

Racial Discrimination, Personal Growth Initiative, and African American Men's Depressive Symptomatology: A Moderated Mediation Model

Lori S. Hoggard
Rutgers University–New Brunswick

Wizdom Powell
University of Connecticut

Rachel Upton
Alexandria, Virginia

Eleanor Seaton
Arizona State University

Enrique W. Neblett Jr.
University of North Carolina at Chapel Hill

Objectives: Mounting evidence indicates that racial discrimination is a risk factor for depression among African American men. However, the mechanisms underlying the association between racial discrimination and depressive symptomatology remain unclear. The present study investigated the mediating capacity of personal growth initiative (PGI) in the relation between racial discrimination experiences and depressive symptomatology, as well as whether the proposed mediating relation was moderated by age, education, and income. **Method:** Participants included 649 African American men recruited from barbershops in the North, South, West, and Midwest regions of the United States and from academic institutions—events. **Results:** Results revealed significant associations between racial discrimination and a combined latent factor representing depressed affect, interpersonal problems, and somatic complaints but not the latent factor representing positive affect. PGI mediated the association between racial discrimination and depressive symptomatology; however, the mediational pathway was not moderated by age, education, and income. **Conclusions:** Interventions designed to mitigate the mental health consequences of racial discrimination among African American men might focus on enhancing PGI.

Keywords: racial discrimination, depressive symptoms, personal growth initiative, African American men

Supplemental materials: <http://dx.doi.org/10.1037/cdp0000264.supp>

Racial discrimination, actions executed by members of a dominant racial group that have negative or differential effects on members of nondominant racial groups (Williams, Neighbors, & Jackson, 2003), is a common experience for African American men (Chae, Lincoln, Adler, & Syme, 2010; Kessler, Mickelson, & Williams, 1999). Previous research has indicated that 89% of African American men reported experiencing racial discrimination (English, Lambert, Evans, & Zonderman, 2014). A strong corpus of research has also indicated that racial discrimination is a catalyst for depressive symptomatology among African American men (see Watkins, Green, Rivers, & Rowell, 2006), even

after accounting for general stress, socioeconomic status (SES), neuroticism, and demographic factors (Banks, Kohn-Wood, & Spencer, 2006; Hudson, Neighbors, Geronimus, & Jackson, 2016; Matthews, Hammond, Nuru-Jeter, Cole-Lewis, & Melvin, 2013; Utsey, 1997). For example, Watkins, Hudson, Howard Caldwell, Siefert, and Jackson (2011) reported that lifetime prevalence of everyday discrimination was positively associated with depressive symptoms among African American men 35–54 years of age. Notably, racial discrimination exposure precedes the onset of depressive symptomatology, not vice versa (see Lewis, Cogburn, & Williams, 2015), further estab-

This article was published Online First February 28, 2019.

Lori S. Hoggard, Department of Psychology, Rutgers University–New Brunswick; Wizdom Powell, Health Disparities Institute, University of Connecticut; Rachel Upton, Independent Practice, Alexandria, Virginia; Eleanor K. Seaton, The Sanford School, Arizona State University; Enrique W. Neblett Jr., Department of Psychology, The University of North Carolina at Chapel Hill.

This research was supported by the Robert Wood Johnson Foundation Health & Society Scholars Program and The University of North Carolina Cancer Research Fund (awarded to Wizdom Powell). Wizdom Powell received additional research and salary support from National Institute for Minority Health and Health Disparities Award 1L60MD002605-01,

National Cancer Institute Grant 3U01CA114629-04S2, and Center for AIDS Research Grant P30 AI50410. Wizdom Powell is currently supported by National Institutes of Drug Abuse Grant 1K01 DA032611-01A1. We thank current and past members of the UNC Men's Health Research Lab (Derrick Matthews, Travis Melvin, Justin Smith, Allison Mathews, Keon Gilbert, Melvin R. Muhammad, and Donald Parker) and Amani Nuru-Jeter, Keith Hermanstynne, and Adebisi Adesina for their assistance with data collection for the African American Men's Health & Social Life Study.

Correspondence concerning this article should be addressed to Lori S. Hoggard, Department of Psychology, Rutgers University–New Brunswick, Piscataway, NJ 08854. E-mail: lori.hoggard@rutgers.edu

lishing racial discrimination as a risk factor for depression among African American men.

Williams and Mohammed (2009) have called for studies to identify the underlying mechanisms in the link between racial discrimination and depressive symptoms. In a related vein, we posit that the elucidation of pathways connecting racial discrimination to depressive symptomatology among African American men is paramount, because such pathways can inform the implementation of interventions that disrupt this connection. Thus, the present study investigates the interrelations among racial discrimination; personal growth initiative (PGI), defined as active and intentional engagement in the growth process (Robitschek, 1998); sociodemographic factors (i.e., age, level of education, and income); and depressive symptomatology among African American men.

Theoretical Frameworks

The present scholarship is guided by two complementary theoretical frameworks: The multidimensional conceptualization of racism-related stress (Harrell, 2000) and the biopsychosocial model of racism (Clark, Anderson, Clark, & Williams, 1999). According to the multidimensional conceptualization of racism-related stress (Harrell, 2000), racism-related stress refers to the “race-related transactions between individuals or groups and their environment that emerge from the dynamics of racism, and that are perceived to tax or exceed existing individual and collective resources or threaten well-being” (p. 44). Interpersonal racial discrimination in contemporary American life presents most often as subtle, unconscious acts, commonly referred to as everyday racial discrimination (Essed, 1991; Harrell, 2000). Everyday racial discrimination reflects systematic and institutional attitudes and behaviors (e.g., being denied a loan based on neighborhood residence) as well as daily slights (e.g., receiving poor service). According to Harrell’s (2000) conceptualization, racial discrimination threatens mental health both via the direct experience of stress (e.g., depressive symptomatology) and through its influence on important mediators (e.g., PGI).

As delineated by the biopsychosocial model of racism (Clark et al., 1999), African Americans frequently experience racial discrimination, which initiates exaggerated psychological and physiological responses. Moreover, racial discrimination limits African Americans’ access to resources, opportunities for growth, and social mobility (Clark et al., 1999), which, in turn, can further contribute to poorer mental health and well-being. Further, sociodemographic factors, particularly age and SES, influence the association between racial discrimination and well-being and health. Over time, racism exposure and exaggerated reactivity contribute to poorer well-being and health, and sociodemographic factors exacerbate or attenuate these associations (Clark et al., 1999). Drawing from these frameworks, we investigate the potential mediating role of PGI in the relation between racial discrimination and depressive symptomatology among African American men and whether this PGI pathway is moderated by age, education, and income.

Racial Discrimination, Personal Growth Initiative, and Depressive Symptoms

Despite evidence that racial discrimination is a risk factor for poorer mental health, the factors that mediate the associations between racial discrimination and mental health among African

American men remain unclear. It is important to note that African American men’s subjugation to racial discrimination, which limits their resources and opportunities for personal growth (Hattery & Smith, 2007), may signal a need for empirical examinations that focus on growth- and resource-related mediators. PGI has been earmarked as a relatively new and promising precursor for well-being and optimal functioning (Robitschek, 1998; Weigold, Porfeli, & Weigold, 2013). Specifically, PGI has been defined as a set of cognitive and behavioral skills used to actively and intentionally improve one’s self across life domains and achieve life fulfillment (Robitschek, 1998; Ryff & Singer, 2008). Although PGI is theoretically tied to self-efficacy and internal locus of control, self-efficacy and internal locus of control do not include engagement in self-directed, intentional behaviors that maximize one’s ability to achieve personal growth goals (Robitschek, 1998). In contrast, PGI involves the intentional implementation of action plans created for personal growth (Robitschek et al., 2012).

