Everyday discrimination and mood and substance use disorders: A latent profile analysis with African Americans and Caribbean Blacks

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HIGHLIGHTS

- Most African American and Caribbean Black adults reported past-year discrimination
- Results yielded 4 classes of perceived everyday discrimination
- Greater frequency of discrimination increases risk for mood disorders
- Greater frequency of discrimination increases risk for substance-use disorders
- Mood and substance-use disorders relate to type and frequency of discrimination

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ABSTRACT

Background: Perceived discrimination is a major source of health-related stress. The purpose of this study was to model the heterogeneity of everyday-discrimination experiences among African American and Caribbean Blacks and to identify differences in the prevalence of mood and substance use outcomes, including generalized anxiety disorder, major depressive disorder, alcohol-use disorder, and illicit drug-use disorder among the identified subgroups. *Method:* The study uses data from the National Survey of American Life obtained from a sample of African American and Caribbean Black respondents ($N = 4,462$) between 18 and 65 years. Results: We used latent profile analysis and multinomial regression analyses to identify and validate latent subgroups and test hypotheses, yielding 4 classes of perceived everyday discrimination: Low Discrimination, Disrespect and Condescension, General Discrimination, and Chronic Discrimination. Findings show significant differences exist between the Low Discrimination and General Discrimination classes for major depressive disorder, alcohol-use disorder, and illicit drug-use disorder. Moreover, we find significant differences exist between the Low Discrimination and Chronic Discrimination classes for the four disorders examined. Compared with the Chronic Discrimination class, members of the other classes were significantly less likely to meet criteria for generalized anxiety disorder, major depressive disorder, alcohol-use disorder, and illicit drug-use disorder.
Conclusions: Findings suggest elevated levels of discrimination increase risk for mood and substance-use disorders. Importantly, results suggest the prevalence of mood and substance-use disorders is a function of the type and frequency of discrimination that individuals experience.

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1. Introduction

An often overlooked but major source of health-related stress stems from perceived discrimination (Whitbeck, Hoyt, McMorris, Chen, & Stubben, 2001), the effects of which are comparable to other major stressors such as death of a loved one, divorce, or job loss (Kessler, Mickelson, & Williams, 1999). Evidence suggests that a powerful link exists between experiences of discrimination and mood and substance-use disorders among racial/ethnic minority populations in the United States, including African Americans and Caribbean Blacks

(Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004; Seaton, Caldwell, Sellers, & Jackson, 2008). In particular, studies have highlighted the direct relationship between discrimination and both anxiety (Gaylord-Harden & Cunningham, 2009) and depressive disorders (Schulz et al., 2006). Recent research with a large sample of African Americans and Caribbean Blacks demonstrated the association between discrimination and higher odds of lifetime anxiety disorders (Soto, Dawson-Andoh, & BeLue, 2011), although the association was significant only for African Americans. Similarly, perceived discrimination has been shown to be positively associated with depression among African American and Caribbean Black adults (Clark, 2014; Schulz et al., 2006). This association is noteworthy because anxiety disorders are the most common type of mental disorder in the United States (Kessler, Chiu, Demler, & Walters, 2005) and major depressive disorder is a leading cause of disease burden worldwide (Ferrari et al., 2013).

The effects of perceived discrimination have also been linked with use of alcohol and illicit drugs in that substance use has been identified as a means of coping with the stress of everyday discrimination (Clark, 2014; Martin, Tuch, & Roman, 2003). For example, Hunte and Barry (2012) found that every one unit increase in everyday discrimination predicted increases of alcohol- and drug-use disorders. Repeated or ongoing experiences of discrimination can be a chronic stressor, elevating distress and negative physical arousal, which in turn, can deplete psychological resources (Gee, Spencer, Chen, & Takeuchi, 2007) and lead to stress-sensitive disorders, such as generalized anxiety disorder, major depressive disorder, alcohol-use disorder, and illicit drug-use disorder (Hunte & Barry, 2012; Schulz et al., 2006; Soto et al., 2011).

