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Social Capital, Acculturation, Mental Health, and Perceived Access to Services among Mexican American Women

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Abstract

Objective—We examined whether individual-level social capital--the intangible resources in a community available through membership in social networks or other social structures and perceived trust in the community—was associated with acculturation; depression and anxiety symptoms; and perceived access to services among women of Mexican ancestry.

Method—Recruited through venue-based targeted sampling in King County, WA, 205 women of Mexican descent age 18 to 64 years who differed in socioeconomic status and nativity completed a cross-sectional survey. Half completed the survey in Spanish and half in English. Structural equation modeling was used for model testing.

Results—Social capital increased with level of acculturation and was negatively related to depression and anxiety; it had no direct association with perceived access to services. Social capital mediated the relation between acculturation and both depression and anxiety symptoms. Acculturation had no direct association with psychological distress but was directly associated with perceived access to services. This community sample of women reported high levels of psychological distress, with 20–26% of women meeting diagnostic criteria for depression or anxiety.

Conclusions—Social capital can be assessed at the individual level, increases with acculturation, and may be a potential target for interventions to improve mental health among Mexican American women residing in the U.S.

Keywords

social capital; depression; anxiety; Mexican American women; acculturation; perceived access to services; structural equation modeling

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Introduction

Latinos constitute 15% of the total population in the United States (U.S.) and are one of the fastest growing racial/ethnic groups in the country; by the year 2050, Latinos will constitute approximately 25% of the total U.S. population (Pew Hispanic Center, 2010). Latinos in the U.S. hail from 43 Spanish-speaking countries, with most (67%) of Mexican origin (Pew Hispanic Center, 2010). Latinos face multiple social and economic risks that may negatively impact their mental health and access to care, including low education levels, residence in poor neighborhoods, language barriers, lack of or inadequate health care, poverty, isolation, discrimination, and segregation (Carter-Pokras & Zambrana, 2001). Research specifically focusing on Mexican Americans has documented greater language and cultural barriers, poverty, high school drop-out rates, lack of college achievement (Zambrana & Zoppi, 2002), and teenage pregnancy compared to the general U.S. population and to other Latino subgroups (Kaiser Family Foundation, 2004). Of all the racial/ethnic groups in the U.S., Latinos are the most likely to be uninsured and the least likely to use health care services for preventive care (Carter-Pokras & Zambrana, 2001). Indeed, Latinos are at greater risk than the general U.S. population of experiencing cultural barriers when interacting with the health care system (Kaiser Family Foundation, 2004; Zambrana & Zoppi, 2002), and their mental health problems are more likely to be addressed by a physician than a mental healthcare provider (Vega & Alegría, 2001).

Among Latinos, women, compared to men, are especially vulnerable to adverse mental health outcomes. Latinas are at greater risk for and experience higher rates of anxiety and depression (Elder, Broyles, Brenna, et al., 2005; Gonzalez, Haan, & Hinton, 2001). Being an ethnic minority woman in the U.S. and having limited income are salient factors in the lives of many Latinas, who may live with few or fragile resources as well as face ethnic and immigrant-related structural barriers (Carter-Pokras & Zambrana, 2001). These risk factors may be associated with worse mental health outcomes and barriers to services among Mexican American women.

Social capital may be a resource through which mental health and service use outcomes may be improved among Mexican American women despite the socioeconomic and institutional barriers they face. The construct of social capital refers to the intangible resources in a community available through membership in social networks or other social structures (Granovetter, 1973; Putnam, 2000). Like other forms of capital (i.e., human, financial, physical), social capital is productive, providing material benefits to individuals who are connected to other individuals and groups (Bourdieu, 1986; Coleman, 1990; Putnam, 1993). Communities characterized by high levels of social capital are likely to have higher educational achievement, better performing public institutions, faster economic growth, and less crime and violence (Putnam, 2000). Social capital may influence these outcomes through improved social networks and relationships which serve to accommodate and facilitate the exchange of material goods, services, information, and money as well as less tangible support such as mutual assistance and emotional support (Baum & Ziersch, 2003; Granovetter, 1973; Kawachi & Berkman, 2001).

The relation between social capital and mental health in Mexican American populations may be influenced by factors that have not yet been identified, given the different social, economic, cultural and political environments of Latinos compared to White Americans (Almedon, 2005; Segura et al., 2001). The present study examined the construct of social capital and its association with acculturation, psychological distress (depression and anxiety symptoms) and perceived access to mental health services among women of Mexican

ancestry. Social capital, shown to have positive health effects (Putnam, 2000), may help explain how acculturation is associated with mental health outcomes among Latinos.

