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# Everyday Racial Discrimination, Everyday Non-racial Discrimination, and Physical Health Among African Americans

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## Abstract

Past research has identified a link between discrimination and health outcomes among people of color. Perceptions of the cause of discrimination (racial vs. other) seem to be important for mental health; however, this relationship has not been fully examined for physical health. Using data from the National Survey of American Life, we find that, among African Americans, racial discrimination and overall discrimination regardless of attribution are associated with negative health outcomes while non-racial discrimination is not. The results suggest that racial discrimination has a unique adverse effect on physical health for African Americans that practitioners need to better understand.

### Keywords

Discrimination; African Americans; Blacks; race; physical health; chronic health

## INTRODUCTION

Discrimination is primarily conceptualized as a form of unfair treatment that operates as a psychosocial stressor for people of color and other materially disadvantaged populations (Landrine & Klonoff, 1996). Two broad categories of discrimination are typically studied. Major lifetime experiences of discrimination encompass singular discrete incidents of unfair treatment in macro areas of society (i.e., the labor market, the criminal justice system, the housing market). Everyday discrimination comprises interpersonal daily hassles and insults such as receiving inferior service and being unfairly followed in stores. Everyday discrimination encompasses chronic psychosocial stressors (Essed, Philomena, 1991) that are important because they serve as ongoing challenges to the emotional well-being of individuals. Exhaustive reviews of the literature find that perceived major and everyday

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discrimination have deleterious effects on physical and mental health (Lewis, Cogburn, & Williams, 2015; Williams & Mohammed, 2009, 2013).

## Everyday Discrimination and Health

Research has found higher levels of everyday discrimination among African Americans than Whites (Ayalon & Gum, 2011; Beatty Moody, Brown, Matthews, & Bromberger, 2014; Luo, Xu, Granberg, & Wentworth, 2012; Turner & Avison, 2003; Williams, Yu, Jackson, & Anderson, 1997). In addition, both African American adults (Kessler, Mickelson, & Williams, 1999) and African American adolescents (Seaton, Caldwell, Sellers, & Jackson, 2010) are more likely than their White counterparts to attribute discrimination to racial causes rather than non-racial causes. Data from the Chicago Community Adult Health Study found that 42.9% of Blacks reported racial discrimination, compared to 30.5% of Latinos and 7.8% of Whites. However, Whites were most likely to report non-racial discrimination (55.6% vs. 34.8% for Blacks and 27.3% for Latinos) (Hunte & Williams, 2009). Since the gains made in the Civil Rights movement, the nature of racism has largely shifted from overt and blatant forms to invisible and covert forms of racial discrimination (Dovidio & Gaertner, 2000), challenging ideas of a post-racial society that became rampant after the presidential election of Barack Obama in 2008. For this reason it is imperative to better understand phenomena such as everyday discrimination.

Despite consensus around the negative effects of discrimination, ongoing debates center on whether racial discrimination is an especially pernicious form of unfair treatment for Black Americans, one that is more harmful than other forms of discrimination (Lewis et al., 2015; Williams et al., 2012). Some scholars have suggested that characteristics that are most central to the identity of the self (i.e., ascribed race for African Americans) are most vulnerable to environmental insults (Thoits, 2013). Therefore, it could be expected that racial discrimination would be especially detrimental to the health of Black Americans.

Some research has explored this idea empirically and those studies reach mixed findings. An analysis of data from the Study of Women's Health Across the Nation (SWAN) found that Black women who attributed discrimination to racial causes had higher levels of cardiovascular reactivity than those who attributed discrimination to non-racial causes, an interaction that was not found among White women (Guyll, Matthews, & Bromberger, 2001). The same data indicated that non-racial discrimination – but not racial discrimination – was associated with coronary artery calcification among African American women (Lewis et al., 2006).

