

Do Racial Differences in Coping Resources Explain the Black–White Paradox in Mental Health? A Test of Multiple Mechanisms

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Patricia Louie¹, Laura Upenieks², Christy L. Erving³,
and Courtney S. Thomas Tobin⁴

Abstract

A central paradox in the mental health literature is the tendency for black Americans to report similar or better mental health than white Americans despite experiencing greater stress exposure. However, black Americans' higher levels of certain coping resources may explain this finding. Using data from the Nashville Stress and Health Study ($n = 1,186$), we examine whether black Americans have higher levels of self-esteem, social support, religious attendance, and divine control than white Americans and whether these resources, in turn, explain the black–white paradox in mental health. In adjusted models, the black–white paradox holds for depressive symptoms and any *DSM-IV* disorder. Findings indicate that black Americans have higher levels of self-esteem, family social support, and religiosity than white Americans. Causal mediation techniques reveal that self-esteem has the largest effect in explaining black–white differences in depressive symptoms, whereas divine control has the largest effect in explaining differences in disorder.

Keywords

coping resources, depression, disparities, mental disorder, race

The tendency for black Americans to report similar or better mental health has served as an enduring paradox in the epidemiological literature (Barnes and Bates 2017; Williams 2001). This association is well established for psychiatric disorders (Breslau et al. 2005, 2006; Erving, Thomas, and Frazier 2019; Louie and Wheaton 2018; Williams et al. 2007), but evidence also suggests similar results for psychological distress (Bratter and Eschbach 2005; Schnittker and Do 2020; Williams, Yu, and Jackson 1997). These findings represent a paradox given the fact that black Americans occupy lower socioeconomic standing in the United States and experience greater stress exposure relative to their white counterparts (Louie and Wheaton 2019; J. Taylor and Turner 2002; Turner and Lloyd 2004; Umberson et al. 2017). Although recent research by Schnittker

and Do (2020) suggests that higher use of medications with side effects, including depression and suicide, among white Americans may explain the black–white paradox in severe psychological distress, mounting evidence also points to the importance of coping resources in explaining the black–white paradox phenomenon (J. S. Jackson, Knight, and Rafferty 2010; Louie and Wheaton

¹University of Washington, Seattle, WA, USA

²Baylor University, Waco, TX, USA

³Vanderbilt University, Nashville, TN, USA

⁴UCLA, Los Angeles, CA, USA

Corresponding Author:

Patricia Louie, Department of Sociology, University of Washington, 211 Savery Hall, Seattle, WA 98195, USA.
Email: patlouie@uw.edu

2019). As such, if black Americans have higher levels of some coping resources than white Americans, then this could also explain why black Americans have similar or better mental health than white Americans.

In this article, we consider whether black Americans have higher levels of self-esteem, social support, and religiosity than white Americans and the extent to which each resource explains the black–white paradox in mental health. Although others have considered the role of coping resources in the racial patterning of mental health (Kiecolt, Hughes, and Keith 2008; Louie and Wheaton 2019; Mouzon 2013, 2014; Mouzon et al. 2017), we extend this work in several ways. First, previous research has examined the role of a specific coping resource in the black–white patterning of disorder in separate studies; our work examines whether multiple resources explain the black–white patterning of mental health. A strength of considering several coping resources in the same study is that it allows us to specify the relative size of the indirect effect that each specific resource contributes to the black–white patterning of mental health and to make comparisons regarding the relative size of each proposed explanatory pathway. Second, we employ refined measures of family social support and religiosity that have not previously been used in the study of the black–white paradox in mental health.

BACKGROUND

The stress process model provides a framework for understanding the relationship between race, coping resources, and mental health. A core tenet of the stress process model is that health problems are not randomly distributed in the population but, rather, are a reflection of social structural arrangements that systematically disadvantage minority groups (Pearlin 1999). Although the stress process model predicts that lower status groups have fewer coping resources than higher status groups (Pearlin 1989), group differences in resources may also result from unique social and historical circumstances that necessitate the development of coping resources for some groups more than others (Gayman et al. 2014; Louie and Wheaton 2019). Some scholars have suggested that groups that experience greater stress throughout the life course have more opportunities to develop resources to navigate adversity (Gayman et al. 2014). If this is the case, then black Americans should have higher levels of some social resources than white Americans.

