Mental health among Hispanics and Caucasians: risk and protective factors contributing to prevalence rates of psychiatric disorders


Department of Psychology, Florida State University, Tallahassee, FL 32306-1270, USA

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Abstract

The current study examined the one-year prevalence of psychiatric disorders for Hispanics and Caucasians in a large population sample (N = 4559) and explored factors that contributed to group differences. Hispanic participants (predominantly Mexican Americans) were more likely than Caucasian participants to have met the criteria for a psychiatric diagnosis in the past year, had higher one-year prevalence rates of several anxiety disorders, had greater problems meeting their basic needs, and better interpersonal functioning. Hispanic participants’ problems meeting basic needs partially mediated their higher prevalence of psychiatric disorders compared to Caucasian participants. Better interpersonal functioning protected Hispanic participants against depression, panic, and substance use disorders. These findings are discussed in terms of the importance of psychosocial variables for the prevalence of psychiatric disorders.

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Keywords: Epidemiology; Hispanics; Mental health; Ethnic differences; Social support; Basic needs

Hispanics are quickly becoming the largest minority group in the United States. As minority group members, Hispanics have to deal with a range of

* Corresponding author. Tel.: +1 8506445533; fax: +1 8506447739.
E-mail address: plant@psy.fsu.edu (E.A. Plant).
negative experiences, when compared to Caucasians, involving discrimination, decreased opportunities for education and employment, and lower levels of socioeconomic status (SES) (Ginsburg & Silverman, 1996; Horton, Thomas, & Herring, 1995; USDHHS, 2001; Williams, 1996). Because stressful negative life events are associated with poor psychological functioning (e.g., Kessler, Mickelson, & Williams, 1999), Hispanics would seem to be at an increased risk for developing a psychiatric disorder when compared to Caucasians. However, the available research comparing the rates of psychiatric disorders for Hispanics and other ethnic groups is sparse and the findings are mixed.

Whereas some studies find higher rates of psychiatric diagnoses in Hispanics than other ethnic groups (I. Canino, Gould, Prupis, & Shaffer, 1986; Ginsburg & Silverman, 1996; Minsky, Vega, Miskimen, Gara, & Escobar, 2003; Roberts & Chen, 1995; Roberts, Roberts, & Chen, 1997), other studies do not (Hoppe, Leon, & Realini, 1989; Hough et al., 2002; Roberts, Chen, & Solovitz, 1995; Shrut et al., 1992). When differences are found, they typically indicate that Hispanics are more likely to experience anxiety and mood-related disorders than Caucasians. However, most of these studies used predominately clinical samples where participants had chosen to use either medical or psychiatric services. When ethnic differences in rates of psychiatric disorders are identified in clinical samples, results may be biased due to ethnic differences in patterns of utilization. That is, because Mexican Americans are less likely to use health and social services than Caucasians (Alegria et al., 2002; Cherpetil, 2001; Hough et al., 2002; Vega, Kolody, Aguilar-Gaxiola, & Catalano, 1999; Wells, Klap, Koike, & Sherbourne, 2001), results from such studies may be biased and reflect lower or higher prevalence rates of disorders among Hispanics than the rates in the general population. Thus, in assessing prevalence rates of psychiatric disorders, it is preferable to use epidemiological samples.

Studies using epidemiological samples also report inconsistent findings with respect to ethnic differences in rates of psychiatric disorders (G. Canino, Bird, Rubio-Stipec, & Bravo, 1997; Dunlop, Song, Lyons, Manheim, & Chang, 2003; M. Karno et al., 1989; Kessler et al., 1994; Ortega, Rosenheck, Alegria, & Desai, 2000; Weissman, Bruce, Leaf, Florio, & Holzer, 1991). For example, Ortega et al. (2000) used data from the National Comorbidity Survey (NCS) and found that Mexican Americans were generally less likely than Caucasians to have a psychiatric disorder and, specifically, were less likely to have anxiety or substance use disorders. However, Hispanics in the NCS had a higher prevalence of current mood disorders than Caucasians (Kessler et al., 1994). The Epidemiologic Catchment Area (ECA) studies found no differences between Hispanics and Caucasians in the prevalence of current mood disorders (Robins & Regier, 1991; Weissman et al., 1991). However, Hispanics had elevated rates of alcohol use disorders compared to Caucasians (Helzer, Burnam, & McEvoy, 1991). Additionally, in a large statewide survey of the Colorado general adult population, Plant and Sachs-Ericsson (2004) found that minority group members (i.e., African Americans, Hispanics, and Native Americans) reported a higher rate
of depressive symptoms and a marginally higher prevalence of clinical depression than did Caucasians.

