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Neighborhoods and Mental Health: Exploring Ethnic Density, Poverty, and Social Cohesion among Asian Americans and Latinos

Seunghye Hong¹, Wei Zhang¹, and Emily Walton²

¹University of Hawai'i at Mānoa

²Dartmouth College

Abstract

This study examines the associations of neighborhood ethnic density and poverty with social cohesion and self-rated mental health among Asian Americans and Latinos. Path analysis is employed to analyze data from the 2002–2003 National Latino and Asian American Study (NLAAS) and the 2000 U.S. Census ($N=2095$ Asian Americans living in $N=259$ neighborhoods; $N=2554$ Latinos living in $N=317$ neighborhoods). Findings reveal that neighborhood ethnic density relates to poor mental health in both groups. Social cohesion partially mediates that structural relationship, but is positively related to ethnic density among Latinos and negatively related to ethnic density among Asian Americans. Although higher neighborhood poverty is negatively associated with mental health for both groups, the relationship does not hold in the path models after accounting for social cohesion and covariates. Furthermore, social cohesion fully mediates the association between neighborhood poverty and mental health among Latinos. This study highlights the necessity of reconceptualizing existing theories of social relationships to reflect complex and nuanced mechanisms linking neighborhood structure and mental health for diverse racial and ethnic groups.

Keywords

USA; neighborhoods; self-rated mental health; ethnic density; poverty; social cohesion; Asian Americans; Latinos

Introduction

Neighborhood research has a long history of investigating the relationships of neighborhood structural features, such as poverty (Wilson, 1987), residential instability (Shaw & McKay,

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Corresponding author: Seunghye Hong, Myron B. Thompson School of Social Work, University of Hawai'i at Mānoa, 1800 East-West Road, Henke Hall, Honolulu, HI 96822. shong9@hawaii.edu.

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1969), and ethnic heterogeneity (Kornhauser, 1978), with undesirable behaviors like crime and juvenile delinquency. Some recent research has extended these investigations to other outcomes beyond criminology, examining the effects of neighborhood structural features simultaneously in association with individual health outcomes (Browning & Cagney, 2003). Work remains to be done, however, on understanding the “black box” of social mechanisms lying between structural neighborhood features and individual outcomes (Sampson, 2012). A very recent study by Hurd and colleagues (2013) suggests that social support and neighborhood cohesion are important mechanisms through which neighborhood poverty and ethnic density affect mental health among African American adolescents. Focusing on the mediating role of social cohesion, the current study extends research on neighborhood environments and health in the rarely-examined context of Asian and Latino neighborhoods in the United States. We investigate the ways in which neighborhood ethnic density and poverty, two indicators of neighborhood structure, inhibit or encourage social cohesion among neighbors, which ultimately relates to individual mental health.

Social cohesion and mental health

Social cohesion generally signifies the extent of integration among individuals in a group and the values associated with those connections (Carpiano, 2007). Specifically, neighborhood social cohesion is often measured as the absence of social conflict, and the presence of trust and norms of reciprocity among neighbors (Kawachi & Berkman, 2000). Social cohesion provides a necessary basis for individuals to access resources produced through neighborhood social relationships (House, Landis, & Umberson, 1988). Socially cohesive neighborhoods have often been characterized by trust, mutual aid, and collective support among residents (Cattell, 2001; Echeverría et al., 2008; Gee & Payne-Sturges, 2004; Kawachi & Berkman, 2000; Mulvaney-Day et al., 2007; O'Campo et al., 2009). Some studies speculate potential pathways through which social cohesion might promote mental health (Buka et al., 2003; Kawachi & Berkman, 2000; Kawachi & Berkman, 2001; Silver et al., 2002; Whitley & McKenzie, 2005). For instance, neighborhood social cohesion may provide emotional support and a climate of encouragement and mutual respect, which in turn, enhance mental health via positive psychosocial processes (Kawachi & Berkman, 2000; Kawachi & Berkman, 2001). Neighborhood social cohesion may also foster good mental health-promoting norms within neighborhoods and encourage desirable health behaviors, such as physical activity and a healthy diet (Kawachi & Berkman, 2000; Kawachi & Berkman, 2001; Whitley & McKenzie, 2005).