There is a general consensus that black Americans tend to have higher levels of self-esteem than white Americans (Twenge and Crocker 2002; Zeigler-Hill 2007). Self-esteem is defined as a person's feeling of self-worth and helps to "minimize threats to self" (Pearlin and Schooler 1978:8). Although some have argued that higher levels of self-esteem among black Americans is counterintuitive given that black Americans are continually devalued in U.S. society (Pearlin 1999), others argue that these hostile conditions necessitate the development of coping resources, such as self-esteem, to protect against the negative stereotypes that accompany being black in America (DeAngelis 2020; Gayman et al. 2014; Louie and Wheaton 2019). Indeed, research suggests that black Americans actively foster within-group self-esteem to convey the value, resilience, and strength of black culture (Blum and Deussen 1996; Constantine and Blackmon 2002; Fischer and Shaw 1999). As such, self-esteem has been identified as a particularly important coping resource for black Americans because having a secure sense of self-worth may help to lessen the psychological impact of living in a racist society. In addition, self-esteem is viewed as an especially salutary coping resource because it is directly associated with lower levels of depressive symptoms, distress, and suicidal ideation (P. B. Jackson et al. 2010; Turner 2013; Wilburn and Smith 2005). Prior research has shown that among adolescents, self-esteem explains the black–white patterning in mood disorders and distress (Louie and Wheaton 2019). We extend this work by testing whether self-esteem explains the racial patterning of depressive symptoms and mental disorder in a sample of white and black adults.

We also consider perceived social support, which refers to the "perception that one is loved and esteemed by others" (Wethington and Kessler 1986:79), as a coping resource. The perception of support, whether this perception reflects actual receipt of support or not, has been shown to promote positive mental health (Wethington and Kessler 1986). Prior research on black–white differences in family support is mixed. Some research suggests that black Americans have higher levels of family social support than white Americans (Mouzon 2013; Thomas Tobin, Erving, and Barve 2021), other studies report similar levels (Almeida et al. 2009; Kiecolt et al. 2008), whereas still others indicate lower rates of family social support (Cichy, Stawski, and Almeida 2014). The discrepancy in these studies could be due to how family social support is operationalized. Although some focus on

objective measures of support, such as network size (Kiecolt et al. 2008) or the frequency of family interaction (Mouzon 2013), others focus on the perception of support, which captures the belief that one is supported should they need assistance (Thomas Tobin et al. 2021; Wethington and Kessler 1986). In this study, we focus on perceived family social support, which has been shown to be particularly important to protecting mental health (Wethington and Kessler 1986). One reason that perceived social support may be more protective than objective measures of social support is because those who feel supported have the confidence to pursue practical resolutions to their problems first because they know that they can mobilize their support network should personal coping efforts fail.

Finally, we examine the role of religiosity in explaining the black–white paradox. Because religiosity is a multidimensional construct (Idler et al. 2003), we focus on two dimensions: attendance at religious services, a social marker of involvement in a religious community, and the sense of divine control, an individual perception that “God controls the good and bad outcomes in their lives...and that their fate evolves according to God’s will or plan for them” (Schieman et al. 2006:529). We focus on these two components of religiosity because they are known to be higher among black individuals and provide a pertinent juxtaposition between a public religious dimension (attendance) and more private religious beliefs and cognition (divine control). According to Ellison et al. (2001), religiosity, broadly defined, may promote more favorable mental health outcomes by reducing stress exposure, providing access to social support, and strengthening psychosocial resources, like self-esteem (Schieman et al. 2017).

A large body of work supports the finding of higher levels of church attendance among black Americans relative to white Americans (Chatters et al. 2009; Krause 2002; R. J. Taylor, Chatters, and Jackson 2007). Historically, the black church has formed the social hub of the African American community (Krause 2003) and has been a refuge and source of multiple forms of social support during times of adversity (Chatters et al. 2011; Oates and Goode 2013). Black Americans tend to receive more social support from their religious communities compared with white Americans (Krause 2002; Nguyen, Chatters, and Taylor 2016; R. J. Taylor et al. 2016), and such support has a stronger impact on their emotional well-being compared to support derived from the secular world (Krause 2006). Yet despite the tendency of religious congregations to be

conduits of social integration and support, a study by Mouzon (2017) did not observe that religious attendance explained the black–white paradox in depressive symptoms. However, Mouzon’s sample was from the National Survey of American Life, which contained only a small sample of white Americans (25%), in contrast to a larger share (75%) of black Americans. Moreover, both black and white respondents were derived from the same census tracts, so black Americans were often compared to socioeconomically disadvantaged white Americans, which could underestimate the role of religiosity in explaining the paradox. We overcome this limitation in our study by drawing on a sample that has a larger percentage of white Americans drawn from a probability sample of Tennessee residents.

Although Mouzon (2017) considered an impressive array of religious dimensions, one dimension noticeably absent was the sense of divine control. The belief in God as a causal agent in daily affairs underlies the sense of divine control, and black Americans are known to report higher levels of this religious belief than white Americans (Schieman et al. 2006). In the context of the black church, notions of divine control have been central to the religious experience. The African American church tradition provides a view of individuals interacting with God on a more personal level, focusing on providing adherents the tools needed to overcome challenging life circumstances with God’s help (Ellison et al. 2008; Lincoln and Mamiya 1990). In fact, holding strong beliefs in divine control may protect mental health by boosting the sense of self-esteem (Schieman, Pudrovska, and Milkie 2005) and an internal locus of control (L. E. Jackson and Coursey 1988). The sense that an all-powerful God who is invested in human welfare likely offers a strong sense of consolation for black Americans when faced with discrimination and prejudice.