In this study, we add to the present literature in several critical ways. First, we examine 13 indicators of physical health to acquire a more complete understanding of this issue. Second, in addition to having a physical health problem, we investigate the impact of discrimination on the degree to which a health problem interferes with a person's daily activities. Third, we investigate the relative effects of racial discrimination, non-racial discrimination, and overall discrimination on our indicators of physical health. This is in accordance with recent calls to elucidate potential variation in how discrimination attributions (i.e., racial versus non-racial) affect health outcomes (Lewis et al., 2015). Finally, we use secondary data from a nationally

representative sample of more than 3,000 African Americans who participated in the National Survey of American Life.

## METHODS

### Sample

The National Survey of American Life: Coping with Stress in the 21st Century (NSAL) was collected by the Program for Research on Black Americans at the University of Michigan's Institute for Social Research. The fieldwork for the study was completed by the Institute for Social Research's Survey Research Center, in cooperation with the Program for Research on Black Americans. The NSAL sample has a national multi-stage probability design which consists of 64 primary sampling units (PSUs). The data collection was conducted from February 2001 to June 2003. A total of 6,082 interviews were conducted with persons aged 18 or older, including 3,570 African Americans which is the sub-sample used for this analysis. The response rate for African Americans was 70.7%. A more detailed discussion of the NSAL can be found elsewhere (Jackson, Neighbors, Nesse, Trierweiler, & Torres, 2004). The NSAL data collection was approved by the University of Michigan's Institutional Review Board.

### Measures

**Dependent Variables—**The present analysis investigated 13 dependent variables, including 11 measures of chronic health and two measures of self-rated health (physical and oral). Each of the health variables is listed in Table 1. Self-rated physical health was measured by respondents' rating of their overall physical health at the present time (1=poor to 5=excellent). Self-rated oral health was measured in the same way.

Chronic health problems were measured by respondents' reports of doctor-diagnosed physical health conditions. We assessed total number of problems as well as three overarching categories of chronic health problems: cardiovascular (hypertension, stroke, blood circulation problems, and heart problems or heart attack, respiratory (asthma, chronic lung disease and tuberculosis), and pain (arthritis or rheumatism, ulcers, very bad headaches or migraines, and serious back problems). These categories are consistent with other research on chronic health conditions among Asian Americans (Gee, Spencer, Chen, & Takeuchi, 2007).

We also examined the degree to which chronic health problems interfere with a person's daily life. Respondents were asked, "Currently, how much does this health problem keep you from working or carrying out your daily tasks?" The response categories included a great deal (3), only a little (2), and not at all (1). Responses were summed to create four indexes that measure daily interference from cardiovascular problems, respiratory problems, problems with pain, and problems from all chronic health problems.

**Independent Variables—**The main independent variable is everyday discrimination, which was designed to assess interpersonal forms of routine experiences of discrimination (Williams et al., 1997). In total, there were three measures of everyday discrimination in this

analysis, including everyday racial discrimination, everyday non-racial discrimination, and overall discrimination regardless of attribution.

A total of 10 items were used to measure everyday discrimination: (1) treated with less courtesy; (2) treated with less respect; (3) received poor restaurant service; (4) perceived as not smart; (5) perceived as dishonest; (6) perceived as not as good as others; (7) being feared, (8 being insulted, (9) being harassed; and (10) followed in stores. Response values for each item included: 5 (almost every day), 4 (at least once a week), 3 (a few times a month), 2 (a few times a year), 1 (less than once a year), and 0 (never). Responses were summed with higher scores indicating more discrimination.

Participants who reported experiencing any discrimination were asked to identify the primary reason for such experiences (e.g., race, ethnicity, skin color, gender, sexual orientation, income, age, height, weight). Based on this item, two additional everyday discrimination variables were created: 1) perceived discrimination that was attributed to race and 2) perceived discrimination that was attributed to nonracial reasons.

Several sociodemographic factors (i.e., age, gender, family income, years of education, marital status, region and employment status) are included as control variables. Age and education are coded in years; household income is coded in dollars. Marital status is coded as married/cohabiting vs. not married. Region is coded as four categories (Northeast, North Central, West and South) and employment status had three categories: employed, unemployed, not in the labor force.