Acculturation is the multidimensional process of change in behaviors, attitudes, and beliefs in both a newly arrived group and the dominant culture with which it interacts (Berry, 2003; Schwartz, Unger, Zamboanga, & Szapocznik, 2010). While some studies have found that acculturation has a negative impact on Latino's mental health (Alegría et al., 2007; Vega et al., 1998); others have found partial or no effects of acculturation on health (Abraido-Lanza et al., 2005).

Although there is much literature examining the direct relation between acculturation and mental health as well as studies on social capital and mental health, we did not find any studies examining the relations among social capital, acculturation, and mental health. Social capital's cognitive aspects, which are the focus of this paper, include people's attitudes and beliefs about norms, values, interpersonal trust, and sense of belonging (Fujiwara & Kawachi, 2008; Kawachi & Berkman, 2000). Fujiwara and Kawachi (2008) found that individuals with higher levels of cognitive social capital were at lower risk of developing major depression. Some researchers have further suggested that increasing social capital and community involvement may be a way to decrease inequalities related to race/ethnicity, income, gender, and geographic location (Cheadle, Wagner, Walls, et al., 2001). Additionally, social capital may be a way to increase service use in ethnic minority populations by addressing issues of trust in healthcare providers and promoting a sense of community belonging.

In the present study, we surveyed a community sample of 205 women of Mexican ancestry living in the Northwest. We hypothesized that women with higher levels of social capital would report better mental health (lower depression and anxiety symptoms) and would also perceive greater access to services in their community. We sought to examine whether social capital would mediate the relationship between acculturation and psychological distress (depression and anxiety symptoms) in this population.

Method

Procedures

Venue-based targeted sampling (Lemp, Jones, Kellogg, & Nieri, 1995) was used to recruit a non-clinical community sample. Members of a Community Advisory Board as well as focus group participants from an earlier, qualitative phase of the study assisted study personnel in identifying appropriate venues. We selected venues that would allow us to target women with a range of incomes, educational levels, and employment backgrounds (e.g., health fairs, community centers, colleges and universities, beauty salons, banks, and Latino-identified stores). Additionally, we identified several Latino-oriented e-mail listservs. Study personnel contacted shop owners, managers, and listserv coordinators to assess the appropriateness of the site (e.g., Latino density) and elicit cooperation. Afterwards, study fliers were posted on-site and information sent to the listservs. The flyers invited women of Mexican ancestry to participate in a study regarding community issues and health among women; they mentioned the monetary incentive, described eligibility criteria, and instructed interested women to call or e-mail the study office.

Women who were recruited in-person at targeted events were given a study flier and if interested were given the option to be screened at that moment or to call or e-mail the study office at their convenience. All screening and recruitment was done by the principal investigator or Latina undergraduate research assistants in Spanish or English (based on the participants' choice). Eligibility criteria were: woman of Mexican origin (i.e., they

themselves or their ancestors originated from Mexico); 18 years of age or older; able to read either English or Spanish; and resided in the area of King County, Washington. In recruitment, a pseudo-quota technique was employed to ensure representation with respect to Spanish or English language preference, U.S. or foreign nativity, income, and length of time in the U.S. The majority (64%) of participants completed the survey at a community location; 36% completed the survey at a university campus. Survey completion time ranged from 25 to 60 minutes, and women were offered $20 for their participation.

Measures

Selected measures were used from the National Latino and Asian American Survey (NLAAS; Alegría, Takeuchi, Canino et al., 2004) based on validity, reliability, and availability of Spanish/English versions. NLAAS is a large, comprehensive study that examined psychiatric disorders with soci-culturally appropriate measures among a nationally representative sample of Latinos and Asians residing in the U.S. The NLAAS provides national information on the similarities and differences in mental illness and service use of Latinos and Asian Americans (Alegría, Takeuchi, Canino et al., 2004). Other survey measures available only in English were translated by three bilingual research staff using back translation to ensure linguistic and cultural equivalency (Marín & Marín, 1991) and were pre-tested with members of the community advisory board. Only measures that were used in the SEM analysis are described in this paper.

Demographic information collected included date of birth, nativity, age of migration to the U.S., and employment status. Generational status was based on birthplace of both the participant and her parents/grandparents (Cuéllar, Arnold, & Maldonado, 1995). Level of education was measured by the highest level of education completed in the U.S. or equivalent elsewhere. Household income was defined as income (before taxes) from all family members from all sources in a typical month.