1. Basic needs, ethnicity, and psychiatric disorders

In considering ethnic differences in psychiatric disorders, it is important to examine factors that may contribute to such differences. Low levels of SES have been associated with both higher rates of psychiatric disorders and ethnic minority status (Dohrenwend & Dohrenwend, 1969; Williams, 1996). Thus, SES may help to explain differences in rates of psychopathology between Hispanics and Caucasians. However, the relationship between SES and psychiatric disorders may not be a simple one. That is, low SES may detrimentally influence psychological well-being directly, as well as lead to circumstances that further compound its negative psychological effect. The conservation of resources theory (Hobfoll, 1988, 1989, 1998) argues that poverty, as well as other chronic stressors, can impact well-being in two ways. First, the constant lack of adequate financial resources leads to stress, which negatively affects psychological functioning. Second, these chronic resource deficits also lead to problems acquiring basic necessities such as food, clothing, or transportation, which further exacerbates the stress associated with low SES and, in turn, negatively influences psychological well-being (Ennis, Hobfoll, & Schroder, 2000). Thus, it may be that having problems meeting basic needs increases the vulnerability for developing a psychiatric disorder. Consistent with this conceptualization, Plant and Sachs-Ericsson (2004) found that the increased risk for depression in minority group members was accounted for by problems meeting basic needs. Thus, it appears, having a low income level leads to problems meeting basic needs, and these extremely stressful difficulties negatively influence one’s psychological well-being.

1.1. Interpersonal functioning, ethnicity, and psychiatric disorders

Although Hispanics face a great deal of stress, some of which is related to low SES, and low SES has been associated with higher rates of psychiatric disorders (Dohrenwend & Dohrenwend, 1969), as noted earlier, studies do not consistently find ethnic differences in prevalence rates of psychiatric disorders (e.g., M. Karno et al., 1989; Ortega et al., 2000). This suggests that there may be protective factors that are more common among Hispanics compared to Caucasians, which positively influence Hispanics’ psychological well-being. Research has demonstrated that quality of social support is an important factor in mental health (Barnett & Gotlib, 1988; Billings, Cronkite, & Moos, 1983; Hooley & Teasdale, 1989; Joiner & Coyne, 1999). In fact, studies have suggested that strong interpersonal functioning and strong social support networks are associated with less psychiatric distress and may safeguard against psychiatric problems in
general, as well as be a safeguard for minority group members in particular (Joiner & Coyne, 1999; Landrine & Klonoff, 1996; Plant & Sachs-Ericsson, 2004). In fact, Plant and Sachs-Ericsson (2004) found that minority group members had better interpersonal functioning than Caucasians, (however, see Golding & Baezconde-Garbana, 1990) and their interpersonal functioning protected them against more severe depression. Thus, if Hispanics have strong interpersonal functioning, its protective properties may explain why some studies do not consistently find Hispanics having higher rates of psychiatric disorders when compared to others.

Cultural differences between Hispanics and Caucasians may result in differences in interpersonal functioning. Hispanics’ cultural roots originate from countries that place the utmost value on relationships and the connection of the individual to friends and family (Markus & Kitayama, 1991). The cultural heritage of most Caucasians, on the other hand, emanates from countries that tend to value personal independence and individual goals over group goals (Markus & Kitayama, 1991). These cultural differences may result in Hispanics having stronger interpersonal functioning than Caucasians, which may help to protect them against psychiatric disorders.

2. The current study

In the current study, we drew upon a large population sample to examine prevalence of psychiatric disorders for Hispanics and Caucasians and to explore potential risk and protective factors that may contribute to group differences. The current study is an extension of previous work by Plant and Sachs-Ericsson (2004) that focused on minorities in general and examined rates of major depression. The present study more specifically targeted Hispanics and included all Axis I psychiatric disorders in the analyses. Based on Plant and Sachs-Ericsson’s previous work, we assessed factors that we believed would influence the relationship between ethnicity and prevalence of psychiatric disorders, such as problems meeting basic needs and interpersonal functioning. We were interested in addressing three questions.