Although an increasing amount of research has examined the effects of discrimination on mental and physical health, much of this research has conceptualized discrimination as a continuous construct. However, emerging research has suggested that discrimination can manifest as a multifaceted, multidimensional phenomenon across four types of discrimination: *individual racism* (i.e., actions of a personal, degrading nature that promote inferiority beliefs among minority individuals), *cultural racism* (i.e., beliefs of the dominant group are regarded as superior to those of the subordinate group), *institutionalized racism* (i.e., systematic inequality based on race that is reinforced by differential access to societal resources, services, and opportunities), and *collective racism* (i.e., members of the dominant group work to restrict or deny basic rights and privileges of minority group members; Jones, 1997). Jones' (1997) conceptualization of individual racism can be referred to as *everyday discrimination*, meaning it is found in the normal course of events, and, in the same way that the larger domain of discrimination is heterogeneous, everyday discrimination can be heterogeneous.

2. Present study

The purpose of this study was to model the heterogeneity of everyday-discrimination experiences among African American and Caribbean Blacks and identify differences in the prevalence of mood and substance use outcomes, including generalized anxiety disorder, major depressive disorder, alcohol-use disorder, and illicit drug-use disorder among the identified subgroups. To our knowledge, this is the first study to examine classes of everyday discrimination. In addition, it is the first to compare prevalence of mood and substance-use disorders across latent subgroups of African Americans and Black Caribbeans distinguished by experiences of everyday discrimination. To address the limitations of previous research, the current study uses data from a national household probability sample of African Americans and Caribbean Blacks and offers extensive assessment of variables relating to discrimination across various domains and well-validated measures of mood and substance-use disorders. Data driven methods, such as latent profile analysis (LPA) and latent class analysis, offer an unbiased estimation of potential underlying subgroups in a population based on observed variables (Muthén & Asparouhov, 2006). Although the use of such methods is growing among researchers to identify latent population subgroups,

to our knowledge, these methods have not been applied to identifying dimensions of discrimination. This innovative application of LPA might be a more accurate way of describing discrimination experiences. Although this study was exploratory in nature, based on previous research, we hypothesized that the prevalence of mood and substance-use disorders would be greater among subgroups of African American and Caribbean Black adults who experienced higher levels of discrimination across multiple domains as compared with adults of similar race/ethnicity who experienced lower levels of discrimination.

3. Method

3.1. Sample and procedures

Study findings are based on data from the National Survey of American Life (NSAL), which is a comprehensive survey of the mental health of the United States Black and non-Hispanic White populations (NSAL; Jackson et al., 2004). NSAL data were obtained between 2001 and 2003 from a nationally representative sample of non-institutionalized African American ($n = 3570$), Caribbean Black ($n = 1623$), and non-Hispanic White ($n = 1006$) adults 18 years and older. Using the *Diagnostic and Statistical Manual, Fourth Edition* (*DSM-IV*; American Psychiatric Association, 1994) and World Mental Health Composite Interview (WHO-CIDI), the NSAL gathered background data and extensive information about a range of mental disorders. The current study restricted analyses to African American and Caribbean Black respondents between 18 and 65 years ($N = 4462$). Details of the NSAL sample and procedures are available elsewhere (Jackson et al., 2004).

3.2. Measures

3.2.1. Indicator variables

We identified latent subgroups related to perceived discrimination based on nine indicator variables from the Everyday Discrimination Scale (Williams, Yu, Jackson, & Anderson, 1997). This scale was designed to measure the frequency of perceived discrimination across multiple domains. Sample items include "How often do you receive poorer service than others at restaurants or stores?" and "How often are you threatened or harassed?" Response options use a 6-point scale of *never* (coded 1), *less than once a year* (2), *a few times a year* (3), *a few times a month* (4), *at least once and a week* (5), and a*lmost every day* (6).

3.2.2. DSM-IV mental disorders

A modified version of the WHO-CIDI (Kessler & Üstün, 2004) was used to examine four measures of lifetime mood and substance-use disorders known to be linked with discrimination: generalized anxiety disorder; major depressive disorder; alcohol-use disorder, defined as abuse or dependence on alcohol; and illicit drug-use disorder, also defined as abuse or dependence. Consistent with the NSAL coding, each item was dichotomously scored (*yes* = 1, *no* = 0).

3.2.3. Sociodemographic factors

The following sociodemographic variables were included as indicator covariates in the latent profile analysis, and used as control variables in the multinomial regression analyses: age, gender, race/ethnicity, household income, and education level.

3.3. Statistical analyses

LPA and multinomial regression analyses were executed in successive steps to identify and subsequently validate latent subgroups. LPA is a statistical procedure that assigns individual cases to their most likely latent subgroups on the basis of observed data (McLachlan & Peel, 2000). Multinomial regression is a statistical procedure designed for nominal outcomes that contain categories that can be assumed to be unordered (Long & Freese, 2006).