Acculturation was assessed with three factors: length of time in the U.S., language preference, and voter registration. Language preference was measured with 3 items assessing preferred language when speaking with friends, family, and when thinking (Félix-Ortiz, Newcomb, & Meyers, 1994). Responses were based on a 5-point likert-type scale and ranged from 1 (*Spanish all of the time*) to 5 (*English all of the time*). Current sample $\alpha = .91$. Voter registration was assessed by the question, “Are you currently registered to vote?” Responses were coded as 0 (*not eligible to vote*), 1 (*no*), or 2 (*yes*). Participants were then divided into one of three acculturation categories based on the work of Vega et al. (1998): U.S. born, born in Mexico and living in the U.S. for less than 13 years, or born in Mexico and living in the U.S. for greater than 13 years.

Social capital was assessed with two measures of trust and one measure of volunteerism. The first measure of trust (Neighborhood Trust) was based on 3 dichotomous items from Kawachi et al., (1997), which were adapted into an 8-item scale with likert-type responses. The revised scale required participants to rate from 1(*strongly disagree*) to 4 (*strongly agree*) items such as “In my neighborhood, most people try to be helpful” or “If people in my neighborhood had the opportunity, most people would try to take advantage of me.” Current sample $\alpha = .75$. The second trust measure (Trust in People) involved having respondents rate from 1 (*never have contact with them*) to 5 (*trust people a lot*) how much they trusted different groups of people in their community (e.g., “most people in your neighborhood,” “doctors or nurses”); it was adapted from the Tomas Rivera Policy Institute, Social Capital Survey, 1997. Current sample $\alpha = .80$. Volunteering was assessed with one item: “In the past year, how much time have you volunteered in any groups or organizations?” (also adapted from the Tomas Rivera Policy Institute, Social Capital Survey, 1997). Possible responses ranged from 1 (*none*) to 4 (*a lot*).

Depression was assessed with the Patient Health Questionnaire (PHQ9; Spitzer et al., 1999), items from the Kessler Psychological Distress Scale (K-10; Kessler & Mroczek, 1994), and Major Depressive Disorder (MDD) questions from the Composite International Diagnostic Interview, Short Form (CIDI-SF, World Health Organization, 1998). Using the PHQ9, participants were asked, "In the last 2 weeks, how often have you been bothered by any of the following problems?" They then rated 9 depressive symptoms using a likert-type scale ranging from 0 (*not at all*) to 3 (*nearly every day*). Current sample α=.91. Six of the 10 items of the K-10 scale were used to assess depressive symptoms. Participants were asked to indicate, during the last 30 days, how often they felt "tired for no good reason, hopeless, depressed, so depressed that nothing could cheer you up, that everything was an effort, worthless." The likert-type scale ranged from 1 (*none of the time*) to 5 (*all of the time*). Current sample α = .92. For MDD, participants were asked a series of questions based on DSM-IV criteria and received either a 0 (*did not meet diagnostic criteria*) or 1 (*met diagnostic criteria*) based on responses (see CIDI-SF, Nelson et al., 1998 for detailed scoring guidelines).

Anxiety was measured using questions from the CIDI-SF Generalized Anxiety Disorder section and participants received a 0 (*did not meet diagnostic criteria*) or 1 (*met diagnostic criteria*) (see CIDI-SF, Nelson et al., 1998 for detailed scoring guidelines). *Ataque de nervios*, a common culture-bound syndrome found in many Latin American countries was assessed using a 15-item scale (per NLAAS). Participants who endorsed a stem question of ever having an episode or nervous attack were asked to indicate whether or not they felt any of the 15 symptoms during an episode (e.g., shout a lot, become hysterical, have a period of amnesia, break things or become aggressive). Participants were categorized as either 0 (*did not meet diagnostic criteria*) or 1(*met diagnostic criteria*) based on symptom cut-off score criteria (see Guarnaccia, Lewis- Fernandez, Martinez et al., 2010). Current sample α = .65. Four of the 10 items of the K-10 scale were used to assess for anxiety symptoms. Participants were asked to indicate, during the last 30 days, how often they felt nervous, so nervous that nothing could calm them down, restless of fidgety, and so restless that they could not sit still. The likert-type scale ranged from 1 (*none of the time*) to 5 (*all of the time*). Current sample α =.88.

