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Troubled Times, Troubled Relationships: How Economic Resources, Gender Beliefs, and Neighborhood Disadvantage Influence Intimate Partner Violence

Shelley D. Golden, MPH,

Department of Public Policy, The University of North Carolina at Chapel Hill, CB #3435, Chapel Hill, NC 27599, Phone: 919-843-1209, sgolden@email.unc.edu

Krista M. Perreira, PhD, and

Department of Public Policy, The University of North Carolina at Chapel Hill, CB #3435, Chapel Hill, NC 27599, Phone: 919-843-5009, perreira@email.unc.edu

Christine Piette Durrance, PhD

Department of Public Policy, The University of North Carolina at Chapel Hill, CB #3435, Chapel Hill, NC 27599, Phone: 919-962-0692, christine.durrance@unc.edu

Abstract

We evaluate race/ethnicity and nativity-based disparities in three different types of intimate partner violence (IPV), and examine how economic hardship, maternal economic dependency, maternal gender beliefs, and neighborhood disadvantage influence these disparities. Using nationally representative data from urban mothers of young children who are living with their intimate partners (N=1,886), we estimate a series of unadjusted and adjusted logit models on mother's reports of physical assault, emotional abuse, and coercion. When their children were age three, more than one in five mothers were living with a partner who abused them. The prevalence of any IPV was highest among Hispanic (26%) and foreign-born (35%) mothers. Economic hardship, economic dependency on a romantic partner, and traditional gender beliefs each increased women's risk for exposure to one or more types of IPV, whereas neighborhood conditions were not significantly related to IPV in adjusted models. These factors also explained most of the race/ethnic and nativity disparities in IPV. Policies and programs that reduce economic hardship among women with young children, promote women's economic independence, and foster gender equity in romantic partnerships can potentially reduce multiple forms of IPV.

In the United States, nearly 1 in 5 women have been assaulted or threatened by an intimate partner (Tjaden & Thoennes, 2000). Although criminal justice systems and many scholars have traditionally focused on physical assault as a key violence measure, others suggest expanding the definition to include the use of psychological power to emotionally batter or deprive victims of key resources (DeKeseredy, 2000; Gordon, 2000; Kilpatrick, 2004). Female victims of physical, emotional and coercive intimate partner violence (IPV) are at increased risk of injury, mental health problems, substance abuse, and sexually transmitted diseases (Bonomi, Anderson, Rivara, & Thompson, 2007; Campbell, 2002; Coker et al., 2002). Violence in families can also spill over to children. Compared to their peers, children of abused mothers are more likely to be maltreated (Taylor, Guterman, Lee, & Rathouz,

2009) or obese (Boynton-Jarrett, Fagnoli, Suglia, Zuckerman, & Wright, 2010), and less likely to interact with their fathers (Waller & Swisher, 2006).

Although IPV impacts all women, immigrant, Black, and Hispanic women can be particularly vulnerable (Caetano, Field, Ramisetty-Mikler, & McGrath, 2005; Charles & Perreira, 2007; Cho, 2011). However, disparities in IPV experience by nativity status are contested. Some research finds immigrant women are at increased risk (Charles & Perreira, 2007; Frye, et al, 2008), whereas other work documents lower rates among foreign-born women (Lown & Vega, 2001; Garcia, Hurwitz & Krauss, 2005; Firestone, Lambert & Vega, 1999).

Black, Hispanic and immigrant population groups are among the fastest growing in the country. Between 2000-2010 the US population as a whole grew 9.7%. During this time, the Black population grew 12%, the Hispanic population grew 43%, and the immigrant population grew 25% (U.S. Census Bureau, 2011; Humes, Jones, & Ramirez, 2011). The majority of this growth was due to high birth rates among these population groups (Hamilton, Martin, & Ventura, 2011). Yet few studies have examined race/ethnicity and nativity disparities in IPV among mothers of young children, and most extant research has focused almost exclusively on physical violence, without considering disparities in emotional abuse and coercion.

Racial, ethnic and nativity disparities in violence may reflect differential exposure to key economic and normative risk factors for violence. Many researchers have examined how poverty, as measured by income or welfare receipt, influences the risk of violence (Cunradi, Caetano, Clark, & Schafer, 2000; Lown, Schmidt, & Wiley, 2006). These measures, however, fail to capture the stresses associated with poverty. Although correlations between economic hardships and IPV were documented in the National Survey of Families and Households (Fox & Benson, 2006; Fox & Benson, 2002), these data capture physical assault only.

Even when material stresses are minimal, women must be able to access household or other finances in order to leave violent relationships and survive independently (Kalmuss & Strauss, 1990). Though several studies have documented the importance of human and financial capital in reducing women's risk for IPV (Farmer & Tiefenthaler, 1997; Li et al., 2010; Pallitto & O'Campo, 2005; Shobe & Dienemann, 2008), few examine the importance of economic dependence in explaining race/ethnicity and nativity disparities (Cho, 2011). In today's economy, Hispanic and Black women have higher unemployment rates than their White peers (U.S. Department of Labor, 2011), and sometimes face institutional racism at work or in lending practices that limit their financial opportunities (Pager & Shepherd, 2008). In addition, women who migrate to the United States have lower educational attainment (Everett, Rogers, Hummer, & Krueger, 2011) and face more limited employment options than native born women (Cooke, Boyle, Couch, & Feijten, 2009).

Furthermore, focusing only on women's finances, education or employment may mask the role of important gender belief structures in fostering violence. For example, some previous research suggests the protective effects of women's employment are attenuated or reversed

when women's partners are unemployed (Macmillan & Gartner, 1999). Employment imbalances may represent challenges to traditional notions of gender, in which men are expected to be breadwinners and women expected to be homemakers (Connell & Messerschmidt, 1995). Most studies that have examined the role of gender norms in IPV have typically found that traditional gender ideologies increase the risk of violence (Santana, Raj, Decker, La Marche, & Silverman, 2006; Pallitto & O'Campo, 2005; Sugarman & Frankel, 1996). These studies, however, focus on correlates of physical assault only, neglect to incorporate economic measures in addition to normative ones, or fail to consider racial, ethnic or nativity differences in gender beliefs. Research indicates that Black women may hold less traditional beliefs, and Hispanic women may hold more traditional beliefs, than their peers, though these relationships are complicated by social class and labor market participation (Davis & Greenstein, 2009).