Therefore, constructing a personal relationship with God may help to lessen the detrimental effects of living in a society that continuously devalues the social, psychological, and material well-being of black people. Of course, ceding control over one’s life to a divine entity appears to contradict a core feature of mastery—that the individual, and not a divine other, is responsible for the events in one’s life and may detract from personal efforts to solve problems (Ellison 1993). However, prior evidence does not support this line of reasoning among black respondents (Schieman et al. 2006; Umezawa et al. 2012). We therefore expect that higher levels of divine control will be a protective resource for the mental health of black Americans and may

contribute to partially explaining the black–white paradox in mental health.

Depressive Symptoms and DSM-IV Mental Disorder

The current study employs two measures of mental health, depressive symptoms and any *DSM-IV* mental disorder, because evidence suggests that the use of diverse outcomes provides a more comprehensive understanding of the association between social status and mental health in general (Aneshensel, Rutter, and Lachenbruch 1991; Erving and Thomas 2018; Turner, Wheaton, and Lloyd 1995). The racial patterning of mental health differs by the specific measure. For example, although black Americans tend to have similar or lower rates of *DSM* disorders, findings using the Center for Epidemiological Studies Depression (CES-D) scale are mixed. Although some evidence indicates that black Americans report similar (Iwata, Turner, and Lloyd 2002) or lower levels of CES-D depression than white Americans (Mouzon 2017), recent evidence from a meta-analysis indicate that black Americans tend to report higher CES-D depressive symptoms compared to their white counterparts (Barnes and Bates 2017). This disjuncture between symptomatology and disorder provides an impetus for examining both measures to ascertain whether the role of coping resources in explaining the race–mental health association is outcome dependent. Furthermore, the depressive symptoms measure demonstrates the entire distribution of depression in the population (Mirowsky and Ross 2002), whereas the disorder measure reflects severe impairment and dysfunction beyond a given threshold (Horwitz 2007; Kessler 2002). As such, some have argued that disorder measures may be less sensitive to social variables because they are correlated with higher levels of impairment than continuous measures of mental health (Horwitz 2007; Kessler 2002; Louie 2019). Because depressive symptoms and disorder measure different dimensions of mental health, the use of both measures provides a more complete specification of the conditions under which specific coping resources explain the relationship between race and mental health (Mirowsky and Ross 2003).

DATA AND METHODS

Data

The Nashville Stress and Health Study (NSAHS) is a population-based sample of black Americans and

white Americans ages 22 to 69 drawn from the city of Nashville and areas within Davidson County, Tennessee. A random sample was obtained using a multistage, stratified sampling approach. Black households were oversampled, and sampling weights were constructed to allow for generalizability to the county population. Between 2011 and 2014, 1,252 respondents provided information about their personal and family backgrounds, stress and coping experiences, and health histories during 3-hour, computer-assisted interviews with interviewers of the same race.¹ Listwise deletion was used to handle missing data for all variables, including each dependent variable. This resulted in 1,186 cases for depressive symptom analyses and 1,110 for disorder analyses because of the small differences in missingness on the dependent variables. However, results were also robust using multiple imputation with chained equations to handle missing data.

Dependent Variables

Two measures of mental health were included: depressive symptoms and any 12-month *DSM-IV* mental disorder. Depressive symptoms were measured using a 20-item measure of the CES-D scale (Radloff 1977)—a widely used and highly reliable index (Mirowsky and Ross 2003). The 20-item measure of CES-D depression included items such as, “You felt like you could not shake off the blues” and “You thought your life had been a failure.” The items ranged from 0 to 3, where 0 = not at all, 1 = occasionally, 2 = frequently, and 3 = almost all the time. Responses were summed to produce an index of depression scored 0 to 60 ($\alpha = .925$).

Mental disorder was defined as any diagnosis of any *DSM-IV* mental disorder in the past 12 months, determined by psychiatric interviews. Respondents were administered a version of the World Health Organization Composite International Diagnostic Interview (CIDI) Version for *DSM-IV* (Kessler et al. 2005), a fully structured diagnostic interview designed for use by trained lay interviewers. The CIDI instrument bypasses issues of access to care because it is employed in samples directly drawn from community or national populations using a structure that operationalizes the criteria for *DSM-IV* disorders (Kessler and Merikangas 2004). We created a dichotomous variable, with 1 indicating that the respondent had met the criteria for mental disorder in the past 12 months and 0 indicating that the respondent had not. The four categories of diagnoses were mood disorders (major depressive

episode and dysthymia), anxiety disorders (panic disorder, social phobia, and general anxiety disorder), impulse control disorders (attention deficit disorder), or substance use disorders (alcohol abuse, alcohol dependence, drug abuse, drug dependence).

Independent Variables

With regard to race, respondents self-identified as white (reference category) or black.

