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Anxiety sensitivity and subjective social status in relation to anxiety and depressive symptoms and disorders among Latinos in primary care☆,☆☆

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ABSTRACT

The present investigation examined the interactive effects of anxiety sensitivity and subjective social status in relation to anxiety and depressive symptoms and psychopathology among 143 Latinos (85.7% female; M_{age} = 39.0, SD = 10.9; 97.2% used Spanish as their first language) who attended a community-based primary healthcare clinic. Results indicated that the interaction between anxiety sensitivity and subjective social status was significantly associated with number of mood and anxiety disorders, panic, social anxiety, and depressive symptoms. The form of the significant interactions indicated that individuals reporting co-occurring higher levels of anxiety sensitivity and lower levels of subjective social status evidenced the greatest levels of psychopathology and panic, social anxiety, and depressive symptoms. The present findings suggest that there is merit in focusing further scientific attention on the interplay between anxiety sensitivity and subjective social status in regard to understanding, and thus, better intervening to reduce anxiety/depressive vulnerability among Latinos in primary care.

Latinos are the fastest growing and among the largest (over 53 million) ethnic/minority group in the United States (Bureau, 2010; PRC, 2012). There are significant health disparities for mental health among Latinos in the United States (USDHHS, 2001). For example, when compared with non-Latino Whites, Latinos are less apt to seek and utilize mental health services (Miranda & Green, 1999; Ojeda & Mcguire, 2006) and evidence-based care (USDHHS, 2001). Of the mental health problems, anxiety and depressive symptoms and psychopathology are particularly prevalent among Latinos (Alegría et al., 2008; Grant et al., 2004; Vega et al., 1998). Although certain segments of the Latino population appear at greater risk for these mental health problems (e.g., U.S.-born persons of Mexican origin compared to immigrant Latinos), there is a widespread public health need for better understanding anxiety/depressive symptoms and disorders among Latinos (USDHHS, 2001).

Primary care medical settings are the most common service domain for Latinos to seek healthcare. Due to such factors as social stigma for seeking mental healthcare among Latinos, primary care settings may be an ideal 'catchment area' for early intervention for anxiety/depressive problems (Vega & Lopez, 2001). In fact, numerous studies have shown the feasibility and initial efficacy of interventions delivered in primary care for depression (e.g., Miranda, Azocar, Organista, Dwyer, & Areane, 2003; Muñoz et al., 1995), and to a lesser extent anxiety (e.g., Chavira et al., 2014), among Latinos. Although these clinical investigations are indeed highly promising, notable gaps exist in terms of knowledge about risk factors for anxiety/depressive symptoms and psychopathology

☆ All of the analyses were conducted after replacing the missing values using multiple imputation technique (Rubin, 1987). The pattern of the results stayed the same using the data with no missing value.

☆☆ We re-ran a supplementary analysis using a logistic regression with a dichotomous variable as an index of psychopathology (0 = absent, 1 = present). The pattern of the results stayed functionally the same (interaction term Wald statistics = 2.8, Beta = −.02, p = 07), considering the proneness of Wald statistic to Type II error (Cohen, Cohen, West, & Aiken, 2003).

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among Latinos in primary care. To the extent that a better understanding of malleable risk candidates for anxiety/depression can be isolated among this population, the greater the ease of screening for high risk segments of the Latino population in primary care and subsequent implementation of psychological services that can help offset the risk or burden of anxiety/depressive problems among this population.

One cognitive factor that may be particularly relevant is anxiety sensitivity. Anxiety sensitivity is the fear of anxiety-relevant sensations (Reiss & Mcnally, 1985). In the context of personal threat, anxiety sensitivity marks the extent to which one attends to, and perceives, anxiety-relevant and other aversive, internal sensations (e.g., somatic perturbation) as harmful, dangerous, and indicative of catastrophic consequences across domains (Taylor, 2003). In fact, work on primarily Caucasian samples indicates that anxiety sensitivity is a risk factor for the acquisition and maintenance of anxiety and depressive psychopathology (Olatunji & Wolitzky-Taylor, 2009). For instance, prospective (Li & Zinbarg, 2007; Norris et al., 2002; Norris, Murphy, Baker, & Perilla, 2004; Schmidt, Zvolensky, & Maner, 2006) and laboratory (Brown, Smits, Powers, & Telch, 2003; Galea et al., 2002; Rapee & Medoro, 1994; Zinbarg, Brown, Barlow, & Rapee, 2001; Zvolensky, Feldner, Eifert, & Stewart, 2001) studies suggest that anxiety sensitivity increases the risk for more intense anxiety symptoms and anxiety and depressive psychopathology. Importantly, anxiety sensitivity is a relatively stable, but malleable, construct which serves as an explanatory mechanism in the treatment of anxiety psychopathology (e.g., Berninger et al., 2010; Smits, Berry, Rosenfield, et al., 2008; Smits, Berry, Tart, & Powers, 2008). Although anxiety sensitivity has not been extensively studied among Latinos, available, albeit highly limited, evidence suggests it may be related to mental health processes in a manner largely similar to that reported among Caucasian samples (Pina & Silverman, 2004; Varela, Weems, Berman, Hensley, & De Bernal, 2007; Zvolensky et al., 2007). Yet, no investigation has sought to explore the role of anxiety sensitivity in relation to anxiety and depressive symptoms among adult Latinos in primary care.