Finally, immigrant women, women with less education, and poorer women in the US tend to be clustered within particular communities (Iceland & Scopilliti, 2008; Massey, Rothwell, & Domina, 2009). A burgeoning body of research has explored the impact of neighborhood environment on IPV. Employing theories of street crime which argue that low resource, ethnically concentrated neighborhoods are less able to establish norms against violence (Sampson, Raudenbush & Earls, 1997), several studies have documented positive associations between neighborhood disadvantage and IPV, even when individual and household characteristics are controlled (Browning, 2002; Lauritsen & Schaum, 2004; Fox & Benson, 2006; Cunradi, Caetano, Clark & Schafer, 2000). All of these studies, however, assess neighborhood effects on physical assault. To be normatively controlled, violence may need to be visible in a community. Abuse that is less likely to result in physical harm could be less susceptible to neighborhood pressures. Research extending previous neighborhood studies to consider emotional abuse and coercion, therefore, is needed.

In the aftermath of the longest and deepest recession since the Great Depression (Goodman & Mance, 2011), and in the context of growing cultural diversity, research on the role of economic conditions and gender ideologies in explaining patterns of IPV is essential. Moreover, previous work exploring risk factors for physical assault should be expanded to incorporate other forms of abuse as well. After describing racial, ethnic and nativity disparities in mother's experience with physical assault, emotional abuse, and coercion, this study aims to 1) explore how economic hardship, economic dependency, norms about gender roles, and neighborhood environments contribute to the prevalence of each form of IPV; 2) examine how these factors help to explain race/ethnicity and nativity differences in IPV; and 3) investigate whether the impact of these factors on IPV differs across population groups.

METHODS

Sample

The Fragile Families and Child Wellbeing Study (Reichman, Teitler, Garfinkel, & McLanahan, 2001) follows a birth cohort of nearly 5,000 children born to (mostly) unwed parents, identified using a stratified random sample of large US cities. When weighted, the data from 16 of these cities are representative of births in US cities with populations over

200,000. This analysis utilized data primarily from Wave 3 maternal interviews conducted between 2001-2003, three years after the child's birth. At Wave 3, Fragile Families researchers conducted interviews with 3,032 mothers and, for the first time, asked married and cohabitating women about the control of finances within their households. The Wave 3 sample included 776 women who were not currently in a romantic relationship and 321 women who were in a romantic relationship but not living with their partners. Because of our interests in maternal economic dependence and financial control within households, we restricted our analysis to married and romantically involved mothers who are currently living with their child's father or a new partner (n=1,935). Sample reductions due to missing intimate partner violence (n=7) or covariate information (n=42) resulted in a final sample size of 1,886.

Measures

Intimate Partner Violence (IPV)—Using questions derived from Lloyd (1996) and Strauss (1979; 1990), we defined four dichotomous measures of IPV experienced in the context of a current intimate relationship. *Physical assault* was identified if mothers reported that their current partner “often” or “sometimes” hits, slaps or kicks them, or forces them to have sex. *Emotional abuse* was derived by first summing responses to four questions measuring the extent to which a mother reports that her current partner often (=1), sometimes (=2) or never (=3) is fair and willing to compromise during a disagreement, expresses affection or love for them, insults or criticizes them or their ideas (reverse coded), or encourages or helps them. The sum ranging from 4 to 12 had a Cronbach's alpha of 0.64 in our sample, with higher scores indicating greater exposure to emotional abuse. Nearly two thirds of women in the sample (65%) reported occasional exposure to at least one component of emotional abuse (score ≥ 5), and 40% of the sample scored at least a 6. To capture only persistent emotional alienation and debasement, we dichotomized the score at a cut point of greater than or equal to 8. *Coercion* was indicated if a mother reports that her current partner “often” or “sometimes” keeps her from seeing or talking with friends or family, prevents her from going to work or school, or prevents her from keeping her own money, or obtaining access to the family's money. A final dichotomous variable, *any violence*, indicated whether a woman reported experiencing any of these three types of violence. All violence questions capture experiences at the time of interview. Women are asked to think about how their current partner behaves toward them (with no identified time frame), or, in the case of a recently ended relationship, how their partner behaved toward them in the last month of the relationship.

Race/Ethnicity and Nativity—A respondent's race was defined based on her indication of which of racial group best described her. Hispanic ethnicity was identified if a respondent indicated that she was also of Hispanic/Latino descent. These data were combined into four race/ethnicity groups for analysis: non-Hispanic White, non-Hispanic Black, Hispanic, and Non-Hispanic other (mostly Asian and Pacific Islanders). Respondents born outside of the US and its territories were classified as foreign-born. Because access to federal and state resources to support low-income families varies by time in the US and citizenship, we further classified foreign-born along these two dimensions.

Economic Hardship—Derived from other national surveys (Brooks-Gunn, Garfinkel, McLanahan, & Paxson, 2006), Fragile Families included eight questions on economic hardships (e.g., missing bill payments, unable to make rent/mortgage payment) within the past 12 months. We summed these items to create a scale ranging from 0 to 7 with a Cronbach's alpha of 0.61 in our sample; 39.5% percent of women reported experiencing at least one economic hardship in the past 12 months and 10.2% percent reported three or more hardships.

Maternal Economic Dependency—We included three measures of mother's economic dependency. First, we created a dichotomous variable to identify mothers who did not have a bank account or reported that they relied on their partner/spouse to "control the money" in their household. Second, we measured whether mothers had less than a high school education, had graduated high school, had some college, or had graduated college. Third, we identified whether mothers were employed at least part-time (i.e., 10 hours or more for 12 weeks or more). Correlations between these three measures were modest ($r=0.06-0.25$).

Gender Beliefs—Using data available in the baseline interview, we measured mothers' gender beliefs from their level of agreement with seven statements describing roles and responsibilities of men and women (e.g., the important decisions in a family should be made by the man in the house). Responses to these statements were averaged to create a scale ranging from 1 (very egalitarian) to 4 (very traditional) with a Cronbach's alpha of 0.60 in our sample.

