Journal of Affective Disorders 175 (2015) 275–280

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Research report

# Generalized Anxiety Disorder in racial and ethnic minorities: A case of nativity and contextual factors

Henna Budhwani [a,c,*], Kristine Ria Hearld [b], Daniel Chavez-Yenter [c]

[a] University of Alabama at Birmingham, Health Care Organization and Policy, 517D Ryals Public Health Building, 1665 University Boulevard, Birmingham, AL 35294, United States
[b] University of Alabama at Birmingham, Health Services Administration, 563 School of Health Professions Building, 1705 University Boulevard, Birmingham, AL 35294, United States
[c] University of Alabama at Birmingham, UAB Sparkman Center for Global Health, 517 Ryals Public Health Building, 1665 University Boulevard, Birmingham, AL 35294, United States

ARTICLE INFO

*Article history:*
Received 14 December 2014
Accepted 15 January 2015
Available online 22 January 2015

*Keywords:*
Generalized Anxiety Disorder
Immigrants
Discrimination
Nativity
Gender

ABSTRACT

*Background:* Minorities comprise more than one third of the U.S., and research on the correlates and causes of depression, anxiety, and other mental illnesses have yielded mixed results in minority groups necessitating an understanding of causes and correlates of health. Thus, the aim of this paper is to evaluate the relationship between minority status, contextual factors, and lifetime Generalized Anxiety Disorder.
*Methods:* Logistic regression models were implemented, comparing immigrants to their American-born counterparts as well as to American-born Whites.
*Results:* Foreign-born Afro-Caribbeans exhibited lower rates of lifetime GAD. A lower percentage of foreign-born minorities met the criteria for GAD as compared to their American-born counterparts, and all racial and ethnic groups met the criteria for lifetime GAD at a lower rate as compared to American-born Whites.
*Discussion:* By using theory proactively and including contextual factors, this multi-faceted approach to health disparities research yielded findings which both supported historic beliefs but created opportunities for supplemental research looking at immigrants and GAD. Key findings were that health lifestyle choices and exposure to discrimination significantly affected the chance of having GAD. Nativity was protective; however, its effect was ameliorated by exposure to discrimination or engagement in alcohol abuse. Thus, this study offers practical insight into environmental factors for clinicians caring for racial and ethnic minorities diagnosed with GAD.



## 1. Introduction

Over the last three decades, minority populations have grown both through comparatively higher birth rates and via immigration (Passel et al., 2012). These groups now comprise more than one third of the U.S. (U.S. Census Bureau, 2012), necessitating an understanding of the causes and correlates of physical and mental health. Thus, the primary aim of this paper is to evaluate the relationship between minority status and lifetime Generalized Anxiety Disorder (GAD). Contextual factors such as nativity, demographics, socioeconomic status, exposure to discrimination, smoking behavior, and alcohol consumption are included in this analysis to offer a multi-faceted perspective. Mental health research in minorities has produced mixed results, but studies on physical health have often substantiated the notion that immigrants exhibit better health outcomes, as compared to their American-born counterparts (Morales et al., 2007; Perez, 2002; Scribner, 1996). Race, based on biological markers, ethnicity, reflecting an ancestry, cultural or national experience, and nativity (birth place) are known correlates (Morales et al., 2007; Perez, 2002; Scribner, 1996). Studies have found that Blacks, Hispanic Americans, and Asian Americans have similar or better mental health than Whites regardless of economic disadvantage and discrimination (Breslau et al., 2005; McGuire and Miranda, 2008; Rosenfield et al., 2006; Asnaani et al., 2010). In addition, many immigrants come to the U.S. with lower levels of education and survive on a lower income as compared to Whites or American-born minorities (Morales et al., 2007; Kennedy et al., 2006); thereby, creating a health paradox where in those who should be the least healthy by conventional standards are the most healthy. This health advantage is mitigated by exposure to discrimination and other stressors, which have consequences on

* Corresponding author. Tel.: +1 205 975 7613; fax: +1 205 975 7685.
*E-mail address:* budhwani@uab.edu (H. Budhwani).

http://dx.doi.org/10.1016/j.jad.2015.01.035
0165-0327/

mental health, such as increased rates of GAD (Finch et al., 2000; Szalacha et al., 2003; Pumariega et al., 2005).

This paper contributes to the existing body of health disparities research by offering a holistic analysis of anxiety correlates in minority populations and leverages the Healthy Migrant Effect (HME) in study design rather than applying it post-facto to develop the hypotheses that foreign born individuals will exhibit a lower rate of GAD as compared to American-born Whites and their American-born counterparts, and racial and ethnic minorities will have a lower rate of GAD as compared to Whites. This research evaluates Blacks (racial classification) and Afro-Caribbeans (ethnic identifier) in addition to Asians and Hispanics (ethnic identifiers), with the intent of understanding the relationship between race (Black) or ethnicity (Afro-Caribbean) with GAD, separately.

## 2. Background

Rates of GAD vary across groups. Historically, Whites are more likely to be diagnosed with GAD than Non-Hispanic Blacks, Hispanics Americans, and Asian Americans (Asnaani et al., 2010); this paper builds on prior health disparities work and segments American-born as compared to foreign-born individuals to provide another layer of knowledge.