Individuals with high levels of PGI are described as “seeking out and taking advantage of opportunities for continued development” (Robitschek & Kashubeck, 1999, p. 160), whereas individuals low on PGI are less likely to pursue such opportunities. In a related way, PGI is positively associated with positive mental health and functioning, including general coping, personal growth and autonomy, interpersonal skills, spirituality, emotional support, and global affect (Vaingankar et al., 2011); vocational development (Robitschek & Cook, 1999); well-being (Ayub & Iqbal, 2012); self-compassion, curiosity, happiness, reflective wisdom, and optimism (Neff, Rude, & Kirkpatrick, 2007); and self-efficacy (Ogunyemi & Mabekeje, 2007). PGI is also negatively associated with maladaptive coping strategies, anxiety, depression, and distress (Robitschek & Cook, 1999; Weigold & Robitschek, 2011). Although the majority of these samples have primarily employed White samples, PGI seems to have relevance for health and well-being within Black samples as well. Specifically, using a Nigerian sample, Ogunyemi and Mabekeje (2007) documented that PGI was positively related to both self-efficacy and mental health and negatively related to risk-taking behaviors. Using another Nigerian sample, Oluyinka (2011) showed that PGI was positively related to professional help-seeking attitudes and negatively related to external health locus of control.

We believe the investigation of PGI as a mediator of the relation between racial discrimination and depressive symptoms is promising. Robitschek and Kashubeck (1999) found that PGI mediated the stress–distress association and concluded that PGI positively impacts mental health by preventing the formation of distress and depressive symptoms. Moreover, racism diminishes mastery and self-efficacy; increases hopelessness; and potentially thwarts African American men’s ability to assume important or idealized male roles, including the roles of provider and protector (Gee, Spencer, Chen, Yip, & Takeuchi, 2007; Hammond, Fleming, & Villa-Torres, 2016; Polanco-Roman & Miranda, 2013). Ryff, Keyes, and Hughes (2003) found that racial discrimination was associated with lower PGI among a national sample of White, African American, and Mexican American adults, although this relation was observed among only women. Taken together, challenging societal conditions may contribute to downward trajectories in personal growth (Ryff, 2000), and racial discrimination may erode mental health by chipping away at African American men’s personal growth initiative.

Sociodemographic Considerations

There is also a dearth of research examining whether the mediating influences in the racial discrimination–depressive symptomatology relation are conditional upon pertinent sociodemographic characteristics. We expected that age would moderate the relations among racial discrimination, PGI, and depressive symptomatology, given scholarship revealing life course differences in both PGI (Ryff & Keyes, 1995) and prevalence of depression (Kessler, Birmbaum, Bromet, et al., 2010). Our focus on age as a moderator was further guided by the tenets of the biopsychosocial model of racism and research revealing age-related differences in racial discrimination exposure and vulnerability (Gee, Walsemann, & Brondolo, 2012; see Lewis & Van Dyke, 2018). Some studies have documented higher prevalence rates among younger African Americans (Kessler et al., 1999), higher prevalence rates among older African Americans (English et al., 2014), or no age-related differences in racial discrimination exposure at all (Brondolo et al., 2005). Notably, age may also moderate the association between racial discrimination and mental health. Greer and Spalding (2017) found that the association between institutional racism and anxiety was significant among younger African American women (i.e., 18) compared to middle-aged (i.e., 37) and older (i.e., 55+) African American women, suggesting that older age may function as a buffer in the presence of racial discrimination-related psychological outcomes. Conversely, Watkins et al. (2011) documented associations between everyday discrimination and depressive symptomatology among African American middle-aged men (35–54) but not among young (18–34) and older (55+) African American men, further contributing to the mixed findings in the literature. Finally, age may differentially impact the PGI pathway connecting racial discrimination to depressive symptomatology because African Americans who are 18–34 have higher unemployment and poverty rates compared to African Americans 35–49 and 50–64 (Centers for Disease Control and Prevention, 2017), raising the possibility that the PGI pathway linking racial discrimination to depressive symptomatology may be most relevant among young African American men.

We also examined whether the indirect relation between racial discrimination and depressive symptomatology through PGI varied by level of education and income. This decision was guided by (a) Ryff et al.'s (2003) assertion that the association between adversity (e.g., racial discrimination) and PGI may depend on level of education and (b) Clark and colleagues' (1999) claim that SES modulates the association between health and well-being. Previous research has documented that more advanced education levels are positively associated with racial discrimination among African American men (Hudson et al., 2016), whereas other studies have documented a negative association between SES and frequency of racial discrimination experiences (Dailey, Kasl, Holford, Lewis, & Jones, 2010). In terms of vulnerability, Pieterse and Carter (2007) reported that when accounting for general stress, racial discrimination more strongly predicted psychological distress among working class versus middle-upper class African American men. Similarly, racial discrimination predicted psychological well-being among middle-upper class, but not working class, African American men. Thus, it is conceivable that diminished growth opportunities resultant from racial discrimination experiences may be

most strongly linked to mental health among low- versus high-SES African American men.

The Present Study

Our primary goal was to elucidate whether racial discrimination was linked to depressive symptomatology through diminished PGI among African American men. We also examined whether the proposed mediation model was moderated by age, income, and education levels. The present study employs item factor analysis (Wirth & Edwards, 2007) and structural equation modeling (SEM) to examine the mediating capacity of PGI in the racial discrimination–depressive symptomatology link, as well as the moderating capacity of age, income, and education in the PGI mechanistic pathway. We included three important covariates in our analyses (masculine self-reliance, neuroticism, general social stress) that may influence the relation between racial discrimination, PGI, and depressive symptomatology among African American men. Traditional masculinity norms of self-reliance may confound the association between racial discrimination and PGI and between racial discrimination and depressive symptomatology among African American men. For instance, racial discrimination may be more strongly associated with greater depressive symptomatology among self-reliant African American men because of their perceived inability to improve their situation; conversely, self-reliant African American men may be less likely to express and report depression (Thompson & Pleck, 1986). We also control for neuroticism, because individual differences in vulnerability to negative emotion and stress exposures confound the relation between racial discrimination and mental health (Huebner, Nemeroff, & Davis, 2005). Finally, consistent with previous research (Pieterse & Carter, 2007), we treat general social stress as a covariate, because it may also confound the relation between discrimination and mental health (Taylor & Turner, 2002). We hypothesized the following:

Hypothesis 1: Racial discrimination would be positively linked to depressive symptomatology.

Hypothesis 2: Racial discrimination would be negatively related to PGI and positively related to greater depressive symptomatology. Given the cross-sectional nature of the present study, we also tested for alternate pathways (Depressive symptomatology → Racial discrimination → PGI; Racial discrimination → Depressive symptomatology → PGI).

Hypothesis 3: The hypothesized mediated relation between racial discrimination, PGI, and depressive symptomatology would be moderated by age, income, and education. Given the mixed literature, we made no explicit hypotheses about the nature of this moderation.

Method

Participants and Procedures

We recruited 649 African American men to participate in a cross-sectional study of African American men's social lives and health. Data were collected in three independent, geographically tied waves: Wave 1 (2003 to 2004; Georgia, Michigan, and North Carolina)

included 210 participants, Wave 2 (2005 to September 2007; California) included 111 participants, and Wave 3 (December 2007 to 2009; Georgia and North Carolina) included 327 participants. African American men were recruited from seven barbershops (79.22%) in rural and urban regions and from two academic institutions—events (20.78%): a community college in Southeastern Michigan, a historically Black university (HBU) in the southeastern region of the United States, and at a conference for African American male law enforcement professionals in Miami, Florida, in 2003. Approximately 50% of the community college population was male, and 22% were ethnic minorities. The HBU student population was about 77% African American and 33% male.