Coping Resources

Self-esteem was measured using a modified version of Rosenberg's (1986) self-esteem scale. The six-item scale included items such as "You feel that you have a number of good qualities" and "On the whole you are satisfied with yourself." Response items included 0 = strongly disagree, 1 = mildly disagree, 2 = neither agree nor disagree, 3 = mildly agree, and 4 = strongly agree. Items were summed to create a continuous score that ranged from 0 to 24, with higher values indicating higher levels of self-esteem ($\alpha = .831$). To ensure that there was not confounding between items comprising the psychological distress and self-esteem scales, we conducted a principal components factor analysis. The eigenvalue for a two-factor model was over 1.000, suggesting the items loaded onto two distinct factors.

Perceived family social support consisted of eight items that asked about the extent to which the respondent can rely on family for emotional and instrumental support. Questions included: (1) "You feel very close to your family"; (2) "You have family who would always take the time to talk over your problems, should you want to"; (3) "Your family often lets you know that they think you are a worthwhile person"; (4) "You often feel that your family makes too many demands on you"; (5) "Your family is always pointing out mistakes you have made"; (6) "Your family is always telling you what to do and how to act"; (7) "When you are with your family, you feel completely able to relax and be yourself"; and (8) "No matter what happens you know that your family will always be there for you should you need it" (Turner and Marino 1994). Response items included 0 = not at all true for you, 1 = somewhat true for you, 2 = moderately true for you, and 3 = very true for you. Items 4 to 6 were reverse-coded. Responses were summed to create a score that ranged from 0 to 24 ($\alpha = .936$).

Religious attendance was measured by asking respondents, "Which of the following best describes

how often you attend services at church/temple/synagogue/mosque?" Response items include 0 = never, 1 = about once or twice a year, 2 = several times a year, 3 = once a month, 4 = more than once a month, 5 = nearly every week, and 6 = every week or more. Responses were dichotomized so that respondents who attended religious service once a month or more were considered to have high religious involvement versus those who attended religious services less than once a month. We note here that results were consistent with alternative specifications of religious attendance, including the full six-level ordinal variable and using once a week or more as the cutoff point to denote high versus low religious attendance.

Divine control was measured by asking respondents how much they agreed with the following statements: (1) "I decide what to do without relying on God," (2) "When good or bad things happen to me I see it as part of God's plan for me," (3) "God has decided what my life shall be," and (4) "I depend on God for help and guidance" (see Schieman et al. 2006). The response items include 0 = strongly disagree, 1 = disagree, 2 = agree, and 3 = strongly agree. The first item was reverse-coded so that higher scores indicate higher levels of divine control. Responses were summed to provide an index of divine control that ranged from 0 to 12 ($\alpha = .854$).

Controls

We included controls for education, family household income, employment status, marital status, gender, and age. Education reflected the highest level of education attained by the respondent and consisted of a set of dummy variables, including high school, some college, and college or more, with less than high school as the reference group. Annual household income was defined as less than \$20,000 (reference); \$20,000 to \$34,999; \$35,000 to \$54,999; \$55,000 to \$74,999; \$75,000 to \$94,999; and \$95,000 or more. Employment status was defined as employed versus not employed (reference). Gender was coded as female versus male (reference); marital status was defined as married, never married (reference), or other (i.e., widowed, separated, or divorced); and age was measured in years.

Analytic Strategy

Data analysis proceeded in several steps. First, we ran weighted descriptive statistics to describe the

analytic sample (Table 1). We then used separate regressions to specify the association between race and each coping resource, with controls in the model (Table 2). Next, we examined the association between race and depressive symptoms. For analyses involving depressive symptoms as the dependent variable, ordinary least squares regression was used. In analyses of any *DSM-IV* disorder, we used a linear probability model (LPM). LPMs are linear regression models with binary dependent variables and allow for the comparison of results across nested models in terms of probability changes (Mood 2010). As such, we used the LPM approach to estimate the race–mental disorder relationship. The slope coefficients in the LPM can be interpreted as the effect of a one-unit increase in X on the probability that $Y = 1$. Results were also robust using binary logistic regression and the *ldecomp* command in Stata 14.

We ran five models for each outcome: (1) a model that entered race only, (2) a model that added self-esteem, (3) a model that added perceived family support, (4) a model that added religious involvement, and (5) a model that added the sense of divine control. We present results adjusted for all relevant controls (i.e., gender, age, employment, education, income, and marital status). To preserve space, each table reports only focal associations. However, tables with all study variables are presented in the Appendix in the online version of the article.

To formally assess the indirect effect of each coping resource in the relationship between race and depressive symptoms (Table 5) and race and disorder (Table 6), we employed parametric mediation methods in the counterfactual framework using the *paramed* command in Stata 14 (Emsley and Liu 2013). Parametric mediation extends the traditional Baron and Kenny (1986) mediation procedure and uses counterfactual definitions of direct and indirect effects. Specifically, we used estimates from two parametric regression models to construct the natural direct effect and the natural indirect effect. The natural indirect effect, which was the focus of our mediation analysis, was calculated with respect to the mediator, controlling for all other predictors in the model (Valeri and VanderWeele 2013). The natural indirect effect assumes that exposure is set to some level a (e.g., white Americans) and then compares what would have happened if the mediator (self-esteem, perceived family support, religious involvement, divine control) were set to an alternative value a^* (e.g., black Americans).

