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Research report

Panic attacks in minority Americans: The effects of alcohol abuse, tobacco smoking, and discrimination

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ABSTRACT

Background: Lifetime prevalence of panic attacks is estimated at 22.7%, and research on the correlates and causes of depression, anxiety, and other mental illnesses have yielded mixed results in minority groups. Therefore, the purpose of this study is to evaluate the relationship between panic attacks, minority status, and nativity by focusing on the effects of health lifestyle behaviors and discrimination.
Methods: Multivariate analysis was performed using logistic regression, which was used to estimate the probability of meeting the criteria for panic attacks ($n=17{,}249$).
Results: Demographic and socioeconomic variables had significant associations; females had over 2.4 times higher odds than males of meeting the criteria for panic attacks. The more frequently respondents were treated as dishonest, less smart, with disrespect, threatened, or called names, the more likely they met the criteria for panic attacks. Additionally, smoking and alcohol abuse were significant predictors of panic attacks. Those who abused alcohol have over 2 times the odds of having panic attacks. Similarly, smokers had 52% higher odds of panic attacks than non-smokers.
Limitations: The primary limitation of this project was the lack of a true acculturation measure with a secondary limitation being the inability to determine respondents' legal status.
Conclusions: Key findings were that health lifestyle choices and exposure to discrimination significantly affected the chance of having panic attacks. Nativity was protective; however, its effect was ameliorated by exposure to discrimination or engagement in smoking behavior or alcohol abuse. Thus, this study offers insight into contextual factors for clinicians caring for racial and ethnic minorities diagnosed with panic attacks.

1. Introduction

Lifetime prevalence of panic attacks, defined as 'unexplained fearful spells, with accompanying psychophysiological symptoms that are limited to a few minutes duration' (Eaton et al., 1994), is estimated at 22.7% nationally (Kessler et al., 2006). These spells are often debilitating and disruptive. Additionally, since 2000 there has been a rapid growth of minorities in the United States, and currently minorities comprise more than one third of the overall population (US Census, 2011). Racial and ethnic minorities are projected to become the new majority in 2050 (Passel and Cohn, 2008), and research on the correlates and causes of depression, anxiety, and other mental illnesses have yielded mixed results in these groups (Morales et al., 2007; Perez, 2002; Scribner, 1996). Thus, the purpose of this study is to evaluate the relationship between panic attacks, minority status, and nativity by focusing on the effects of healthy lifestyle behaviors (excessive alcohol consumption and tobacco smoking) and discrimination among African Americans, Afro-Caribbeans, Hispanics, and Asians.

2. Background

Past studies have found African-Americans, Hispanics, and Asians have similar or better mental health than Whites regardless of economic disadvantage (Breslau et al., 2005; McGuire and Miranda, 2008; Rosenfield et al., 2006; Asnaani et al., 2010). This pattern is the result of a health paradox wherein those who should

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be less healthy (immigrants) are the most healthy, in part due to a selection bias apparent in those who are able to migrate as compared to those who are not. However, even with a health advantage, some studies have found discrimination to negatively affect certain mental health outcomes (Finch et al., 2001; Szalacha et al., 2003; Pumariega et al., 2005). Other research in minority health has discovered variations in health outcomes attributable to the effects of nativity, socioeconomic status and behavioral risk factors (John et al., 2012; De Castro et al., 2010; Gavin et al., 2010; Kimbro et al., 2008; Leu et al., 2008; Sánchez-Vaznaugh et al., 2009) suggesting that all groups do not react the same way to the same stimuli.

2.1. Panic attacks in minorities

Limited scientific literature is available which specifically looks at panic attacks in minorities, with a much larger body of work available on the larger classification of panic disorders. For example, Asnaani et al. (2009) found White Americans had higher odds of having a diagnosis of panic disorders compared to minorities residing in the United States, even with controlling for gender, age and socioeconomic status. This study also compared frequency of panic attacks between the four racial/ethnic groups but found no significant difference between groups (Asnaani et al., 2009). Kessler et al. (2006) calculated odds ratios of four subcategories of panic attacks (with and without agoraphobia) and panic disorders (with and without agoraphobia) by race, using NCS-R data. They found Hispanic and African-American populations had significantly lower odds of panic attacks compared to the Whites when controlling for demographic characteristics (Kessler et al., 2006). However, even within these racial and ethnic classifications, nativity further differentiated outcomes.

2.2. Panic attacks in immigrants

Specifically, foreign-born individuals (immigrants) often have lower rates of mental illness (Morales et al., 2007; Perez, 2002; Scribner, 1996), which is attributable to the Healthy Migrant Effect (HME). The HME posits that immigrants are healthier than Americans due to structural forces and individual agency facilitating or hampering migration (Morales et al., 2007; Perez, 2002). Research indicates that immigrants tend to be at less risk for any anxiety disorder compared to American-born minorities (Breslau et al., 2009; Alegría et al., 2007; Breslau and Chang, 2006).