Participants were recruited using flyer advertisements, direct contact, and word of mouth. Barbershops were chosen as primary recruitment sites because they are trusted congregating spaces for African American men and have been successfully targeted in research studies and interventions within this population (see Hart & Bowen, 2003). Recruitment efforts focused on high-volume businesses (i.e., having a wait time of 30–60 min and serving a minimum of 30 customers daily), because high-volume shops are popular and provide ample wait times for men to complete surveys before receiving their haircuts. Our African American male community informants identified eight high-volume barbershops. Thereafter, we approached these businesses about participation; initial contact with barbershop owners was made in person or by telephone and followed up with a study brochure, copy of the survey, and consent forms, after which we obtained signed letters of support. One of eight barbershop owners declined to participate in the study. Next, we solicited and incorporated feedback from barbers into our final survey. Receptionists and/or barbers invited patrons to participate in “a study about African American men’s health”; only men who were at least 18 years of age and who self-identified as African American were eligible to complete the survey. Of the men approached in barbershops, 90% verbally consented to participate; the most frequently cited reason for nonparticipation was time constraints. Most completed the survey during the wait time, and all respondents received a \$25 gift certificate for a free haircut.

The recruitment methods at the community college and the HBU were similar. Study personnel approached African American men in high-traffic areas at these academic institutions (e.g., student union, cafeteria, conference exhibit halls) during lunch hours or other breaks; 86% of the men who were approached completed the survey and received a \$25 gift card. The present study was conducted in compliance with the Institutional Review Board.

Measures

Depressive symptoms. Depressive symptoms were assessed using the 12-item version (Roberts & Sobhan, 1992) of the Center for Epidemiological Studies Depression (CES-D) scale (Radloff, 1977). The full CES-D scale has been shown to be reliable and valid in African American–Black samples (Long Foley, Reed, Mutran, & DeVellis, 2002; Nguyen, Kitner-Triolo, Evans, & Zonderman, 2004). The 12-item CES-D (Roberts & Sobhan, 1992), which minimizes participant burden, is highly correlated (.96) with the 20-item CES-D and has also demonstrated high internal consistency ($\alpha = .76$) among African American samples (Torres, 2012). Responses to all items (e.g., “I felt depressed”)

ranged from 0 (*Rarely or none of the time*) to 3 (*Most or all of the time*).

Researchers using the 20-item and 12-item CES-D have found evidence of Radloff’s (1977) original four factors (depressed affect, positive affect, somatic complaints, interpersonal problems) in White and African American samples (Blazer, Landerman, Hays, Simonick, & Saunders, 1998; Kohout, Berkman, Evans, & Comoni-Huntley, 1993; Nguyen et al., 2004). Conversely, Long Foley et al. (2002) found no distinction in the factor structure between somatic complaints and depressed affect when examining a sample of African Americans. In the present analysis, 11 of the 12 CES-D items (see Table 1) were used to generate a two-factor structure comprising positive affect ($\alpha = .72$), and a combined latent factor representing depressed affect, interpersonal problems, and somatic complaints ($\alpha = .83$).

Racial discrimination. The 18-item Daily Life Experience (DLE) subscale of the Racism and Life Experiences Scales (RaLES; Harrell, Merchant, & Young, 1997) was used to assess the frequency of self-reported racial discrimination experiences or “microaggressions” (e.g., being ignored or not given service) in the past year. Responses to all items were rated on a 6-point Likert-type scale ranging from 0 (*Never*) to 5 (*Once a week or more*), with higher scores corresponding to more frequent experiences ($\alpha = .89$ in the present study). The RaLES has been shown to have sound psychometric properties among African Americans (Harrell et al., 1997).

PGI. PGI was assessed using the Personal Growth Initiative Scale (PGIS; Robitschek, 1998), a nine-item instrument that measures active engagement in the process of self-change. Responses to all items (e.g., “If I want to change something in my life, I initiate the transition process”) were rated on a 7-point Likert scale ranging from 0 (*Definitely disagree*) to 6 (*Definitely agree*), with higher scores indicating higher levels of PGI ($\alpha = .89$ in the present study). The PGIS has demonstrated test–retest reliability (.74) and good internal consistency (.78–.88; Robitschek, 1998, 1999). The PGIS is also moderately, positively correlated with assertiveness, instrumentality, internal locus of control, and domain-specific intentional growth processes (Robitschek, 1998, 1999). Finally, in a sample of White, African American, and Mexican American adults, Ryff and colleagues (2003) reported that the PGI measure exhibited adequate reliability.

Sociodemographics. Participants completed questions assessing sociodemographic characteristics. Consistent with life span research (Mroczek & Kolarz, 1998), age ($M_{\text{age}} = 32.35$ years, $SD = 11.11$, range = 18–79) was treated as a continuous measure. Income was treated as an interval-scaled measure ranging from 1 (*Annual income less than \$9,999*) to 9 (*Annual income \$90,000 or more*), with a median of 3 (*Annual income ranges between \$20,000 to \$29,999*) and a standard deviation of 2.45. We also assessed level of education (\leq high school degree, some college, college or graduate–professional degree): 32.65% of participants reported having a high school diploma or general equivalency diploma or less, 36.59% reported completing a technical program or some college, and 30.76% graduated from college or obtained a professional degree. A description of the measures for the covariates can be found in the [online supplemental materials](#).

Analytic Approach

Using SAS 9.2, we performed univariate analyses to identify duplicate, out-of-range, or outlying values. After identifying and removing a single out-of-range observation falling below the spec-

Table 1
EFA and CFA Factor Loadings for CES-D Scale Based on Split Random Samples

Measure	EFA: factor loadings (SE)	CFA: unstandardized loadings (SE)
CES-D combined factor		
1. I felt depressed	.78 (.06)	1.00 (.00)
2. I had trouble keeping my mind on what I was doing	.66 (.07)	.82 (.05)
3. My sleep was restless	.72 (.07)	.72 (.06)
4. People were unfriendly	.76 (.06)	.74 (.06)
5. I had crying spells	.75 (.07)	1.09 (.06)
6. I felt that people disliked me	.70 (.04)	.84 (.05)
7. I could not get "going"	.71 (.06)	.94 (.05)
CES-D positive affect		
1. I was happy	.84 (.03)	1.00 (.00)
2. I felt that I was just as good as other people	.71 (.07)	.82 (.05)
3. I enjoyed life	.72 (.07)	.95 (.07)
4. I felt hopeful about the future	.50 (.07)	.52 (.06)

Note. All factor loadings were statistically significant using an alpha level of .01. EFA = exploratory factor analysis; CFA = confirmatory factor analysis; CES-D = Center for Epidemiological Studies Depression.

ified 18–79 age range, we constructed the analytic sample ($n = 648$) used to complete analyses. SAS 9.2 (e.g., PROC GLM, PROC REG) was also used to perform correlational analyses, regression diagnostics, and sensitivity analyses to identify potential outliers (standardized residuals, leverage, Cook's distance), as well as preliminary analyses to evaluate statistically significant differences for the DLE (predictor), PGI (mediator), and CES-D (outcome) scales across the three waves of data collection.

Next, we examined the factor structure of the ordinal, Likert scale items included in the DLE, PGI, and CES-D scales by randomly splitting the sample into two equal halves ($n = 324$). Exploratory factor analysis (EFA) via oblique geomin rotation and confirmatory factor analysis (CFA) models (e.g., item factor analysis models) were used to assess the stability of the respective factor structure(s) across the two random samples (Fabrigar, Wegener, MacCallum, & Strahan, 1999). Items exhibiting large residual correlations, double factor loadings, and/or factor loadings below .30 were removed from their respective scales. EFA/CFA models examining the factor structure of the DLE, PGI, and CES-D scales and SEMs used to test for mediation were performed using Mplus 7.11 (Muthén & Muthén, 1998–2013).

The final set of models testing for mediation was performed using weighted least squares with mean and variance adjustment (WLSMV) estimation to generate bootstrap confidence intervals (CIs) and model fit indices as well as robust maximum likelihood (ML; full information maximum likelihood [FIML] with robust standard errors) to account for missing data (see Enders, 2010). A more detailed explanation of our statistical decisions is provided in the online supplemental materials. SEM models with latent variable interactions used to test for moderated mediation were analyzed using only robust ML (Maslowsky, Jager, & Hemken, 2015).¹ Unless stated otherwise, we used an alpha level of .05 and 95% bias-corrected CIs.