RESULTS

Table 1 presents the descriptive statistics by race. In terms of coping resources, black Americans report higher levels of self-esteem. Although the means of black Americans and white Americans on self-esteem are quite similar (21.892 and 21.227, respectively), the black–white difference in self-esteem is more pronounced below the 50th percentile of self-esteem scores and especially below the 10th percentile (16 for black Americans vs. 14 for white Americans). Black Americans also have higher levels of religious attendance and sense of divine control compared to white Americans. No black–white difference was observed for perceived family support. In terms of mental health, black Americans report significantly higher levels of depressive symptoms than white Americans, but the average 12-month any *DSM-IV* mental disorder diagnoses are not significantly different among black versus white Americans. The findings for disorder are consistent with the black–white paradox literature, while the findings for depression are not.

The analyses reported in Table 2 indicate that black Americans have significantly higher levels of self-esteem ($b = 1.517, p < .001$), family social support ($b = 1.347, p < .01$), religious attendance ($b = .223, p < .001$), and sense of divine control ($b = 1.984, p < .001$) than white Americans, adjusting for gender, age, employment status, income, education, and marital status. The next step is to investigate the effect of these resources in explaining the race–mental health association.

Table 3 presents the race and depressive symptoms results with controls for age, gender, employment, education, income, and marital status in the model. Model 1 shows that black Americans have significantly lower levels of depressive symptoms than white Americans ($b = -1.662, p < .05$). In Model 2, we add self-esteem and find that there is no longer a significant difference in depressive symptoms between black Americans and white Americans ($b = .495, p > .05$). Model 3 adds perceived family social support. We see that the relationship between race and depressive symptoms becomes nonsignificant when perceived family social support is added ($b = -.972, p > .05$). In Model 4, religious attendance is added, and the black–white difference in depressive symptoms decreases, but black Americans continue to have lower levels of depressive symptoms than white Americans ($b = -1.325, p < .05$). In the next model, divine control is added into the model. Divine control does not have a main effect on depression

Table 1. Descriptives, Nashville Stress and Health Study, 2011–2014 ($N = 1,186$).

Variable	White ($n = 590$)			Black ($n = 596$)		
	M	SD	Min-Max	M	SD	Min-Max
Dependent variables						
Depressive symptoms	13.006	10.390	0–54	14.327*	9.595	0–47
Any mental disorder	.314			.287		
Focal measures						
Coping resources						
Self-esteem	21.227	3.578	1–24	21.892**	2.819	5–24
Perceived family support	19.291	6.089	0–24	19.530	5.864	0–24
Religious attendance	.413			.573***		
Sense of divine control	7.078			9.191***		
Controls						
Age	44.703	11.795	24–68	43.611	11.077	22–68
Gender						
Female	.496			.544		
Education						
< High school	.039			.149***		
High school	.226			.262		
Some college	.171			.228*		
≥ College	.564			.361***		
Household income						
< \$20,000	.086			.279***		
\$20,000–\$34,999	.117			.207***		
\$35,000–\$54,999	.158			.239***		
\$55,000–\$74,999	.207			.107***		
\$75,000–\$94,999	.130			.094		
≥ \$95,000	.302			.073***		
Employment status						
Employed	.787			.702**		
Marital status						
Married	.660			.364***		
Never married	.173			.381***		
Other (widowed, separated, divorced)	.166			.255***		

* $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests).

($b = -.123, p > .05$); therefore, we do not consider it a resource that explains the black–white patterning of depression.

Results in Table 4 show the association between race (black American vs. white American) and any 12-month *DSM-IV* mental disorder, controlling for all covariates. In Model 1, we find that black Americans have significantly lower probability of any disorder than white Americans ($b = -.094, p < .01$). Moreover, the addition of self-esteem

produces a null association between being a black American and any disorder ($b = -.038, p > .05$). In Model 3, the addition of family support results in a small decrease in the black–white difference in disorder ($b = -.081, p < .05$), and the addition of religious attendance in Model 4 results in the black–white patterning of disorder decreasing to $-.067$ ($p < .05$). Model 5 includes divine control, which reduces the black–white difference in disorder to nonsignificance ($b = -.061, p > .05$).²

Table 2. The Relationship between Race and Coping Resources, Nashville Stress and Health Study, 2011–2014 (N = 1,186).

	(1) + Self-Esteem	(2) + Perceived Family Support	(3) + Religious Attendance	(4) + Sense of Divine Control
	b (SE)	b (SE)	b (SE)	b (SE)
Race				
Black	1.517*** (.231)	1.347** (.417)	.223*** (.034)	1.984*** (.211)

Note: Results based on linear ordinary least squares regressions. Standard errors in parentheses. Models are weighted and adjusted for age, gender, employment, education, income, and marital status.