One prominent study by Alegría et al. (2007) performed a comparison of American-born and foreign-born Latinos, specifically segmenting by Puerto Rican, Cuban, Mexican and other Latino classifications. When comparing prevalence rates of panic disorders across nativity for each group, no significant differences emerged (Alegría et al., 2008). However, the researchers did find that American-born Latinos had a significantly higher prevalence of any DSM-IV disorder, which included panic disorders (and panic attacks) as compared to those foreign-born (Alegría et al., 2008). Regardless of nativity status, both US-born and foreign-born Latino individuals have the potential of encountering discriminatory behavior.

2.3. Panic attacks and discrimination

A strong association exists between discrimination and poor health outcomes, including mental health (Finch et al., 2001; Szalacha et al., 2003; Pumariega et al., 2005; Williams et al., 2003). Chou et al. (2012) compared perceived racial discrimination and lifetime prevalence of panic disorders in three groups: African Americans, Hispanics and Asians. African Americans when compared to Asians had nearly twice the odds of developing panic attacks when experiencing perceived racial discrimination (Chou et al., 2012). However, comparisons of African Americans versus Hispanics, and Hispanics versus Asians, yielded no significant differences; Asians consistently held the lowest rates of developing panic attacks (Chou et al., 2012) and general anxiety related disorders (Asnaani et al., 2010). Gee et al. (2007) analyzed the association between self-reported racial discrimination and 12-month Anxiety Disorders in Asian Americans. While controlling for contextual factors, self-reported discrimination led to a 1.88 higher odds of developing any anxiety disorder. However, panic attacks do not always lead to more severe forms of psychopathology (Norton et al., 1992, 1985, 1999).

2.4. Alcohol, smoking, and panic attacks

There exists a longstanding association between substance abuse problems and anxiety disorders, including panic attacks (Cox et al., 1990; Kushner et al., 2000; Quitkin et al., 1972; Stewart, 1996; Zvolensky and Schmidt, 2004). However, these studies – more often than not – analyze all anxiety disorders making it impossible to differentiate between panic disorders, panic attacks, generalized anxiety disorder, etc. In some circumstances this cannot easily be disentangled, since substance use may be associated with multiple anxiety disorders, panic disorders, depressive disorders, mood disorders, especially when relying upon self-reported data (Stockwell et al., 1984; Bernstein et al., 2006). However, some work has found a direct relationship wherein alcohol use, abuse dependence and smoking have been found to be associated with panic attacks and disorders (Bernstein et al., 2006; Zvolensky et al., 2005, 2006; Breslau and Klein, 1999).

Historical studies have found panic psychopathology-alcohol associations; individuals seeking treatment of alcohol use problems often meet diagnostic criteria for panic attacks, disorder and agoraphobia (Chambless et al., 1987; Cox et al., 1989; Powell et al., 1982). The vice versa also pertains; persons seeking treatment for panic-related problems often meet diagnostic criteria for alcohol dependence (Bibb and Chambless, 1986; Thyer et al., 1986; Bernstein et al., 2006). Although it difficult to precisely measure both alcohol use, abuse and dependence with panic related problems, many have suggested a strong correlation is likely to exist (Kushner et al., 1990, 1999; Swendsen et al., 1998). The few studies that have separated panic attacks from other anxiety disorders have found results that suggest panic attacks may be expected to precede alcohol use problems, and be a general risk marker for later substance abuse problems (Baillie and Rapee, 2005; Goodwin et al., 2004; Bernstein et al., 2006). However, minority populations were not separated in these studies, and they were not nationally representative.

The association between smoking behavior and panic attacks follow the same directional pattern as alcohol use problems and panic attacks (Bernstein et al., 2007; Breslau and Klein, 1999; Breslau et al., 2004; Isensee et al., 2003; Zvolensky et al., 2006). Those seeking treatment for anxiety related disorders were often significantly more likely to be daily smokers (McCabe et al., 2004; Lasser et al., 2000). Nelson and Wittchen (1998) used a large representative sample ($n=3201$) to analyze panic attacks in smokers versus non-smokers, and found that among those who smoked, 7% met the criteria for panic attacks, versus those who did not smoke, to which only 2% met the criteria for panic attacks. More recently, Bernstein et al. (2007) found the onset of daily smoking preceded the onset of panic attacks in 63.7% of cases, panic attacks preceded daily smoking onset in only 33% of cases, 3.3% reported the onset of daily smoking and panic attacks during the same year.