Perceived access to services was assessed with two items and a service use barrier scale. The first yes/no item assessed whether participants had current health insurance coverage. The second question assessed how much they agreed with the following statement: "In general, there are adequate services in my community to assist me with problems with my emotions or nerves" (see NLAAS). Response items ranged from 1 (*strongly disagree*) to 4 (*strongly agree*). A 22-item scale was employed to measure perceived barriers to service use (per NLAAS). Participants were asked to indicate whether each item was a barrier to service use by answering yes/no; items included "I was unsure about where to go or who to see" and "There was no Spanish speaking provider within my area." The "no" responses were summed, with higher scores indicated more access to services. Current sample α = .88.

Statistical Analysis

A confirmatory factor analysis (CFA) and structural equation modeling (SEM) analyses were used for model testing. SEM is theory driven and uses multiple measures for each latent construct to reduce measurement error in individual indicators, which increases the accuracy of the results (Kline, 2005). Given our a priori model, confirmatory SEM analysis assisted with model fit. A CFA was conducted first on five latent variables: acculturation, social capital, depression, anxiety, and perceived access to services to confirm and test the measurement of the theoretical constructs. In order to obtain a well fitting parsimonious model, only variables with significant factor loadings were retained in the final CFA for the five latent constructs (see Figure 1). Second, SEM was employed to test specific

hypothesized directional relations among the latent constructs for overall model fit. While several good fitting models were run, the most parsimonious model using our specified indicators was used as the final model. A sample size of 200 was determined as sufficient to detect the relatively conservative estimates using SEM (Bollen, 1989; Kline, 2005).

Given that the standard chi-square statistic has been discussed as a nonsufficient guide to model fit (see Kline, 2005), the present model was assessed using various model fit indices recommended by Hu and Bentler (1998; 1999) for Maximum Likelihood (ML) based models including Tucker-Lewis Index (TLI) values close to or greater than .95, Comparative Fit Index (CFI) values close to or greater than .95, Standardized Root Mean Square Residuals (SRMR) values close to .08, and Root Mean Square Error of Approximation (RMSEA) less than or equal to .06.

Results

Participants

A total of 356 women were either recruited in person or contacted the study (via phone or e-mail) about their interest in participation. Seventeen women who contacted the study were not able to be reached for screening. Of the 339 women who were screened, 30 (9%) were ineligible because they were not of Mexican ancestry. Of the 309 (91%) who were screened and found to be eligible, 205 (66%) completed the paper-pencil survey (the other 104 (34%) could not be re-contacted or scheduled). We found no significant differences based on age or language preference of survey between those who completed the survey and those who did not.

As seen in Table 1, the final sample consisted of 205 women of Mexican ancestry between the ages of 18 to 64 years (M = 31.42, SD = 10.83). They self-identified as Mexican/ Mexicana (46%), Latina (24%), Mexican American (15%), Hispanic (8%), Chicana (7%), American (1%) and other (1%). Language preference was evenly divided, with 103 women choosing to complete the survey in Spanish and 102 in English. Fifty-two percent of women indicated that they were not a legal U.S. resident, 39.5% indicated that they were, and 8% refused to answer the question.

There were several important socio-demographics differences by language of survey completion (see Table 1). Specifically, compared to women who completed the survey in Spanish, those who completed it in English were more likely to have paid employment, had higher household incomes, were more educated, were less likely to meet poverty criteria (based on income and family size), and were younger. As expected, of the non-U.S. born women, those who completed the survey in English had a significantly younger age of migration (M=5.85 vs. M=23.40) than those who completed the survey in Spanish.

Descriptive Findings

As seen in Table 2, respondents varied in length of time in the U.S.; half of the sample was registered to vote in U.S. elections. The majority (62%) of participants indicated some form of health insurance coverage. Participants generally perceived that there were available services in their community to assist them with mental health needs, and barriers to seeking help appeared moderately low (see Table 2).

Dichotomized measures of depression and anxiety indicated that 20–26% of participants met diagnostic criteria for these disorders according to standard cut-offs. Specifically, 53 (26%) of participants met diagnostic criteria for GAD, 40 (24%) for MDD, and 19 (9%) for moderate to severe depression based on the PHQ-9. Additionally, 80 (39%) of the sample

met the cut-off criteria for the K-10 scale on psychological distress, and 43 (21%) met criteria for *ataque de nervios*.

