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Childhood Maltreatment Among Hispanic Women in the United States: An Examination of Subgroup Differences and Impact on Psychiatric Disorder

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Abstract

Prevalence rates of childhood maltreatment among Hispanic women in the United States are presented separately for nativity status and ethnic origin subgroups, and the associations between different types of maltreatment and the development of anxiety and depressive disorders are examined. Analyses used self-report data from 1,427 Hispanic women who participated in the National Latino and Asian American Survey. Foreign-born Hispanic women compared to U.S.-born Hispanic women reported significantly lower rates of sexual assault and witnessing interpersonal violence, and a significantly higher rate of being beaten. Ethnic subgroups reported similar rates of maltreatment, with the exception of rape. Bivariate analyses were remarkably consistent in that regardless of nativity status or ethnic subgroup, each type of maltreatment experience increased the risk of psychiatric disorder. In multivariate models controlling for all types of victimization and proxies of acculturation, having been beaten and witnessing interpersonal violence remained significant predictors of both disorders, but sexual abuse increased risk of anxiety only. A significant interaction effect of family cultural conflict and witnessing violence on anxiety provided very limited support for the hypothesis that acculturation moderates the influence of maltreatment on mental health outcomes. Implications for culturally relevant prevention and intervention approaches are presented.

Keywords

sexual abuse; physical abuse; ethnic minority populations; epidemiology; depression; cultural/ethnic issues

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Background and Significance

Information about childhood maltreatment and its consequences among racial-ethnic minority women in the United States is growing but relatively limited (Behl, Crouch, May, Valente, & Conyngham, 2001; Miller & Cross, 2006). The data gap is especially problematic in terms of planning and program development for Hispanics, who are overwhelmingly young and a growing proportion of the total population (Ramirez & de la Cruz, 2002; U.S. Census Bureau, 2008). Moreover, available national data suggest that compared to other racial-ethnic groups, Hispanics may be at greatest risk of some types of mal-treatment. According to the National Survey of Adolescents-Replication, Hispanic youth reported the highest prevalence of injurious spanking (Hawkins et al., 2010).

At the aggregate level, Hispanics share cultural values and attitudes that may influence the prevalence of child maltreatment. Hispanics have been described as a group-oriented culture, with strong, culturally based standards by which the entire community judges behaviors that violate group norms (Marin & Triandis, 1985). “Familismo” is a specific aspect of Hispanic culture that has been proposed as protective against child abuse (Coohey, 2001; Sabogal, Marin, Otero-Sabogal, Marin, & Perez-Stable, 1987), due to the emphasis on familial obligations, especially commitments to children (Zayas, 1992), and the availability of an extended familial social support network (Comas-Diaz, 1995; Cuellar, Arnold, & Gonzalez, 1995). This protective effect may be further enhanced by “machismo” if it is expressed as strongly valuing nurturance and dedication to family (Perilla, Bakeman & Norris, 1994). On the other hand, the likelihood of violence in Hispanic families may be heightened when machismo is expressed as male dominance and authority, and when it is combined with female gender role expectations such as submissiveness, deference to others, and self-sacrificing behaviors (i.e., “marianismo”; Perilla, 1999).

It is unclear if these cultural aspects would yield rates of child maltreatment or exposure to family violence among Hispanics that differ substantially from rates reported by non-Hispanics. However, it has been argued that if abuse does occur, Hispanics may be less likely than other groups to report those experiences because of an expectation of silence in order to maintain family unity (Morash, Bui, & Santiago, 2000). Sexual abuse reporting in particular may be discouraged by culturally informed gender role beliefs, such as the taboo against girls losing their virginity before marriage (Kenny & McEachern, 2000), and attributions about sexual assaults that blame the victim or question the legitimacy of the rape accusation (Ahrens, Rios-Mandel, Isas, & del Carmen Lopez, 2010; Lira, Koss, & Russo, 1999; Rodriguez-Srednicki & Twaite, 1999).

Within Group Heterogeneity : The Role of Country of Origin and Nativity

Several design features of existing studies make it difficult to draw conclusions about Hispanic cultural influences and child maltreatment. First, the Hispanic population in the United States is comprised of people from diverse countries of origin as well as Puerto Rico. However, most studies of child abuse that include Hispanics are based on data collected in limited geographic areas. Because of historical migration patterns, geographically circumscribed samples may be representative of one ethnic subgroup (e.g., those of Mexican

heritage) but not others (Elliott & Urquiza, 2006; Korbin, 2002). Moreover, results from a recent meta-analysis of child sexual abuse data from around the world suggest that estimates derived from an ethnic group in one area are not generalizable to members of the same ethnic group who live in a different geographic area (Stoltenborgh, van IJzendoorn, Euser, & Bakermans-Kranenburg, 2011). Researchers studying violence in Hispanic families have argued that sexual and physical abuse of children is likely to vary by subcultural group, as is the extent of sexual and physical abuse between partners, and thus children's exposure to familial violence (Edelson, Hokoda, & Ramos-Lira, 2007; Kasturirangan, Krishnan, & Riger, 2004; Lefley, Scott, Llabre, & Hicks, 1993; Lindholm & Willey, 1986). To our knowledge, empirical child maltreatment studies comparing Hispanic subgroups in the United States have not been published.

Second, nativity may be an additional factor that differentiates child maltreatment rates among Hispanic women (Sled-jeski, Dierker, Bird, & Canino, 2009), and relative to country of origin, more research has focused on immigrant status. Self-reported rates of family violence by nativity status may vary because of actual differences in prevalence or different definitions of the actions that constitute abuse (Dutton, Orloff, & Hass, 2000). If there is less willingness to disclose child maltreatment (Katerndahl, Burge, Kellogg, & Parra, 2005), which in the case of immigrants may be related to a fear of deportation of family members if they are undocumented (Orloff & Kelly, 1995) or general distrust of the child welfare and legal systems (Fontes, Cruz, & Tabachnick, 2001), then child maltreatment rates would be lower for foreign-born women. Several studies have reported significantly lower rates of domestic violence (Burnam, Hough, Karno, Escobar, & Telles, 1987; Sorenson & Telles, 1991; Vega & Sribney, 2003) and perpetration of child abuse (Altschul & Lee, 2011; Lee, Altschul, Shair, & Taylor, 2011) among non-U.S.-born Hispanics versus U.S.-born. In one exception to this pattern, U.S.-born and immigrant Hispanic youth between ages 8 and 17 years reported similar rates of maltreatment (Bridges, de Arellano, Rheingold, Danielson, & Silcott, 2010). Although Bridges, de Arellano, Rheingold, Danielson, and Silcott (2010) did not report results separately for males and females, they did provide separate estimates for physical abuse, sexual abuse, and witnessing domestic violence.