The theoretical importance of social cohesion is supported by an emerging literature that empirically examines its relationship to various mental health outcomes, including anxiety (Cutrona et al., 2000; McCulloch, 2001), depression (Cutrona et al., 2000; Mair, Diez Roux, & Morenoff, 2010; McCulloch, 2001; Whitley & Prince, 2005), schizophrenia (Boydell et al., 2001), general mental health status (Drukker et al., 2003), and self-rated mental health (Mulvaney-Day et al., 2007; Ross, 2000; Zhang & Ta, 2009). To date, however, findings on the beneficial effects of neighborhood social cohesion remain inconclusive: Some studies suggest significant and positive effects of neighborhood social cohesion on mental health (Mair et al., 2010; McCulloch, 2001; Ross, 2000); others reveal insignificant findings (Cutrona et al., 2000; Mulvaney-Day et al., 2007; Zhang & Ta, 2009). In this study, we

examine whether neighborhood social cohesion is related to mental health among Asian Americans and Latinos. We also investigate the mediating role of social cohesion in the association between neighborhood structure and mental health.

Neighborhood ethnic density, social cohesion, and mental health

Researchers are increasingly examining the ways that neighborhood ethnic density, living among others of the same race or ethnicity, affects the mental health of racial and ethnic minorities (Shaw et al., 2012). Some studies suggest a protective effect of ethnic density on mental health among Latinos and Asian Americans in the United States (Mair, Diez Roux, Osypuk et al., 2010) and among minority groups in the United Kingdom (Das-Munshi et al., 2010; Halpern & Nazroo, 1999).

The mechanisms that mediate the structural relationship of neighborhood ethnic density with mental health are the subject of research and debate. For instance, Halpern and Nazroo (1999) argue that ethnic density may reflect benefits of group concentration, such as reduced exposure to direct prejudice and increased social support. A review article by Pickett and Wilkinson (2008) discussed several explanations that might account for the ethnic density effect, namely social integration and social cohesion, stigma, and racism. Some studies outside the U.S. have attempted to empirically test those theoretical mechanisms, but findings are mixed. In the U.K., Das-Munshi and colleagues (2010) disclosed that, for some ethnic groups, higher own-group ethnic density is associated with improved social support and less discrimination. Bécares, Nazroo, and Stafford (2009) found that the experience of racism is lower in places of higher ethnic density. Their findings indicate that reduced exposure to and reduced health impact of racism may partially explain the ethnic density effect on mental health. A qualitative study conducted in London (Whitley, Prince, McKenzie, & Stewart, 2006) suggested that social networks, culturally-specific services and facilities, and reduced everyday racism may help to explain the mechanisms underlying the relationship of ethnic density with mental health for ethnic minorities. Using a diverse sample of immigrant students in Montreal, Canada, Jurcik et al. (2013) tested the mediating roles of discrimination and social support and found that the negative relation between perceived ethnic density and depression is mediated by discrimination but not by social support. These equivocal findings suggest that the mechanisms linking ethnic density to mental health are likely heterogeneous and operate in complex ways among different racial and ethnic groups and across national contexts.

Based on our review of these theoretical and empirically-established relationships, we make the following hypotheses about the relationships of neighborhood ethnic density, social cohesion and mental health among Asian Americans and Latinos (see the conceptual model in Figure 1).

H1: Neighborhood ethnic density is positively associated with mental health.

H2: Neighborhood ethnic density is positively associated with social cohesion, which, in turn, is positively associated with better mental health.

Neighborhood poverty, social cohesion, and mental health

Neighborhood poverty is related to poor mental health among residents over and above the effects of individual characteristics (Boardman et al., 2001; Kim, 2010; Ross, 2000; Yen & Kaplan, 1999). A few studies have examined the potential mechanisms (e.g., via social support or social ties) that may account for this association, but findings are mixed. For example, Geis and Ross (1998) found that residents in poor neighborhoods reported lacking social ties with their neighbors. By contrast, Schieman (2005) disclosed that neighborhood disadvantage is positively associated with received and donated support among older black women living in neighborhoods with higher levels of residential stability. Kim (2010) is among the first to examine the mediating role of social relationships in linking neighborhood disadvantage and mental health; he found that neighborhood disadvantage is related to higher levels of depression, but this structural relationship is mediated by enhanced social support and neighborhood social ties.

