Research

The Effect of African American Socio-Political Ideology on Diabetes and Hypertension Diagnoses

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Abstract

This study evaluates the effect of socio-political ideology on two health outcomes: diabetes and hypertension, using the National Survey of Black Americans (NSBA) Wave 1 (1979-1980). It also provides a statistical test of Semmes (1996) theorized link between political consciousness and health consciousness. To test this relationship, an adjusted logistic regression was conducted to predict hypertension and diabetes diagnosis. Socio-political ideology was conceptualized using several predictor variables: political partisanship and racial identity attitudes. The health outcome variables were two measures of morbidity: self-reported diagnoses of hypertension and diabetes. Results indicated that African Americans who identify as Independent voters had lower percentages of hypertension and diabetes diagnoses than African American Democrats, Republicans, and those African Americans with no political affiliation. Respondents with higher levels of racial identity attitudes were more likely to have a diabetes diagnosis than those with lower levels; this could be attributed to a stronger ability to identify racial bias which possibly leads to increased acculturative stress. Further studies, however, are needed to clarify the causal mechanisms by which ideology affects African American health, particularly for intervention and preventive health strategies.

Introduction

Minorities are less likely to engage in preventive health care use than non-Hispanic whites (NHW) (Musa, Schulz, Harris, Silverman, & Thomas, 2009). Medical mistrust is one contributing factor for the lack of health services utilization among these groups, specifically among AA (Ball, Lawson, & Alim, 2013; Benkert, Peters, Clark, & Keves-Foster, 2006; Hammond, 2010; Musa et al., 2009; Simonds, Goins, Krantz, & Garroutte, 2013). Correlates of medical mistrust include poor patient-physician interaction, knowledge of historical medical experimentation and abuses, and experiences of racism (Musa et al., 2009). Cultural identity has also been shown to be associated with lower levels of mistrust in the medical system (Simonds et al., 2013). On the other hand, strong ethnic identity has been found to provide a protective buffer for poor mental health, such as depression, among minorities (Mossakowski, 2003; Pierre & Mahalik, 2005) and has also been specifically linked to wellness outcomes such as health promoting behaviors and dietary habits (Balsam et al., 2015; Flynn & Fitzgibbon, 1998; Sheehy, Kolahdooz, Roache, & Sharma, 2015).

Most studies, however, focus on one aspect of cultural identity and use crude measurements to capture "acculturation." Aside from the debate on how to properly assess acculturation, most scales and surveys

measure behavioral outcomes rather than acculturation orientations and ideologies (Celenk & Van de Vijer, 2011; Kang, 2006). These orientations deserve attention, yet scant research exists on how other dimensions of culture, such as political orientations, can explain health status. The only study to date to examine the direct relationship between political ideology and U.S. health from a disaggregated level is Subramanian and Perkins (2010). These researchers used General Social Survey data (1976-2006) to determine the effect of political ideology on the health of Democrats and Republicans. Findings indicated that Republican partisans have better self-reported health than Democrats, but how generalizable are these conclusions when we account for ethnic and racial diversity?

African Americans (AA), for example, have a unique social and political history that has been intertwined with racial oppression and disadvantage. Their contemporary and past experiences in the United States have a profound influence on their political orientations. There has been a plethora of ideological articulations to address the social problems that have plagued the African American community; it is critical to account for these ideological commitments because relying solely on partisanship loyalty is insufficient given the subordinate status of AAs in U.S. society. Moreover, the explicit focus on partisanship as an indicator of political ideology can have significant limitations, especially when studying ethnic groups because their political ideologies are often rooted in ideas of pan-ethnicity (Espiritu, 1992; Nagel, 2003). Thus, if political party is the key observation in predicting ethnic health then researchers may neglect to identify other key orientations that may be of greater significance for these groups. This study examines the association between morbidity diagnoses and multiple dimensions of political orientation using the National Survey of Black Americans (Jackson & Gurin, 1980; Jackson & Neighbors, 1992). Based on the previously discussed notions, it is hypothesized that socio-political orientations and morbidity are associated.