First, were there differences in prevalence rates of psychiatric disorders between Caucasians and Hispanics? Second, if differences existed, were they mediated by problems meeting basic needs? Based on previous work, we anticipated that problems meeting basic needs would mediate any differences in prevalence rates of psychiatric disorders between Caucasians and Hispanics (Ennis et al., 2000; Plant & Sachs-Ericsson, 2004). Third, would the quality of social support (e.g., interpersonal functioning) protect Hispanics against developing psychiatric disorders? The presence of strong social support networks was expected to serve as a safeguard for Hispanics as a group against the development of psychiatric disorders (Landrine & Klonoff, 1996; Plant & Sachs-Ericsson, 2004). That is, both Caucasians and Hispanics with high levels of social
support were expected to benefit from its protective factors, but Hispanics were expected to have better interpersonal functioning overall than Caucasians. As a result, Hispanic participants were expected to be more likely to benefit from its protective benefits than Caucasians.

3. Method

Data for this study were obtained as part of a large statewide survey of the Colorado general adult population, the Colorado Social Health Survey (Ciarlo, Shern, Tweed, Kilpatrick, & Sachs-Ericsson, 1992). As previously stated, it is worth noting that this is the same sample used by Plant and Sachs-Ericsson (2004). However, their focus was on minorities in general and they only examined rates of major depression. The current study is more specific with regard to minorities (Hispanics, predominantly Mexican Americans) and includes several Axis I psychiatric disorders.

3.1. Participants and procedure

Participants were interviewed from 1985 to 1986 in their homes by trained lay interviewers using a structured interview. Participants were randomly sampled from the Colorado population. The response rate was 72%. To obtain a more stable estimate of the prevalence rates, minorities were over-sampled and their responses were subsequently down-weighted to reflect Colorado population representation according to the U.S. Census. A detailed description of the procedures is provided by Ciarlo et al. (1992).

The sample was comprised of 4745 respondents (52% female; mean age = 42.6 years). Most of the participants were Caucasian (84.2%), followed by Hispanic (10.0%), African American (3.8%), Native American (1.4%), Asian (0.6%), and Pacific Islander (0.1%). The present study focused on a comparison of the Caucasian and Hispanic respondents (N = 4559). The Hispanic participants were predominantly of Mexican American descent.

3.2. Materials

3.2.1. Demographics

The survey included questions regarding participants’ basic demographic information including age, gender, income, education, household size, and employment.

1 The data did not differentiate between Hispanic groups. However, based on the 1990 U.S. Census Bureau population rates, approximately 67% of people who considered themselves Hispanic in Colorado specifically considered themselves Mexican American (Gibson & Jung, 2002).
3.2.2. **Problems Meeting Basic Needs Scale**

The Problems Meeting Basic Needs Scale consisted of five items ($\alpha = .72$) that asked participants the extent to which in the last month they had serious problems with getting food, shelter, clothing, transportation, and finances. Participants responded using a 5-point Likert-type scale, anchored by, Never = 1, and Almost Always = 5.

3.2.3. **Interpersonal functioning**

In the current study, we were interested in assessing the quality of participants’ social relationships and their satisfaction with these relationships. We labeled this construct interpersonal functioning and measured it with six items ($\alpha = .77$) that assessed conflict and lack of support in interpersonal relationships. The items asked during the past month, have you: had difficulty getting along with people?; felt like you don’t have enough friends?; felt like your relationships were not as close or intimate as you would like?; spent too much time alone?; had fights or arguments with people?; felt excluded or rejected by other people? Participants responded using a 5-point Likert-type scale, anchored by, Never = 1, and Almost Always = 5. Thus, higher numbers on this measure indicated poorer interpersonal functioning. It is important to note that this is not a measure of the number of individuals in the participant’s social network but rather an indication of the quality of social relationships.

The development, concurrent validity, internal validity, and discriminant validity of the basic needs and interpersonal functioning scales were examined in great detail and shown to be good (see Ciarlo et al., 1992; Sachs-Ericsson & Ciarlo, 1992).

3.2.4. **Diagnostic Interview Schedule**

The Diagnostic Interview Schedule (DIS; Robins, Helzer, Croughan, Williams, & Spitzer, 1981) was administered to obtain Diagnostic and Statistical Manual of Mental Disorders—3rd Edition (DSM-III) Axis I diagnoses (APA, 1980). The DIS is a highly structured interview instrument developed for administration by non-clinicians and is intended for use in general population surveys. The DIS has acceptable reliability and validity (see Helzer & Robins, 1988). The kappa reliability coefficients range from .60 to .86. Sensitivity and specificity indices were also in the adequate range (Robins, Helzer, & Croughan, 1981).