Studies that specifically examine the mediating role of social cohesion provide more consistent findings. Several researchers have identified social cohesion as a key mediator through which neighborhood poverty links to poor mental health (Cattell, 2001; Echeverría et al., 2008; Fone et al., 2007; O'Campo et al., 2009; Silver et al., 2002). They argue that individuals living in poorer neighborhoods are more likely to experience inadequate social support because of lower levels of social cohesion, which in turn, may result in increased risk of poorer mental health (Silver et al., 2002). In addition, social leverage—relationships with highly-educated, high-earning people or opportunities for employment and upward mobility—may be a key way that social cohesion mediates the effects of neighborhood poverty on poor mental health (Small, 2007). In a qualitative study designed to explore the mechanisms linking poor communities and poor health by examining the role of social networks and social capital, Cattell (2001) found that social integration and higher degrees of stored social capital mediated the negative effect of living in poor communities on individual health. Based on our review, we make the following hypotheses about the relationships of neighborhood poverty, social cohesion and mental health among Asian Americans and Latinos (see the conceptual model in Figure 1).

H3: Neighborhood poverty is negatively associated with mental health.

H4: Neighborhood poverty is negatively associated with social cohesion, which, in turn, is positively associated with mental health.

Asian American and Latino Neighborhoods

It is unclear whether the theoretical underpinnings of neighborhood structural research developed in urban neighborhoods in the 1970s and 80s will apply to the experiences of Asian Americans and Latinos in ethnically-dense, poor neighborhoods today. Some research suggests that Asian Americans and Latino ethnic neighborhoods are unique contexts shaping individual experiences with ethnic density and poverty; for example, among Latinos, neighborhood ethnic density is associated with better self-rated health (Patel et al., 2003), lower disease prevalence (Eschbach et al., 2004), and lower mortality rates (LeClere et al., 1997). Among Asian Americans, neighborhood ethnic density is associated with better birth outcomes (Walton, 2009), physical and mental health (Gee, 2002) and health behaviors

(Kandula et al., 2009). In addition, ethnic density does not always relate with poverty concentration in the same way for Asian Americans and Latinos: in the current study, we find that high neighborhood poverty is positively correlated with high Latino density ($r = .46, p < .001$), while it is negatively correlated with high Asian density ($r = -.15, p < .05$), indicating that areas with higher proportions of Asian Americans and Latinos may differ in the neighborhood social characteristics related to poverty and material deprivation.

Methods

Data

This study involves secondary data analysis of the National Latino and Asian American Study (NLAAS), the first study on mental health conducted in a national sample of Latinos and Asian Americans in the United States. A detailed description of the NLAAS protocol and sampling methods has been documented elsewhere (Alegría et al., 2004; Heeringa et al., 2004; Pennell et al., 2004).

Sample

Respondents of the NLAAS were non-institutionalized individuals of Asian ancestry who were 18 years of age or older and resided in any of the 50 states or Washington DC in the United States. A total of 2095 Asian American and 2554 Latino participants were recruited between May 2002 and November 2003. NLAAS respondents self-reported their membership in the Asian American or Latino group. Asian Americans reported themselves as Chinese ($n=600$), Filipino ($n=508$), Vietnamese ($n=520$), and Other Asian ($n=467$). The “Other Asian” category included individuals who identified as Japanese ($n=107$), Korean ($n=81$), Asian Indian ($n=141$), and other ($n=138$). Mexican ($n=868$), Puerto Rican ($n=495$), Cuban ($n=577$), and “Other Latino” ($n=614$) were the four main subgroups of the NLAAS Latino sample. Individuals from the “Other Latino” category reported numerous groups as their main origins, and each group had small sample sizes, mostly fewer than 3 respondents. Subgroups with relatively large sample size were Spaniard ($n=70$), Dominican Republic ($n=64$), Colombian ($n=22$), and Salvadorian ($n=18$). The NLAAS was available in Mandarin, Cantonese, Tagalog, Vietnamese, and Spanish; 35.7% of interviews with Asians (748 respondents out of 2095) and 58.8% of interviews with Latinos (1501 respondents out of 2554) were conducted in a language other than English. The final weighted response rate for the Asian American sample was 65.6%, and the rate for the Latino sample was 75.5%. The source for the data on neighborhood ethnic density and poverty was 2000 U.S. Census, using census tracts as proxies for the neighborhood. The 2095 Asian American respondents in our sample reside in 259 census tracts, with number of respondents per tract ranging from 1 to 52. The 2554 Latino respondents in our sample reside in 317 Census tracts, with number of respondents per tract ranging from 1 to 90.