Methods

The National Survey of Black Americans (NSBA) Wave 1 (1979-80) is a national multistage probability survey conducted by the U.S. Department of Health and Human Services and the National Institutes of Health. The NSBA survey is designed to offer a suitable methodological approach in the study of the AA population. NSBA sample data provides information on the attitudes and opinions on a number of issues and activities that are of self-described importance to AA, such as health, political interest and beliefs, community involvement, and religion (Jackson & Gurin, 1980; Jackson & Neighbors, 1992). Details of the NSBA study design have been reported elsewhere (Jackson & Gurin, 1987).

The NSBA dataset is well suited for several reasons. One, are the comprehensive measurements. Typically, there are many data constraints when examining the full spectrum of Black socio-political ideology. However, the NSBA sample, although dated, provides a variety of indicators to assess the continuum of Black political belief systems. Second, the NSBA is one of the few nationwide surveys of AAs to include variables regarding health morbidities and health status. And finally, the date of the dataset. Although many may find this to be a disadvantage, the time period is actually advantageous because the time period in which the first wave was collected allowed for a context that was politically charged.

Criterion Variables

Hypertension and diabetes were examined because these are both considered "lifestyle diseases" that are influenced by daily health behaviors such as sedentary lifestyles, poor eating habits, lack of sleep, and alcohol and drug consumption (Steve, Tung, Schlichtman, & Peek, 2016). Both hypertension and diabetes were coded as binary variables. Respondents who answered "yes" to the question of whether a doctor had diagnosed them with a disease were coded as 1 and those respondents who answered "no" were coded as a 0. Responses with a "don't know" (original value of 8) or "not applicable" (original value of 9) were re-assigned a value 0 because it was assumed if a respondent did not know if a doctor had diagnosed them with a disease then, for the purpose of this study, they do not have the condition.

Predictor Variables

The primary explanatory variable in this study was political ideology. Partisanship, was used as a traditional measurement of political ideology. This variable was dummied into 4 categories: Republican, Democrat, Independent, and No political identity. Because the AA population is overwhelmingly Democratic, Democrat was a baseline and served as the reference category.

Traditional measurements like party affiliation can reveal pertinent information about one's political ideology, but it is important to account for other socio-political orientations when studying marginalized populations. These ideologies and beliefs are often related in race consciousness and group identity. These socio-political ideas were measured via a series of questions. Black Nationalism, for example, is important to examine when studying Black political and social orientations because it offers an "ideological determinant of black public opinion" (Brown & Shaw, 2002; Dawson, 2000; Lipford, 2007). In the contemporary, Black Nationalism is typically divided into three distinct strains, political, cultural, and economic.

Political nationalism centers on Black control over institutions that serve a predominant Black population, (Abraham, 1991; Franklin & Resnik, 1973) while economic nationalism promotes the strengthening of a Black economic base (Lipford, 2007). Cultural nationalism advocates for the development of distinct cultural institutions that foster a sociocultural collective psyche that contributes to the overall development of the Black community (Lipford, 2007; Oliver, 1989). Three items to assess respondent's perceptions concerning Black political, economic, and cultural ideas that are typically associated with Black Nationalist ideology are used. These items were: Blacks Should Always Vote for Black Candidates When They Run, Black People Should Shop in Black Owned Stores Whenever Possible, Black Children Should Study an African Language. Responses items included, "strongly agree" (5), "agree" (4), "disagree" (2) and "strongly disagree" (1). These variables were reverse recoded so that high values indicate higher agreement with the statement. An additional value (3) was added to indicate neutrality and individuals who responded "dk/don't care/not applicable" (values 8 and 9) were assigned a value of 3.

To reduce the number of items, principal component analysis with varimax rotation was conducted to compute composite scores for the agreement with the Black racial identity oriented variables (voteblack, shopblack, afrikanlang). The factor loadings were high on one component suggesting correlation. Based on the factor analysis results, an index was created using all three of the variables since they are all theoretically and

statistically related according to the Cronbach's Alpha (.686) indicating satisfactory reliability. The range of this index is 3-15 and higher scores suggest a stronger tendency towards a Black racial identity, whereas lower scores indicate a weak propensity towards Black racial identity attitudes. The descriptive statistics for this index can be found in Table 1.