Data on the range of maltreatment experiences are needed to help disentangle parental violence exposure from personal victimization and to investigate the co-occurrence of multiple types of maltreatment, which is common in studies of children and adolescents (Hamby, Finkelhor, Turner, & Ormrod, 2010; Turner, Finkelhor, & Ormrod, 2010). The majority of studies of childhood victimization among Hispanic women have reported only one type of maltreatment, usually sexual abuse (e.g., Arellano, Kuhn, & Chavez, 1997; Arroyo, Simpson, & Aragon, 1997; Kercher & McShane 1984; Roosa, Reinholtz, & Angelini 1999; Stein, Golding, Siegel, Burnam, & Sorenson, 1988). While a recent phone survey of Latino women provides important information about polyvictimization, results were not disaggregated by nativity status (Cuevas, Sabina, & Picard, 2010).

Childhood Maltreatment and Adult Psychiatric Disorder

The few studies that examine the consequences of childhood maltreatment among Hispanic women document a significant association between maltreatment during childhood and

mental health problems during adulthood; outcomes have included emotional distress and self-esteem (Arellano et al., 1997), depressive symptoms (Roosa et al., 1999), and trauma symptoms (Clemmons, DiLillo, Martinez, DeGue, & Jeffcott, 2003; Cuevas et al., 2010; Davies, DiLillo, & Martinez, 2004). These findings are consistent in that both cross-sectional (Banyard, Williams, & Siegel, 2001; Cogle, Timpano, Sachs-Ericsson, Keough, & Riccardi, 2010; Edwards, Holden, Felitte, & Anda, 2003; Harkness & Wildes, 2002; Kendler, Kuhn, & Prescott, 2004) and prospective (Fergusson, Horwood, & Lynskey, 1996; Schilling, Aseltine, & Gore, 2007; Widom, Dumont, & Czaja, 2007) studies of nonethnically differentiated samples amply document that women who experience maltreatment during childhood are at increased risk of mental health problems.

Questions remain, however, as to the impact of specific types of maltreatment relative to one another, and the type of psychiatric problems most likely to result. For example, emotional, sexual, and physical abuse and neglect were each significantly associated with anxiety, depression, posttraumatic stress, and physical symptoms among women recruited during primary health care visits (Spertus, Yehuda, Wong, Halligan, & Seremetis, 2003), and the effects of child sexual abuse on depression and anxiety remained significant after controlling for physical and emotional cruelty in a community sample of women followed longitudinally (Roberts et al., 2004). However, in a cross-sectional study of U.S. women, witnessing domestic violence and experiencing sexual abuse increased the odds of any mood and any anxiety disorder whereas physical abuse did not (Afifi et al., 2008). With regard to specificity of mental health outcomes, any childhood sexual or physical abuse significantly increased the odds of substance use disorder and posttraumatic stress disorder (PTSD) but not major depressive disorder or any anxiety disorder in the Isle of Wight study (Collishaw et al., 2007), and childhood maltreatment was strongly associated with PTSD but moderately associated with mood disorders among American Indian women seeking health services (Duran et al., 2004).

Just as the correlates of child abuse prevalence may be culturally or ethnically specific, the effect of child abuse on later adverse outcomes may be influenced by risk and protective factors that are especially salient for a given ethnic or cultural group. For Hispanics, the retention of traditional cultural values and norms have been hypothesized to enhance coping with the stressors associated with being either an immigrant or a member of a minority cultural group; greater levels of acculturation have been hypothesized to increase risk of engaging in negative behaviors and poor outcomes (Halgunseth, Ispa, & Rudy, 2006; Sabogal et al., 1987; Straus & Smith, 1990). Several studies have shown an association between acculturation and a range of adverse mental health consequences for Hispanics (Alderete, Vega, Kolody, & Aguilar-Gaxiola, 1999; Alegría et al., 2007; Bird et al., 2001; Grant et al., 2004; Pena et al., 2008; Sorenson & Golding, 1988). Acculturation is often not measured directly, but with proxy indicators such as language use (i.e., speaking primarily Spanish as a child; Cordero & Kurz, 2006) and number of years immigrants have lived in the United States (Alegría, Takeuchi, et al., 2004; Berry, 2002; Kaltman, Green, Mete, Shara, & Miranda, 2010).

In summary, independent lines of research confirm a link between acculturation and psychiatric disorders in adulthood and between child abuse and psychiatric disorders. Taken

together, these bodies of research suggest that the long-term negative effect of child maltreatment may be stronger for Hispanic women who are more rather than less acculturated.

Current Study

The current study uses data from the National Latino and Asian American Survey (NLAAS), a nationally representative sample of Hispanics in the United States, for two main purposes. First, patterns of childhood physical and sexual abuse among Hispanic women in the United States are presented and examined separately for subgroups defined by nativity status and ethnic subgroup (Puerto Rican, Mexican, Cuban, and other Hispanic). Based on prior research, it is expected that maltreatment rates will be higher for U.S.-born Hispanic women compared to foreign-born women. Given the heterogeneous cultures represented by the different regions from which Hispanics have historically emigrated, we also expect to find prevalence rates to vary by ethnic subgroup. However, prior research provides little guidance about which subgroups will have the highest rates.