## Analysis Strategy

The distribution of basic socio-demographic characteristics, linear regression analyses and logistic regression analyses were conducted using SAS 9.1.3, which uses the Taylor expansion approximation technique for calculating the complex design-based estimates of variance. All analyses utilize analytic weights. Multivariate logistic regression was used with the dichotomous dependent variables and regression analysis was used with the continuous dependent variables. Odds ratio estimates and 95% confidence intervals are presented for logistic regression analyses, and beta estimates and standard errors are presented for linear regression analyses, with statistical significance determined using the design-corrected F statistic. To obtain results that are generalizable to the African American population, all statistical analyses accounted for the complex multistage clustered design of the NSAL sample, unequal probabilities of selection, nonresponse, and post-stratification to calculate weighted, nationally representative population estimates and standard errors.

To examine the association of everyday discrimination with chronic health problems across multiple domains, multivariate regression models are presented for presence of a chronic health problem, number of chronic health problems, and interference with daily activities. To explore the relative contributions of discrimination attribution, three models are presented for each dependent variable. The first model investigates the role of everyday racial discrimination, the second model investigates everyday non-racial discrimination, and the final model includes results from analysis of overall discrimination regardless of attribution. All models control for demographic variables. Overall, there are 13 dependent variables and

three models are presented for each dependent variable, resulting in a total of 39 multivariate regression models.

## RESULTS

Descriptive characteristics of the sample (N=3,570) are presented in Table 1. The average age of the respondents is 42 years (range of 18 through 93) and 44% are male. Respondents had an average of 12.43 years of education and the average family income was $36,832. Around 42% of the respondents are married or living with a partner, 56% resided in the South, and two-thirds of the sample was currently employed.

The multivariate analyses of everyday discrimination on self-rated health and chronic health variables are presented in Table 2. Everyday racial discrimination (row 2 in panels 1 and panel 1) was significant in 10 of the 13 regression models. Racial discrimination was associated with poorer self-rated physical and oral health, higher odds of all types of health problems, and greater number health problems within each category as well as total number of chronic health problems. Everyday racial discrimination was also associated with more daily interference from pain problems and well as from the total number of chronic health problems.

Results for everyday discrimination without attribution were the same (row 1 in panels 1 and 2) with the exception of a significant relationship with interference from cardiovascular problems. Non-racial discrimination was not significant in any of the 13 regressions (row 3 in panels 1 and 2).

## DISCUSSION

In this study, we examined the relative associations of everyday racial discrimination, everyday non-racial discrimination, and overall everyday discrimination with thirteen indicators of physical health among African Americans in the National Survey of American Life. With regard to our primary goal of assessing the relationship between general everyday discrimination and physical health we found that everyday discrimination, regardless of attribution, was associated with poorer health for 11 of 13 measures. These findings are consistent with past literature reviews examining the links between perceived discrimination and hypertension/cardiovascular outcomes (Brondolo, Rieppi, Kelly, & Gerin, 2003; Wyatt et al., 2003). This study also expands on existing literature by finding that only does discrimination increase the likelihood of having physical health problems, but it is also significantly associated with the extent to which chronic health problems interfere with daily life.

Regarding our secondary aim to distill the relative roles of racial versus non-racial discrimination on physical health outcomes, we found that racial discrimination was associated with poorer health on 10 of 13 physical health outcomes but non-racial discrimination was not significantly associated with any physical health outcomes. These findings are inconsistent with previous studies that have found similar associations between everyday racial and non-racial discrimination with serious psychological distress, generalized anxiety disorder, and major depressive disorder (Kessler et al., 1999). A more

recent study found that everyday discrimination – regardless of attribution – was associated with similar levels of stress for Blacks and Whites (Williams et al., 2012). This suggests that the relationship between nonracial everyday discrimination may be different for physical versus mental health outcomes.