Table 1

Descriptive Statistics for Black Nationalism Index

Index	# of items	$\bar{x}$	s	γ_1	γ_2	n
Black Nationalism	3	9.57	2.53	-.061	-.55	2107

Covariates

Health is influenced by a constellation of variables and it is necessary to account for contributing factors outside the realm of identity and racial politics Five predisposing factors are accounted for which include, 1) sex, dichotomized as female and male; 2) age, measured as a continuous variable; 3) education, was rank ordered with four categories: some education, high school graduate, some college education, college graduate; 4) region, dummied into northeast, north central, west, and south (reference category), 5) marital status was dummied and measured using the following response categories, married, divorced, separated, widowed, and never married/single (reference category). Two enabling factors were also controlled for which included, 1) income, the scale ranged from one to 6 where one indicated an income of less than $4,000 per year and a 6 indicated and income of $30,000+ per year; and 2) health insurance, dichotomized as yes or no.

Statistical Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) 23.0 (SPSS, 2015). Demographic and covariates are described using mean and percentages (mode and median are used when appropriate). Several statistical analyses were conducted to determine correlation and linearity between the predictor and outcome variables. These tests include, (1) maximum likelihood factor analyses with varimax rotation and reliability analysis on the Black Nationalism items to aid as a confirmatory factor model for the measures, (2) correlation analyses, including the Chi-square significance tests, to test the linearity and patterns of association between partisanship and morbidity (hypertension and diabetes) using Pearson's correlation, and (3) a logistic regression on diabetes and hypertension diagnosis.

Ethics Statement

This study was reviewed by Southern Illinois University Carbondale Institutional Review Board and was granted an exemption due to the public use and de-identifiable nature of the data set.

Results

Sample Characteristics

A total of 797 male and 1,310 female participants were in the final analysis sample. Table 2 displays the characteristics of the participants by respondent sex. The sample ranged in age from 19-102 (M = 43.8, SD = 17.7). Over half of the male sample was married, and just over a third of females were married. Males had an average salary between $7,000 - $9,999 while females had an average salary between $4,000 - $6,999.   A small minority had attained a college degree but more than a quarter of the sample had a high school diploma. Over half of the sample lived in the southern region of the United States.

Outcome Variables

In general, the respondents were fairly healthy and a little over a quarter of the sample had at least one health condition. The top health condition was hypertension; over a quarter of the sample had been diagnosed with hypertension (32%) and 7 percent of the sample were diabetic. Comorbidity was present and 25 percent of respondents had at least 2 or more health conditions. Despite these statistics, the majority of respondents (84.2%) reported that they were satisfied with their health.

Predictor Variables

As expected, the majority of the respondents were aligned with the Democratic Party (68%). Six percent identified with the Republican Party. There were many respondents who were Independent (20%); nine percent of the respondents did not identify with any type of political partisanship. The sample also had a high level of ethnic consciousness, though this isn't surprising. Wave 1 of the NSBA was sampled in the late 1970's when there was a wave of racial pride. Also, consistent with the times, nationalist sentiments were very high. Over half the sample agreed that, Black children should study an African language (55.2%), and Blacks should support Blacks businesses (62.4%); almost half the sample (40.0%) believed that African Americans should form their own political party and always vote for Black political candidates (37.8%). The mean for the Black Nationalist scale was 9.56.

A cross-tabulation analysis with a chi-square test was conducted to determine the degree of association between political partisanship and the health factors. These results are shown in Table 3. Chi-square tests did show significant association between Democrats and health satisfaction, diabetes, and hypertension. There was also a significant association between those respondents who identified as Independent and diagnoses of diabetes and hypertension. Chi square tests also showed a significant association between health satisfaction and having no political identity.