Model Testing

CFA analysis yielded three significant indicators per latent variable (see Table 3 for correlations of the measured variables in the model). All 3 indicators had significant loadings ($p < .01$) on the respective latent variable with coefficients ranging from .30 to .94 (see Figure 1). Acculturation was measured by 3 factors including length of time in the U.S. (.88, $p < .001$), language preference (.87, $p < .001$) and voter registration (.67, $p < .001$). Social capital was measured by trust in people (.59, $p < .001$), neighborhood trust (.50, $p < .001$), and volunteering (.37, $p < .01$). Depression was measured with MDD (.57, $p < .001$), the PHQ-9 (.85, $p < .001$), and the K-10 depression items (.94, $p < .001$). Anxiety was measured with 3 scales, GAD (.46, $p < .001$), *ataque de nervios* (.42, $p < .001$), and K-10 anxiety items (.91, $p < .001$). Last, perceived access to services latent variable was measured by 3 factors including barriers to service use (.40, $p < .01$), insurance coverage (.60, $p < .001$), and perceived availability of services in the community (.30, $p < .01$).

Of particular interest, during SEM analysis the indicator "vote" (assessing voter registration) which was originally theorized to load on the social capital latent construct was moved as an indicator to the acculturation latent construct with a factor loading of .67. This decision was first made based on statistical findings using the values from the modification indices of the CFA data, changes to the chi-square value, as well as the correlation matrix outcomes. While we did not initially propose to measure voting registration as an indicator of acculturation, theoretically, it fits. Correlation coefficients (see Table 3) also indicate significant correlations ($p < .05$) between the variable "vote" and the two other acculturation indicators (U.S. Time and Language Preference; $r = .61$ and $r = .55$, respectively) and weaker associations between "vote" and the Social Capital indicators (Trust in People, Neighborhood Trust, and Volunteer; $r = .23$, $r = .22$, $r = .08$, respectively). Furthermore, the final model accounted for 22% of the variance in the social capital items, 36% of the variance in the acculturation items, 22% of the variance in the depression items, 25% of the variance in the anxiety items, and 40% of the variance in the perceived access to service items.

The final model solution (Figure 1) included standardizing coefficients for all significant paths and indicated that the five latent factors were measured adequately by their respective indicators with high factor loadings. The five indices used for overall model fit indicated that the model fit the data well. The chi-square value was within the acceptable range [χ^2 (136, $N = 205$) = 208.90]. The CFI (.94) and TLI (.92) values were close to the benchmark criteria of .95. RMSEA (.05, 90% CI .04 to .06) and SRMR (.07) were within the range of good fit.

Acculturation was a main component in the model with 4 direct significant paths which were all positive except for age (see Figure 1). Higher acculturation scores were associated with younger age ($\beta = -.19$, $p < .01$), being employed ($\beta = .17$, $p < .05$), higher levels of education ($\beta = .42$, $p < .001$), and higher household incomes ($\beta = .17$, $p < .05$). There was a positive and significant path from acculturation to social capital ($\beta = .47$, $p < .001$) and to perceived access to services ($\beta = .43$, $p < .001$) but not to depression ($\beta = -.10$, $p > .05$) or anxiety ($\beta = -.16$, $p > .05$). Social capital, in turn, was associated with a decrease in depression ($\beta = -.41$, $p < .01$) and anxiety ($\beta = -.41$, $p < .05$) symptoms but not with perceived access to services ($\beta = .30$, $p > .05$). As expected, the model results showed that social capital mediated the relation between socio-demographic factors/acculturation and the outcomes of both depression and anxiety symptoms as well as perceived access to services.

Discussion

In this study of 205 women of Mexican descent living the in U.S. Northwest, we found that social capital increased along with acculturation and that greater social capital was associated with fewer depression and anxiety symptoms. Structural equation modeling confirmed our a priori assumption that social capital would mediate the relation between acculturation and psychological distress (depression and anxiety symptoms). However, our assumption that it would mediate the relation between acculturation and perceived access to services was not supported. To our knowledge, this is the first study to examine the relations among these latent variables, using social capital as a mediator, and testing associations with depression and anxiety, and perceived access to services. The study findings highlight the importance of social capital in mediating the relation between acculturation and psychological distress suggesting that social capital may have a significant impact on individual-level factors that influence this outcome.

Putnam (2000) may have been correct in suggesting that social capital may indeed improve health. He refers to social capital as the “social glue” that holds communities together and argues that countries, regions or communities with greater social capital are better positioned to take advantage of economic and social opportunities. Accordingly, the study results indicated that greater social capital was associated with better mental health outcomes, but not with better perceived access to services. Higher levels of social capital in the more acculturated women in our sample may have protective qualities for mental illness in this population that we have not yet thoroughly explored. This study examined cognitive elements of social capital and therefore the nonsignificant relation found between social capital and perceived access to services in this study may be a function of the measures. Future studies should examine structural elements of social capital and their impact on perceived access to services.