** $p < .01$, *** $p < .001$ (two-tailed tests).

Table 3. Adjusted Coefficients for Depressive Symptoms (CES-D) on Race and Coping Resources, Nashville Stress and Health Study, 2011–2014 (N = 1,186).

	(1) +Race	(2) + Self-Esteem	(3) + Family Support	(4) +Religious Attendance	(5) +Divine Control
	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)
Race					
Black	-1.662* (.661)	.495 (.584)	-.972 (.628)	-1.325* (.671)	-1.418* (.685)
Coping resource					
Self-esteem		-1.421*** (.072)			
Family support			-.512*** (.044)		
Religious attendance				-1.512** (.566)	
Divine control					-.123 (.091)

Note: Results based on linear ordinary least squares regressions. Standard errors in parentheses. Models are weighted and adjusted for age, gender, employment, education, income, and marital status. CES-D = Center for Epidemiological Studies Depression scale.

* $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests).

Parametric Mediation Analyses: A Formal Test of the Intervening Role of Coping Resources

As a formal test of mediation, we compared two exposures: $a = 0$ (white Americans) and $a^* = 1$ (black Americans). Table 5 presents the results for depressive symptoms, with each mediator assessed separately in its own model, controlling for all study covariates. We report the percentage of the effect between race and depressive symptoms/disorder that is mediated by each of the four mediators considered in this study.

We assess each mediator separately to isolate the particular indirect effect of race operating through each resource on depressive symptoms or mental disorder and to minimize the potential for multicollinearity. Because we are interested in the relative magnitude of the mediation pathways that work through our four coping resources, we consider their indirect effect. Supplemental analyses (not shown) indicate that including all four mediators in the model at once revealed the same pattern of results with slight differences in effect magnitude.

Table 4. Adjusted Coefficients for *DSM-IV* Any Mental Disorder Regressed on Race and Coping Resources, Nashville Stress and Health Study, 2011–2014 (*N* = 1,110).

	(1) +Race	(2) + Self-Esteem	(3) + Family Support	(4) +Religious Attendance	(5) +Divine Control
	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)
Race					
Black	-.094** (.033)	-.038 (.033)	-.081* (.033)	-.067* (.034)	-.061 (.035)
Coping resources					
Self-esteem		-.038*** (.004)			
Family support			-.011*** (.002)		
Religious attendance				-.106*** (.028)	
Divine control					-.015*** (.005)

Note: Results based on linear ordinary least squares regressions. Standard errors in parentheses. Models are weighted and adjusted for age, gender, employment, education, income, and marital status.

p* < .05, *p* < .01, ****p* < .001 (two-tailed tests).

Table 5. Parametric Mediation Analyses, Depressive Symptoms (CES-D), Nashville Stress and Health Study, 2011–2014 (*N* = 1,186).

Mediator	Proportion Mediated (%)	<i>p</i> Value for Estimated Indirect Effect
Self-esteem	79	.016
Family support	5	.396
Religious attendance	35	.048
Divine control	.01	.936

Note: Estimates are derived from a model adjusting for age, gender, employment, education, income, and marital status. CES-D = Center for Epidemiological Studies Depression scale.

Results from Table 5 show that the natural indirect effect of self-esteem was significant at *p* = .016. Self-esteem explained 79% of the influence of race on depressive symptoms.

Neither perceived family support nor divine control had a significant natural indirect effect in the relationship between race and depressive symptoms. However, religious attendance had a significant natural indirect effect (*p* = .048) and explained 35% of the influence of race on depressive symptoms.

The results presented in Table 6 show results from a consideration of the same mediators, this time for the outcome of mental disorder. Self-esteem explains 38% of the influence of race on disorder (*p* = .001). Neither perceived family

support nor religious attendance had a significant natural indirect effect. For mental disorder, divine control explained 51% of the influence of race on mental disorder (*p* = .019).

Taken together, our results from causal mediation analyses show that self-esteem was the strongest mediator of the relationship between race and depressive symptoms, followed by religious attendance. For mental disorder, self-esteem still explained 38% of the difference in rates of mental disorder across black Americans and white Americans, but divine control explained more of the variation, at 51%. Self-esteem and two aspects of religiosity, one gauging public participation and the other a specific religious belief, offer important insight into the black–white paradox in depressive symptoms and mental disorder.

Table 6. Parametric Mediation Analyses, *DSM-IV* Any Mental Disorder, Nashville Stress and Health Study, 2011–2014 ($N = 1,110$).

Mediator	Proportion Mediated (%)	p Value for Estimated Indirect Effect
Self-esteem	38	.001
Family support	2	.749
Religious attendance	36	.081
Divine control	51	.019

Note: Estimates are derived from a model adjusting for age, gender, employment, education, income, and marital status.