Logistic regression analyses were conducted to further investigate these associations. Net of other factors, analysis of data indicated significant association between Black Nationalist political ideology and diabetes diagnoses. For every one-unit increase on the Black Nationalist index, the odds of having a diabetes diagnoses were expected to increase by 1.14. Age, living in the Midwest, and having health insurance were also

Table 2

NSBA Socio-demographic Characteristics of Respondents Sex, (N=2107)

	Male N=797 (37.8%)	Female N=1310 (62.2%)
Mean Age	43.30 (SD=17.81)	44.10 (SD=17.72)
Mean Income, $	5.41 (SD=2.78)	4.35 (SD=2.82)
Educational Attainment		
< High School Diploma	346 (43.8)	573 (44.2)
High School Diploma/GED	225 (28.5)	425 (32.8)
Some College	147 (18.6)	187 (14.4)
College Degree	72 (9.1)	112 (8.6)
Marital Status		
Married	419 (53.0)	448 (34.5)
Divorced	75 (9.5)	170 (13.1)
Separated	54 (6.8)	153 (11.8)
Widowed	49 (6.1)	256 (19.7)
Single	194 (24.5)	273 (21.0)
Region		
South	424 (53.2)	701 (53.5)
East Coast	138 (17.3)	253 (19.3)
Midwest	178 (22.3)	289 (22.1)
West	57 (7.2)	67 (5.1)
Health Insurance		
Yes	443 (55.6)	432 (33.0)
No	354 (44.4)	878 (67.0)

+Source: National Survey of Black Americans Wave 1 (1979-80)
+Table reports frequencies and percent for each covariate

significant predictors. None of the political factors reached significance in the model predicting hypertension. However, gender, age, education, and health insurance were significant predictors of high blood pressure. These results are presented in Table 4.

Table 3
Health Satisfaction and Diabetes and Hypertension Diagnoses by Partisanship, (N=2107)

	Democrat N=1409 (67.6%)	Republican N=129 (6.2%)	Independ. N=356 (17.0%)	No Political N=189 (9.1%)
Health Satisfaction				
Very Satisfied	718 (50.8)	68 (52.3)	194 (54.5)	96 (50.5)
Satisfied	465 (32.9)	45 (34.6)	110 (30.9)	57 (30.0)
Very Dissatisfied	177 (12.5)	14 (10.8)	39 (11.0)	22 (11.6)
Dissatisfied	49 (3.5)	2 (1.5)	13 (3.7)	14 (7.4)
p-value1	.0483*	0.527	0.691	0.049*
Diabetes Diagnosis				
Yes	114 (8.1)	10 (7.7)	13 (3.7)	12 (6.3)
No	1298 (91.9)	120 (92.3)	343 (96.3)	178 (93.7)
p-value1	0.011*	0.776	0.006*	0.645
Hypertension Diagnosis				
Yes	480 (34.0)	48 (36.9)	274 (77.0)	4 (21.1)
No	932 (66.0)	82 (63.1)	82 (23.0)	15 (78.9)
p-value1	0.000*	0.171	0.000*	0.100

+Source: National Survey of Black Americans Wave 1 (1979-80)
+Table reports frequencies and percent for health satisfaction and 2 morbidities
1 Chi-square test for association

Discussion and Conclusion

Political Partisanship

Political partisanship does not influence diabetes and hypertension diagnoses. Bivariate correlations did indicate that there were some significant associations between partisanship and the health variables but further regression analyses showed that partisanship nor political ideology play no role in predicting health except for diabetes diagnoses. Results showed that those AA who have strong racial identity attitudes have higher odds of having diabetes. This is not to suggest direct causality between political ideology and diabetes but it has been well established that the disease is rooted in stress and anxiety (Smith et al., 2012). Hormones such as cortisol and epinephrine flood the body when under stress which results in an increase in blood sugar (Williams & Williams-Morris, 2000). Perhaps, AA who have strong racial attitudes are more racially conscious and experience more acculturative and race-related stress due to their ability to pick up on certain racial nuances.