While subsequent versions of the DSM made some changes in the criteria for specific diagnoses, current epidemiological researchers are presently using criteria that are fairly similar to those originally established for the DIS (Eaton et al., 1997). This allows for consistency in epidemiological research and enables researchers to make direct comparison to past epidemiological investigations using the DIS. In the current study the DSM, Axis I diagnoses included: major depression, bipolar disorder, schizophrenia, alcohol dependence, drug depen-
ence, panic disorder, phobia, general anxiety disorder, and obsessive-compulsive disorder.

4. Results

4.1. Basic comparisons

4.1.1. Demographics

Examination of the demographics information revealed several differences based on participants’ ethnicity (see Table 1). On average, the Hispanics compared to the Caucasians were younger, had lower incomes, fewer years of education, were more likely to be unemployed, and had more people living in the household.²

4.1.2. Functioning

Independent samples t tests were conducted on the functioning scales, (i.e., meeting basic needs and interpersonal functioning, see Table 1). The analysis revealed that Hispanics compared to Caucasians had more problems meeting basic needs. However, Hispanics had fewer problems with interpersonal functioning than did Caucasians.

4.1.3. Psychiatric disorders

The rates of psychiatric disorders were compared for Hispanic and Caucasian participants using chi-square analyses. This analysis revealed that Hispanics were more likely to have met criteria for a psychiatric diagnosis in the last year than Caucasians. There were no significant differences between the groups for most of the psychiatric disorders (i.e., major depression, bipolar disorder, schizophrenia,

² When the primary analyses were conducted with age as a predictor, the findings were basically unchanged in pattern and magnitude.

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Table 1

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Caucasian (N = 3986), M</th>
<th>Hispanic (N = 473), M</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>43.4</td>
<td>39.3</td>
<td>4.80</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Household income (US$)</td>
<td>32145.00</td>
<td>20520.92</td>
<td>14.41</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Years of education</td>
<td>13.2</td>
<td>10.7</td>
<td>18.83</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Working for pay (%)</td>
<td>65</td>
<td>57</td>
<td>14.50</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Household size</td>
<td>2.9</td>
<td>4.0</td>
<td>-5.79</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Basic needsb</td>
<td>5.55</td>
<td>6.25</td>
<td>-8.82</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Interpersonal functioningb</td>
<td>11.05</td>
<td>10.24</td>
<td>4.67</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

² Chi-square statistic.

b Higher scores indicate greater problems.
panic, or substance use disorder). However, Hispanics had significantly higher rates of phobia, general anxiety disorder (GAD), and obsessive-compulsive disorder (OCD) than did Caucasians (see Table 2).

4.2. Mediation analyses

4.2.1. Basic needs, ethnicity, and psychiatric disorders

The initial analyses established that Hispanics compared to Caucasians had higher rates of diagnoses for several anxiety disorders and had more problems meeting their basic needs. Given these differences, we were interested in determining if the influence of ethnicity on psychiatric disorders was due to problems meeting basic needs. To explore this possibility, we conducted a series of linear and logistic regression analyses. According to Baron and Kenny (1986), in addition to the significant effect of an independent variable on an outcome variable (e.g., the effect of ethnicity on the psychiatric disorders), three conditions must be met to establish mediation. First, the independent variable should predict the prospective mediator. Second, the mediator should predict the outcome variable. Third, the independent variable should no longer predict the outcome variable when both the mediator and independent variable are included in the regression equation.

Table 2
Comparison of rates of psychiatric disorders by ethnic group

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Caucasians (N = 3986) (%)</th>
<th>Hispanics (N = 473) (%)</th>
<th>$\chi^2$</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any DSM case</td>
<td>24.0</td>
<td>31.6</td>
<td>13.04</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Phobia</td>
<td>7.6</td>
<td>10.3</td>
<td>4.20</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>GAD</td>
<td>7.4</td>
<td>11.8</td>
<td>12.68</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>OCD</td>
<td>1</td>
<td>2.1</td>
<td>5.44</td>
<td>&lt;.05</td>
</tr>
</tbody>
</table>

Table 3
Correlations between diagnoses, problems meeting basic needs and interpersonal functioning