DISCUSSION

The present study advances research on the black–white patterning of mental health by testing the relative influence of multiple coping resources. First, we find that black Americans have higher levels of self-esteem, family social support, religious involvement, and perceived divine control than white Americans. Second, our study results reveal that the explanatory influence of the resource depends on the outcome considered. In the case of depressive symptoms, black Americans would exhibit similar levels of depressive symptoms to white Americans if it were not for the fact that they have higher levels of self-esteem and religious attendance than white Americans. For *DSM-IV* disorder, the black–white difference in disorder decreases when these resources are included in the analysis, especially when self-esteem and divine control are added to the model. As such, these coping resources help explain why black Americans often report similar or lower rates of disorder than white Americans.

Findings from this study show that the relationship between race, particular coping resources, and mental health vary depending on the outcome under study (Aneshensel et al. 1991; Erving and Thomas 2018). The discrepancy between the resources that explain black–white differences in depressive symptoms versus *DSM-IV* disorder may be attributable to mental disorders being correlated with higher levels of impairment and dysfunction than continuous measures of mental health (Horwitz 2007; Kessler 2002). Because no prior study has, to our knowledge, considered divine control as a predictor of mental disorder, our interpretations are speculative. In the case of severe mental health problems (i.e., disorder), the belief in divine control may have salutary effects on mental health, particularly for black Americans (Schieman et al. 2006), because the sense of divine control provides individuals with a sense of hope or validation for their

experiences, which may offset the detrimental consequences of having very little control over one’s circumstances (DeAngelis and Ellison 2017; Ellison, DeAngelis, and Güven 2017; Pudrovska et al. 2005). In contrast, high levels of divine control may exacerbate depressive symptoms because reliance on others undercuts individual agency (Upenieks and Schieman 2020), which has been shown to be important in solving one’s problems (Mirowsky and Ross 2003). Taken together, these results show that the use of multiple outcomes more comprehensively specifies how coping resources operate differently depending on the mental health outcome under study.

In this study, we also evaluated the relative contribution of each of these coping resources in explaining the black–white patterning of depressive symptoms and *DSM-IV* disorder. This provides important detail about the extent to which each resource influences the black–white patterning of mental health. Overall, self-esteem and religiosity (religious attendance and beliefs in divine control) had the largest impact in explaining black–white differences in depressive symptoms and mental disorder, with important nuances for each outcome of mental health that we considered. Self-esteem explained nearly 80% of the variation in depressive symptoms by race. This is consistent with previous research that has suggested self-esteem underlies the black–white paradox in mental health (Louie and Wheaton 2019). Religious attendance, by contrast, explained slightly over one-third of the variation in depressive symptoms. Although religious involvement is undoubtedly important in understanding racial disparities in depressive symptoms (Chatters et al. 2009; Mouzon 2017), given black Americans’ greater involvement in religious institutions, it appears that with respect to depressive symptoms, facets of the self-concept are more central to understanding racial differences. This resonates with work within the stress process model,

which has shown that self-esteem reduces psychological distress because it serves as a generalized orientation toward the social world that helps to diminish the threat of stressful circumstances (Pearlin and Schooler 1978; Thoits 1995).

In terms of mental disorder, self-esteem was still a consistent predictor, explaining 38% of the variation in the probability of having any *DSM-IV* disorder. However, divine control explained a larger share of the variance (51%). As we suggested earlier, divine control may be especially useful in protecting the mental health of black Americans when mental health problems are severe. In a rare study that examined the impact of beliefs in God on mental disorder, Kugelmass and Garcia (2015) found that adolescents who do not believe in God have higher rates of any mental disorder. We speculate that divine control might be particularly helpful for black Americans in dealing with stressors that cannot be easily resolved and that do not dissipate quickly (Upenieks and Schieman 2020). In addition, believing in vicarious control through a divine power could lead individuals to seek help from the church community. For instance, black Americans are more likely than white Americans to seek out the help of clergy members in confronting a mental health crisis (R. J. Taylor et al. 2000). As such, belief in divine control may protect individuals at risk of serious mental health problems from transitioning to disorder. Altogether, future research is needed to test the role of divine control in preventing the onset of mental disorder.

The findings from this study provide further support for the necessity to theorize the role historical context plays in structuring approaches to coping. Although the stress process framework predicts that minority groups have lower levels of coping resources than advantaged groups (Pearlin 1989), results from this study and others (Gayman et al. 2014; Louie and Wheaton 2019; Thomas Tobin et al. 2021) indicate that the development of coping resources is nuanced, and racial patterns operate in contradistinction to expectations set forth by stress theory. In line with Louie and Wheaton's (2019) concept of constructivist coping, we argue that black Americans have likely developed strategies in response to discrimination and blocked opportunity in the United States to help protect against the psychological consequences of being black in America (see also DeAngelis 2020). Importantly, we highlight that minority groups can and do have higher levels of some coping resources than white Americans, and this, in part, may be due to the structural conditions of black Americans throughout

history, which have necessitated the development of specific coping resources. As such, black Americans are resilient in that they have developed adaptive coping strategies in the context of significant adversity (DeAngelis 2020; Keyes 2009). This article provides further evidence that suggests the social patterning of coping resources in the stress process model requires revision to account for the role of historical and cultural contexts in which coping resources emerge.