Table 4: Logistic Regression Predicting Diabetes and Hypertension Diagnoses

Variable	Diabetes Diagnosis Coefficient(SE)	Hypertension Diagnosis Coefficient(SE)
Sex	.314 (.211)	.607 (.119)*
Mean Age	.040 (.007)*	.041 (.004)*
Mean Income, $	.026 (.040)	.012 (.022)
Educational Attainment	-.047 (.119)	-.195 (.064)*
Marital Status		
Married	.115 (.354)	.103 (.173)
Divorced	.216 (.421)	.549 (.204)*
Separated	.095 (.432)	.060 (.217)
Widowed	.263 (.398)	-.099 (.225)
Single (reference group)	----------	----------
Region		
East Coast	.313 (.481)	.074 (.141)
Midwest	.533 (.741)*	-.010 (.136)
West	.056 (.456)	.208 (.228)
South (reference group)	----------	
Health Insurance	-.833 (.264)*	-.557 (.127)*
Political Partisanship		
Republican	-.398 (.365)	-.171 (.216)
Independent	-.431 (.315)	-.084 (.154)
No Political ID	-.194 (.359)	-.261 (.199)
Democrat (reference group)	----------	----------
Black Nationalism	.136 (.039)*	.000 (.022)
N	2047	
Nagelkerke R2	.176	
X2, d.f.	150.86, 16	

Statistical Significance: p < .01* (two tailed)

+Source: National Survey of Black Americans Wave 1 (1979-80)
+Table reports adjusted logistic regression analyses for diabetes and hypertension

Literature has recognized the negative influence of racism on both physical and mental health.   For example, one study found that institutional racism was a predictor of mental health among older AA (Utsey, Payne, Jackson, & Jones, 2002). Another study showed that recurrent experiences with racism were associated with elevated blood pressure levels in AA (Krieger & Sidney, 1996). Other studies show similar relationships (Krieger & Sidney, 1996; LaVeist, Nickerson, & Bowie, 2000; Williams & Williams-Morris, 2000). Racism related stress and anxiety may explain why strong racial identity is a significant predictor of diabetes among this sample of AA. However, we are unable to determine how. More work needs to be conducted to identify and test for mediators to determine how cultural and political beliefs influence diabetes onset.

Other Significant Factors

This study also reveals some other findings. Aside from the typical predictors of health like education, age, income, and health insurance, marital status and region are significant predictors of AA health. Findings showed that divorcees have higher odds of having hypertension than those who are single. The dissolution of a marriage can cause strain and stress this is evidenced with the result that divorced individuals have a higher odds of high blood pressure than any other marital category. Those living in the Midwestern portion of the United States were also found to have a higher odds of diabetes diagnoses compared to respondents living in the South.

Limitations

This research has several limitations. First, the NSBA date is outdated so findings may not be applicable to contemporary AAs. The political landscape is much different than the one 50 years ago. Since the election of President Obama, African American attitudes have shifted. Moreover, his Administration (via Michelle Obama) has focused on a national health promotion campaign. More research is needed to see if current findings in this study remain consistent among the AA population today. It is possible that the effect of Democratic partisanship on health has changed directions.

Second, the American Black population is substantially diverse. This study only examines AAs which is a major limitation because results are not generalizable to the total American Black population (e.g., African immigrants, Afro-Caribbeans, Afro-Latinos). It is important to account for nationality and immigration status because intra-racial differences may be seen across groups. It would be especially interesting to see how immigration patterns affect political ideology among Africans and African Caribbean's and then how political ideology influences their health. A third limitation is the health measurements. Unfortunately, the NSBA does not ask respondents about their health behaviors. Assessing factors like health activities and diet practices could reveal a lot more about the relationship between political ideology and health. Finally, mediations and moderation could have been analyzed on a number of variables to examine interactive effects.

Research Significance and Study Implications

In lieu of these limitations, this research is noteworthy in that almost all studies that use race, culture, and/or ethnic conceptualizations as predictors do so by examining mental health and psychological well-being as the outcome variables in the model (Bhui et al., 2004; K. Johnson, Carroll, Fulda, Cardarelli, & Cardarelli, 2010; Mossakowski, 2003; Pierre & Mahalik, 2005). The researcher knows of only a few published studies that

directly investigates some component of Black culture (political ideology) as the independent and some dimension of physical health as the dependent variable (Airhihenbuwa, Kumanyika, TenHave, & Morssink, 2000; Bhui et al., 2004; R. L. Johnson, 2002; Newton & Perri, 2004; Thompson & Chambers, 2000). These studies are significant in that they provide strong theoretical frameworks, but a major limitation of these studies is that (1) samples are not completely demographically representative (2) the samples are fairly small which limits generalizability.