Results

Factor Structure of the CES-D Scale

Using the randomly split samples, we assessed whether a four-factor structure (e.g., depressive affect, somatic symptoms, posi-

tive affect, and interpersonal problems) similar to the CES-D factor structure identified by Radloff (1977) best fit the data compared with a one-, two-, or three-factor structure. Findings from the EFA model, $\chi^2(34, N = 316) = 62.10, p = .002$, comparative fit index (CFI) = .99, Tucker–Lewis index (TLI) = .98, root-mean-square error of approximation (RMSEA) = .05, 90% CI [.03, .07], and the CFA model, $\chi^2(43, N = 318) = 114.54, p < .001, CFI = .97, TLI = .97, RMSEA = .07, 90% CI [.06, .08]$, indicated that based on 11 of the 12 CES-D items, a two-factor structure best fit the data.² One of the 12 CES-D items, "I felt like everything I did was an effort," exhibited issues with correlated errors and double loadings (i.e., having statistically significant factor loadings on more than one latent factor) and was subsequently removed.³ The two-factor structure for CES-D comprised a latent factor representing positive affect ($\alpha = .72$) and a combined latent factor representing depressed affect, interpersonal problems, and somatic complaints ($\alpha = .83$). Factor loadings and standard errors for the CFA and EFA models via WLSMV estimation are displayed in Table 1 (all factor loadings were statistically significant using an alpha level of .01). Please see the online supplemental materials for the full set of results regarding EFA/CFA models used to examine the factor structure of the CES-D, DLE, and PGI scales, as well as subsequent tests of measurement equivalence–invariance.

¹ In Mplus, weighted least squares with mean and variance adjustment estimation currently cannot be used to evaluate structural equation modeling with latent variable interactions, and so robust maximum likelihood was used when testing for moderated mediation.

² The three- and four-factor Center for Epidemiological Studies Depression (CES-D) scale models displayed factor correlations greater than .85, indicating issues with respect to discriminant validity. Using the full data analytic sample, confirmatory factor analysis results for the final, two-factor model for CES-D were as follows, $\chi^2(43, N = 634) = 169.26, p < .001$, comparative fit index = .97, Tucker–Lewis index = .97, root-mean-square error of approximation = .07, 90% confidence interval [.06, .08].

³ Correlated errors indicate that after controlling for the common factor(s), two or more items remain correlated due to sources outside the common factor(s). In general, correlated error terms indicate that there are redundant items in a scale (Brown, 2006).

Preliminary Analyses

After completing sensitivity analyses via ordinary least squares regression to ensure no influential outliers were present, we employed one-way analysis of variance to evaluate whether there were significant differences with respect to the wave in which data were collected for the newly revised DLE, PGI, and CES-D scales.⁴ Results revealed a significant main effect when predicting DLE, $F(2, 577) = 9.48, p < .001, \eta^2 = .03$. Pairwise comparisons based on Tukey's post hoc criterion indicated that compared to Wave 3 ($M = 1.86, SD = 1.24$), participants in Wave 1 ($M = 1.37, SD = 1.19$) reported significantly lower levels of racial discrimination. Participants in Wave 2 of data collection ($M = 1.82, SD = 1.25$) did not significantly differ from participants in Wave 3 with respect to reports of racial discrimination. Participants in Waves 1 ($M = 4.86, SD = .84$) and 2 ($M = 4.70, SD = 1.04$) reported higher levels of PGI than did participants in Wave 3 ($M = 4.23, SD = 1.15$), $F(2, 599) = 23.83, p < .001, \eta^2 = .07$. Moreover, relative to participants in Wave 3, participants in Waves 1 and 2 reported significantly lower levels of depression based on the combined CES-D factor, $F(2, 587) = 22.47, p < .001, \eta^2 = .07$, and significantly higher levels of positive affect, $F(2, 596) = 26.12, p < .001, \eta^2 = .08$. There were no statistically significant differences between the three waves on neuroticism or masculine self-reliance. Conversely, participants in Wave 1 ($M = 1.24, SD = 1.03$) and Wave 2 ($M = 1.43, SD = 1.06$) reported significantly lower levels of general social stress than did participants in Wave 3 ($M = 1.96, SD = 1.17$), $F(2, 559) = 25.41, p < .001, \eta^2 = .08$. Finally, compared to participants in Wave 3, their counterparts in Waves 1 and 2 were somewhat older (average of 33 to 36 years of age in Waves 1 and 2 vs. an average of 31 in Wave 3) and reported higher incomes (\$30,000–\$49,999 in Waves 1 and 2 vs. \$20,000–\$29,999 in Wave 3) and levels of education (see the [online supplemental materials](#) for an explanation for how final education categories were derived). Given these preliminary findings, wave of data collection was included as a covariate in subsequent analyses. Specifically, we constructed three nominal indicators (dummy variables) representing whether respondents participated in Wave 1, 2, or 3 of data collection. Descriptive analyses (e.g., means, standard deviation, percentage of missing values for each variable) and zero-order correlations for the data analytic sample are displayed in [Table 2](#).

Mediation

First, we tested a simple mediation model with no covariates via WLSMV estimation. Overall fit was acceptable, $\chi^2(203, N = 640) = 664.86, p \leq .001, CFI = .97, TLI = .97, RMSEA = .06, 90\% CI [.06, .07]$. Racial discrimination was positively associated with the combined CES-D factor ($b = .57, p < .001, 95\% CI [.47, .66]$) but was not significantly related to CES-D positive affect ($b = -.02, p = .758, 95\% CI [-.09, .14]$). Findings also included a statistically significant, negative relation between racial discrimination and PGI ($b = -.30, p < .001, 95\% CI [-.42, -.19]$). Results further revealed a significant, negative association between PGI and the combined CES-D factor ($b = -.27, p < .001, 95\% CI [-.35, -.19]$) and a significant, positive association between PGI and positive affect ($b = .57, p < .001, 95\% CI [.49, .66]$). Based on 10,000 bootstrapped samples, results also revealed a statistically significant indirect effect between racial discrimination and

the combined CES-D factor through PGI ($a \times b = .08, p < .001, 95\% CI [.05, .12]$). Specifically, reports of more frequent racial discrimination were associated with lower levels of PGI, which, in turn, were associated with greater depressive symptomatology (CES-D combined factor). Results also revealed a statistically significant indirect relation between racial discrimination and CES-D positive affect through PGI ($a \times b = -.17, p < .001, 95\% CI [-.26, -.11]$), such that reports of less frequent racial discrimination were associated with higher levels of PGI, which, in turn, were associated with enhanced positive affect.⁵ See the [online supplemental materials](#) for the full results of tests of simple mediation, including a pictorial description of the SEM results.

We then examined mediation models that controlled for key covariates (e.g., masculine self-reliance, general social stress, neuroticism, and wave of data collection). In Model 1, we controlled for these covariates when predicting CES-D positive affect and the combined CES-D factor. However, results from WLSMV estimation indicated that model fit indices (e.g., CFI and TLI) fell below the general, recommended levels, $\chi^2(303, N = 485) = 1,144.56, p < .001, CFI = .91, TLI = .90, RMSEA = .08, 90\% CI [.07, .08]$ (see [Brown, 2006](#)). Based on modification indices, we tested a second model that built upon Model 1 by including several additional pathways. Overall fit for Model 2 was acceptable, $\chi^2(300, N = 590) = 839.00, p < .001, CFI = .96, TLI = .96, RMSEA = .06, 90\% CI [.05, .06]$, and findings based on WLSMV and robust ML estimation provided similar results to those described in the previous section.⁶ The findings revealed a statistically significant mediated relation between racial discrimination and the combined CES-D factor through PGI ($a \times b = .03, p = .037$), such that reports of more frequent racial discrimination were associated with lower levels of PGI, which, in turn, were associated with greater depressive symptomatology. Results also revealed a statistically significant mediated relation between racial discrimination and CES-D positive affect ($a \times b = -.07, p = .014$), such that reports of less frequent racial discrimination were associated with higher levels of PGI, which, in turn, were associated with greater positive affect. Results for the model estimated via robust ML, including path coefficients and standard errors, are displayed in [Table 3](#). For

⁴ Analogous models were also used to evaluate whether there were statistically significant differences with respect to the U.S. geographical region (e.g., West, Midwest, South, and North). However, because geographic region directly coincided with the wave(s) of data collection and zero-order correlations between indicator variables representing geographic region and wave rose as high as .99, we did not control for geographic region in the final analyses.