Neighborhood Disadvantage—Finally, we created a score of neighborhood disadvantage based on the characteristics of the census-tract in which the mother lived at the time of interview. Because census-tract characteristics were highly correlated ($r = 0.51-0.82$), the creation of a neighborhood disadvantage score allowed us to better evaluate the combined influence of neighborhood tract characteristics. Following Madkour and colleagues (2010), the neighborhood disadvantage score is a composite measure derived from a factor analysis of four census tract variables: percent non-white, percent unemployed, percent 25+ with less than a bachelor's degree, and percent living below the federal poverty level. For ease of interpretation, the neighborhood disadvantage score is standardized with a mean of 0 and standard deviation of 1. For 7.6 percent of the sample, respondents' census tract was missing. To retain these cases, we substituted the mean value on the score and included an indicator for missing data in logit estimations.

Additional Covariates—In all adjusted analyses, we also control for maternal age, marital status, and social support. Social support measures included: (1) financial support -- there is someone the mother can count on to lend her \$200; (2) non-financial support -- there is someone the mother can count on to help with emergency childcare or housing; and (3) religious support -- the mother attends weekly religious services. Correlations between these three measures ranged from 0.05 to 0.26. Additional covariates utilized in previous studies of intimate partner violence (Coker, 2000; Lown et al, 2006) were considered (e.g., welfare participation, homeownership, partner's relative age and race, relationship length) but were never significant in unadjusted or adjusted models and were ultimately excluded.

Analysis

We first estimated the prevalence of different forms of IPV and key risk factors by race/ethnicity and nativity status and calculated logit models showing unadjusted associations with these demographic characteristics. We then estimated multivariate logit models to assess the associations of race/ethnicity and nativity adjusted for maternal economic hardship, economic dependency, gender beliefs, neighborhood disadvantage, and other covariates. Finally, we interacted race/ethnicity and nativity with each of our key independent variables – economic hardship, economic dependency, gender beliefs, and neighborhood disadvantage. These interactions allowed us to evaluate whether the influence of these variables varied by race-ethnicity and nativity.

All analyses were conducted using survey data estimation packages in STATA 11 (Statacorp, College Station, Tex). We employed sampling weights in all estimations and adjusted standard errors to account for clustering of respondents by city of child's birth. Evaluations of race/ethnicity and nativity differences in means and proportions reported in the text are also adjusted for multiple comparisons.

RESULTS

Prevalence of Intimate Partner Violence and Risk Factors by Race/Ethnicity and Nativity

More than one in five women reported currently experiencing some form of intimate partner violence (IPV) – physical assault, emotional abuse, or coercion (Table 1). IPV prevalence differed across each type of violence by race/ethnicity and nativity. Over one-quarter of Hispanic mothers and one-third of foreign-born mothers reported experiencing at least one form of violence. Any experience with violence was especially common among foreign-born mothers who had recently arrived to the US (40%) and among those without US citizenship (42%). Hispanic and foreign-born mothers reported the highest rates of physical assault (8% and 9%, respectively) and coercion (19% and 28%, respectively). Whites reported the highest rates (12%) of emotional abuse but low rates of physical assault (1%). Analysis of the unadjusted odds of violence by race/ethnicity and nativity confirmed that Hispanic and foreign-born women were significantly more likely than Whites and US-born women to experience physical assault and coercion (Table 2). In addition, Blacks were significantly more likely than whites to experience physical assault. However, race/ethnicity and nativity differences in emotional abuse were not statistically significant in unadjusted models.

On average, Hispanic and Black mothers in our sample had less education, held more traditional gender beliefs, and lived in more disadvantaged neighborhoods, compared to white mothers (Table 3). A smaller percentage of Black women depended on their spouses or partners to control household finances, compared to white women (11% vs. 20%). Although rates for Hispanic women (27%) were higher than those for white women, these differences were not statistically significant. Racial and ethnic differences in economic hardship and employment were insignificant.

Although foreign-born women were less likely to be employed (46% vs. 57%) or have graduated high school (54% vs. 83%), and lived in more disadvantaged neighborhoods, they

reported significantly fewer economic hardships (0.4 vs. 0.6), and similar rates of economic dependence on their spouses or partners, when compared to U.S.-born women (Table 3). Foreign-born women also reported more traditional gender beliefs than their U.S. born peers.

Correlates of Intimate Partner Violence

Multivariate logit estimates confirm some relationships between potential risk factors and IPV (Table 4), though correlations differed by type of violence. Each economic hardship reported by a mother increased her risk of experiencing any form of violence 1.7 times, with effects particularly pronounced for emotional abuse and coercion. Although employment had little influence on women's risk of experiencing IPV, both education and household financial control mattered significantly. Women with less than a high school education were 9.8, 18.5, and 6.2 times as likely as college-educated women to experience physical assault, emotional abuse and coercion, respectively. In addition, the odds of experiencing emotional abuse or coercion among women without control over household finances were more than two times greater than for women with some household financial control. Traditional gender beliefs were associated with a seven-fold increased risk for physical assault, but demonstrated no significant relationship for other forms of violence. Our analyses of neighborhood disadvantage, hypothesized as a risk factor for violence, revealed no correlation with physical assault, and a slight, but significant, protective effect on emotional abuse and coercion.

Explanations for Racial, Ethnic and Nativity Disparities

Together, economic hardship, economic dependence, gender beliefs, and neighborhood disadvantage explain the initial differences in physical assault and coercion by race/ethnicity and nativity (Table 4), though differences by nativity remain marginally significant. Adjusted models also suggest that Black and Hispanic women are less likely to experience emotional abuse, compared with white women, once these factors are considered.

Interactive Effects

Models interacting race/ethnicity and nativity status with each component of hardship, economic dependence, gender beliefs and neighborhood disadvantage were largely insignificant, indicating that the relationship between an explanatory variable and IPV does not vary by race, ethnicity or nativity (results not shown). In two cases, however, interactions did reflect significant differences in risk factors for IPV for foreign-born women. Whereas high school graduation status did not affect risk of physical assault for U.S. born women (AOR=1.0, CI: 0.3-3.6), foreign-born women without a high school degree were more than 15 times as likely to experience physical assault than their more educated peers (AOR=15.2, CI: 5.6-51.6). Among US-born women, holding more traditional gender beliefs tripled the odds of experiencing physical assault, but results were only marginally significant (AOR=3.3, CI: 1.0-11.6). Among foreign-born women, the odds were over twenty-five times greater (AOR=26.4, CI: 8.6-81.1).