### 2.1. The Health Migrant Effect and Demographic Factors

The Health Migrant Effect (HME) posits those who immigrate are healthier due to a selection bias whereby the less healthy are unable to leave their country of origin. This leads to a health paradox, in that many immigrants survive on less income and with less wealth, but still exhibit lower rates of mental illness. Upon arrival in the U.S., some immigrants (and minorities) may encounter risk exposures, such as discrimination and isolation leading an erosion of their health advantage; even so, those who have immigrated tend to be at less risk of any anxiety disorder compared to their American-born counterparts (Breslau et al., 2009; Alegría et al., 2007; Breslau and Chang, 2006; Takeuchi et al., 2007). Furthermore, age of migration may affect rates of anxiety. Those who immigrate under the age of 13 years may be more at risk for developing some form of anxiety due to differing experiences of immigration at early stages of development; some evidence suggests that Hispanic youth experience more anxiety related behaviors that their White peers (SAMHSA, 2008). Similar to age, research on gender and anxiety with the inclusion of race, ethnicity, and nativity is limited and often reviews anxiety symptoms rather than GAD.

Gender differences are well noted in anxiety outcomes, with women having a significantly higher risk to develop an anxiety disorder compared to men (Bruce et al., 2005; McLean et al., 2011). Psychopathology has noted an important role that race/ethnicity plays in mental health outcomes (Asnaani et al., 2010). For example, Asian Americans consistently have lower rates of anxiety symptoms compared to White women. Certain studies have noted interactions between gender and racial categorization with depression and substance use outcomes (Bracken and Reintjes, 2010; Ames et al., 2010); however, anxiety outcomes have not been as well examined. Due to the varying nature of diagnosis for anxiety, as there are five different categorizations, and multiple criteria, there has been limited consistency across studies to understand the effects of gender and race with anxiety disorders (McLean et al., 2011). This research will address the existing gap by examining the interaction between race, ethnicity, nativity alongside gender and age to GAD.

### 2.2. Socioeconomic status

Historically, groups with lower education and income were found to have the highest rates of mental disorders (Cockerham, 2006). According to the National Comorbidity Study, the rate of anxiety disorders, including GAD, was found to be higher in groups with less education and lower income (Martins et al., 2012; Muntaner et al., 2004). Researchers found those who had less than a high school education were over two times as likely to have GAD than those with a college-education, and those with an annual income of under $20,000 were also about twice as likely as those with an annual income of over $70,000 (Kessler et al., 1994). A decade later, a similar research team found those with a lower SES were more likely to meet a variety of mental disorder criteria (DSM-IV), supporting previous findings (Kessler et al., 2005; Hwu et al., 1989; Lee et al., 1990; Lepine et al., 1989; Wittchen et al., 1992). Minorities may find themselves part of the socially disadvantaged highlighting increased risk for anxiety.

### 2.3. Discrimination and social responses

Discrimination is the negative effect felt by one group due to their minority status that may occur at the individual level or may be embedded in a large societal structure, and is meant to be harmful (Finch et al., 2000; Jackson et al., 1998). Discrimination has well documented consequences on mental health. (Finch et al., 2000; Szalacha et al., 2003; Pumariega et al., 2005; Broman et al., 2000; Landrine and Klonoff, 1996). Often, American-born racial and ethnic minorities report more experiences of discrimination compared to their immigrant counterparts (Finch et al., 2000; Krieger et al., 2011; Pérez et al., 2008; Lau et al., 2013). Soto et al. (2011) found racial discrimination increased odds of GAD in American-born Blacks and American-born Whites, but not in foreign-born Afro-Caribbeans, as would be predicted by the HME. Discrimination may play a role in heightening levels of anxiety in American-born minorities due to their increased cognizance of issues related to race and class, prompting them to expect fairer treatment (Lau et al., 2013, Schwartz and Meyer, 2010). Consequently, although immigrants may engage in tobacco smoking and excessive alcohol consumption prior to migration, the intensity and frequency may increase as a response to discrimination and socioeconomic stress (Cockerham, 2005; Caetano et al., 1998).

The HLT (Cockerham, 2005) highlights the influence of alcohol consumption and tobacco use. Cigarette smoking and excessive alcohol consumption have been correlated with mental illness (NIMH, 2009; Arehart-Treichel, 2003). Researchers have suggested that both socioeconomic stress and discrimination stress lead to increased alcohol consumption among minorities (Caetano et al., 1998; Al-Issa, 1997). Anxiety, specifically, has been correlated with increased levels of alcohol consumption across diverse populations (Aneshensel and Huba, 1983; Kushner et al., 1990; Hartka et al., 1991; Thorlindsson and Vilhjalmsson, 1991; Rodgers et al., 2000). More recent work found significant associations between anxiety and alcohol use abuse (Hasin et al., 2007). Additionally, tobacco use is highly prevalent among those with anxiety disorders (Morissette et al., 2007), however, the interrelationships between anxiety, GAD, and tobacco use is not fully understood (Morissette et al., 2007).

Thus, using the HME and HLT to inform the design of this project, we compared the correlates of GAD across racial and ethnic groups to American-born Whites and their American-born racial and ethnic counterparts using data from the Collaborative Psychiatric Epidemiology Surveys (CPES). Potential predictive factors were included.