserved Women as part of comprehensive prenatal care.[34] Without universal screening, such screening primarily occurs only when clinicians already suspect abuse.[35] Although most women are not screened for violence during prenatal visits (38.7% were screened in 1 study during prenatal care), 1 study found that most women screened for violence (97%) were not embarrassed, angry, or offended; therefore, there are few negative ramifications to screening pregnant women.[36] Unfortunately, clinicians are frequently unaware of their patients' mental health status and exposure to violence. In 1 study obstetric clinicians were aware of or suspected abuse among only one third of their patients who were the eventual victims of homicides committed by an intimate partner and aware of depression in only 3 of 5 women who later committed suicide.[37] Ironically, the most common cause of maternal mortality is injury, and homicide is the most common cause of death among all injury-related deaths.[61]

Our data provide support for screening pregnant women for mental health outcomes and violence as screening would certainly increase the numbers of both women and children who were identified as being at risk of future violence. Screening can be done quickly and effectively using short and simple tools, such as the Abuse Assessment Screen, and can easily be added to intake forms. Although clinicians are busy and have limited time, certain interventions, such as distributing a card with numbers of safe houses or hotlines and information on having a safety plan, can be implemented quickly. Sometimes just hearing that what they have experienced is dangerous to themselves and their children from a trusted clinician can be of great benefit.

Clinicians play a role in educating their pregnant patients about risky health behaviors and risks to their unborn children. Our results suggest that intimate partner violence, past trauma, and current alcohol use are important risks that merit intervention. Because strength factors were significantly related to lower adverse mental health symptoms for Latinas in this study, intervention strategies could affirm and enhance resilience and mastery, social support, and active coping while mitigating the mental health consequences of exposure to intimate partner violence among childbearing Latinas. Focusing on how Latinas can utilize their own strengths to confront these complex issues, may result in interventions that are culturally appropriate and more effective in powerfully personal ways.

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