DISCUSSION

Consistent with findings from the National Violence Against Women Survey (Coker, 2000), we found that more than one in five mothers with pre-school aged children experienced physical assault, emotional abuse, or coercion at the hands of a current intimate partner. In contrast to previous research (Caetano et al., 2005; Cho, 2011), however, we found that rates of IPV were highest among Hispanic (not Black) women.

As had been found with pregnant women (Charles & Perreira, 2007), we also found higher rates of IPV among foreign-born women, especially recent arrivals to the US and noncitizens. Among these particularly vulnerable populations of foreign-born women, over one in three mothers with pre-school aged children had experienced either physical assault, coercion, or severe emotional abuse. These results appear inconsistent with other research documenting protective effects for Hispanic women from foreign birth and low levels of acculturation (Lown & Vega, 2001; Caetano, Schafer, Clark, Cunradi, & Raspberry, 2000; Firestone et al, 1999; Garcia et al, 2005). Theories undergirding a “healthy migrant” effect suggest that strong social networks and cultural norms against violence are prevalent in communities of recent immigrants, and that these may inhibit IPV (Wright & Benson, 2010). However, other studies of women in world regions from which many migrate, such as Mexico, find higher rates of IPV than reported by similar women in the U.S. (Garcia-Moreno, Henrica, Ellsberg, Heise & Watts, 2006; Diaz-Olavarrieta, Abuabara, Martinez Ayal, Kostad & Palermo, 2007). Moreover, immigration can lead to conflicts over gender norms in a family, an important trigger for intimate partner violence (Jewkes, 2002). Although we were not able to explore these hypotheses directly, our results suggest that the impact of other risk factors may overwhelm any protective effects from supportive social networks or norms against IPV, at least among urban mothers of young children. In particular, foreign-born women in our sample held significantly more traditional gender beliefs and were less likely to have graduated high school than U.S. born women. Each of these placed them at especially high risk of experiencing violence.

The high rates of IPV among immigrant women underscore the need to train health and social service providers to recognize the risk factors for IPV among this population (Eisenman et al., 2009, Rodriguez, Bauer, McLoughlin & Grumbach, 1999). Moreover, these results highlight the importance of continuing recently established policies to protect immigrants who have been victims of violent crimes, including intimate partner violence. In particular, the Violence Against Women Act and the U Visa program provide temporary legal status and work permits to victims of domestic violence and their family members (U.S. Citizen and Immigration Services, 2010). While far from perfect remedies (Davis, 2004), these protections help to ensure that all immigrant women can safely report acts of IPV to the police, help police investigate IPV, and seek other forms of assistance (Ingram et al., 2010; Lipsky, Caetano, Field, & Larkin, 2006; Lipsky & Caetano, 2007).

For all women in our study, economic hardship, low levels of education, and limited control over household finances significantly increased their risk of becoming victims of emotional abuse and coercion. In addition, we found that women with more traditional gender beliefs experienced higher rates of physical assault than women with more egalitarian beliefs.

The substantial influence of economic hardship on some types of IPV suggests that the need for services for IPV victims will rise during tough economic times such as those characterizing the Great Recession. This is precisely when Americans are most likely to reduce their charitable contributions (Roeger, Blackwood, & Pettijohn, 2011). Thus, government-based funding for IPV assistance services can be essential during economic downturns. Unemployment insurance and welfare assistance programs designed to alleviate economic hardship may also reduce IPV, a finding supported by previous research (Dugan, Nagin, & Rosenfeld, 1999; Dugan, Nagin, & Rosenfeld, 2003).

The combined influence of low-levels of education and dependence on a spouse or partner to access household finances indicate that efforts to enhance women's financial literacy and economic power could result in decreased violence. Microcredit or loan programs for women have been linked with reductions in violence rates overseas (Hadi, 2005; Kim et al., 2007). Similar efforts could be promising in the United States. However, for these programs to be meaningful, women must see their financial independence and ability to make financial decisions as components of their role in the family. Therefore, financial literacy and microcredit or loan programs will need to be accompanied by interventions targeting social norms about gender roles (Jewkes, 2002; Krug, Mercy, Dahlberg, & Zwi, 2002), especially if such efforts are inclusive of immigrant women.

In contrast to previous research (Lauritsen & Schaum, 2004; Fox & Benson, 2006; Cunradi, et al, 2000), we found that women living in disadvantaged neighborhoods were not at increased risk of experiencing intimate partner violence, when individual and household characteristics were included in the model. Neighborhood analyses may be particularly sensitive to inclusion of certain covariates, such as economic hardship and dependence, which have not been regularly incorporated in area studies. In one study that did assess both, neighborhood conditions were unrelated to IPV among economically distressed couples (Fox & Benson, 2006). Our insignificant results, therefore, could reflect our inclusion of hardship and dependence in our models, or may reflect the limited economic and geographic variability of the Fragile Families national sample.

As with all analyses, our research is subject to some limitations which suggest important avenues for future research. First, this analysis relies on information provided by urban mothers of young children at a single point in time, and therefore cannot be used to establish causality or infer relationships for rural women or non-mothers. Furthermore, Fragile Families does not consistently collect data from women's current intimate partners across waves of data collection. Additional research is needed on how economic hardship, economic dependency, and gender norms influence *men's* risk of experiencing intimate partner violence. Second, our analysis focused on married and cohabitating couples who share household expenses and responsibilities. Future research should consider the effects of economic hardship and dependence on IPV among women who do not live with an intimate partner. Data on this topic, however, are unavailable in Fragile Families. Lastly, while our study and others (Bonomi, Anderson, Cannon, Slesnick, & Rodriguez, 2009; Caetano, Field, Ramisky-Mikler, & Lipsky, 2009) are contributing to our understanding of IPV among Hispanic and immigrant women, few have studied the experiences of Asian women (Lee, Pomeroy, & Bohman, 2007; Raj & Silverman, 2003). Many studies, such as Fragile

Families, contain too small of a sample of Asian women to allow analyses of prevalence and risk factors among this group. Despite these limitations, our research provides new insights into the combined role that economic hardship, economic dependence, and gender norms play in the cycle of IPV and suggests the importance of maintaining and developing policies and programs for the prevention of IPV that address each of these factors.