This study is the only research to date that (1) uses a representative national data sample of the AAs and (2) analyzes data with comparatively large sample sizes which allowed the researcher to make inclusive inferences about the population under study. This research is also attractive because it was taken from a randomized sample and predicts health outcomes as opposed to solely relying on self-reported health satisfaction. In addition to addressing the limitations of past research, the implications of this study are tremendously significant because it offers a more holistic picture on issues affecting AA health. This research also offers a quantitative assessment of the role of political ideology on health that is often written about in historical texts and also heard in Black political rhetoric (Semmes, 1996). Thus, it functions as an empirical test of the theorized relationship between political ideology and health status. Lastly, this study builds on previous studies that assess the influence of culture on physical health and additionally adds to the scant literature on this specific relationship. Future studies should explore what factors mediate the relationship between Black ideology and diabetes prevalence.

Preventive Medicine Implications

It is important to know what sub-groups of AAs may cling to ideologies that may place them at a higher risk of hypertension and diabetes diagnoses in order to target preventive strategies and educational interventions, particularly those that help people develop coping skills and stress reduction activities in the face of discrimination and race-related stress. However, in order to develop educational interventions, studies like this are needed to disseminate knowledge and gain better understanding of the causal processes and health effects of cultural and political ideologies.

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References

Abraham, K. (1991). Politics of black nationalism: From Harlem to Soweto. Trenton, NJ: Africa World Press, Inc.

Airhihenbuwa, C., Kumanyika, S. K., TenHave, T. R., & Morssink, C. (2000). Cultural identity and health lifestyle among African Americans: A new direction for health intervention research. Ethnic Disparities, 10, 148-164.

Ball, K., Lawson, W., & Alim, T. (2013). Medical mistrust, conspiracy beliefs, and HIV-related behavior among African Americans. Journal of Psychology and Behavioral Science, 1(1), 1-7.

Balsam, K. F., Molina, Y., Blayney, J. A., Dillworth, T., Zimmerman, L., & Kaysen, D. (2015). Racial/ethnic differences in identity and mental health outcomes among young sexual minority women. Cultural Diversity and Ethnic Minority Psychology, 21(3), 380-390.

Benkert, R., Peters, R. M., Clark, R., & Keves-Foster, K. (2006). Effects of perceived racism, cultural mistrust and trust in providers on satisfaction with care. Journal of the American Medical Association, 98(9), 1532-1540.

Bhui, K., Lawrence, A., Klineberg, E., Woodley-Jones, D., Taylor, S., Stansfeld, S., . . . Booy, R. (2004). Acculturation and health status among African Caribbean, Bangladeshi, and white British adolescents. Social Psychiatry and Psychiatric Epidemiology, 40(4), 259-266.

Brown, R., & Shaw, T. C. (2002). Separate nations: Two attitudinal dimensions of Black Nationalism. The Journal of Politics, 64(1), 22-44.

Celenk, O., & Van de Vijer, F. J. R. (2011). Assessment of acculturation: Issues and overview of measures. Online Readings in Psychology and Culture, 8(1), 1-22.

Dawson, M. (Ed.) (2000). Slowly coming to grips with the effects of he American racial order on American policy preferences. Chicago, IL: University of Chicago Press.

Espiritu, Y. L. (1992). Asian American pan-ethnicity: Bridging institutions and identities. Philadelphia, PA: Temple University Press.

Flynn, K. J., & Fitzgibbon, M. (1998). Body images and obesity risk among Black females: A review of the literature. Annals of Behavioral Medicine, 20(1), 13-24.

Franklin, R. S., & Resnik, S. (1973). The political economy of racism. New York, NY: Holt, Rinehart, and Winston.

Hammond, W. P. (2010). Psychosocial correlates of medical mistrust among African American men. American Journal of Community Psychology, 45(1-2), 87-106.

Jackson, J. S., & Gurin, G. (1980). National Survey of Black American Wave 1.

Jackson, J. S., & Gurin, G. (1987). National Survey of Black Americans, 1979-1980.