Measures

Self-rated mental health—Respondents were asked, “How would you rate your overall mental health?” The response categories were (1) poor, (2) fair, (3) good, (4) very good, or (5) excellent. Higher rating indicates better perceived overall mental health. Self-rated mental health is highly associated with a comprehensive array of mental morbidity measures

corresponding to WMH-CIDI-measured mental disorders, psychological distress (K6), and self-reported diagnosed mental disorder (Mawani & Gilmour, 2010), DSM-IV mood disorder and anxiety disorder (Kim et al., 2011), and overall mental health based on SF-12 Mental Component Summary score (Zuvekas & Fleishman, 2008). We also argue that one's perceptions of his or her emotional well-being are important. As a self-report of one's overall mental health status, self-rated mental health measures the extent to which individuals are satisfied with their mental health and their ability to perform their usual activities, not whether they have received an official diagnosis of a mental disorder. Self-rated measure of mental health should be regarded critically in racial and ethnic comparisons, however, as recent evidence suggests that the Spanish translation of the word "fair" into "*regular*" may induce Spanish-language respondents to report poorer health than they would in English (Viruell-Fuentes et al., 2012).

Neighborhood Social Cohesion—This paper uses the 4-item measure for assessing the cohesiveness of the respondent's neighborhood (Alegría et al., 2004) by asking whether people in their neighborhood can be trusted; whether they get along with each other (Sampson et al., 1997); whether they have neighbors who would help them if they had an emergency (National Institute of Mental Health, 1994); and whether they look out for each other (Bearman, Jones, & Udry, 1997). The original response categories were recoded so that high scores indicate higher levels of social cohesion (1=not at all true, 2=not very true, 3=somewhat true, and 4=very true). The internal consistency was tested using reliability analyses (Cronbach's alphas) by Latino subgroup and by language of interview (English and Spanish) to ensure cultural equivalence of all used items (Alegría et al., 2004).

Neighborhood ethnic density—The measure of neighborhood ethnic density is the proportion of Asians in the population of the census tract for the analyses of the Asian sample and the proportion of Latinos in the population of the census tract for the analyses of the Latino sample. The highest ethnic density for Asian Americans is 69.6% and the highest ethnic density for Latinos is 97.3%.

Neighborhood poverty—The measure of neighborhood poverty is the proportion of the population of the census tract that lives below the poverty line. The highest rates of neighborhood poverty for Asian Americans and Latinos are 49.1% and 55.2%, respectively.

Control variables—Gender, age, nativity, education, and household income are included as socio-demographic characteristics to control for their potential associations with self-rated mental health.

Statistical analysis

Descriptive statistics of individual-level covariates and the outcome variable are calculated using the Survey Data Analysis (SUDAAN) software system version 9.0 (RIT International, 2004), adjusting for sample weights and survey design effects. Weights are employed in descriptive statistics to indicate figures representative of Latinos and Asian Americans in the U.S. Descriptive statistics of neighborhood-level covariates are calculated using SAS PROC

MEANS. We ran bivariate tests of correlation among all variables included in the analyses and that the small to moderate correlations suggest no apparent multicollinearity.

To test the hypothesized paths in the conceptual model (Figure 1), all analyses were conducted in Mplus version 3.11 (Muthen & Muthen, 1998–2007). To accommodate the modeling of an ordered self-rated mental health variable with five categories, all analyses used maximum likelihood ratio (MLR) estimator. The MLR estimator is not dependent on the assumption of normality and can be used with categorical outcomes, dealing with ceiling effects in the ordinal outcomes (Kaplan, 2008; Muthen & Muthen, 1998–2007). Key constructs—including neighborhood poverty, ethnic density, social cohesion, and mental health—were modeled as free-standing, measured variables. Path models were used to test hypothesized relationships among measured variables and invariance of hypothesized associations. Tests of mediation hypotheses were based on estimates of indirect effects generated with the Mplus Model Indirect command, which computes the product of component paths and the Delta method standard errors (Sobel, 1982; Muthen & Muthen, 1998–2007). Path coefficients were used to establish whether social cohesion acted as a mediator of two neighborhood structural variables, neighborhood poverty and ethnic density, on mental health. In both cases, direct paths from neighborhood poverty and ethnic density to mental health were estimated to determine whether associations with the outcome were maintained after accounting for other variables in the model, including social cohesion and demographic variables. Figures 2 and 3 present the results of two path models for Asian Americans and Latinos, showing the standardized coefficients for the paths estimated in the model test. The solid path lines indicate significant associations at $p < .05$, and the dashed lines indicate nonsignificant associations. The results from testing mediation hypotheses, estimating indirect effects (i.e. (1) neighborhood ethnic density→social cohesion→self-rated mental health, and (2) neighborhood poverty→social cohesion→self-rated mental health) are presented in the bottom corner of Figures 2 and 3.