References

- Bonomi AE, Anderson ML, Cannon EA, Slesnick N, Rodriguez MA. Intimate partner violence in Latina and non-Latina women. *American Journal of Preventive Medicine*. 2009; 36(1):43–48. [PubMed: 19095164]
- Bonomi AE, Anderson ML, Rivara FP, Thompson RS. Health outcomes in women with physical and sexual intimate partner violence exposure. *Journal of Women's Health*. 2007; 16(7):987–997.
- Boynton-Jarrett R, Fagnoli J, Suglia SF, Zuckerman B, Wright RJ. Association between maternal intimate partner violence and incident obesity in preschool-aged children: Results from the Fragile Families and Child Well-being Study. *Archives of Pediatrics and Adolescent Medicine*. 2010; 164(6):540–546. [PubMed: 20530304]
- Brooks-Gunn, J.; Garfinkel, I.; McLanahan, SS.; Paxson, C. *Fragile Families and Child Well-being Study: Scales documentation and question sources for three-year questionnaire*. Ann Arbor, MI: Inter-University Consortium for Political and Social Research; 2006.
- Browning CR. The span of collective efficacy: Extending social disorganization theory to partner violence. *Journal of Marriage and Family*. 2002; 64(4):833–850.
- Caetano R, Field C, Ramisetty-Mikler S, Lipsky S. Agreement on reporting of physical, psychological, and sexual violence among White, Black, and Hispanic couples in the United States. *Journal of Interpersonal Violence*. 2009; 24(8):1318–1337. [PubMed: 18768744]
- Caetano R, Field C, Ramisetty-Mikler S, McGrath C. The 5-year course of intimate partner violence among White, Black, and Hispanic couples in the United States. *Journal of Interpersonal Violence*. 2005; 20(9):1039–1057. [PubMed: 16051726]
- Caetano R, Schafer J, Clark CL, Cunradi CB, Rasberry K. Intimate partner violence, acculturation, and alcohol consumption among Hispanic couples in the United States. *Journal of Interpersonal Violence*. 2000; 15(1):30–45.
- Campbell JC. Health consequences of intimate partner violence. *The Lancet*. 2002; 359(9314):1331–1336.
- Charles P, Perreira KM. Intimate partner violence during pregnancy and 1 year post-partum. *Journal of Family Violence*. 2007; 22:609–619.
- Cho H. Racial differences in the prevalence of intimate partner violence against women and associated factors. *Journal of Interpersonal Violence*. 2011; 27(3):1–20.
- Coker AL. Frequency and correlates of intimate partner violence by type: Physical, sexual, and psychological battering. *American Journal of Public Health*. 2000; 90(4):553–559. [PubMed: 10754969]
- Coker AL, Davis KE, Arias I, Desai S, Sanderson M, Brandt HM, Smith PH. Physical and mental health effects of intimate partner violence for men and women. *American Journal of Preventive Medicine*. 2002; 23(4):260–268. [PubMed: 12406480]
- Connell RW, Messerschmidt JW. Hegemonic masculinity: Rethinking the concept. *Gender & Society*. 2005; 19(6):829–859.
- Cooke TJ, Boyle P, Couch K, Feijten P. A longitudinal analysis of family migration and the gender gap in earnings in the United States and Great Britain. *Demography*. 2009; 46(1):147–167. [PubMed: 19348113]
- Cunradi CB, Caetano R, Clark C, Schafer J. Neighborhood poverty as a predictor of intimate partner violence among White, Black, and Hispanic couples in the United States: A multilevel analysis. *Annals of Epidemiology*. 2000; 10(5):297–308. [PubMed: 10942878]
- Davis KA. Unlocking the door by giving her the key: A comment on the adequacy of the U-visa as a remedy. *Alabama Law Review*. 2004; 56(2):557–576.