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Problems meeting basic needs</th>
<th>Problems with interpersonal functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>.17**</td>
<td>.21**</td>
</tr>
<tr>
<td>Bipolar</td>
<td>.08**</td>
<td>.07**</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>.09**</td>
<td>.07**</td>
</tr>
<tr>
<td>Panic</td>
<td>.11**</td>
<td>.10**</td>
</tr>
<tr>
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<td>.17**</td>
<td>.18**</td>
</tr>
<tr>
<td>GAD</td>
<td>.13**</td>
<td>.20**</td>
</tr>
<tr>
<td>OCD</td>
<td>.06**</td>
<td>.09**</td>
</tr>
<tr>
<td>Alcohol</td>
<td>.13**</td>
<td>.13**</td>
</tr>
<tr>
<td>Drug</td>
<td>.15**</td>
<td>.11**</td>
</tr>
<tr>
<td>Any DSM case</td>
<td>.21**</td>
<td>.27**</td>
</tr>
</tbody>
</table>

** $P < .001$.  

4.2.2. Interpersonal functioning, ethnicity, and psychiatric disorders

The initial analyses established that Hispanics compared to Caucasians had higher rates of diagnoses for several anxiety disorders and had more problems meeting their basic needs. Given these differences, we were interested in determining if the influence of ethnicity on psychiatric disorders was due to problems meeting basic needs. To explore this possibility, we conducted a series of linear and logistic regression analyses. According to Baron and Kenny (1986), in addition to the significant effect of an independent variable on an outcome variable (e.g., the effect of ethnicity on the psychiatric disorders), three conditions must be met to establish mediation. First, the independent variable should predict the prospective mediator. Second, the mediator should predict the outcome variable. Third, the independent variable should no longer predict the outcome variable when both the mediator and independent variable are included in the regression equation.

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<td>Depression</td>
<td>.17**</td>
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</tr>
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<tr>
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<td>.13**</td>
<td>.20**</td>
</tr>
<tr>
<td>OCD</td>
<td>.06**</td>
<td>.09**</td>
</tr>
<tr>
<td>Alcohol</td>
<td>.13**</td>
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</tr>
<tr>
<td>Drug</td>
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<td>.11**</td>
</tr>
<tr>
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As reported above, Hispanic participants had more problems meeting basic needs than Caucasian participants, thus establishing the first condition. The second condition was also met for each of the disorders of interest. Specifically, basic needs predicted each of the psychiatric disorders with more problems meeting basic needs associated with higher rates of the disorders (see Table 3).

In order to examine whether the third condition for mediation was met, ethnicity and problems meeting basic needs were included in a single regression analysis predicting each of the psychiatric disorders. A modified Sobel test was then conducted to determine if the inclusion of the mediator significantly decreased the influence of ethnicity on each disorder. When ethnicity and problems meeting basic needs were both included in the analysis of any psychiatric diagnosis, the influence of ethnicity was decreased (see Table 4). A modified Sobel test (Baron & Kenny, 1986; Kenny, Kashy, & Bolger, 1998) indicated that the inclusion of problems meeting basic needs significantly decreased the influence of ethnicity on the diagnosis of any psychiatric disorder ($z = 4.20, P < .001$). Similarly, when ethnicity and problems meeting basic needs were both included in the analysis of phobia, ethnicity was no longer a significant predictor (see Table 4) and the inclusion of problems meeting basic needs significantly decreased the influence of ethnicity on the diagnosis of phobia ($z = 4.09, P < .001$). For the analysis of GAD, ethnicity remained a significant, although weaker, predictor of GAD when ethnicity and problems meeting basic needs were both included in the analysis (see Table 4). However, the Sobel test indicated that the influence of ethnicity on GAD was partially mediated by the inclusion of problems meeting basic needs ($z = 3.93, P < .001$). Finally, when ethnicity and problems meeting basic needs were both included in the analysis of OCD, ethnicity was a weaker, although still significant, predictor of OCD (see Table 4).

Although income also mediated the effect of ethnicity on the diagnoses, when the variance due to income was statistically removed from problems meeting basic needs, problems meeting basic needs continued to mediate the effect of ethnicity indicating the influence of problems meeting basic needs was not due to income.