At the same time, our findings are consistent with studies highlighting the particularly salient role of racial discrimination (relative to non-racial discrimination) for African Americans. For example, Chae and colleagues (Chae, Lincoln, & Jackson, 2011) found racial discrimination to be more strongly associated with psychological distress than non-racial discrimination among African Americans; similar results have also been found in a study of generalized anxiety disorder (Soto, Dawson-Andoh, & BeLue, 2011). The unique nature of everyday racial vs. non-racial discrimination for African Americans may be explained by sociological work on the self, which suggests that "[s]tressors that harm or threaten individuals' most cherished self-conceptions should be seen as more threatening, and thus, more predictive of psychological distress or disorder than those affecting less cherished aspects of the self " (Thoits, 2013:361). Thus, the greater impact of everyday racial discrimination in this study may be rooted in the extent to which an African Americans' self-identity is tied to race. This study also suggests that stressors related to self-identity may have a greater impact on physical as well as psychological disorders.

It is widely accepted that chronic stressors lead to "wear and tear" on the body, creating dysregulation of the immune and other physiological systems (McEwen & Stellar, 1993). As a recognized psychosocial stressor, everyday discrimination is likely to precipitate the continued release of stress hormones (e.g., cortisol, epinephrine) that may give rise to physical health problems such as those studied here. Moreover, emerging work on vigilance and anticipatory stress supports these findings. This body of work suggests that even the perceived threat of future racial discrimination is associated with higher levels of sleep difficulties (Hicken, Lee, Ailshire, Burgard, & Williams, 2013) and hypertension (Hicken, Lee, Morenoff, House, & Williams, 2013) among Blacks. Future research on these topics is imperative and should continue.

Furthermore, racial discrimination may affect health indirectly by influencing help-seeking behaviors. Experiences of racial discrimination have been associated with delays in seeking medical help and reduced compliance with treatment regimens (Casagrande, Gary, LaVeist, Gaskin, & Cooper, 2007). Some evidence supports the association of discrimination experiences with decreased use of informal support as well (Spencer & Chen, 2004; Spencer, Chen, Gee, Fabian, & Takeuchi, 2010) while other research suggests a more complicated relationship when both informal and professional support are considered (Woodward, Chatters, Taylor, Neighbors, & Jackson, 2010; Woodward, 2011).

There are two important limitations to consider when interpreting these results. First, given the cross-sectional nature of the data, reverse causation is a potential concern. Although limited, studies based on longitudinal data have found that perceived discrimination is associated self-rated health (Schulz et al., 2006), and even mortality (Barnes et al., 2008). These studies lend support for the idea that perceived discrimination is more likely to cause - rather than be caused by – health problems. Additionally, we were unable to explore

discrimination that may be attributed to the intersection of multiple social statuses. This is an important direction for future research (Harnois & Ifatunji, 2010).

### Implications and Conclusions

Despite these limitations this paper contributes to the extant literature and has implications for future research as well as service provision. For example, innovative work has explored whether racial identity buffers against the mental health effects of everyday discrimination (Chae et al., 2011) and has identified racial identity as a potential protective factor for the general mental health of Black Americans (Hughes, Kiecolt, & Keith, 2014; Hughes, Kiecolt, Keith, & Demo, 2015). Further exploration of these relationships in relation to both mental and physical health can inform the development of health care and social service interventions that foster and strengthen racial identity.