- Davis SN, Greenstein TN. Gender ideology: components, predictors, and consequences. *Annual Review of Sociology*. 2009; 35:87–105.
- DeKeseredy WS. Current controversies on defining nonlethal violence against women in intimate heterosexual relationships. *Violence Against Women*. 2000; 6(7):728–746.
- Diaz-Olavarrieta C, Paz F, Abuabara K, Martinez Ayala HB, Kolstad K, Palermo T. Abuse during pregnancy in Mexico City. *International Journal of Gynecology & Obstetrics*. 2007; 97(1):57–64. [PubMed: 17307181]
- Dugan L, Nagin DS, Rosenfeld R. Explaining the decline in intimate partner homicide. *Homicide Studies*. 1999; 3(3):187–214.
- Dugan L, Nagin DS, Rosenfeld R. Exposure reduction or retaliation? The effects of domestic violence resources on intimate-partner homicide. *Law & Society Review*. 2003; 37(1):169–198.
- Eisenman DP, Richardson E, Sumner LA, Ahmed SR, Liu H, Valentine J, Rodriguez MA. Intimate partner violence and community service needs among pregnant and post-partum Latina women. *Violence and Victims*. 2009; 24(1):111–121. [PubMed: 19297889]
- Everett BG, Rogers RG, Hummer RA, Krueger PM. Trends in educational attainment by race/ethnicity, nativity, and sex in the United States, 1989–2005. *Ethnic and Racial Studies*. 2011; 34(9):1543–1566. [PubMed: 22649275]
- Farmer A, Tiefenthaler J. An economic analysis of domestic violence. *Review of Social Economy*. 1997; 55(3):337–358.
- Firestone JM, Lambert LC, Vega WA. Intimate violence among women of Mexican origin: Correlates of abuse. *Journal of Gender, Culture, and Health*. 1999; 4(2):119–134.
- Fox GL, Benson ML, Demaris AA, Van Wyck J. Economic distress and intimate violence: Testing family stress and resource theories. *Journal of Marriage and Family*. 2002; 63(3):793–807.
- Fox GL, Benson ML. Household and neighborhood contexts of intimate partner violence. *Public Health Reports*. 2006; 121:419–427. [PubMed: 16827443]
- Frye V, Galea S, Tracy M, Bucciarelli A, Putnam S, Wilt S. The role of neighborhood environment and risk of intimate partner femicide in a large urban area. *American Journal of Public Health*. 2008; 98(8):1473–1479. [PubMed: 18556618]
- Garcia L, Hurwitz EL, Krauss JF. Acculturation and reported intimate partner violence among Latinas in Los Angeles. *Journal of Interpersonal Violence*. 2005; 20(5):569–590. [PubMed: 15788555]
- Garcia-Moreno C, Henrica AFMJ, Ellsberg M, Heise L, Watts CH. Prevalence of intimate partner violence: Findings from the WHO multi-country study on women's health and domestic violence. *The Lancet*. 2006; 368(9543):1260–1269.
- Goodman CJ, Mance SM. Employment loss and the recession of 2007-09: An overview. *Monthly Labor Review*. 2011; 134(4):3–12.
- Gordon M. Definitional issues in violence against women. *Violence Against Women*. 2000; 6(7):747–783.
- Hadi A. Women's productive role and marital violence in Bangladesh. *Journal of Family Violence*. 2005; 20(3):181–189.
- Hamilton BE, Martin JA, Ventura SJ. Births: Preliminary data for 2010. *National Vital Statistics Reports*. 2011; 60(2):1–14. [PubMed: 22670489]
- Humes, KR.; Jones, NA.; Ramirez, RR. Overview of race and Hispanic origin: 2010. U.S. Census Bureau; 2011.
- Iceland J, Scopilliti M. Immigrant residential segregation in US metropolitan areas, 1990–2000. *Demography*. 2008; 45(1):79–94. [PubMed: 18390292]
- Ingram M, McClelland DJ, Martin J, Caballero MF, Mayorga MT, Gillespie K. Experiences of immigrant women who self-petition under the Violence Against Women Act. *Violence Against Women*. 2010; 16(8):858–880. [PubMed: 20679184]
- Jewkes R. Intimate partner violence: Causes and prevention. *The Lancet*. 2002; 359(9315):1423–1429.
- Kalmuss, D.; Straus, M. Wife's marital dependency and wife abuse. In: Straus, M.; Gelles, R., editors. *Physical violence in American families*. New Brunswick: Transaction Publishers; 1990. p. 369-382.

- Kilpatrick DG. What is violence against women. *Journal of Interpersonal Violence*. 2004; 19(11): 1209–1234. [PubMed: 15534326]
- Kim JC, Watts CH, Hargreaves JR, Ndhlovu LX, Phetla G, Morison LA, Pronyk P, et al. Understanding the impact of a microfinance-based intervention on women's empowerment and the reduction of intimate partner violence in South Africa. *American Journal of Public Health*. 2007; 97(10):1794–1802. [PubMed: 17761566]
- Krug EG, Mercy JA, Dahlberg LL, Zwi AB. The world report on violence and health. *The Lancet*. 2002; 360(9339):1083–1088.
- Lauritsen JL, Schaum RJ. The social ecology of violence against women. *Criminology*. 2004; 42(2): 323–58.
- Lee J, Pomeroy EC, Bohman TM. Intimate partner violence and psychological health in a sample of Asian and Caucasian women: The roles of social support and coping. *Journal of Family Violence*. 2007; 22(8):709–720.
- Li Q, Kirby RS, Sigler RT, Hwang SS, LaGory ME, Goldenberg RL. A multilevel analysis of individual, household, and neighborhood correlates of intimate partner violence among low-income pregnant women in Jefferson County, Alabama. *American Journal of Public Health*. 2010; 100(3):531–539. [PubMed: 19696385]
- Lipsky S, Caetano R, Field C, Larkin G. The role of intimate partner violence, race, and ethnicity in help-seeking behaviors. *Ethnicity & Health*. 2006; 11(1):81–100. [PubMed: 16338756]
- Lipsky S, Caetano R. The role of race/ethnicity in the relationship between emergency department use and intimate partner violence: Findings from the 2002 national survey on drug use and health. *American Journal of Public Health*. 2007; 97(12):2246–2252. [PubMed: 17971560]
- Lloyd, S. The effects of violence on women's employment. Chicago: Institute for Policy Research, Northwestern University; 1996.
- Lown EA, Schmidt LA, Wiley J. Interpersonal violence among women seeking welfare: Unraveling lives. *American Journal of Public Health*. 2006; 96(8):1409–1415. [PubMed: 16809602]
- Lown EA, Vega WA. Prevalence and predictors of physical partner abuse among Mexican American women. *American Journal of Public Health*. 2001; 91:441–445. [PubMed: 11236411]
- Macmillan R, Gartner R. When she brings home the bacon: Labor-force participation and the risk of spousal violence against women. *Journal of Marriage and Family*. 1999; 61(4):947–58.
- Madkour AS, Martin SL, Halpern CT, Schoenbach VJ. Area disadvantage and intimate partner homicide: An ecological analysis of North Carolina counties, 2004–2006. *Violence and Victims*. 2010; 25:363(3)
- Massey DS, Rothwell J, Domina T. The changing bases of segregation in the United States. *The Annals of the American Academy of Political and Social Science*. 2009; 626(1):74–90.
- Pager D, Shepherd H. The sociology of discrimination: Racial discrimination in employment, housing, credit, and consumer markets. *Annual Review of Sociology*. 2008; 34:181–209.
- Pallitto CC, O'Campo P. Community level effects of gender inequality on intimate partner violence and unintended pregnancy in Colombia: Testing the feminist perspective. *Social Science & Medicine* (1982). 2005; 60(10):2205–2216. [PubMed: 15748669]
- Raj A, Silverman JG. Immigrant south Asian women at greater risk for injury from intimate partner violence. *American Journal of Public Health*. 2003; 93(3):435–437. [PubMed: 12604489]
- Reichman NE, Teitler JO, Garfinkel I, McLanahan SS. Fragile Families: Sample and design. *Children and Youth Services Review*. 2001; 23(4-5):303–326.
- Rodriguez MA, Bauer HM, McLoughlin E, Grumbach K. Screening and intervention for intimate partner abuse. *JAMA*. 1999; 282(5):468–474. [PubMed: 10442663]
- Roeger, KL.; Blackwood, A.; Pettijohn, SL. The non-profit sector in brief: Public charities, giving, and volunteering, 2011. Washington, DC: The Urban Institute; 2011.
- Sampson RJ, Raudenbush SW, Earls F. Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*. 1997; 277(5328):918–24. [PubMed: 9252316]
- Santana MC, Raj A, Decker MR, La Marche A, Silverman JG. Masculine gender roles associated with increased sexual risk and intimate partner violence perpetration among young adult men. *Journal of Urban Health*. 2006; 83(4):575–85. [PubMed: 16845496]