Second, the study investigates the association between childhood maltreatment and the development of anxiety and depression, two prevalent psychiatric disorders with profound social and economic repercussions. Multivariate regression analyses are conducted to evaluate the type/types of childhood maltreatment that are associated with each disorder and to determine if acculturation moderates the effects of the mal-treatment experiences. Models include controls for substance use disorder and socioeconomic status (SES), as these factors have been associated with maltreatment, acculturation, and psychiatric disorder. With regard to substance use, research focused on women suggests that child maltreatment increases the risk of alcohol problems in adolescence and adulthood (Gilbert et al., 2009), possibly because substances are used in an effort to cope with the abuse experiences (Hurley, 1991; Kaufman et al., 2007; Widom, White, Czaja, & Marmorstein, 2007); greater levels of acculturation have been linked with increasing rates of substance use for men and women (Abraido-Lanza, Cho, & Florez, 2005; Escobar, Nervi, & Gara, 2000; Hernandez & Charney, 1998; Turner, Lloyd, & Taylor, 2006); and, comorbidity between substance use and psychiatric disorders has been well documented. Similarly, low SES is a risk factor for child abuse (Berger, 2005; Euser, van IJzendoorn, Prinzie, & Bakermans-Kranenburg, 2011; Hussey, Chang, & Kotch, 2006; Trickett, Aber, Carlson, & Cicchetti, 1991); compared to other Hispanic subgroups Cubans tend to have higher SES (Guarnaccia et al., 2007); and SES will influence the resources available to manage psychiatric symptoms, including access to behavioral health services.

With a community sample that is representative of Hispanic households in the United States and large enough to conduct subgroup analyses based on a uniform set of measures, the comparative analysis is an important contribution to the field. Otherwise, comparisons have to be based on disparate studies with prevalence rates that may be substantially influenced by design aspects (e.g., if the sample is drawn from student or community populations, self-report versus interviewer administered surveys; Pereda, Guilera, Forns, & Gomez-Benito, 2009). Additionally, an investigation of the culturally relevant factors that potentially

moderate the direct effects of child abuse may help inform prevention and intervention programs for Hispanic women who have experienced childhood maltreatment.

Method

Participants and Procedures

Data are from the NLAAS, a survey designed to provide nationally representative estimates of mental disorder and service utilization among Latinos and Asian Americans living in the United States and to allow examinations of psychosocial and sociocultural influences on mental illness and utilization patterns for ethnic subgroups. Details regarding the methods and stratified area probability sampling design of the NLAAS are available elsewhere (Alegría, Vila, et al., 2004; Heeringa et al., 2004). Eligibility criteria included age (18 years or older); living in the noninstitutionalized population of the coterminous United States, Washington DC, or Hawaii; ethnicity (of self-identified Asian, Latino, Hispanic, or Spanish descent); and spoken language ability (Spanish, Chinese, Vietnamese, Tagalog, or English).

The Institutional Review Board Committees of Cambridge Health Alliance and the University of Michigan approved all human subjects' procedures. Bilingual lay interviewers explained study procedures, obtained written informed consent, and administered the survey in each respondent's preferred language (English or Spanish for the Hispanic sample). The majority of the sample was interviewed face to face in their households. The final NLAAS sample consisted of 2,554 Hispanic respondents, with a weighted response rate of 75.5% for the Hispanic sample. The analytic sample for this study was limited to Hispanic women ($n = 1,427$).

To compare rates of child maltreatment by nativity status, the sample was stratified into foreign-born and U.S.-born subgroups depending on the name of the country in which the women were born. A separate stratification into four ethnic subgroups was created based on the response to the question, "Are you of Spanish or Hispanic descent, that is, Mexican, Mexican American, Chicano, Puerto Rican, Cuban or Spanish?" Mexicans included women who identified as Mexican American and Chicano, and women who identified as "Spanish" were coded as "other" Hispanic. The countries of origin of the women who indicated being of "other" Hispanic descent included Guatemala, El Salvador, Chile, and Peru, but none in sufficient number to analyze separately.

Measures

Childhood maltreatment.—Childhood maltreatment variables were based on responses to questions about physical and sexual abuse that were included in the module assessing PTSD. If respondents answered affirmatively to a question, and reported the experience occurred before age 18, it was coded yes (value = 1), otherwise no (value = 0). Exposure to interpersonal violence (witness interpersonal violence) was measured by the question: "Did you ever witness serious physical fights at home, like when your father beat up your mother?" Personal experience of physical abuse (beaten) was captured by an affirmative response to the question: "As a child, were you ever badly beaten up by your parents or the people who raised you?" Sexual abuse was measured with two questions, one regarding

sexual assault and one regarding rape, with terms defined by the interviewer for the respondent. Sexual assault was defined as “someone touched you inappropriately, or when you did not want them to” and rape as “someone either having sexual intercourse with you or penetrating your body with a finger or object when you did not want them to, either by threatening you or using force, or when you were so young that you didn’t know what was happening.” A woman who reported either of these experiences was coded as “yes” on a third indicator of “any childhood sexual abuse,” and “no” if she did not report either one. Respondents who endorsed more than one of the four experiences (i.e., witnessing violence, beaten, sexual assault, and rape) were coded as having experienced polyvictimization, otherwise not.

Psychiatric disorders.—Lifetime psychiatric disorders were assessed using the diagnostic interview of the World Mental Health Survey Initiative version of the World Health Organization Composite International Diagnostic Interview (WMH-CIDI; Kessler & Üstün, 2004). The WMH-CIDI is a fully structured instrument administered by lay interviewers that yields diagnoses based on criteria of the *Diagnostic Statistical Manual for Mental Disorders*, Version 4 (*DSM-IV*; American Psychiatric Association [APA], 1994). The WMH-CIDI was translated to Spanish (SWMH-CIDI) and adapted to the language of the different Latino groups in the sample by an international committee of bilingual investigators as described by Alegría and colleagues (2004). The instrument has demonstrated good concordance between *DSM-IV* diagnoses based on the WMH-CIDI assessments and the Structured Clinical Interview for Axis I Disorders (Haro et al., 2006). The interrater reliability for these CIDI-generated diagnoses is high ($k > 0.9$; Andrews & Peters, 1998). In the present study, any depressive disorder (20.1%) includes dysthymia and major depressive episode, and any anxiety disorder (19.4%) includes agoraphobia, generalized anxiety disorder, panic disorder, PTSD, and social phobia.