⁵ Similar results were obtained using robust maximum likelihood estimation. There was a statistically significant mediated relation between racial discrimination and the combined Center for Epidemiological Studies Depression (CES-D) scale factor through personal growth initiative (PGI; $a \times b = .06, p = .007$) and a significant indirect relation between racial discrimination and CES-D positive affect through PGI ($a \times b = -.31, p = .001$).

⁶ Results via weighted least squares with mean and variance adjustment estimation with 95% confidence intervals based on 10,000 bootstrapped samples similarly revealed a significant mediated relation between racial discrimination and Center for Epidemiological Studies Depression (CES-D) scale combined through personal growth initiative (PGI; $a \times b = .05, p = .003$), as well as a statistically significant indirect relation between racial discrimination and CES-D positive affect through PGI ($a \times b = -.13, p = .002$).

Table 2
Descriptive Analyses and Zero-Order Correlations for RD, PGI, CES-D, Covariates, and Moderators

Scale	M	SD	% missing	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. CES-D combined	.90	.65	8.95	—	-.27**	.48**	-.32**	.24**	.46**	.07	-.24**	-.28**	.18**	-.04	-.14**	-.21**	-.09*	.26**
2. CES-D positive affect	2.18	.69	7.56		—	-.10*	.45**	.11*	-.19**	.10*	.19**	.17**	-.15**	.01	.15**	.21**	.11**	-.28**
3. RD	1.71	1.25	10.49			—	-.22**	.15**	.39**	.07	-.17**	-.15**	.10*	-.04	-.05	.18**	.04	.13**
4. PGI	4.51	1.08	7.10				—	.11**	-.23**	.33**	.10*	.21**	-.14**	-.01	.15**	.22**	.08*	-.27**
5. Neuroticism	2.97	.55	8.80					—	.18**	.22**	-.12**	-.08	-.03	-.01	.04	.04	-.01	-.03
6. General social stress	1.65	1.15	13.43						—	.17**	-.17**	-.21**	.09	.01	-.10*	-.24**	-.09*	.28**
7. Male role norms	4.36	.97	13.73							—	.01	-.04	.05	.03	-.09*	.05	-.07	.01
8. Age	32.35	11.11	1.54								—	.43**	-.01	-.20	.22**	.07	.13**	-.16**
9. Income	3.00 ^a	2.45	8.50									—	-.25**	-.12**	.38**	.07	.33**	-.32**
10. High school or lower ^b	.33	.47	2.16										—	-.53**	-.46**	-.13**	-.08	.18**
11. Some college ^b	.37	.48	2.16											—	-.51*	.08	-.13**	.02
12. College—professional degree ^b	.31	.46	2.16												—	.04	.22**	-.20**
13. Wave 1 indicator ^b	.32	.46	.00													—	-.32**	-.70**
14. Wave 2 indicator ^b	.17	.37	.00														—	-.46**
15. Wave 3 indicator ^b	.50	.50	.00															—

Note. RD = racial discrimination; PGI = personal growth initiative; CES-D = Center for Epidemiological Studies Depression. Dashes represent perfect correlations (correlations of variables with themselves).

^a Descriptive measure for income, where median income (and not mean income) was reported as 3.00. ^b Reported means represent the percentage of sample participants constituting each category, respectively (e.g., means for wave represent the percentage of the sample selected during each wave of data collection).

* $p < .05$. ** $p < .01$.

results regarding tests for alternate mediating pathways, see the online supplemental materials.

Moderated Mediation

In performing tests for moderated mediation described by Hayes (2015), we used SEM with latent variable interactions (see Maslowsky et al., 2015) to assess the generalized model that Edwards and Lambert (2007) referred to as a “first stage moderation model” (p. 4). This first stage moderation model (see Figure 1, top) was used to examine whether the pathway between the latent factors representing racial discrimination and PGI in the proposed mediational model was moderated by age, education level, or income, respectively. We additionally tested models analogous to what Edwards and Lambert referred to as the “second stage moderation model” (p. 4), which focused on whether the pathway between the latent factor for PGI and the two latent factors representing CES-D in the mediational model was moderated by age, education level, or income (see Figure 1, bottom), respectively, while fixing the relation between racial discrimina-

tion and PGI to be unmoderated (Hayes, 2015). Results via robust ML (FIML with robust standard errors) estimation provided no evidence of first- or second-stage moderation (i.e., moderated mediation).

Discussion

The purpose of the present investigation was to test mediational and moderated mediational associations among racial discrimination, PGI, depressive symptomatology, age, education, and income among African American men. We found a positive association between racial discrimination and our combined CES-D factor (depressed affect, somatic complaints, and interpersonal problems), after controlling for important covariates (e.g., general social stress, masculine role norms encouraging self-reliance, neuroticism, wave of data collection). These findings corroborate previous research indicating that racial discrimination is associated with depressive symptomatology among African American men, even after controlling for other social stressors (Pieterse, Todd, Neville, & Carter, 2012). Consistent with our second hypothesis,

Table 3
Path Coefficients (and Standard Errors) for Final Mediation Model With Covariates (Robust ML Estimation)

Predictor	CES-D combined	CES-D positive affect	1	2	3	4
1. PGI	-.20** (.06)	.44** (.05)				
2. RD	.40** (.05)	-.01 (.06)	-.16* (.06)			
3. Stress	.34** (.08)	-.16 (.08)	-.41** (.10)	.71** (.10)		
4. Masculine reliance	.19 (.11)	-.01 (.08)	.63** (.09)		.16** (.05)	
5. Neuroticism	.79** (.12)	.16 (.11)	-.12 (.14)	-.64** (.17)	.35** (.10)	.37** (.08)
Wave 1	-.32 (.19)	.59** (.19)	.75** (.20)			
Wave 2	-.27 (.20)	.45* (.22)	.84** (.26)			

Note. All factor loadings generated in the model were statistically significant using an alpha level of .01. Unstandardized factor loadings for CES-D combined, CES-D positive affect, PGI, RD, stress, and masculine self-reliance ranged between .30 and 1.69. Dashes indicate path coefficients omitted from the final mediation model with covariates. ML = maximum likelihood; CES-D = Center for Epidemiological Studies Depression; PGI = personal growth initiative; RD = racial discrimination.

* $p < .05$. ** $p < .01$.