In line with previous studies (Hu & Covell, 1986; Wells et al., 1989), our results indicated that the more acculturated women had higher perceived access to services. Women with higher incomes, higher education, who have paid employment, may indeed have more perceived access to services (perceive and have less barriers) and have higher rates of insurance. The final model was able to explain 40% of the variance in perceived access to services. While we recruited a diverse sample based on nativity and time in the U.S., it is important to highlight that many of the women in our study may have had high rates of acculturation, such that 81 women in our sample were born in the U.S. and an additional 69 had been living in the U.S. for greater than 13 years.

Theories of social capital (see Putnam, 2000) indicate that voting is an important part of civic participation and is linked to social capital. Results from this study indicate that voting registration was associated with acculturation and not with social capital. Apparently, voter registration is associated more with participants’ perceptions of acculturation or integration into U.S. mainstream society than other cognitive elements of social capital (trust or volunteering). Our findings further suggest that voting registration, a central concept to social capital among Caucasian groups, may hold different meanings and associations across ethnic groups. Among Mexican American women, voting may be more relevant as an indicator of U.S. acculturation and sense of empowerment than to the concept of social capital.

Social capital may be an important resource through which mental health outcomes may be improved among Mexican American women despite the socioeconomic and institutional barriers faced by this population. Few studies have examined how the association between social capital and health may vary by acculturation or immigration-status. Improving social

capital, especially for communities with few economic and political resources, may be a cost-efficient and highly effective way to enhance economic and political performance and improve quality of life for this population (Almedon, 2005; Segura et al., 2001). Michael and colleagues (2008) developed a community-based participatory intervention to increase social capital among a sample of African Americans and Latinos and found that their intervention was able to increase social support, self-rated physical health, and improve symptoms of depression. However, the intervention did little to increase reciprocity and civic engagement (two main elements of social capital). While this study shows promising results, interventions targeting social capital need to be better defined.

While the present findings highlight important contributions, there are several limitations that warrant discussion. Both English- and Spanish-speaking participants were included as one group in the SEM analysis due to sample size limitations, therefore direct group comparisons based on language was not possible. Future studies should examine if social capital has the same mediating effect on English- and Spanish- speaking Latino populations residing in the U.S. As with any study which employs a cross-sectional design, the proposed study is limited in making inferences regarding the direction of causality. Measures of social capital, mental health, and perceived access to services were all based on retrospective self-report and therefore the precise temporal sequence of events cannot be determined. Our recruitment strategy, venue based targeted sampling, is a type of convenience sampling which may decrease our ability to generalize beyond our study sample. The construct and measurement of acculturation may also be a limitation given the measures used in the present study. However, we used various measures from respected investigators in the field (see Vega and Alegria, 2001) to measure the latent construct of acculturation for our SEM analysis. Last, while voting registration was used as a factor measuring acculturation it may perhaps be a better proxy of immigration status as non-U.S. citizens cannot register to vote, regardless of degree of acculturation.

While the concept of social capital has recently received much attention, certain critical issues deserve particular attention in future studies: (1) there is no consensus regarding a definition for social capital (see Hawe & Shiell, 2000; Portes, 1998); and (2) there is controversy over whether social capital should be measured at an individual or group level (Baum & Ziersch, 2003; Bourdieu, 1986; Kawachi & Berkman, 2000; Putnam, 2000). Moreover, while our data could not address causation, the present model allows us to explore meaningful pathways that may address health disparities among ethnic minority populations. Future studies need to better address the methodological and measurement flaws in social capital in order to capture its true potential – as “social glue” that brings communities together and enhances health (Putnam, 2000).