- Shobe MA, Dienemann J. Intimate partner violence in the United States: An ecological approach to prevention and treatment. *Social Policy and Society*. 2008; 7(02):185–195.
- Straus MA. Measuring intrafamily conflict and violence: The conflict tactics (CT) scales. *Journal of Marriage and the Family*. 1979:75–88.
- Straus, MA. The conflict tactics scales and its critics: An evaluation and new data on validity and reliability. In: Straus, MA.; Gelles, RJ., editors. *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families*. New Brunswick, NJ: Transaction Publishers; 1990.
- Sugarman DB, Frankel SL. Patriarchal ideology and wife assault: A meta-analytic review. *Journal of Family Violence*. 1996; 11(1):13–40.
- Taylor CA, Guterman NB, Lee SJ, Rathouz PJ. Intimate partner violence, maternal stress, nativity, and risk for maternal maltreatment of young children. *American Journal of Public Health*. 2009; 99(1): 175–183. [PubMed: 19008518]
- Tjaden P, Thoennes N. Prevalence and consequences of male-to-female and female-to-male intimate partner violence as measured by the National Violence Against Women survey. *Violence Against Women*. 2000; 6(2):142–161.
- U.S. Census Bureau. Characteristics of the foreign-born population by nativity and U S citizenship status. 2011. Retrieved from <http://www.census.gov/population/foreign/data/cps2010.html>
- U.S. Citizen and Immigration Services. Immigration options for victims of crimes: Information for law enforcement, healthcare providers, and others. Department of Homeland Security; 2010. No. M-779
- U.S. Department of Labor. Women’s employment during the recovery. 2011. Retrieved from: http://www.dol.gov/_sec/media/reports/femalelaborforce/
- Waller MR, Swisher R. Fathers’ risk factors in Fragile Families: Implications for “healthy” relationships and father involvement. *Social Problems*. 2006; 53(3):392–420.
- Wright EM, Benson ML. Immigration and intimate partner violence: Exploring the immigrant paradox. *Social Problems*. 2010; 57(3):480–503.

Table 1

Prevalence (%) of Woman's IPV Experience, by Race/Nativity (N=1,886)

	Any Violence		Physical Assault		Emotional Abuse		Coercion	
	n	%	n	%	n	%	n	%
IPV Experience in the Full Sample (n=1886)	412	21.2%	61	3.7%	187	9.7%	302	14.9%
IPV Experience by race/ethnicity								
Non-Hispanic White (n=584)	104	16.4%	13	1.3%	52	11.7%	75	9.3%
Non-Hispanic Black (n=631)	121	17.4%	24	4.4%	61	7.2%	82	11.6%
Hispanic (n=582)	153	25.5%	21	7.5%	58	8.8%	118	19.2%
Non-Hispanic Other (n=89)	34	32.7%	<5	<1%	16	7.8%	27	30.4%
IPV experience by nativity status								
U.S. Born (n=1556)	309	16.3%	47	1.8%	149	9.3%	223	10.4%
Foreign Born (n=330)	103	35.0%	14	9.3%	38	10.8%	79	27.9%
In U.S. 5+ years (n=65)	13	23.3%	<5	<1%	6	2.4%	10	22.9%
In U.S. <5 years (n=265)	90	39.5%	13	12.8%	32	14.0%	69	29.8%
Naturalized Citizen (n=91)	23	20.4%	<5	<1%	7	3.8%	20	20.0%
Non-Citizen (n=239)	80	41.5%	13	13.4%	31	13.9%	59	31.4%

Note: Unweighted frequencies, weighted percentages.

Table 2
Unadjusted Odds of Experiencing Violence by Race-Ethnicity and Nativity (N=1,886)

	Any Violence		Physical Assault		Emotional Abuse		Coercion	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
Maternal Race-Ethnicity								
Non-Hispanic White (ref.)	---	---	---	---	---	---	---	---
Non-Hispanic Black	1.07	(0.8, 1.5)	3.60	(1.1, 11.4) *	0.59	(0.3, 1.1)	1.28	(0.8, 2.0)
Hispanic	1.75	(1.0, 3.2) †	6.33	(1.6, 24.9) *	0.73	(0.2, 3.0)	2.31	(1.5, 3.7) **
Non-Hispanic Other	2.48	(0.8, 7.6)	0.51	(0.1, 2.6)	0.64	(0.2, 2.1)	4.27	(1.4, 13.5) *
Maternal Nativity								
U.S. Born (ref)	---	---	---	---	---	---	---	---
Foreign-Born	2.76	(2.1, 3.7) **	5.76	(2.0, 16.5) **	1.17	(0.4, 3.5)	3.33	(2.0, 5.6) **

† p<.10,

* p<.05,

** p<.01

Note: OR=odds ratio; CI=Confidence Interval. Data are weighted and standard errors are adjusted for clustering.