This document is copyrighted by the American Psychological Association or one of its allied publishers. This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

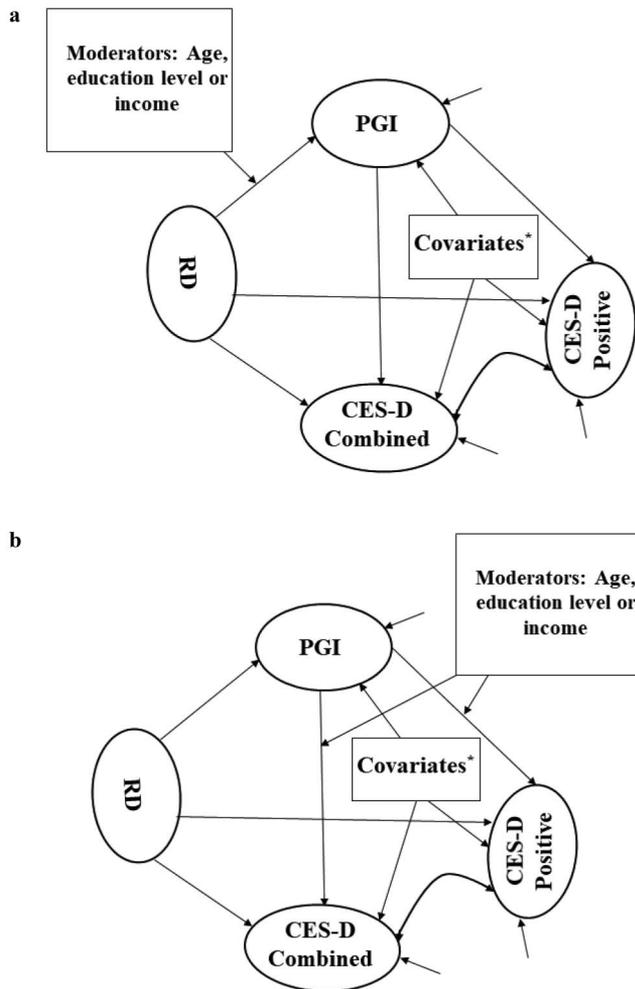


Figure 1. Top: Conceptual diagram of proposed moderated mediation of depression by personal growth initiative (PGI): first-stage moderation model. Bottom: Conceptual diagram of proposed moderated mediation of depression by PGI: second-stage moderation model. The observed variable Covariates* represents the set of covariates predicting the combined Center for Epidemiological Studies Depression (CES-D) scale factor, the latent factor representing CES-D positive affect, and the latent factor representing PGI. These covariates included (a) masculine self-reliance, (b) neuroticism, (c) general social stress, (d) the indicator variable for Wave 1, (e) the indicator variable for Wave 2, and (f) the indicator variable for Wave 3. RD = racial discrimination.

we found that racial discrimination was inversely associated with PGI, which, in turn, was associated with greater depressive symptomatology (combined CES-D factor and positive affect factor). These findings are somewhat inconsistent with the findings of Ryff et al. (2003), because the previous researchers found no association between racial discrimination and PGI among minority men. One explanation is that we focused on African American men exclusively, whereas Ryff et al. focused on men from multiple racial-ethnic groups. An equally plausible explanation is that we accounted for masculine self-reliance whereas Ryff et al. did not. Racial discrimination may threaten African American men’s masculine social identities (e.g., ability to be a financial provider) and

compromise the sense that their potential can be realized (Hammond et al., 2016), thereby hindering individual growth and life fulfillment and exacerbating depressive symptomatology. Counter to our third hypothesis, the strength of the indirect relation between racial discrimination and depressive symptoms via PGI was not conditional on African American men’s age, level of education, or income. These findings are striking, because they suggest that racial discrimination may thwart African American men’s opportunities for social mobility and personal growth, regardless of their age, personal resources (i.e., income), and socioeconomic goal pursuits (i.e., education).

As of this writing, this is the first study to examine the mediating capacity of PGI in the link between racial discrimination and depression risk among African American men while simultaneously considering the role of age, education, and income in this mediational pathway. Our findings indicate that PGI may be a central mechanism through which racial discrimination compromises African American men’s mental health, particularly because the African American men’s personal resources and characteristics (i.e., age, education, income) were not protective in the PGI pathway. Franklin and Boyd-Franklin (2000) posited that African American men are plagued by “psychological invisibility that takes the form of a struggle with inner feelings and beliefs that personal talents, abilities, and character are not acknowledged or valued by others, nor by the larger society, because of racial prejudice” (p. 33). Although unexpected, our moderated mediation (null) findings are aligned with conceptualizations of racial discrimination as a resource-taxing stressor and instigator of blocked upward socioeconomic mobility among African American men (Clark et al., 1999; Harrell, 2000; Phelan & Link, 2015).

We acknowledge that our study has several limitations. First, because our study is cross-sectional, we were unable to determine the directionality of the associations among everyday racial discrimination, PGI, and depressive symptomatology. However, longitudinal investigations have affirmed that experiences of racial discrimination precede mental health sequelae (e.g., Brown et al., 2000). Moreover, we note that upon testing alternate models, alternate models indicated poor fit, unlike the acceptable fit of our theoretically driven model. Nonetheless, the directionality of the associations among racial discrimination, PGI, and mental health and the temporal ordering in the causal pathways warrant further investigation. Second, although we posit that leveraging PGI might disrupt the connection between racial discrimination and depressive symptomatology among African American men, we did not conduct an intervention-based study. Future studies might examine African American men’s PGI and depressive symptomatology before and after a PGI intervention to elucidate the effectiveness of the intervention over time. Finally, because the data are not nationally representative, our findings may have limited generalizability.

The present study makes several theoretical and practical contributions. Our study advances the understanding of how racial discrimination may diminish African American men’s mental health. When African American men encounter racial discrimination, they experience threats to life fulfillment and functioning that seem to be linked to lower PGI and greater depressive symptomatology. It is noteworthy that these processes seem to operate across the life course and levels of SES. Clearly, racism is still

“alive and sick” (Harrell, 2000; p. 42). Although structural- and systemic-level interventions are essential, the “healing of one individual at a time” is also an important antiracism strategy (Harrell, 2000; p. 54). Because counseling psychology has traditionally “focus[ed] on people’s assets and strengths, and on positive mental health” (Gelso & Fretz, 2001, p. 6), we propose that counseling and clinical interventions that target African American men might focus on PGI. In one PGI intervention study (Robitschek, 1997), 68 adults completed an 8- to 15-day Outward Bound course wherein they participated in outdoor activities (e.g., rock climbing), structured group discussions, and activities that were centered around clarifying one’s life purpose, setting goals, and developing action plans for the future (Robitschek, 1997). Notably, there was a significant increase in the adults’ preintervention versus postintervention PGI scores, and this increase persisted at the 3-month follow-up assessment. PGI interventions may be effective, because learning about intentional personal growth increases individuals’ ability to perceive growth experiences, whereas experiencing the discomfort associated with overcoming a challenge leads to an increase in PGI (Thoen & Robitschek, 2013). Because PGI fosters greater self-acceptance; healthier interpersonal relationships; perceptions of greater life purpose, control, and mastery of one’s environment; and a greater sense of autonomy or self-direction (Ayub & Iqbal, 2012), PGI interventions may enhance the multidimensional mental health of African American men who face racism by bolstering their potentialities.

We propose that scholars and counselors devote attention not only to clinical depression diagnoses and diagnostic rates among African American men but also to African American men’s subclinical depressive symptomatology. In doing so, counselors and clinicians may improve the psychological functioning of their African American male clients who are burdened by racial discrimination prior to the onset of clinical depression. Fortunately, not all African American men present with depressive symptoms following racial discrimination exposure. Further, PGI-focused interventions could be promising in reducing depressive symptomatology and heightening personal growth. Ultimately, PGI may be a key mechanism in understanding and reducing disparities in mental health among African American men.