Finally, it is critical to discuss these findings in light of recent research that finds that higher use of medications with depression and suicide side effects may explain higher rates of distress among white Americans versus black Americans (Schnittker and Do 2020). Although we agree that this may be one part of the paradox, we also highlight that superior coping resources among black Americans versus white Americans contributes to the paradox finding as well. Both these explanations are plausible and likely work in tandem to produce the paradox finding. As such, future research should test the role of medication use and coping resources together in the same study to capture the relative contribution of these mechanisms in explaining the black–white paradox in depressive symptoms and mental disorder.

Limitations

This study is not without limitations. First, this study is drawn from a sample of respondents from Nashville, Tennessee, only. During the period of data collection for the Nashville Stress and Health Study (between 2011 and 2014), the United States witnessed several high-profile killings of unarmed black Americans at the hands of law enforcement officials. Nashville is considered to be an urban city with high racial tensions between police and racial minorities (Gideon's Army 2016). Moreover, Tennessee is the third most religious state in the United States, with 73% of adults identified as "highly religious" on an index created by combining the religious importance, attendance, prayer, and belief in God (Pew Research Center 2014). Because of these unique features of our data related to both race and religiosity, we cannot generalize these findings to all black Americans and white Americans.

Future research is needed to test whether the findings in this study apply to black Americans and white Americans in the broader U.S. population. Nevertheless, NSAHS is a rich data source providing comprehensive measures of both psychological

health and coping resources, which are rare features in national data sources. Second, the NSAHIS is cross-sectional; therefore, definitive statements about causal ordering cannot be established. We note that for a coping resource to be characterized as such, the resources must be present prior to the first onset of disorder; however, some evidence suggests that self-esteem occurs causally prior to disorder and depression (Louie and Wheaton 2019; Orth, Robins, and Roberts 2008; Sowislo and Orth 2013). There is similar evidence to support religious attendance and divine control as occurring prior to depression (Balbuena, Baetz, and Bowen 2013; Upenieks and Schieman 2020).

CONCLUSION

This is the first study to compare the relative influence of multiple coping resources that potentially underlie the black–white paradox finding. Although others have shown that self-esteem serves as an important resource that explains the black–white patterning of mental health in adolescent populations (Louie and Wheaton 2019), this is the first study to document the role of social support, religious involvement, and divine control in explaining the black–white paradox finding among adults. Moreover, we show that not all coping resources are created equal. Specifically, self-esteem plays a substantial role in the race–depressive symptom relationship, whereas divine control has the most explanatory power for the relationship between race and disorder. Taken together, our study enhances understanding about the specific mechanisms that underlie the black–white patterning of depressive symptoms and *DSM-IV* disorder.

ORCID IDS

Laura Upenieks  <https://orcid.org/0000-0002-1200-2471>

Christy L. Erving  <https://orcid.org/0000-0001-5619-5482>

Courtney S. Thomas Tobin  <https://orcid.org/0000-0002-8018-0843>

SUPPLEMENTAL MATERIAL

The Appendix is available in the online version of the article.

NOTES

1. The Nashville Stress and Health Study race-matched the respondents and the interviewers because interview respondents may engage in more

social desirability or be less forthcoming with different-race interviewers (Davis 1997; Hill 2002; Lin, Dobbins, and Farh 1992).

2. In supplementary analyses, we reran all the models adjusting for self-rated health, and the results remained the same.

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AUTHOR BIOGRAPHIES

Patricia Louie is an assistant professor of sociology at the University of Washington. Her research focuses on the social determinants of health, with a focus on the mechanisms that underlie racial disparities in mental and physical health. Her recent research is published in *American Journal of Epidemiology*, *Social Science and Medicine*, and *Society and Mental Health*.

Laura Upenieks is an assistant professor of sociology at Baylor University. Her research interests lie in health inequalities over the life course, aging and health, and the sociology of religion. Her recent research is published in

Journal of Health and Social Behavior, Society and Mental Health, Social Science and Medicine, Sociology of Religion, Journal for the Scientific Study of Religion, Journal of Aging and Health, and Research on Aging.

Christy L. Erving is an assistant professor in the Department of Sociology at Vanderbilt University. Using theories, concepts, and perspectives from several research areas, her program of research focuses on clarifying and explaining status distinctions in health. Her primary research areas explore how race, ethnicity, gender, and immigrant status intersect to produce health differentials; the relationship between physical and

mental health; psychosocial determinants of black women's health; and the black–white mental health paradox.

Courtney S. Thomas Tobin, PhD, is currently an assistant professor in Community Health Sciences at the UCLA Fielding School of Public Health. As a medical sociologist, Thomas Tobin integrates traditional sociological theories with perspectives from public health, social psychology, medicine, and the biological sciences to examine the social, psychological, and biological (i.e., biopsychosocial) pathways that contribute to the health and longevity of black Americans.