Two-step analyses were conducted to address two specific aspects of the NLAAS dataset, sample weights for each respondent and the clustering of respondents within same neighborhoods, which could affect parameter estimation. Although the NLAAS data included two measures for the stratification of sampling units—stratum and clusters—to address the complicated study design effects (Heeringa et al., 2004; Pennell et al., 2004), adjusting for the stratification effect did not influence estimating path coefficients (Muthen & Muthen, 1998–2007). As a first step, we conducted analyses without adjusting for sampling weights and clustering. In a second step, we adjusted for sampling weights and the clustering of respondents. Because the Mplus program does not allow for the simultaneous use of sampling weights, the clustered data, and missing data functions, a listwise deletion procedure was used for handling missing data, using only cases with complete data. There were two missing cases for Asian Americans and one missing for Latinos, resulting in a sample size of $N=2093$ Asian Americans and $N=2553$ Latinos for this second step analysis. Results from this second step analyses were used for the path coefficients in Figures 2 and 3.

Results

Table 1 presents descriptive characteristics of both Asian Americans and Latinos samples. The mean age of Asian Americans is 41.3 years compared to 38.1 years of Latinos. For both Asians and Latinos, women comprised over 50% of the sample (53% for Asians and 56% for Latinos). Nearly 80% of Asian respondents and 67% of Latinos are immigrants. For Asian Americans, about 40% had household incomes greater than \$75,000 per year, while 17.5% of Latinos attained this income level. Among Latinos, 30% had household incomes less than \$15,000, whereas about 19% of Asians had this income level. The average Asian American in our sample achieved 13.6 years of education (i.e., some college), while the average for Latinos was 10.7 years (i.e., some high school). The average Asian American respondent lives in a neighborhood that is 24.4% Asian and 12.1% of residents live in poverty, while the average Latino respondent lives in a neighborhood that is 53.5% Latino and 22.6% of residents live in poverty. The mean scores of self-rated mental health were 3.88 for Asian Americans and 3.76 for Latinos.

Neighborhood ethnic density, social cohesion, and mental health

In the path model for both Asian Americans and Latinos, neighborhood ethnic density is associated independently with mental health when social cohesion and covariates are taken into account. Social cohesion is positively associated with mental health for both groups, suggesting that those who perceive their neighborhoods as socially cohesive are more likely to have better mental health. Since the direct paths from ethnic density to mental health remain significant, social cohesion partially mediates the association between ethnic density and mental health. Specifically, Asian density is negatively associated with social cohesion, which in turn is positively associated with mental health; whereas Latino density is positively associated with social cohesion, which in turn is positively associated with mental health. This result suggests that a partial mediation effect of social cohesion exists for both Asian Americans and Latinos. Further, indirect paths from neighborhood ethnic density to mental health through social cohesion are significant for both Asian Americans and Latinos, but in different directions. The direction of the estimated indirect path is negative for Asian Americans; in contrast, it is positive for Latinos. Specifically, high levels of social cohesion appear to partially mediate the negative effects of living in neighborhoods with high proportions of same racial and ethnic groups on mental health; however, high levels of social cohesion are influenced by low levels of Asian density and high levels of Latino density. Overall, the path model explains 11% of the variance in mental health for Asian Americans and about 7% for Latinos.

Neighborhood poverty, mental health, and social cohesion

We observe a significant bivariate correlation between neighborhood poverty and mental health (not shown), but this does not hold in the path models of both Asian Americans and Latinos after accounting for social cohesion and covariates. The path from neighborhood poverty to social cohesion is not significant for Asian Americans, but it is significant for Latinos. As shown in Figure 3, social cohesion fully mediates the association between neighborhood poverty and mental health among Latinos, accounting for the strong and direct effects of poverty on mental health. Neighborhood poverty is negatively associated with

social cohesion, which in turn is positively associated with mental health. This result suggests that a full mediation effect of social cohesion exists for Latinos. Further, indirect path tests confirm the significant mediation effect of social cohesion on neighborhood poverty and mental health for Latinos. In contrast, social cohesion fails to mediate the association between poverty and mental health for Asian Americans (as shown in Figure 2, the dashed path line indicates that the association is not significant). In sum, high levels of social cohesion appear to mediate the negative effects of living in poor neighborhoods on mental health for Latinos.