References

- Ayub, N., & Iqbal, S. (2012). The relationship of personal growth initiative, psychological well-being, and psychological distress among adolescents. *Journal of Teacher Education, 1*, 101–107.
- Banks, K. H., Kohn-Wood, L., & Spencer, M. (2006). An examination of the African American experience of everyday discrimination and symptoms of psychological distress. *Community Mental Health Journal, 42*, 555–570. <http://dx.doi.org/10.1007/s10597-006-9052-9>
- Blazer, D. G., Landerman, L. R., Hays, J. C., Simonsick, E. M., & Saunders, W. B. (1998). Symptoms of depression among community-dwelling elderly African-American and White older adults. *Psychological Medicine, 28*, 1311–1320. <http://dx.doi.org/10.1017/S0033291798007648>
- Bowen, N., & Masa, R. (2015). Conducting measurement invariance tests with ordinal data: A guide for social work researchers. *Journal of the Society for Social Work and Research, 6*, 229–249. <http://dx.doi.org/10.1086/681607>
- Brondolo, E., Kelly, K. P., Coakley, V., Gordon, T., Thompson, S., Levy, E., . . . Contrada, R. J. (2005). The Perceived Ethnic Discrimination Questionnaire: Development and Preliminary Validation of a Community Version 1. *Journal of Applied Social Psychology, 35*, 335–365. <http://dx.doi.org/10.1111/j.1559-1816.2005.tb02124.x>
- Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. New York, NY: Guilford Press.
- Brown, T. N., Williams, D. R., Jackson, J. S., Neighbors, H. W., Torres, M., Sellers, S. L., & Brown, K. T. (2000). “Being black and feeling blue”: The mental health consequences of racial discrimination. *Race and Society, 2*, 117–131. [http://dx.doi.org/10.1016/S1090-9524\(00\)00010-3](http://dx.doi.org/10.1016/S1090-9524(00)00010-3)
- Centers for Disease Control and Prevention. (2017). *African American health: Creating equal opportunities for health*. Retrieved from <https://www.cdc.gov/vitalsigns/pdf/2017-05-vitalsigns.pdf>
- Chae, D. H., Lincoln, K. D., Adler, N. E., & Syme, S. L. (2010). Do experiences of racial discrimination predict cardiovascular disease among African American men? The moderating role of internalized negative racial group attitudes. *Social Science & Medicine, 71*, 1182–1188. <http://dx.doi.org/10.1016/j.socscimed.2010.05.045>
- Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans: A biopsychosocial model. *American Psychologist, 54*, 805–816. <http://dx.doi.org/10.1037/0003-066X.54.10.805>
- Costa, P. T., Jr., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences, 13*, 653–665. [http://dx.doi.org/10.1016/0191-8869\(92\)90236-1](http://dx.doi.org/10.1016/0191-8869(92)90236-1)
- Dailey, A. B., Kasl, S. V., Holford, T. R., Lewis, T. T., & Jones, B. A. (2010). Neighborhood- and individual-level socioeconomic variation in perceptions of racial discrimination. *Ethnicity & Health, 15*, 145–163. <http://dx.doi.org/10.1080/13557851003592561>
- Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods, 12*, 1–22. <http://dx.doi.org/10.1037/1082-989X.12.1.1>
- Enders, C. K. (2010). *Applied missing data analysis*. New York, NY: Guilford Press.
- English, D., Lambert, S. F., Evans, M. K., & Zonderman, A. B. (2014). Neighborhood racial composition, racial discrimination, and depressive symptoms in African Americans. *American Journal of Community Psychology, 54*, 219–228. <http://dx.doi.org/10.1007/s10464-014-9666-y>
- Essed, P. (1991). *Understanding everyday racism: An interdisciplinary theory*. Newbury Park, CA: Sage.
- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods, 4*, 272–299. <http://dx.doi.org/10.1037/1082-989X.4.3.272>
- Flora, D. B., & Curran, P. J. (2004). An empirical evaluation of alternative methods of estimation for confirmatory factor analysis with ordinal data. *Psychological Methods, 9*, 466–491.
- Franklin, A. J., & Boyd-Franklin, N. (2000). Invisibility syndrome: A clinical model of the effects of racism on African-American males. *American Journal of Orthopsychiatry, 70*, 33–41. <http://dx.doi.org/10.1037/h0087691>
- Gee, G. C., Spencer, M., Chen, J., Yip, T., & Takeuchi, D. T. (2007). The association between self-reported racial discrimination and 12-month DSM-IV mental disorders among Asian Americans nationwide. *Social Science & Medicine, 64*, 1984–1996. <http://dx.doi.org/10.1016/j.socscimed.2007.02.013>
- Gee, G. C., Walsemann, K. M., & Brondolo, E. (2012). A life course perspective on how racism may be related to health inequities. *American Journal of Public Health, 102*, 967–974. <http://dx.doi.org/10.2105/AJPH.2012.300666>
- Gelso, C., & Fretz, B. (2001). *Counseling psychologist* (2nd ed.). Fort Worth, TX: Harcourt.
- Greer, T. M., & Spalding, A. (2017). The role of age in understanding the psychological effects of racism for African Americans. *Cultural Diver-*