Acculturation.—Four measures were used as proxies for acculturation. First, the categorical measure of nativity status was transformed for the multivariate analyses into a continuous “years in the U.S.” variable. While the categorical operationalization was appropriate for prevalence estimates in order to help identify target groups for intervention purposes, the continuous measure is a better approach to capture exposure to U.S. norms and thus a more sensitive measure of acculturation. For women who stated they were born in a country other than the United States, the age at which they first came to this country was subtracted from current age. For women born in the United States, “years in the U.S.” is based on current age. Second, “nativity of respondents’ parents” was based on the number of parents who were U.S.-born: the majority of respondents reported both parents were foreign-born (74.9%), followed by both parents U.S.-born (16.4%), and one parent foreign-born (8.7%). Third, “Spanish language use during childhood” was coded as “yes” (83.9%) if respondents indicated they spoke “Spanish only,” “mostly Spanish, some English,” or “Spanish and English” when they were growing up, otherwise “no” (16.1%). Fourth, 5 items known as the Family Cultural Conflict subscale of the Hispanic Stress Inventory (HSI; Cervantes, Padilla, Amado, & Salgado de Snyder, 1990) were used to capture acculturation-related challenges to family dynamics. These items address issues of cultural and intergenerational conflict between the respondents and their families. Respondents indicated,

on a rating scale of 1 (*hardly ever*) to 3 (*often*), the frequency of incidents of cultural conflict with their families: felt that being too close to your family interfered with your own goals; had arguments with other members of your family because of different customs; felt lonely and isolated because of a lack of family unity; felt that family relations are becoming less important for people that you are close to; your personal goals have been in conflict with your family. The subscale mean is 6.6 (standard error .06). It has a standardized Cronbach's α of 0.77 for the women who completed the English language interview and 0.79 for those who completed the Spanish language interview. Higher family cultural conflict scores are interpreted as indicating greater threats to familism.

Other predictors—SES was captured by educational attainment and poverty status. A four-level categorical variable was based on years of education completed: 11 years or less (39.6%), 12 years (23.9%), 13–16 years (30.4%), 17 years and more (6.1%). For a given household composition (family size and number of children), if household income was at or below the U.S. Census Bureau's threshold (U.S. Census, 2011), the respondent was coded as "yes" on the dichotomous household poverty measure (28.6%), otherwise coded "no." Lifetime substance use disorder was coded as yes (5.5%) if a respondent had a CIDI diagnosis of alcohol abuse or dependence, or any illicit substance abuse or dependence.

Statistical Analyses

All prevalence rates were calculated as weighted sample or subsample estimates. Separate design-adjusted Wald chi-square statistical tests were conducted to compare the estimates of abuse for the foreign-born versus U.S.-born women and across the four ethnic subgroups (Puerto Rican, Mexican, Cuban, and other Hispanic). The association between maltreatment and psychiatric disorder was evaluated first at the bivariate level; Wald tests were used to compare percentages of women with and without maltreatment experiences in the nativity and ethnic subgroups who developed anxiety and depression. Statistical significance was based on two-tailed tests. Preliminary analyses showed that the acculturation variables did not statistically significantly differ by ethnic subgroup. Thus, the multivariate analyses were run on the total sample of women. A series of multivariate logistic models were used to test the association between maltreatment and mental health outcomes. Childhood maltreatment measures were entered together in one model and all other variables were added in a second step. Two-way interaction terms were created between each maltreatment variable and each acculturation measure to test if acculturation moderates the association between maltreatment and psychiatric disorder. Prior to creating the interaction terms, continuous variables were centered by subtracting their means. Each interaction term was added individually to the full models to minimize multicollinearity; a moderating effect was inferred from a significant improvement in model fit based on the difference in the F statistic between the model with and without the interaction term, and by a statistically significant coefficient for the interaction term. All analyses were conducted using STATA (StataCorp, Version 9.2; STATA Corporation, 2007).

Results

Prevalence of Childhood Maltreatment

Table 1 shows the estimates of childhood maltreatment among the total sample and compares rates separately by nativity status and by ethnic subgroup. Overall, approximately one third of the women witnessed violence or experienced either physical or sexual abuse (see Table 1). Of the experiences examined, witnessing violence was the most prevalent for women overall and for all subgroups except Cuban women, for whom no type of maltreatment was substantially higher than another. U.S.-born women reported significantly higher rates of any maltreatment compared to foreign-born women, $\chi^2(1, N = 1,427) = 14.90, p < .005$. Of the four specific types of maltreatment examined, U.S.-born and foreign-born women reported significantly different rates of being beaten, witnessing violence and sexual assault, but the pattern was not entirely consistent with expectations. As hypothesized, U.S.-born women reported higher rates of witnessing violence, $\chi^2(1, N = 1,427) = 5.16, p < .04$, and sexual assault, $\chi^2(1, N = 1,427) = 39.10, p < .0001$, but foreign-born women reported a higher rate of being beaten, $\chi^2(1, N = 1,427) = 14.88, p < .02$. Statistically similar percentages of U.S.- and foreign-born women reported more than one type of maltreatment ($p > .05$). Maltreatment rates did vary by ethnic subgroup, with Cubans reporting the lowest rates of each type of maltreatment. However, rape was the only experience to differ at a statistically significant level; significantly greater percentages of Puerto Rican and other Hispanic women reported rape during childhood compared to Mexican and Cuban women, $\chi^2(3, N = 1,427) = 11.46, p < .03$.

The Association Between Childhood Maltreatment and Psychiatric Disorder: Nativity and Ethnicity

Table 2 shows psychiatric disorder prevalence estimates separately for the U.S.-born women, foreign-born women, and each of the four ethnic subgroups. Within each subgroup, estimates are compared for women with and without each type of maltreatment experience. The top half of the table presents the depressive disorder estimates, and the bottom half presents the anxiety disorder estimates. For the majority of comparisons, the rates of depressive and anxiety disorders were significantly greater for women with a given maltreatment experience than for women without that experience. The following are exceptions to the pattern of significantly greater rates of depressive disorder when a maltreatment experience occurred compared to when it did not: sexual assault was not significantly associated with depression among foreign-born women; sexual assault, rape, and polyvictimization were not significantly associated with depression among Puerto Rican women; and rape was not significantly associated with depression among Cuban women. Moreover, among other Hispanic women, the experience of being beaten was the only maltreatment experience that was significantly associated with depression, $\chi^2(1, N = 374) = 36.66, p < .02$. For anxiety disorder, there was only one exception to the pattern of significantly greater rates of disorder among women with a given maltreatment experience compared to women without it: the percentage of other Hispanic women who developed anxiety disorder did not significantly differ between those who witnessed violence and those who did not.