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## Table 1

Demographic Characteristics of the Sample and Distribution of Study Variables, National Survey of American Life

| | % | N | Mean | S.D. | Min | Max |
|---|---|---|---|---|---|---|
| Age | | 3570 | 42.33 | 14.50 | 18 | 93 |
| Gender | | | | | | |
| Male | 44.03 | 1271 | | | | |
| Female | 55.97 | 2299 | | | | |
| Years of Education | | 3570 | 12.43 | 2.23 | 0 | 17 |
| Family Income | | 3570 | 36832 | 33068 | 0 | 520000 |
| Marital Status | | | | | | |
| Married/Cohabit | 41.65 | 1222 | | | | |
| Non-Married | 58.35 | 2340 | | | | |
| Region | | | | | | |
| Northeast | 15.69 | 411 | | | | |
| Midwest | 18.81 | 595 | | | | |
| South | 56.24 | 2330 | | | | |
| West | 9.25 | 234 | | | | |
| Employment Status | | | | | | |
| Employed | 66.83 | 2334 | | | | |
| Unemployed | 10.07 | 366 | | | | |
| Not In Labor Force | 23.10 | 861 | | | | |
| Any Everyday Discrimination | | 3527 | 12.47 | 8.01 | 0 | 50 |
| Everyday Racial Discrimination | | 3412 | 8.45 | 8.85 | 0 | 50 |
| Everyday Non-Racial Discrimination | | 3411 | 3.21 | 6.36 | 0 | 48 |
| Self-Rated Health | | 3437 | 3.42 | 0.95 | 1 | 5 |
| Self-Rated Dental Health | | 3435 | 3.11 | 0.99 | 1 | 5 |
| # of Cardiovascular Problems | | 3437 | 0.50 | 0.68 | 0 | 4 |
| Any Cardiovascular Problems | | 3435 | 0.37 | 0.43 | 0 | 1 |
| Interference from Cardiovascular Problems | | 1306 | 2.13 | 1.57 | 1 | 12 |
| # of Respiratory Problems | | 3437 | 0.16 | 0.36 | 0 | 3 |
| Any Respiratory Problem | | 3437 | 0.15 | 0.32 | 0 | 1 |
| Interference from Respiratory Problems | | 491 | 1.73 | 0.96 | 1 | 8 |
| # of Pain Problems | | 3437 | 0.70 | 0.80 | 0 | 4 |
| Any Pain Problem | | 3437 | 0.15 | 0.32 | 0 | 1 |
| Interference from Pain Problems | | 1681 | 2.87 | 1.77 | 1 | 12 |
| Total # Chronic Health Problems | | 3437 | 1.36 | 1.31 | 0 | 10 |
| Interference from Total # of Chronic Health Problems | | 2249 | 3.69 | 2.96 | 1 | 27 |

Percents and N are presented for categorical variables. Means and Standard Deviations are presented for continuous variables. Percentages are weighted and frequencies are unweighted.

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**Table 2**

Multivariate Analysis of Overall Everyday Discrimination, Everyday Racial Discrimination, and Everyday Non-Racial Discrimination on Selected Measures of Health Problems among African Americans, National Survey of American Life

| | **Self-Rated Health[a]** | **Self-Rated Dental Health[a]** | **# of Cardiovascular Problems[a]** | **Any Cardiovascular Problems[b]** | **Interference from Cardiovascular Problems[a]** | **# of Respiratory Problems[a]** |
|---|---|---|---|---|---|---|
| | **B(SE)** | **B(SE)** | **B(SE)** | **OR(95% CI)** | **B(SE)** | **B(SE)** |
| Overall[3] Everyday Discrimination | −0.01(0.00) | −0.01(0.00) | 0.00(0.00)) | 1.01(1.00-1.02) | 0.02(0.01) | 0.00(0.00) |
| *p* | <0.0001 | <0.0001 | 0.02 | 0.15 | 0.003 | 0.002 |
| $F_{11,24}$ | 30.10 | 22.39 | 50.72 | 31.59 | 23.16 | 4.68 |
| Prob > *F* | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | 0.0008 |
| *N* | 3403 | 3401 | 3403 | 3401 | 1287 | 3403 |
| Everyday Racial Discrimination[3] | −0.01(0.00) | −0.01(0.00) | 0.00(0.00) | 1.01(1.00-1.02) | 0.01(0.01) | 0.00(0.00) |
| *p* | <0.0001 | <0.0001 | 0.04 | 0.08 | 0.09 | 0.002 |
| $F_{11,24}$ | 30.58 | 24.94 | 52.57 | 33.14 | 19.49 | 4.05 |
| Prob > *F* | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | 0.002 |
| *N* | 3294 | 3292 | 3294 | 3293 | 1244 | 3294 |
| Everyday Non-Racial Discrimination[3] | 0.00(0.00) | −0.00(0.00) | −0.00(0.00) | 0.99(0.98-1.01) | 0.01(0.01) | −0.00(0.00) |
| *p* | 0.76 | 0.44 | 0.84 | 0.28 | 0.30 | 0.34 |
| $F_{11,24}$ | 25.53 | 24.77 | 52.62 | 35.39 | 15.56 | 3.92 |
| Prob > *F* | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | 0.003 |
| *N* | 3293 | 3291 | 3293 | 3292 | 1243 | 3293 |