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Ethnicity</th>
<th>Ethnicity with problems meeting basic needs included</th>
<th>Problems meeting basic needs with ethnicity included</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wald (1, 4743)</td>
<td>OR</td>
<td>P</td>
</tr>
<tr>
<td>Any DSM case</td>
<td>13.12</td>
<td>1.5</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Phobia</td>
<td>4.14</td>
<td>1.4</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>GAD</td>
<td>12.38</td>
<td>1.7</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>OCD</td>
<td>5.20</td>
<td>2.3</td>
<td>&lt;.05</td>
</tr>
</tbody>
</table>

Table 4
Effects of ethnicity and problems meeting basic needs on diagnosis
Further, the Sobel test indicated that problems meeting basic needs partially mediated the influence of ethnicity on OCD ($z = 2.88$, $P < .005$). Although these analyses are strongly indicative of a mediational relationship, the responses were collected at the same time. Therefore, it is difficult to make claims about causality. That is, instead of Hispanics’ high rates of phobias, GAD, OCD, and any psychiatric disorder being due to their problems meeting basic needs, it could be that their psychiatric problems lead to their problems meeting basic needs. In order to examine this possibility, a series of 10 sets of mediational analyses were conducted with problems meeting basic needs as the dependent variable and each of the diagnoses as the potential mediators. When the ethnicity variable and the diagnoses were included in the same analysis predicting problems meeting basic needs, inconsistent with mediation, both ethnicity and the diagnoses were highly significant predictors of problems meeting basic needs (all $P$’s < .001). These findings indicate that Hispanics’ high rates of these disorders alone did not account for their problems meeting their basic needs.

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Ethnicity</th>
<th>Wald (1, 4743)</th>
<th>OR</th>
<th>$P$</th>
<th>Ethnicity with problems with interpersonal functioning included</th>
<th>Wald (1, 4743)</th>
<th>OR</th>
<th>$P$</th>
<th>Problems with interpersonal functioning with ethnicity included</th>
<th>Wald (1, 4743)</th>
<th>OR</th>
<th>$P$</th>
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<tbody>
<tr>
<td>Alcohol</td>
<td>2.39</td>
<td>1.3</td>
<td>.12</td>
<td></td>
<td>4.27</td>
<td>1.5</td>
<td>&lt;.05</td>
<td></td>
<td>79.45</td>
<td>1.6</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>2.98</td>
<td>1.5</td>
<td>.09</td>
<td></td>
<td>6.33</td>
<td>1.9</td>
<td>&lt;.05</td>
<td></td>
<td>151.83</td>
<td>2.4</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Panic</td>
<td>2.28</td>
<td>1.9</td>
<td>.13</td>
<td></td>
<td>3.62</td>
<td>2.2</td>
<td>&lt;.05</td>
<td></td>
<td>39.04</td>
<td>2.1</td>
<td>&lt;.001</td>
<td></td>
</tr>
<tr>
<td>Drug</td>
<td>3.42</td>
<td>1.5</td>
<td>.07</td>
<td></td>
<td>5.09</td>
<td>1.7</td>
<td>&lt;.05</td>
<td></td>
<td>48.47</td>
<td>1.6</td>
<td>&lt;.001</td>
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</tbody>
</table>

4 We were interested in whether multiple indices of SES could fully account for the relationship between ethnicity and the disorders that remained significant after problems meeting basic needs were included in the analyses (e.g., any 1-year psychiatric disorder, GAD, and OCD). Therefore, we conducted further analyses that included multiple indices of SES as potential mediators of ethnicity. In addition to problems meeting basic needs, these analyses included household income and years of education as predictor variables. When controlling for all these additional indicators of SES, we found that ethnicity was only predictive of any 1-year psychiatric disorder and GAD. Thus, multiple measures of SES more effectively mediated the influence of ethnicity on the disorders but even together they did not entirely account for the effect of ethnicity on any diagnosis and GAD.

4.2.2. Interpersonal functioning, ethnicity, and psychiatric disorders

Previous research has shown that minority group members’ interpersonal functioning serves as a buffer against psychiatric distress (Landrine & Klonoff, 1996; Plant & Sachs-Ericsson, 2004). As reported in the preliminary analysis, Hispanic participants reported better interpersonal functioning than Caucasians. We suspected that Hispanics’ better interpersonal functioning was suppressing the association between ethnicity and psychiatric disorders.
We were particularly interested in whether additional differences in psychiatric disorders between Hispanic and Caucasian participants would be revealed after controlling for interpersonal functioning. In order to examine this possibility, we conducted logistic regressions on the psychiatric disorders that had previously shown no ethnic differences (e.g., depression) including both ethnicity and interpersonal functioning. If ethnicity surfaced as a significant predictor after controlling for interpersonal functioning, it would indicate that interpersonal functioning was suppressing the effect of ethnicity. It is worth noting that regardless of ethnic status, for all diagnoses examined, problems with interpersonal functioning were associated with higher rates of psychiatric disorders (see Table 3).