Table 3 shows the multivariate logistic regression results for parallel models predicting depressive and anxiety disorder. The child maltreatment experiences are entered together in the total sample of women in the first model. Hispanic women who had witnessed violence during childhood had significantly greater odds of depressive disorder and anxiety disorder compared to women who did not. Additionally, the odds of a depressive or anxiety disorder were 3 times higher for women who had been beaten during childhood compared to women who had not. Women who experienced sexual assault or rape (combined into one sexual abuse variable for the multivariate analyses testing interactions) had close to 3 times the odds of anxiety disorder compared to women who did not have those experiences.

The acculturation and control variables are added in Model 2. For both depressive disorder and anxiety disorder, the associations between maltreatment and psychiatric disorder were not attenuated after acculturation measures and control variables were added to the models. Ethnic subgroup was significantly associated with depression but not anxiety; Mexican and other Hispanic women had significantly lower odds of depression compared to Puerto Rican women. Of the acculturation variables, parents' nativity and family cultural conflict were significantly associated with depressive disorder, whereas only family cultural conflict was significantly associated with anxiety. Women with at least one foreign-born parent were significantly less likely to develop depression than women with both parents U.S.-born, and greater family cultural conflict was associated with increased odds of depression and anxiety. Substance use disorder was the only significant control variable; women with substance use disorder had more than 2 times the odds of developing depressive disorder and anxiety disorder compared to women without substance use disorder.

To test the hypothesis that acculturation moderates the effect of maltreatment on psychiatric disorder, 16 two-way interaction terms were created between each maltreatment variable and each acculturation measure, and these were added individually to Model 2. The only significant interaction was between witnessing violence and family cultural conflict, and it was significant for anxiety disorder but not depressive disorder (see Model 3). The nature of the effect was such that the odds of anxiety disorder was highest when witnessing violence was present and family cultural conflict was high (no witnessing violence and low family conflict, odds ratio (OR) = 1.12; not witnessing violence and high family conflict, OR = 1.33; witnessing violence is present and low family conflict, OR = 2.03; witnessing violence is present and high family conflict, OR = 4.71).

Discussion

This study used nationally representative data to identify the prevalence of child maltreatment among Hispanic women in the United States and the association between maltreatment and adult psychiatric disorder. A principal aim was to investigate variations in specific types of maltreatment by nativity and ethnic subgroup. About one in three Hispanic women reported maltreatment during childhood, and of the experiences examined, witnessing violence was the most common. Expectations regarding differences between U.S.-born and immigrant women were partially supported in that more U.S.-born than foreign-born women reported witnessing violence and sexual assault. However, contrary to expectations, more foreign-born women reported being beaten. Rape was the only

experience for which prevalence differences by ethnic subgroup reached statistical significance, with significantly greater percentages of Puerto Rican and other Hispanic women reporting rape during childhood compared to Mexican and Cuban women.

A second aim was to investigate how cultural aspects might influence the association between maltreatment and the development of depression and anxiety. Results of bivariate analyses were remarkably consistent in suggesting that regardless of nativity status or ethnic subgroup, and no matter which type of maltreatment was experienced, the risk of psychiatric disorder is greater for women with that experience than without it. When these experiences were examined jointly in the total sample of women, having been beaten and witnessing interpersonal violence remained significant predictors of both anxiety and depression, but sexual abuse increased risk of anxiety only. The addition of culturally relevant covariates did not substantively change the associations between maltreatment experiences and adult psychiatric disorders. Support was very limited for the hypothesis that acculturation moderates the influence of maltreatment on mental health outcomes, given that only 1 of the 32 interactions tested across both outcomes yielded a significant effect (i.e., risk of anxiety disorder was highest for women who had witnessed violence and reported the highest levels of family cultural conflict).

Child Maltreatment Prevalence and Impact on Psychiatric Disorder

Comparisons between the estimates reported here and other national or international estimates should be made cautiously, given differences in measures used (e.g., type of maltreatment studied, age of victimization) and data collection methods. Nevertheless, the estimates of various childhood maltreatment experiences among Hispanic women in the NLAAS overall are roughly similar to those reported by predominately non-Hispanic White women in the National Comorbidity Survey-Replication (NCS-R; Afifi et al., 2008; Cougle et al., 2010). Childhood sexual abuse was experienced by 15.3% of the Hispanic women in this study, a rate that falls between the estimated global prevalence of 11.8% and 22.2% across female Hispanic American samples (Stoltenborgh et al., 2011). Additionally, 18.4% of Hispanic women in the NLAAS witnessed violence in their families, an estimate that falls between the 10% and 20% reported in a review of U.S. community studies of exposure to intimate partner violence (Carlson, 2000).

The impact of witnessing violence and physical abuse on depression and anxiety disorders contrasts with results from the NCS-R, where sexual abuse was a more consistent and significant predictor of those disorders (Afifi, Brownridge, Cox, & Sareen, 2006; Afifi, Enns, Cox, Asmundson, Stein, & Sareen, 2008; Cougle et al., 2010). Whereas rates of childhood mal-treatment were largely consistent across these two nationally representative data sources, differences in the associations with psychiatric disorders underscore the importance of examining the consequences of childhood maltreatment separately by ethnic groups.