Discussion

This study examines the associations of ethnic density and neighborhood poverty with mental health, and the ways in which social cohesion mediates these relationships, among Asian Americans and Latinos. In opposition to our first hypothesis, we find that greater neighborhood ethnic density is related to poorer mental health among both Asian Americans and Latinos. This negative association of neighborhood ethnic density with mental health is contrary to much of the literature predicting a positive relationship. Our second hypothesis, that greater ethnic density is associated with greater social cohesion, holds for Latinos, however, among Asian Americans, greater ethnic density is marginally related to lower social cohesion. We do find that social cohesion partially mediates the relationship between ethnic density and mental health for both groups; however the negative association of ethnic density with social cohesion among Asian Americans means that the mediation effect is not a positive one. Our third hypothesis, that neighborhood poverty is negatively associated with mental health, does not hold for either group. While there is a negative bivariate correlation between neighborhood poverty and mental health for both groups, in the multivariate path analyses, we do not observe a direct relationship between poverty and mental health. We find that social cohesion fully mediates the association between neighborhood poverty and mental health among Latinos. Among Asian Americans, neighborhood poverty is not related to social cohesion and thus does not have an indirect association with mental health. Thus, we find support for our fourth hypothesis – that neighborhood poverty relates to lower levels of social cohesion – among Latinos, but not among Asian Americans.

Greater neighborhood ethnic density is directly related to poorer mental health, suggesting that the net effects of living among others of similar race or ethnicity are not beneficial for mental health of Asian Americans and Latinos. Even after accounting for the mediating effects of social cohesion, the direct negative effect of ethnic density on mental health remains. It could be that other psychosocial factors associated with high ethnic density not tested in these analyses, such as acculturative stress (Finch & Vega, 2003; Mui & Kang, 2006), discrimination (Williams, Neighbors, & Jackson, 2003), and ethnic identification (Rogers-Sirin & Gupta, 2012), may explain this negative relationship. Such psychosocial factors may be related to both ethnic density and mental health among Asian Americans and Latinos.

The negative effects of ethnic density on the mental health of both Asian Americans and Latinos run counter to much of the literature on the ethnic density effect; however, we note that this literature has been mainly based on empirical findings from Mexican Americans

and African Americans (Bécares et al., 2012; Shaw et al., 2012), highlighting issues of generalizability among other Latino ethnic groups and Asian Americans. Among Mexican Americans, the most consistent evidence is in support of a protective effect of ethnic density on physical health, with nativity affecting the association so that protective effects are more salient among the U.S.-born (Shaw, Pickett, and Wilkinson, 2010). Among African Americans the evidence is mixed, with variation stemming from regional effects (Blanchard, Cossman, and Levin, 2004) and differing effects across the age spectrum (Jackson et al., 2000). Research among Asian Americans is very limited, but generally ethnic density has been found to exhibit a positive relationship with health; some particular studies have found protective effects of ethnic density on health behaviors (Kandula et al., 2009) and birth outcomes (Mason et al., 2010; Walton, 2009). Looking at the associations with adult mental disorders, high ethnic density was found to be protective for depression and anxiety, particularly among African American and Latino adults in the U.S. (Shaw et al., 2012). Thus, our study is novel in that we find negative effects of ethnic density on mental health in general among both Asian Americans and Latinos.

Complicating the story a bit, among Latinos, we find that although ethnic density has a negative direct association with mental health, the indirect association, mediated by social cohesion, is positive. Thus, for Latinos, but not for Asian Americans, living among others of the same ethnic group is beneficial for mental health to the extent that it exerts a positive effect on social cohesion. However, this should not be overstated, because despite the mediating effect of social cohesion, the net direct effect of ethnic density on mental health is still negative. It is compelling that the path from ethnic density to social cohesion differs for these groups. While higher ethnic density is related to poorer mental health outcomes and that relationship is partially mediated by social cohesion for both groups, among Asian Americans, higher ethnic density means that people perceive lower levels of social cohesion. Among Latinos, higher ethnic density means that residents experience higher levels of social cohesion with their neighbors.