Table 3

Prevalence (%) of IPV Risk Factors, by Race/Nativity (N=1,886)

	Race & Ethnicity						Nativity					
	Non-Hispanic White (n=584)		Non-Hispanic Black (n=631)		Hispanic (n=582)		U.S. Born (n=1556)		Foreign-Born (n=330)			
	n	%/Mean	n	%/Mean	n	%/Mean	n	%/Mean	n	%/Mean		
Economic Hardship												
Hardship Scale (range: 0-7)	584	0.55	631	0.68	582	0.57	89	0.41	1556	0.61	330	0.43 *
Mother's Economic Dependence												
Household financial control	107	19.8%	65	10.8% *	113	27.0%	23	35.0%	232	19.0%	76	31.8%
Father/partner control	421	79.7%	521	87.7%	364	71.8%	57	60.2%	1159	80.2%	204	65.0%
Maternal/shared control	56	0.6%	45	1.5%	105	1.2%	9	4.8%	165	0.8%	50	3.2%
Missing												
Maternal Education												
<12 years	87	8.4%	170	25.1% **	257	45.6% **	12	18.4%	392	16.6%	134	45.8% **
HS graduate or more	497	91.6%	461	74.9% **	325	54.5% **	77	81.6%	1164	83.4%	196	54.2% **
Maternal Employment Status												
Employed Full/Part-Time	326	55.4%	378	60.0%	268	48.5%	54	57.2%	862	56.8%	164	45.7% **
Not Employed at Least Part-Time	258	44.6%	253	40.0%	314	51.5%	35	42.8%	694	43.3%	166	54.3% **
Mother's Gender Beliefs												
Trad'l Beliefs Scale (range: 1-4)	584	1.87	631	2.05 *	582	2.23 **	89	2.03	1556	1.97	330	2.22 **
Neighborhood Conditions												
Disadv. Neighb'd Score (range: -13.2-35.5)	584	-4.48	631	5.90 **	582	4.15 **	89	-3.13	1556	-0.82	330	2.36 **

Note: Unweighted frequencies, weighted percentages.

Significance tests compare population group with referent group (White Non-Hispanic for race/ethnicity and U.S.-born for nativity)

* p<.05,

** p<.01

Table 4

Adjusted Odds of Experiencing Violence (N=1,886)

	Mean/%	Any Violence OR (95% CI)	Physical Assault OR (95% CI)	Emotional Abuse OR (95% CI)	Coercion OR (95% CI)
Maternal Race-Ethnicity					
Non-Hispanic White (ref.)	43%	---	---	---	---
Non-Hispanic Black	14%	0.94 (0.5, 1.8)	1.10 (0.4, 3.2)	0.36 (0.1, 0.9) *	1.56 (0.7, 3.5)
Hispanic	33%	0.70 (0.3, 1.9)	0.49 (0.2, 1.3)	0.24 (0.1, 0.9) *	1.32 (0.5, 3.5)
Non-Hispanic Other	10%	1.84 (0.5, 7.2)	0.10 (0.0, 0.8)	0.54 (0.2, 1.7)	3.87 (1.0, 14.5) *
Maternal Nativity					
U.S. Born (ref)	74%	---	---	---	---
Foreign-Born	26%	2.30 (0.9, 6.2) †	4.23 (0.9, 19.1) †	1.26 (0.6, 2.6)	2.12 (0.7, 6.2)
Economic Hardship					
Hardship Scale (range: 0-7)	0.56	1.73 (1.3, 2.3) **	1.52 (1.0, 2.3) †	1.60 (1.1, 2.3) **	1.65 (1.3, 2.1) **
Mother's Economic Dependence					
Household financial control	21%	---	---	---	---
Father/partner control	78%	2.23 (1.5, 3.4) **	0.61 (0.2, 1.9)	2.28 (1.6, 3.3) **	2.87 (1.7, 5.0) **
Maternal/shared control (ref)	1%	---	---	---	---
Missing					
Maternal Education					
<12 years	24%	6.36 (2.0, 20.2) **	9.77 (0.9, 110.8) †	18.47 (5.4, 63.4) **	6.15 (1.2, 31.7) *
HS graduate	29%	3.28 (0.9, 12.0) †	3.11 (0.5, 21.6)	4.10 (1.6, 10.9) **	3.38 (0.7, 16.1)
Some college	20%	2.22 (0.7, 6.9)	3.84 (0.4, 36.8)	5.94 (1.9, 18.6) **	2.50 (0.8, 8.1)
College (ref)	28%	---	---	---	---
Maternal Employment Status					
Employed Full or Part-Time (ref)	54%	---	---	---	---
Not Employed at Least Part-Time	46%	0.85 (0.5, 1.4)	0.75 (0.3, 2.2)	0.83 (0.5, 1.5)	0.64 (0.4, 1.1)
Mother's Gender Beliefs					
Traditional Beliefs Scale (range: 1-4)	2.03	1.22 (0.5, 2.8)	7.27 (2.1, 24.8) **	1.49 (0.4, 5.3)	0.79 (0.3, 2.3)
Neighborhood Conditions					

	Mean/%	Any Violence OR (95% CI)	Physical Assault OR (95% CI)	Emotional Abuse OR (95% CI)	Coercion OR (95% CI)
Disadv. Neighb'd Score (range: -13.2-35.5)	0.00	0.97 (0.9, 1.0)	1.01 (0.9, 1.1)	0.95 (0.9, 1.0) *	0.96 (0.9, 1.0) *
Missing	8%	0.25 (0.0, 1.5)	0.27 (0.1, 0.8) *	0.58 (0.1, 3.4)	0.11 (0.0, 0.4) **
Other Maternal Characteristics					
Maternal Age	27.8	1.08 (1.0, 1.1) **	1.06 (1.0, 1.1) †	1.07 (1.0, 1.1) **	1.10 (1.0, 1.2) **
Marital Status					
Married (ref)	77%	---	---	---	---
Co-habitating	23%	1.29 (0.7, 2.3)	0.91 (0.3, 2.6)	1.40 (0.4, 4.7)	0.92 (0.5, 1.8)
Social Support					
Financial social support	67%	0.75 (0.4, 1.4)	0.84 (0.2, 3.4)	0.61 (0.3, 1.4)	0.88 (0.5, 1.5)
Non-financial support	95%	0.51 (0.2, 1.2)	0.28 (0.1, 1.0) *	0.29 (0.1, 0.8) *	0.29 (0.1, 0.7) **
Weekly church attendance	62%	0.65 (0.4, 1.1) †	0.23 (0.1, 0.8) *	0.61 (0.4, 0.9) *	0.68 (0.3, 1.6)
F		177.63	238.82	3174.5	125.86

† p<.10,

* p<.05,

** p<.01

Note: OR=odds ratio; CI=Confidence Interval. Data are weighted and standard errors are adjusted for clustering.