Heterogeneity Among Hispanic Women

The pattern of childhood maltreatment prevalence rates by nativity status was nuanced in that sexual assault and witnessing violence were more common among U.S.-born Hispanics,

being beaten was more common among foreign-born Hispanics, and rape and polyvictimization were equally prevalent. Additional information about the relationship of the perpetrator to the respondent is needed to better understand the results regarding sexual assault and rape. For example, data from pediatric clinical and child welfare programs have found that Hispanic children are more likely to be sexually abused by extended family members than either Black or non-Hispanic White children (Huston, Parra, Prihoda, & Foulds, 1995; Sanders-Phillips, Moisan, Wadlington, Morgan, & English, 1995). The no-difference finding for rape is consistent with an explanation that there is equal risk of this type of abuse within families, whether those families have immigrated to the United States or not. If sexual assault is more often perpetrated by strangers than family members, then the substantially greater prevalence of this experience among U.S.-born women in this NLAAS suggests several hypotheses that should be investigated in future studies. For example, it is possible that neighborhood- and community-level risks are greater in the United States than the countries from which Hispanics emigrate. Alternatively, the level of risk might be the same, but immigrant women may be unfamiliar with the nature of the risks and unaware of how best to protect themselves. The latter hypothesis is supported by a clinical study of women, primarily from Central America, for whom fewer years in the United States was associated with greater trauma exposure (Kaltman et al., 2010).

Contrary to expectation, more foreign-born than U.S.-born women reported being badly beaten by a parent or other person who raised them. This result is also inconsistent with those based on Fragile Families data that show foreign-born Hispanic parents use less physical aggression than native-born parents (Altschul & Lee, 2011; Lee et al., 2011). One reason for the difference between the studies may be that children in the Fragile Families data are under the age of 5 years, whereas the NLAAS women are reporting on experiences during their entire childhood. Corroboration of the NLAAS result comes from a Canadian study, where greater rates of child abuse among immigrants compared to citizens suggests that foreign-born parents' norms endorse the use of corporal punishment as an approach to discipline (Larivee, Tourigny, & Bouchard, 2007).

The high prevalence of being beaten combined with the persistent finding of significantly greater odds of developing depression and anxiety during adulthood for women who had this experience, controlling for other factors and types of abuse experiences, underscores the importance of conducting culturally sensitive research on parenting practices. For example, Lau and colleagues (2006) found that punitive parenting behaviors were more strongly related to internalizing symptoms among ethnic minority youth than non-Hispanic White youth, and they suggest that even if parenting behaviors are understood by children as being consistent with traditional approaches to discipline, distress may arise with the knowledge that the majority culture labels those behaviors as aberrant.

Another explanation is that harsh parental physical punishment is anathema to the cultural values of familism, engendering distress and subsequent negative psychological consequences. However, to the extent that the family cultural conflict measure in the NLAAS approximates threats to familism, it is noteworthy that family cultural conflict did not moderate the effect of being beaten on depression or anxiety. Thus, these results suggest that the negative sequelae of being beaten may be independent of other acculturation-related

conflicts occurring in the family. It is also possible that the effect of the family cultural conflict variable on mental health outcomes is a function of more general family conflict rather than culturally specific conflict. On the other hand, there was a significant moderator effect of family cultural conflict on the association between witnessing family violence and anxiety; women who were exposed to intrafamilial violence had significantly greater risk of anxiety disorder than women who were not, and this risk was amplified when family cultural conflict was high. This result underscores the need for continued research on acculturation processes and the extent to which they may challenge gender role expectations and increase parental violence.

Limitations

These results must be interpreted in light of several limitations. First, the NLAAS was designed to evaluate a range of risk and protective factors for psychiatric disorder but was not intended to study the impact of child abuse per se. The survey instrument did not include questions to ascertain details regarding intensity and frequency of abuse experiences, or as mentioned previously, perpetrators. Thus, the assessment of each traumatic event is not as extensive or behaviorally specific as in other studies designed to examine child abuse correlates and consequences. Also, there were no questions about child neglect, limiting the child maltreatment profile that could be studied. Second, the number of Hispanic women in the NLAAS is large enough to examine variations in abuse experiences by nativity status and some ethnic subgroups, including an “other Hispanic” category. A different sampling strategy would have been needed to obtain sufficient numbers of women from Central and South American countries to be studied separately. Third, as with all epidemiologic surveys that rely on retrospective self-reports, estimates may be biased due to willingness to disclose these experiences and errors in recall. Finally, cross-sectional data can only help identify possible causal relationships between childhood abuse experiences and adult outcomes, and longitudinal data are needed to confirm them. This is especially important with regard to efforts to understand the processes through which acculturation-related conflict within the family occurs. In particular, in light of the possibility that the family cultural conflict measure used in this study might be capturing general family discord rather than discord stemming exclusively from acculturative stress, multiple measures are needed to differentiate these concepts and analyze them prospectively.

Conclusion and Implications

Despite these limitations, the results provide the first estimates of the prevalence and mental health consequences of childhood maltreatment among Hispanic women in the United States. In the main, the results of this investigation identified many more differences in prevalence between U.S.-born and foreign-born women than between ethnic subgroups. Consequently, epidemiologic studies interested in tracking population-level data for surveillance purposes may want to collect systematic data on nativity status and years in the United States. Additionally, the design and delivery of universal prevention programs tailored to Hispanic families with parents born outside the United States may be warranted. In particular, the results of this study point to the need for parenting programs and social norms campaigns about disciplinary approaches that do and do not generate long-term

negative consequences (Klevens & Whitaker, 2007). Moreover, materials should include information about the harmful consequences of exposure to parental violence as well.

Although the pattern of results was largely consistent across ethnic subgroups, the few instances where there were exceptions may be informative for clinical interventions. For example, bivariate analyses estimating the association between maltreatment and psychiatric disorder among Puerto Rican women revealed that rape and sexual assault did not increase risk of depression but did increase risk of anxiety disorder. Culturally competent interventions that attend to the factors that inhibit depression or reinforce anxiety symptoms among Puerto Rican women may require special sensitivity to risk and protective factors deriving from being citizens of a U.S. territory, which may be distinct from factors that are shaped by immigration experiences (Cohen, Deblinger, Mannarino, & de Arellano, 2001; Terao, Borrego, & Urquiza, 2001).