Because Asian Americans and Latinos have different cultural backgrounds, contexts of exit and reception in the United States, and lived experiences in neighborhoods, the pathways linking neighborhoods with individual mental health outcomes likely differ. One reason for the differing effects of ethnic density on social cohesion is that the mean levels of ethnic density are quite different among Asian Americans and Latinos in this study, where the average Asian American lives in a neighborhood that is 24.4% Asian Americans and the average Latino lives in a neighborhood that is 53.5% Latino. Despite these differences in the ethnic concentration of their neighborhoods, levels of social cohesion are similar (12.6 for Asian Americans and 12.0 for Latinos), indicating that for Asian Americans, levels of social cohesion in a neighborhood do not hinge on having neighbors of a similar racial or ethnic background. In a related study, Walton (2012) found that social cohesion only related to better physical health among Asian Americans when they lived in non-ethnic neighborhoods. We speculate that the benefits of social cohesion in this case may come from instrumentally-valuable network connections (Carpiano, 2007), not culturally-specific social support. To the contrary, social cohesion among Latinos in neighborhoods may provide social and kinship support through which ethnic density benefits mental health. These mechanisms have been hypothesized by some scholars in explaining the relationship of

ethnic density with physical health and mortality outcomes among Latinos (Eschbach et al. 2004; Patel et al., 2003).

Turning to the effects of neighborhood poverty on mental health, we found that there was not a significant direct association for either group once covariates, including social cohesion, were accounted for. While a bivariate relationship of neighborhood poverty with mental health was present among Asian Americans, the relationship disappeared after including covariates in the model. This suggests that the variation in mental health outcomes of Asian Americans is more related to individual factors, such as gender, age, nativity, education, and household income, than to neighborhood poverty (Hong et al., in press; Takeuchi et al., 2007). Additionally, only a small percentage of Asian Americans (12.2%) live in poor neighborhoods in our sample, suggesting that there is little variability in this predictor that might explain changes in mental health.

While there was no direct relationship of neighborhood poverty with mental health among Latinos, we did find an indirect negative relationship that is mediated by social cohesion. This finding is consistent with previous studies examining the protective mediating role of social cohesion in the link between neighborhood poverty and mental health (Cattell, 2001; Fone et al., 2007). An implication of this is that residents of poor Latino neighborhoods may be at greater risk for poor mental health because of decreased social cohesion in neighborhoods. On the other hand, if social cohesion is high in poor neighborhoods, this may mitigate the negative effects of neighborhood poverty on mental health.

The findings from this study should be considered in light of several limitations. First, we aggregate possibly-disparate groups under broad categories (ethnicity, gender, and nativity.) We consider Chinese, Filipino, and Vietnamese Americans to be Asian American; and we consider Mexican, Puerto Rican, and Cuban Americans to be Latino. Clearly, individuals falling within these ethnic subgroups have differing experiences with immigration, time in the United States, language, educational attainment, and other factors that could contribute to differing neighborhood environments. Future research should disaggregate these groups if possible. In addition to disaggregating Asians and Latinos into ethnic groups, future research might examine how the effects we uncover are patterned by gender. Research demonstrates that men and women draw different emotional and social benefits from their social ties; for example, a study of Taiwanese immigrants in Orange County, CA, demonstrated that women preferred living in communities with fewer immigrants because they had fewer responsibilities and obligations to members of their social networks (Avenarius, 2009). On the other hand, men in the study preferred higher spatial proximity to immigrants, because the proximity provided more opportunities to gain social recognition and enhance their reputations. Thus, it could be that the mental health of men and women in our study would respond differently to ethnic density and social cohesion. Finally, future research should consider the effects of nativity on the relationship between neighborhood factors and mental health. Immigrant and native-born co-ethnic neighborhood ties are likely associated with different types of resources; whereas mutual assistance, cultural security, and job opportunities are important among immigrant co-ethnics (Takaki, 1989; Zhou, 1992), resources like supplemental education institutions and social capital (Võ and Bonus, 2002; Zhou, 2007) may be more influential among native-born co-ethnics.

A second main limitation is that we rely on self-reported measures of both social cohesion and mental health. Social cohesion is a difficult concept to measure, with objective indicators often measuring the structural antecedents of social cohesion (e.g., inequality, ethnic heterogeneity) (Jenson, 2010); other community studies on Latino and Asian Americans rely on perceptions of social cohesion at the neighborhood level (Mulvaney-Day et al., 2007; Zhang & Ta, 2009). Regarding the self-rated measure of mental health, we feel confident that it captures objective features of mental health status (Kim et al., 2011; Mawani & Gilmour, 2010; Zuvekas & Fleishman, 2008). It is possible, however, that the subjective, global nature of the measure compared to other more specific measures and diagnoses of mental health conditions, may have influenced the relationships of structural neighborhood factors with social cohesion and mental health. If this were the case, we expect that the relationships would be amplified with the use of self-rated mental health measure, but not necessarily change the direction of the association. Future research would benefit from exploring the relationship with other specific mental health outcome measures.