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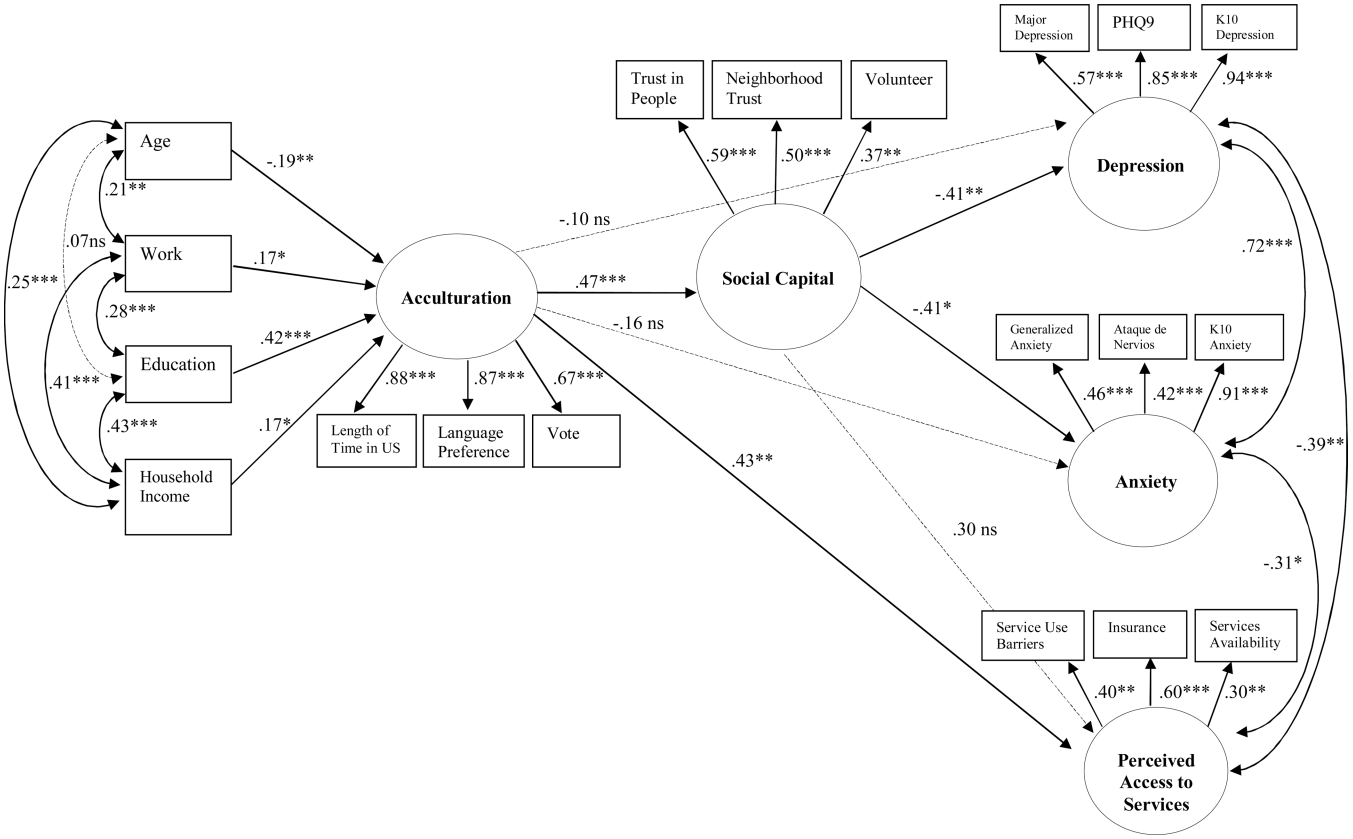

Figure 1. Results of the Structural Equation Model

A structural equation model of four latent constructs. Household Income = Monthly household income; Vote = Currently registered to vote; PHQ9= Patient Health Questionnaire for Depression; K-10 Depression = Kessler Psychological Distress Scale, Depression items; K-10 Anxiety = Kessler Psychological Distress Scale, Anxiety items; Services Availability = Perceived availability to mental health services in the community. *$p < .05$. **$p < .01$. *** $p < .001$.

Table 1

Participant Demographic Characteristics Stratified by Language (N = 205)

Variable	English (*n* = 102)		Spanish (*n* = 103)	
	n	**%**	***n***	**%**
Currently in a primary relationship				
Yes	65	64	70	68
No	37	36	33	32
Generation in the U.S.***				
First (Born in Mex.)	27	27	97	94
Second (U.S. Born, either parent born in Mex.)	52	51	5	5
Third and beyond (U.S. Born, both parents or grandparents born in U.S.)	23	23	1	1
Poverty Threshold ***				
Met	34	33	65	63
Not Met	68	67	38	37
Employment **				
Working (FT/PT)	67	66	47	46
No Paid Employed	35	34	56	54
Education Level ***				
Less than high school	5	5	48	47
High school	16	16	19	18
Some college or more	81	80	36	35
Religious Preference				
Catholic	61	69	78	80
Other Religion	11	12	11	11
No Religion	17	19	8	8
Political Affiliation ***				
Democrat	73	71	32	31
Republican	8	8	1	1
Independent	2	2	7	7
No Preference	16	16	60	58
Other	3	3	3	3
	Mean	*SD*	*Mean*	*SD*
Age ***	28.22	10.71	34.24	9.69
Age at Migration for First Generation ***	5.85	4.77	23.40	9.09