Jackson, J. S., & Neighbors, H. W. (1992). National Survey of Black Americans Waves 1-4.

Johnson, K., Carroll, J. F., Fulda, K. G., Cardarelli, K., & Cardarelli, R. (2010). Acculturation and self-reported health among Hispanics using a socio-behavioral model: the North Texas Heart Study. BMC Public Health, 10(1), 53-62.

Johnson, R. L. (2002). The relationship among racial identity, self-esteem, sociodemographics, and health promoting lifestyles. Research and Theory for Nursing Practices: An International Journal, 16(3), 193-207.

Kang, S.-M. (2006). Measurement of acculturation, scale formats, and langugage competence. Journal of Cross-Cultural Psychology, 37(6), 669-693.

Krieger, N., & Sidney, S. (1996). Racism discrimination and blood pressure: The CARDIA study of young black and white adults. American Journal of Public Health, 86(10), 1370-1378.

LaVeist, T. A., Nickerson, K. J., & Bowie, J. (2000). Attitudes about racism, medical mistrust, and satisfaction with care among African American and White cardiac patients. Medical Care Research and Review, 57(Supplement 1), 146-161.

Lipford, K. (2007). The effect of Black Nationalism on African American political behavior. (MA), Southern Illinois University Carbondale, Carbondale, IL.

Mossakowski, K. (2003). Coping with perceived discrimination: Does ethnic identity protect mental health. Journal of Health and Social Behavior, 44, 318-331.

Musa, D., Schulz, R., Harris, R., Silverman, M., & Thomas, S. B. (2009). Trust in the health care system and the use of preventive health services by older Black and White adults. American Journal of Public Health, 99(7), 1293-1299.

Nagel, J. (2003). Race, ethnicity, and sexuality: Intimate intersections, forbidden frontiers. New York, NY: Oxford University Press.

Newton, R. L. J., & Perri, M. G. (2004). A randomized pilot trial of exercise promotion in sedentary African American adults. Ethnicity and Disease, 14, 548-557.

Oliver, W. (1989). Black males and social problems: Prevention through Afrocentric socialization. Journal of Black Studies, 20(1), 15-39.

Pierre, M. R., & Mahalik, J. R. (2005). Examining African self-consciousness and Black racial identity as predictors of Black men's psychological well-being. Cultural Diversity and Ethnic Minority Psychology, 11(1), 28-40.

Semmes, C. E. (1996). Racism, health, and post-industrialism: A theory of African American health. Westport, CT: Praeger

Sheehy, T., Kolahdooz, F., Roache, C., & Sharma, S. (2015). Traditional food consumption is associated with better diet quality and adequacy among Inuit adults in Nunavut, Canada. International Journal of Food Sciences and Nutrition, 66(4), 445-451.

Simonds, V. W., Goins, R. T., Krantz, E. M., & Garroutte, E. M. (2013). Cultural identity and patient trust among older American Indians Journal of General Internal Medicine, 29(3), 500-506. doi:10.1007/s11606-013-2578-y

Smith, K. K., Beland, M., Clyde, M., Gariepy, G., Page, V., Badawi, G., Schmitz, N. (2012). Association of diabetes with anxiety: A systematic review and meta-analysis. Journal of Psychomatic Research, 74(2), 89-99.

Steve, S. L., Tung, E. L., Schlichtman, J. J., & Peek, M. E. (2016). Social disorder in adults with type 2 diabetes: Building on race, place, and poverty. Current Diabetes Report, 16(8), 1-9. doi:10.1007/s11892-016-0760-4

Thompson, S. N., & Chambers, J. W. J. (2000). African self-consciousness and health-promoting behaviors among African American college students. Journal of Black Psychology, 26(3), 330-345.

Utsey, S. O., Payne, Y. A., Jackson, E. S., & Jones, A. M. (2002). Race related stress, quality of life, and life satisfaction among elderly African Americans. Cultural Diversity and Ethnic Minority Psychology, 8(3), 224-233.

Williams, D. R., & Williams-Morris, R. (2000). Racism and mental health: The African American experience. Ethnicity and Health, 5(3/4), 243-268.