| | Any Respiratory Problems[b] | Interference from Respiratory Problems[a] | # of Pain Problems[a] | Any Pain Problems[b] | Interference from Pain Problems[a] | Total # of Chronic Health Problems[a] | Interference from Total # of Chronic Health Problems[a] |
|---|---|---|---|---|---|---|---|
| | **OR(95% CI)** | **B(SE)** | **B(SE)** | **OR(95% CI)** | **B(SE)** | **B(SE)** | **B(SE)** |
| Overall[3] Everyday Discrimination | 1.02(1.01-1.04) | 0.00(0.01) | 0.01(0.00) | 1.02(1.01-1.04) | 0.02(0.01) | 0.02(0.00) | 0.05(0.01) |
| *p* | 0.001 | 0.78 | <0.0001 | 0.001 | 0.003 | <0.0001 | <0.0001 |
| $F_{11,24}$ | 7.14 | 5.97 | 36.93 | 7.14 | 20.53 | 56.36 | 35.71 |
| Prob > *F* | <0.0001 | 0.19 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| *N* | 3403 | 487 | 3403 | 3403 | 1662 | 3403 | 2222 |
| Everyday Racial Discrimination[3] | 1.02(1.01-1.04) | 0.00(0.01) | 0.01(0.00) | 1.02(1.01-1.04) | 0.01(0.01) | 0.02(0.00) | 0.03(0.01) |
| *p* | 0.001 | 0.34 | <0.0001 | 0.001 | 0.04 | <0.0001 | 0.003 |
| $F_{11,24}$ | 5.97 | 4.74 | 40.9 | 5.97 | 19.94 | 82.96 | 35.01 |
| Prob > *F* | 0.0001 | 0.0008 | <0.0001 | 0.0001 | <0.0001 | <0.0001 | <0.0001 |
| *N* | 3294 | 469 | 3294 | 3294 | 1602 | 3294 | 2145 |
| Everyday Non-Racial Discrimination[3] | 0.99(0.97-1.01) | −0.01(0.01) | 0.00(0.00) | 0.99(0.97-1.01) | 0.00(0.01) | 0.00(0.00) | 0.02(−0.02-0.05) |
| *p* | 0.33 | 0.50 | 0.38 | 0.33 | 0.61 | 0.93 | 0.31 |
| $F_{11,24}$ | 5.29 | 6.96 | 25.28 | 5.29 | 18.51 | 60.83 | 29.08 |
| Prob > *F* | 0.0003 | <0.0001 | <0.0001 | 0.0003 | <0.0001 | <0.0001 | <0.0001 |
| *N* | 3293 | 469 | 3293 | 3293 | 1602 | 3293 | 2144 |

B= regression coefficient; SE= standard error; OR=odds ratio; 95%CI=95% confidence interval.

Note: Significance test of the individual parameter estimates were based on a complex design-corrected *t*-test.

*1*Multivariate regression B (SE) and *p*-values were reported.

*2*Multivariate logistic regression OR (95%CI) and *p*-values were reported.