A third limitation is that this study focuses on two major neighborhood structural contexts, neighborhood poverty and ethnic density. Other neighborhood characteristics, such as neighborhood stability, availability of social and health services in the neighborhood, and neighborhood crime rates (e.g. violence rates), may explain the contribution of neighborhood contexts to residents' mental health. Future research using comprehensive measures of neighborhood contexts can enhance the understanding of mechanisms linking neighborhood contexts and mental health. Fourth, this study primarily tests the role of social cohesion in mediating the relationships of structural neighborhood factors with mental health and does not include psychosocial factors, such as acculturative stress, discrimination, or ethnic identity in testing the models. These factors may be important covariates that contribute to the mental health status of Asian Americans and Latinos. Finally, two other general concerns plaguing neighborhood research are also limitations in our study. We are unable to account for selective migration into the neighborhoods, making it impossible to know for certain that variation in mental health is due to true neighborhood effects or the selection of certain families and individuals into certain neighborhoods (Sampson et al., 2002). We also use census tracts as proxies for neighborhood boundaries, a common practice in neighborhood research, but potentially problematic as census tracts may not be consistent with residents' own perceptions of their neighborhood boundaries (Coulton et al., 2001).

Despite these limitations, this study contributes to understanding the role of social cohesion in the associations between structural neighborhood contexts—neighborhood ethnic density and poverty—and mental health outcomes among Asian Americans and Latinos. First, mediating mechanisms between neighborhood structure and individual mental health have been argued as critical to a comprehensive understanding of neighborhood and mental health associations (Cattell, 2001; Echeverría et al., 2008; Fone et al., 2007; Kawachi & Berkman, 2001; O'Campo et al., 2009; Whitley & McKenzie, 2005), but there has been a lack of empirical investigation in this area (O'Campo et al., 2009). This present study helps to address this gap by examining the possibility of social cohesion being a mediator between structural neighborhood contexts and mental health. Second, this study explores these associations among racial and ethnic groups for whom our understanding of neighborhood

effects is less complete – Asian Americans and Latinos. Third, this study highlights the necessity of reconceptualizing existing theories of social relationships to reflect complex and nuanced mechanisms that differ both between and among diverse racial and ethnic groups.

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Research Highlights

- Neighborhood ethnic density is negatively associated with mental health.
- Social cohesion partially mediates ethnic density and mental health associations.
- Ethnic density, social cohesion, and mental health path is negative among Asians.
- Ethnic density, social cohesion, and mental health path is positive among Latinos.
- Social cohesion fully mediates poverty and mental health associations among Latinos.

Figure 1.
Conceptual model

Figure 2.
Path modeling results for Asian Americans

Figure 3.
Path modeling results for Latinos

Table 1

Descriptive Characteristics of Asian Americans and Latinos

Characteristics	Asian Americans (n = 2095)			Latinos (n = 2594)		
	N	Mean/%	SE	N	Mean/%	SE
Age		41.3	0.89		38.1	0.59
Gender						
Male	998	47.4%	1.14	1127	44.5%	1.08
Female	1097	52.6%	1.14	1427	55.5%	1.08
Nativity						
Immigrant	1641	79.4%	0.90	1630	66.7%	1.00
US-born	454	20.6%	0.90	924	33.3%	1.00
Household Income						
\$ 0-14,999	379	18.6%	0.90	711	30.0%	0.98
\$ 15,000-34,999	311	15.6%	0.85	691	27.6%	0.97
\$ 35,000-74,999	566	26.3%	1.00	695	25.9%	0.95
\$ 75,000	839	39.5%	1.12	457	17.5%	0.83
Education		13.6	0.15		10.7	0.14
Social Cohesion		12.6	0.14		12.0	0.07
Neighborhood Ethnic Density		24.4%	1.59		53.5%	3.54
Neighborhood Poverty		12.1%	0.86		22.6%	1.35
Self-Rated Mental Health		3.88	0.04		3.76	0.03