Logistic regression analyses revealed that when interpersonal functioning was included in the analyses, ethnicity became a significant predictor for four of the disorders, such that Hispanics were more likely to have the disorder than Caucasians. These disorders included alcohol dependence, major depression, panic disorder, and drug dependence (see Table 5).5 These findings indicate that Hispanics were more likely to have alcohol dependence, major depression, panic disorder, and drug dependence than Caucasians when the protective effects of interpersonal functioning were statistically removed.

5 The interpersonal functioning variable does not interact with ethnicity in predicting any of the variables of interest suggesting that interpersonal functioning is not a moderator.

5. Discussion

The current study examined ethnic differences in the prevalence of psychiatric disorders and explored risk and protective factors that contribute to these differences. The findings indicate that Hispanics (predominantly Mexican Americans) compared to Caucasians were more likely to have met the criteria for a psychiatric disorder during the past year and had higher prevalence of several anxiety disorders (i.e., phobia, GAD, OCD). These findings replicate previous research on clinical samples in a more generalizable adult sample (I. Canino et al., 1986; Ginsburg & Silverman, 1996; Minsky et al., 2003; Roberts & Chen, 1995; Roberts et al., 1997). Additionally, after controlling for the protective effects of interpersonal functioning, the current findings were consistent with the NCS finding that Hispanics have a higher prevalence of current mood disorders than Caucasians, as well as the ECA finding that Hispanics have elevated rates of alcohol use disorders compared to Caucasians (Helzer et al., 1991; Kessler et al., 1994). However, the current findings were inconsistent with previous epidemiological studies, which did not find that Hispanics had higher rates for anxiety disorders than Caucasians (M. Karno et al., 1989; Ortega et al., 2000; Robins & Regier, 1991).
In addition to demonstrating ethnic differences, the current work explored whether these differences could be accounted for by problems meeting basic needs. As anticipated, the ethnic differences found in rates of psychiatric disorders were partially mediated by Hispanics’ heightened problems meeting their basic needs. The strong relationship between problems meeting basic needs and psychiatric disorders indicates that problems meeting basic needs may be an important risk factor for the development of psychiatric disorders, consistent with the conservation of resources theory (Hobfoll, 1988, 1989, 1998).

In considering why Hispanics had higher rates than Caucasians, specifically, for anxiety disorders, it may be helpful to consider cultural differences in the acceptability of anxiety as a means of expressing psychological distress. The higher rates of anxiety disorders among Hispanics is consistent with the notion that expression of psychiatric distress in the form of anxiety may be more common within the Hispanic community and hence, perhaps more socially acceptable than any other type of distress (Lopez & Guarnaccia, 2000). Within Hispanic cultures there exists a phenomenon called ataque de nervios. The “attack of nerves” is generally characterized by a feeling of losing control and is particularly prominent among Hispanics from the Caribbean, but also recognized among other Hispanic groups (Lopez & Guarnaccia, 2000). This idiom of distress has been found to have a prevalence rate ranging from 16 to 23% among community samples in Puerto Rico (Guarnaccia, Canino, Rubio-Stipec, & Bravo, 1993). Symptoms of ataque de nervios are consistent with the symptoms of DSM anxiety disorders as well as mood disorders, and particularly panic disorder (Liebowitz et al., 1994; Lewis-Fernandez et al., 2002). Lopez and Guarnaccia (2000) concluded that within the social context of Hispanic individuals ataque de nervios is a common illness that reflects the lived experience largely of people with little power and disrupted social relations.

5.1. The role of interpersonal functioning

Although our findings show that Hispanics’ problems meeting basic needs placed them at heightened risk for some psychiatric disorders, we also found specific cultural strengths that protected Hispanics from other psychiatric disorders. Interestingly, the results from our study indicate that Hispanics had higher quality of social support than Caucasians, which may be due to cultural differences in the focus on group membership (Markus & Kitayama, 1991). When Hispanics’ superior interpersonal functioning was statistically accounted for, the ethnic differences in the prevalence rates of major depression, panic disorder, alcohol dependence, and drug dependence were heightened such that Hispanics reported significantly higher rates than did Caucasians. This suggests that strong interpersonal functioning may be of crucial importance in dealing with life stresses, consistent with previous work demonstrating the importance of the quality of social support in mental health (Barnett & Gotlib, 1988; Billings et al.,
Positive interpersonal relationships can facilitate coping with adversity, and, in turn, enhance individuals’ emotional well-being (Fredrickson & Joiner, 2002).