Note.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 2

Descriptive Statistics for Latent Variable Indicators

Continuous Measures	***M***	***SD***	***Range***
Language Preference	7.55	3.8	3 – 15
Trust in People	39.89	7.38	11 – 55
Neighborhood Trust	22.65	4.52	8 – 32
Volunteer	2.42	1.16	1 – 4
PHQ9 - Depression Scale	5.92	5.70	0 – 27
K10 - Depression Subscale	11.18	5.36	6 – 30
K10 - Anxiety Subscale	7.51	3.34	4 – 20
Service Use Barriers	15.88	4.87	0 – 22
Perceived Availability of Services	2.76	.79	1 – 4
Dichotomized Measures	*N*	%	
Major Depression Disorder			
Caseness Met	40	20	
Caseness Not Met	165	80	
Generalized Anxiety Disorder			
Caseness Met	53	26	
Caseness Not Met	152	74	
Ataque de nervios			
Criteria Met	43	21	
Criteria Not Met	162	79	
Insurance Coverage			
Current Coverage	127	62	
No Current Coverage	78	38	
Categorical Measures	*N*	%	
Time in the U.S.			
U.S. Born	81	39.5	
Mexico Born, In U.S. < 13 years	69	34	
Mexico Born, In U.S. > 13 years	55	27	
Registered to Vote			
Registered	103	50	
Not Registered	70	34	
Not Eligible	32	16	

Note.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

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Table 3

Correlations of Measured Variables

Variable	1	2	3	4	5	6	7	8	9
1. Age	---								
2. Work	.21**	---							
3. Education	.07	.28***	---						
4. Household Income	.25***	.41***	.43***	---					
5. US Time	−.07	.26***	.45***	.27***	---				
6. Language Preference	−.13	.30***	.47***	.34***	.77***	---			
7. Vote	.00	.17*	.39***	.31***	.61***	.55***	---		
8. Trust in People	.01	.04	.17*	.13	.23***	.23***	.23***	---	
9. Neighborhood Trust	.18*	.22**	.21**	.29***	.18*	.21**	.22***	.29***	---
10. Volunteer	−.10	.08	.12	.09	.14*	.13	.08	.28***	.12
11. MDD	.02	−.06	.03	−.16*	−.06	−.02	−.15*	−.17*	−.06
12. PHQ- Depression	−.01	−.18*	−.17*	−.31***	−.13	−.16*	−.26***	−.17*	−.25***
13. K-10 Depression	−.03	−.19*	−.15*	−.30***	−.24***	−.25***	−.27***	−.23***	−.27***
14. GAD	.17*	.01	.12	−.06	−.00	−.01	−.17*	−.18*	−.11
15. ADN	.04	−.05	−.03	−.12	−.04	.00	−.15*	−.11	−.21*
16. K-10 Anxiety	−.05	−.13	−.17*	−.28***	−.30***	−.28***	−.28***	−.22***	−.25***
17. Service Use Barriers	.09	.02	.03	.21**	.13	.11	.16*	.13	.21**
18. Insurance	.10	.31***	.25***	.28***	.36***	.37***	.36***	.12	.16*
19. Services Availability	.23***	.10	−.01	.06	.06	.04	−.01	.09	.10

Variable	10	11	12	13	14	15	16	17	18
10. Volunteer	---								
11. MDD	−.04	---							
12. PHQ - Depression	−.10	.50***	---						
13. K-10 Depression	−.15*	.53***	.80***	---					
14. GAD	−.14*	.30***	.39***	.39***	---				

Variable	10	11	12	13	14	15	16	17	18
15. ADN	−.10	.29***	.37***	.38***	.24***	---			
16. K-10 Anxiety	−.15*	.48***	.72***	.81***	.42***	.37***	---		
17. Service Use Barriers	.03	−.21**	−.32***	−.34***	−.23***	−.88**	−.29***	---	
18. Insurance	.17*	−.17*	−.29***	−.32***	−.11	−.11	−.30***	.17*	---
19. Services Availability	.03	−.13	−.15*	−.19**	−.09	−.02	−.17*	.18**	.26***

Note. U.S. Time = Length of time in the U.S.; Vote = Currently registered to vote; MDD = Major Depression Disorder; PHQ-Depression= Patient Health Questionnaire for Depression; K-10 Depression = Kessler Psychological Distress Scale, Depression items; GAD = Generalized Anxiety Disorder; ADN = Ataque de nervios; K-10 Anxiety = Kessler Psychological Distress Scale, Anxiety items; Services Available = Perceived access to mental health services in the community.

* $p < .05$.

** $p < .01$.

*** $p < .001$