Finally, there are clinical implications of the significant main effect of family cultural conflict on depression and anxiety, along with its role as a moderator of the relationships between witnessing violence and anxiety. In particular, psychosocial assessments focused on the sources and dimensions of family cultural conflict may be particularly appropriate to administer in settings where screenings for domestic violence and child abuse are occurring; for those whose family conflicts relate to acculturative stress, culturally competent strategies to minimize them will then need to be provided. To the extent each of these efforts is effective, this study suggests that reductions in depression and anxiety among Hispanic women may be expected.

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Prevalence of Childhood Maltreatment Among Hispanic Women in the NLAAS Study by Nativity and Ethnic Subgroup

Table 1.

	All women (<i>n</i> = 1,427) % (SE)	Foreign-born (<i>n</i> = 906) % (SE)	U.S.-born (<i>n</i> = 521) % (SE)	Mexican (<i>n</i> = 470) % (SE)	Puerto Rican (<i>n</i> = 282) % (SE)	Cuban (<i>n</i> = 301) (SE) %	Other Hispanic (<i>n</i> = 374) % (SE)
Any maltreatment	32.1 (1.2)	28.1 (1.5)	37.8 2.6**	33.3 (1.5)	31.7 (4.0)	18.6 (2.1)	32.2 (2.6)
Witness violence	18.4 (1.0)	16.4 (1.1)	21.1 2.0**	20.1 (1.2)	18.1 (3.7)	7.2 (1.7)	17.1 (2.1)
Beaten	10.4 (0.7)	13.0 (1.4)	6.7 (1.4)*	10.3 (0.9)	10.6 (2.0)	7.2 (0.8)	11.1 (1.7)
Any sexual abuse	15.3 (0.9)	11.1 (1.4)	21.3 (1.6)***	14.1 (1.1)	17.3 (2.9)	10.9 (2.2)	17.3 (2.2)
Sexual assault	11.1 (0.8)	6.7 1.1	17.2 (1.5)***	10.0 (1.2)	14.0 (2.6)	7.1 (2.0)	11.5 (1.7)
Rape	8.3 0.9)	7.2 1.1)	9.9 (1.3)	6.2 (1.3)	10.1 (2.7)	6.7 (1.8)	11.6 (1.6)*
Polyvictimization	11.7 (1.0)	11.0 (1.5)	12.7 (1.4)	11.2 (1.7)	12.9 (3.2)	6.3 (1.2)	12.8 (1.6)

SE = standard error.

*
 $p < .05$.**
 $p < .01$.***
 $p < .001$.

Table 2.

Prevalence of Depressive and Anxiety Disorder by Childhood Maltreatment Experiences, Separately Among Nativity Status and Ethnic Subgroups

	U.S.-born (<i>n</i> = 521) % (<i>SE</i>)	Foreign-born (<i>n</i> = 906) % (<i>SE</i>)	Mexican (<i>n</i> = 470) % (<i>SE</i>)	Puerto Rican (<i>n</i> = 282) % (<i>SE</i>)	Cuban (<i>n</i> = 301) % (<i>SE</i>)	Other Hispanic (<i>n</i> = 374) % (<i>SE</i>)
Depressive disorder	22.4 (2.0)	18.5 (1.4)	19.4 (1.1)	28.0 (2.8)	22.2 (1.7)	18.5 (1.8)
Any maltreatment (yes)	30.8 (3.7) **	29.3 (3.6) ***	30.9 (2.5) ***	39.6 (5.9) *	37.6 (6.0) *	24.6 (3.9)
Any maltreatment (no)	17.3 (1.7)	14.3 (1.6)	13.6 (1.0)	22.6 (2.9)	18.6 (1.5)	15.6 (2.4)
Witness violence (yes)	33.7 (4.8) **	30.2 (4.7) **	34.5 (3.6) ***	40.0 (6.6) *	50.4 (9.9) *	22.5 (4.5)
Witness violence (no)	19.4 (1.9)	16.3 (1.5)	15.5 (0.9)	25.3 (2.9)	20.2 (1.6)	17.7 (1.9)
Beaten (yes)	61.9 (2.2) ***	35.6 (5.3) ***	43.9 (5.8) ***	54.3 (8.1) ***	43.1 (1.1) *	36.7 (8.7) *
Beaten (no)	19.6 (1.9)	16.0 (1.4)	16.5 (1.1)	24.9 (2.8)	20.5 (2.0)	16.3 (2.0)
Sexual assault (yes)	38.6 (7.9) *	22.4 (7.2)	38.6 (9.7) *	33.9 (8.9)	46.3 (11.1) *	20.4 (7.0)
Sexual assault (no)	20.6 (1.9)	18.3 (1.7)	18.1 (1.5)	27.3 (2.8)	20.4 (1.7)	18.3 (1.9)
Rape (yes)	29.1 (4.3) *	33.7 (7.8) *	32.0 (6.3) *	37.9 (10.2)	25.5 (6.2)	26.2 (7.5)
Rape (no)	21.0 (1.8)	17.5 (1.4)	17.9 (1.2)	26.4 (3.1)	21.9 (1.7)	17.5 (2.2)
Polyvictimization (yes)	40.4 (6.0) ***	35.3 (5.1) ***	43.4 (4.3) ***	38.9 (6.7)	50.5 (12.4) *	27.5 (6.5)
Polyvictimization (no)	19.8 (1.8)	16.5 (1.5)	16.3 (1.0)	26.4 (3.0)	20.2 (2.0)	17.2 (2.0)
Anxiety disorder	21.4 (1.8)	17.9 (1.4)	19.1 (1.7)	26.7 (4.6)	22.7 (1.8)	16.8 (2.1)
Any maltreatment (yes)	29.1 (3.7) **	32.8 (4.0) ***	30.3 (5.1) **	48.8 (8.2) ***	51.0 (4.7) ***	24.5 (4.7) *
Any maltreatment (no)	16.7 (1.9)	12.1 (1.3)	13.6 (1.7)	16.4 (3.9)	16.2 (1.8)	13.1 (1.8)
Witness violence (yes)	28.1 (4.3) *	33.9 (5.9) ***	29.8 (3.0) *	54.5 (11.2) **	58.5 (9.0) ***	23.5 (5.9)
Witness violence (no)	19.6 (1.6)	14.8 (1.1)	16.4 (1.5)	20.5 (3.7)	19.9 (1.9)	15.4 (2.1)
Beaten (yes)	38.8 (9.6) *	41.1 (4.5) ***	39.6 (5.6) ***	57.9 (9.7) ***	58.8 (9.1) ***	33.8 (6.4) ***
Beaten (no)	20.2 (1.7)	14.5 (1.3)	16.8 (1.7)	23.0 (4.2)	19.8 (1.9)	14.7 (2.1)
Sexual assault (yes)	38.2 (9.2) *	39.2 (8.4) **	41.3 (7.5) **	47.3 (13.1) *	59.8 (9.6) ***	32.0 (11.0) *
Sexual assault (no)	19.5 (1.7)	16.3 (1.5)	17.7 (1.9)	24.3 (3.8)	20.0 (1.8)	14.8 (1.6)
Rape (yes)	35.8 (5.9) **	36.3 (7.5) **	33.1 (7.1) *	50.9 (13.5) *	45.5 (9.9) *	33.6 (7.5) **
Rape (no)	18.3 (1.7)	16.6 (1.5)	17.5 (1.6)	22.7 (3.8)	20.9 (2.1)	14.6 (2.0)
Polyvictimization (yes)	34.1 (6.2) *	40.1 (6.1) ***	37.2 (6.4) ***	55.6 (12.1) **	59.8 (7.6) ***	29.7 (6.4) **
Polyvictimization (no)	19.5 (1.7)	15.2 (1.2)	16.8 (1.7)	22.4 (3.6)	20.1 (1.9)	14.9 (2.0)