5.2. Implications for treatment

The finding of risk factors (i.e., problems meeting basic needs) and protective factors (i.e., good interpersonal functioning) for Hispanics in this study has important implications for the treatment of psychiatric disorders. Problems meeting basic needs should be considered for treatment and prevention (also see Ennis et al., 2000; Plant & Sachs-Ericsson, 2004). That is, clinicians should consider including specific tactics in their treatment plans that address these problems and provide clients assistance with them. Further, given the protective role of interpersonal functioning for Hispanics’ psychological well-being, social support is also likely to be an important factor that should be incorporated into prevention and treatment plans. Clinicians treating Hispanics should be sensitive to and cultivate the role of family and friends in treatment. This may be important not only for Hispanics but also for other individuals seeking treatment. Indeed, the data from the current study suggest that the impact of interpersonal functioning and problems meeting basic needs is not only important for Hispanics, but for Caucasians as well.

5.3. Limitations and future research

A limitation of the current study is that all of the measures were assessed at the same time, making determination of causation problematic. For example, instead of problems meeting basic needs and interpersonal functioning influencing psychiatric distress, it may be that participants who were experiencing psychiatric distress were more likely to develop problems meeting basic needs and have poor interpersonal functioning. Alternatively, there may be additional unknown factors that may influence both the psychosocial factors and psychiatric distress. Therefore, future work should explore these protective and risk factors over time.

Another limitation is that data used in the current study are quite old and results obtained may reflect the time in which they were collected. Indeed, in the 20 years since the data were collected, the DSM criteria for some mental disorders have changed from the third revision to the fourth. However, while criteria have changed, there is no reason to expect or indication that these changes would have differential implications for Caucasians or Hispanics. That is, while changes in criteria may have affected prevalence rates for disorders, there is no reason to believe that ethnic differences between Caucasians and Hispanics would change. However, future research replicating our findings using a current population sample is warranted. In addition, despite the significant effects of problems
meeting basic needs and interpersonal functioning found in the current study, the overall variance accounted for by these variables was relatively small (e.g., 0.4–7%). However, in a large population sample even small effects can have a meaningful influence on ethnic differences in the rates of some psychiatric disorders.

In light of the important role that interpersonal functioning plays in maintaining good mental health, future research should also consider factors that may influence the quality of interpersonal functioning, such as acculturation. In the last 20 years, the Hispanic population in the United States has grown considerably, and researchers have raised the issue of acculturation and its relationship to mental disorders. Specifically, previous research has found that Mexican Americans born in the United States have higher rates of many disorders compared to those born in Mexico, which may reflect the effects of acculturation (Alderete, Vega, Kolody, & Aguilar-Gaxiola, 2000a, 2000b; Burnam, Hough, Karno, Escobar, & Telles, 1987; Karno et al., 1987; M. Karno et al., 1989; Turner & Gil, 2002; USDHHS, 2001; Vega, Sribney, & Achara-Abrahams, 2003). Consistent with this notion, among Mexican immigrants, the amount of time spent in the United States has been associated with higher risk of affective disorders and drug abuse (Turner & Gil, 2002). Thus, Hispanics’ superior interpersonal functioning may result from the importance their culture places on the family and this importance may decrease with acculturation. However, not all studies find a relationship between acculturation and increased rates of psychopathology (e.g., Gonzalez, Haan, & Hinton, 2001). Unfortunately, the current study did not have a measure of acculturation. Thus, future research should examine acculturation’s effect on the protective role of interpersonal functioning for Hispanics’ psychological well-being.

Additionally, because of the lack of diversity in the dataset, we were unable to group Hispanics into different categories (i.e., Cuban, Puerto Rican, Mexican). Research has shown differences in mental health between Hispanic groups such as Mexican Americans and Puerto Ricans (Shrout et al., 1992). Therefore, future work should examine if the current findings replicate among different groups of Hispanics.

6. Conclusion

Hispanics are quickly becoming the largest minority group in the U.S. but relatively little is known about their psychological functioning and the factors that may influence their functioning. The current findings suggest that psychosocial factors should be examined in determining whether and why ethnic differences exist in prevalence rates of psychiatric disorders between Hispanics and Caucasians. The current work suggests that the explanation of these ethnic differences, when they are found, may be more complex than originally anticipated.
References