There also is an increasing understanding that social determinants of health may play formative roles in psychosocial well-being and also serve to help explain health disparities, including those observed among Latinos (Singh-Manoux, Adler, & Marmot, 2003). Of social determinant variables, lower subjective social status, reflecting the subjective ratings of social standing, is consistently related to poorer physical and mental health status among numerous populations even after adjusting for objective indicators of social status (e.g., educational status, employment status; Adler, Epel, Castellazzo, & Ickovics, 2000; Ostrove, Adler, Kuppermann, & Washington, 2000). Researchers have theorized that subjective social status may interplay with psychological processes by increasing (lower subjective social status) or decreasing (greater subjective social status) adverse emotional states, such as anxiety and depression (Adler et al., 2000). For example, a study examining Mexican-origin individuals and the relationship of subjective social status to self-reported mental health found that when controlling for objective social status, subjective social status was associated with lower mental health and self-rated health (Franzini & Fernandez-Esquer, 2006). These findings are similar to other work that has found that subjective social status is related to lower perceived health among Latinos (Sanchon-Macias, Prieto-Salceda, Bover-Bover, & Gastaldo, 2013). Although subjective social status may hold broad-based explanatory relevance to underserved or underrepresented groups, it may be particularly relevant to Latinos. For example, some work has suggested that less acculturated Latinos ranked their subjective social status based on different criteria than other ethnic groups (Franzini & Fernandez-Esquer, 2006). To the best of our knowledge, however, subjective social status has not been explored among Latinos in primary care, or in relation to other empirically supported risk candidates for anxiety and depression, such as anxiety sensitivity.

Theoretically, anxiety sensitivity and subjective social status may operate with one another to confer greater anxiety and depression vulnerability among Latinos. Specifically, higher levels of anxiety sensitivity may be more strongly associated with an individual's lower subjective social status in terms of anxiety/depressive symptoms and psychopathology. Therefore, these processes may theoretically function synergistically to confer greater risk for anxiety and depressive-relevant symptoms and disorders. To illustrate, a Latino individual high in anxiety sensitivity who has lower subjective social status may be at an increased risk of experiencing more severe anxiety and depressive symptoms because their perception of subjective social status may make them more apt to be anxious/depressed. That is, the high anxiety sensitive person may be more emotionally reactive to the social stressors related to lower subjective social status. From this perspective, a formative next research step is to further explore the potential interplay of anxiety sensitivity and subjective social status as an integrative explanatory process for anxiety and depressive vulnerability among Latinos.

Together, the present investigation sought to test an interactive model of anxiety sensitivity and subjective social status among a Latino sample in primary care. It was predicted that higher levels of anxiety sensitivity would be associated with greater degrees of anxiety/depression when co-occurring with lower levels of subjective social status. Additionally, it was predicted that the interactive effect of anxiety sensitivity and subjective social status would be observed above and beyond the generalized tendency to experience negative affect states (negative affectivity) as well as gender, prior use of mental health services, marital status, employment status, and educational status. That is, the interactive process would not be accounted for by a more (basic) generalized tendency to experience negative mood states or numerous other indicators of social determinants of health.

1. Method

1.1. Participants

Participants included 143 adult Latinos (85.7% female; M_{age} = 39.0, SD = 10.9 and 97.2% used Spanish as their first language) who attended a community-based primary healthcare clinic in Houston, Texas. In terms of ethnic background, 5.4% of participants identified as American/Born in America, 57.8% identified as Mexican/Mexican American, 2.0% identified as Cuban, 3.4% identified as South American, .7% identified as Puerto Rican, 28.6% identified as Central American, and 2.0% identified as "Other." In this report, we included these multiple subgroups in one group to facilitate comparability to past work as well as the cultural similarity for the constructs studied among these sub-populations (Franzini & Fernandez-Esquer, 2006; Vega & Lopez, 2001). All individuals participated in the Spanish language.

In terms of education, 9.5% of participants had less than 6 years of education, 44.9% had 6–11 years of education, 28.6% had 12 years of education (completion of high school), and 17.0% had more than 12 years of education. In terms of marital status, 51.0% of participants were married, 15.6% were living with partner, 26.5% were single, 5.4% were divorced, and 1.4% were widowed. In terms of employment status, 16.3% were employed full time (40 h a week), 13.6% were employed part time (20 h a week), 10.9% were employed less than 20 h a week, 45.6% were unemployed, and 13.6% were looking for employment. The reasons for attendance to clinic were as follows: family medicine (12.2%), dental (26.5%),