.100>*p*

.10<*p*
**

.50>*p*
*

SE = standard error.

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Table 3.
Predictors of Depressive and Anxiety Disorder From Childhood Maltreatment and Acculturation-Related Variables ($N = 1,413$)

	Depressive disorder			Anxiety disorder		
	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 3 OR (95% CI)	Model 1 OR (95% CI)	Model 2 OR (95% CI)	Model 3 OR (95% CI)
Childhood maltreatment						
Witness violence	1.84 [1.21, 2.56] [*]	1.69 [1.13, 2.51] [*]	1.80 [1.13, 2.87] [*]	2.01 [1.25, 3.24] ^{**}	1.82 [1.05, 3.16] [*]	2.05 [1.14, 3.66] [*]
Beaten	3.04 [1.80, 5.14] ^{**}	2.81 [1.66, 4.75] ^{**}	2.80 [1.66, 4.70]	3.09 [2.01, 4.77] ^{**}	2.86 [1.72, 4.76] ^{**}	2.84 [1.72, 4.71] ^{**}
Sexual abuse	1.62 [0.91, 2.87]	1.32 [0.75, 2.31]	1.30 [0.74, 2.30]	2.87 [1.70, 4.85] ^{**}	2.44 [1.31, 4.54] ^{**}	2.39 [1.30, 4.41] ^{**}
Polyvictim	0.79 [0.04, 1.41]	0.86 [0.48, 1.54]	0.89 [0.49, 1.62]	0.53 [0.27, 1.03]	0.60 [0.27, 1.32]	0.63 [0.30, 1.35]
Ethnic subgroup						
Cuban		0.92 [0.65, 1.29]	0.94 [0.67, 1.32]		1.12 [0.68, 1.87]	1.17 [0.71, 1.92]
Mexican		0.62 [0.45, 0.85] ^{**}	0.62 [0.46, 0.85] ^{**}		0.69 [0.40, 1.87]	0.69 [0.40, 1.19]
Other Hispanic		0.55 [0.37, 0.83] ^{**}	0.55 [0.37, 0.82] ^{**}		0.58 [0.31, 1.09]	0.58 [0.31, 1.07]
Acculturation						
Years in the U.S.		1.00 [0.99, 1.10]	1.01 [0.99, 1.01]		1.01 [1.00, 1.02]	1.01 [1.00, 1.02]
Parents' nativity						
Both foreign-born		0.52 [0.28, 0.94] [*]	0.51 [0.28, 0.92] [*]		0.90 [0.48, 1.71]	0.92 [0.47, 1.80]
One U.S.-born		0.62 [0.45, 0.85] ^{**}	0.63 [0.45, 0.87] ^{**}		0.96 [0.61, 1.52]	1.07 [0.67, 1.71]
Spanish language		1.15 [0.72, 1.86]	1.13 [0.70, 1.82]		0.83 [0.52, 1.32]	0.80 [0.51, 1.24]
Family cultural conflict		1.16 [1.09, 1.24] ^{***}	1.19 [1.09, 1.30] ^{***}		1.16 [1.10, 1.23] ^{***}	1.22 [1.13, 1.32] ^{***}
Other predictors						
Substance use disorder		2.34 [1.24, 4.42] [*]	2.30 [1.20, 4.39] [*]		2.26 [1.22, 4.16] [*]	2.17 [1.18, 3.98] ^{**}
Education (years)						
12		0.73 [0.50, 1.09]	0.74 [0.50, 1.08]		0.86 [0.47, 1.56]	0.86 [0.48, 1.54]
13–16		0.89 [0.51, 1.56]	0.88 [0.49, 1.56]		0.84 [0.51, 1.40]	0.83 [0.50, 1.38]
17 or more		1.73 [0.82, 3.63]	1.71 [0.81, 3.61]		1.04 [0.35, 3.09]	1.00 [0.33, 3.03]
Household poverty		0.78 [0.50, 1.22]	0.77 [0.50, 1.21]		0.86 [0.47, 1.57]	0.84 [0.45, 1.55]
Family Cultural Conflict × Witness Violence			0.90 [0.75, 1.08]			0.82 [0.70, 0.97] [*]

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OR = odds ratio; CI = confidence interval. Reference categories for predictor variables were as follows: childhood maltreatment: no maltreatment; ethnic subgroup: Puerto Rican; nativity of parents: both U.S.-born; language spoken as a child: English; education: 11 years or less.

* $p < .05$.
** $p < .01$.
*** $p < .001$.