- ity and Ethnic Minority Psychology, 23, 588–594. <http://dx.doi.org/10.1037/cdp0000148>
- Hammond, W. P., Fleming, P. J., & Villa-Torres, L. (2016). Everyday racism as a threat to the masculine social self: Framing investigations of African American male health disparities. In Y. J. Wong & S. R. Wester (Eds.), *APA handbook of men and masculinities* (pp. 259–283). <http://dx.doi.org/10.1037/14594-012>
- Hammond, W. P., Matthews, D., Mohottige, D., Agyemang, A., & Corbie-Smith, G. (2010). Masculinity, medical mistrust, and preventive health services delays among community-dwelling African-American men. *Journal of General Internal Medicine*, 25, 1300–1308. <http://dx.doi.org/10.1007/s11606-010-1481-z>
- Harrell, S. P. (2000). A multidimensional conceptualization of racism-related stress: Implications for the well-being of people of color. *American Journal of Orthopsychiatry*, 70, 42–57. <http://dx.doi.org/10.1037/h0087722>
- Harrell, S. P., Merchant, M. A., & Young, S. A. (1997). *Psychometric properties of the Racism and Life Experiences Scales (RaLES)*. Unpublished manuscript, Annual convention of the American Psychological Association, Chicago, IL.
- Hart, A., Jr., & Bowen, D. J. (2003). The feasibility of partnering with African-American barbershops to provide prostate cancer education. *Ethnicity & Disease*, 14, 269–273.
- Hattery, A. J., & Smith, E. (2007). *African American families: Issues of health, wealth, and violence*. Thousand Oaks, CA: Sage.
- Hayes, A. (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research*, 50, 1–22.
- Hudson, D. L., Neighbors, H. W., Geronimus, A. T., & Jackson, J. S. (2016). Racial discrimination, John Henryism, and depression among African Americans. *Journal of Black Psychology*, 42, 221–243. <http://dx.doi.org/10.1177/0095798414567757>
- Huebner, D., Nemeroff, C., & Davis, M. (2005). Do hostility and neuroticism confound associations between perceived discrimination and depressive symptoms? *Journal of Social and Clinical Psychology*, 24, 723–740. <http://dx.doi.org/10.1521/jscp.2005.24.5.723>
- Kessler, R. C., Birnbaum, H., Bromet, E., Hwang, I., Sampson, N., & Shahly, V. (2010). Age differences in major depression: Results from the National Comorbidity Survey Replication (NCS-R). *Psychological Medicine*, 40, 225–237. <http://dx.doi.org/10.1017/S0033291709990213>
- Kessler, R. C., Mickelson, K., & Williams, D. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of Health and Social Behavior*, 40, 208–230. <http://dx.doi.org/10.2307/2676349>
- Kohout, F. J., Berkman, L. F., Evans, D. A., & Cornoni-Huntley, J. (1993). Two shorter forms of the CES-D Depression symptoms index. *Journal of Aging and Health*, 5, 179–193. <http://dx.doi.org/10.1177/089826439300500202>
- Krieger, N., Kiang, M. V., Chen, J. T., & Waterman, P. D. (2015). Trends in U.S. deaths due to legal intervention among Black and White Men, age 15–34 years, by county income level: 1960–2010. *Harvard Public Health Review*, 3, 1–5.
- Levant, R. F., & Fischer, J. (1998). The Male Role Norms Inventory: Sexuality-related measures. *Compendium*, 2, 469–472.
- Levant, R. F., Hirsch, L. S., Celentano, E., & Cozza, T. M. (1992). The male role: An investigation of contemporary norms. *Journal of Mental Health Counseling*, 14, 325–337.
- Levant, R. F., & Majors, R. G. (1997). An investigation into variations in the construction of the male gender role among young African American and European American women and men. *Journal of Gender, Culture, and Health*, 2, 33–43.
- Levant, R. F., Rankin, T. J., Williams, C. M., Hasan, N. T., & Smalley, K. B. (2010). Evaluation of the factor structure and construct validity of scores on the Male Role Norms Inventory—Revised (MRNI-R). *Psychology of Men & Masculinity*, 11, 25–37. <http://dx.doi.org/10.1037/a0017637>
- Levant, R. F., Smalley, K. B., Aupont, M., House, A., Richmond, K., & Noronha, D. (2007). Initial validation of the Male Role Norms Inventory—Revised. *Journal of Men's Studies*, 15, 85–100. <http://dx.doi.org/10.3149/jms.1501.83>
- Lewis, T. T., Cogburn, C. D., & Williams, D. R. (2015). Self-reported experiences of discrimination and health: Scientific advances, ongoing controversies, and emerging issues. *Annual Review of Clinical Psychology*, 11, 407–440. <http://dx.doi.org/10.1146/annurev-clinpsy-032814-112728>
- Lewis, T. T., & Van Dyke, M. E. (2018). Discrimination and the health of African Americans: The potential importance of intersectionalities. *Current Directions in Psychological Science*, 27, 176–182. <http://dx.doi.org/10.1177/0963721418770442>
- Long Foley, K., Reed, P. S., Mutran, E. J., & DeVellis, R. F. (2002). Measurement adequacy of the CES-D among a sample of older African Americans. *Psychiatry Research*, 109, 61–69. [http://dx.doi.org/10.1016/S0165-1781\(01\)00360-2](http://dx.doi.org/10.1016/S0165-1781(01)00360-2)
- Maslowsky, J., Jager, J., & Hemken, D. (2015). Estimating and interpreting latent variable interactions: A tutorial for applying the latent moderated structural equations method. *International Journal of Behavioral Development*, 39, 87–96. <http://dx.doi.org/10.1177/0165025414552301>
- Matthews, D. D., Hammond, W. P., Nuru-Jeter, A., Cole-Lewis, Y., & Melvin, T. (2013). Racial discrimination and depressive symptoms among African-American men: The mediating and moderating roles of masculine self-reliance and John Henryism. *Psychology of Men & Masculinity*, 14, 35–46. <http://dx.doi.org/10.1037/a0028436>
- McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52, 81–90. <http://dx.doi.org/10.1037/0022-3514.52.1.81>
- McCrae, R. R., & Costa, P. T., Jr. (1997). Personality trait structure as a human universal. *American Psychologist*, 52, 509–516. <http://dx.doi.org/10.1037/0003-066X.52.5.509>
- Meade, A. W., & Bauer, D. J. (2007). Power and precision in confirmatory factor analytic tests of measurement invariance. *Structural Equation Modeling*, 14, 611–635. <http://dx.doi.org/10.1080/10705510701575461>
- Millsap, R. E., & Yun-Tein, J. (2004). Assessing factorial invariance in ordered-categorical measures. *Multivariate Behavioral Research*, 39, 479–515. http://dx.doi.org/10.1207/S15327906MBR3903_4
- Mroczek, D. K., & Kolarz, C. M. (1998). The effect of age on positive and negative affect: A developmental perspective on happiness. *Journal of Personality and Social Psychology*, 75, 1333–1349. <http://dx.doi.org/10.1037/0022-3514.75.5.1333>
- Muthén, L. K., & Muthén, B. (1998–2013). *Mplus user's guide* (7th ed.). Los Angeles, CA: Author.
- Neff, K. D., Rude, S. S., & Kirkpatrick, K. L. (2007). An examination of self-compassion in relation to positive psychological functioning and personality traits. *Journal of Research in Personality*, 41, 908–916. <http://dx.doi.org/10.1016/j.jrp.2006.08.002>
- Nguyen, H. T., Kitner-Triolo, M., Evans, M. K., & Zonderman, A. B. (2004). Factorial invariance of the CES-D in low socioeconomic status African Americans compared with a nationally representative sample. *Psychiatry Research*, 126, 177–187. <http://dx.doi.org/10.1016/j.psychres.2004.02.004>
- Ogunyemi, A. O., & Mabekoje, S. O. (2007). Self-efficacy, risk-taking behavior and mental health as predictors of personal growth initiative among university undergraduates. *Electronic Journal of Research in Educational Psychology*, 5, 349–362.
- Oluyinka, O. (2011). Psychological predictors of attitude towards seeking professional psychological help in a Nigerian university student population. *South African Journal of Psychology*, 41, 310–327. <http://dx.doi.org/10.1177/008124631104100306>

- Pager, D. (2003). The mark of a criminal record. *American Journal of Sociology*, 108, 937–975. <http://dx.doi.org/10.1086/374403>
- Pager, D., Bonikowski, B., & Western, B. (2009). Discrimination in a low-wage labor market: A field experiment. *American Sociological Review*, 74, 777–799. <http://dx.doi.org/10.1177/000312240907400505>
- Phelan, J. C., & Link, B. G. (2015). Is racism a fundamental cause of inequalities in health? *Annual Review of Sociology*, 41, 311–330. <http://dx.doi.org/10.1146/annurev-soc-073014-112305>
- Pieterse, A. L., & Carter, R. T. (2007). An examination of the relationship between general life stress, racism-related stress, and psychological health among Black men. *Journal of Counseling Psychology*, 54, 101–109. <http://dx.doi.org/10.1037/0022-0167.54.1.101>
- Pieterse, A. L., Todd, N. R., Neville, H. A., & Carter, R. T. (2012). Perceived racism and mental health among Black American adults: A meta-analytic review. *Journal of Counseling Psychology*, 59, 1–9. <http://dx.doi.org/10.1037/a0026208>
- Polanco-Roman, L., & Miranda, R. (2013). Culturally related stress, hopelessness, and vulnerability to depressive symptoms and suicidal ideation in emerging adulthood. *Behavior Therapy*, 44, 75–87. <http://dx.doi.org/10.1016/j.beth.2012.07.002>
- Radloff, L. S. (1977). The CES–D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385–401. <http://dx.doi.org/10.1177/014662167700100306>
- Roberts, R. E., & Sobhan, M. (1992). Symptoms of depression in adolescence: A comparison of Anglo, African, and Hispanic Americans. *Journal of Youth and Adolescence*, 21, 639–651. <http://dx.doi.org/10.1007/BF01538736>
- Robitschek, C. (1997). Life/career renewal: An intervention for vocational and other life transitions. *Journal of Career Development*, 24, 133–146. <http://dx.doi.org/10.1177/089484539702400205>
- Robitschek, C. (1998). Personal growth initiative: The construct and its measure. *Measurement and Evaluation in Counseling & Development*, 30, 183–198.
- Robitschek, C. (1999). Further validation of the Personal Growth Initiative Scale. *Measurement and Evaluation in Counseling & Development*, 31, 197–210.
- Robitschek, C., Ashton, M. W., Spering, C. C., Geiger, N., Byers, D., Schotts, G. C., & Thoen, M. (2012). Development and psychometric properties of the Personal Growth Initiative Scale - II. *Journal of Counseling Psychology*, 59, 274–287. <http://dx.doi.org/10.1037/a0027310>
- Robitschek, C., & Cook, S. W. (1999). The influence of personal growth initiative and coping styles on career exploration and vocational identity. *Journal of Vocational Behavior*, 54, 127–141. <http://dx.doi.org/10.1006/jvbe.1998.1650>
- Robitschek, C., & Kashubeck, S. (1999). A structural model of parental alcoholism, family functioning, and psychological health: The mediating effects of hardiness and personal growth orientation. *Journal of Counseling Psychology*, 46, 159–172. <http://dx.doi.org/10.1037/0022-0167.46.2.159>
- Robitschek, C., & Keyes, C. L. (2009). Keyes's model of mental health with personal growth initiative as a parsimonious predictor. *Journal of Counseling Psychology*, 56, 321–329. <http://dx.doi.org/10.1037/a0013954>
- Ryff, C. D. (2000). Meaning of life. In A. E. Kazdin (Ed.), *Encyclopedia of psychology* (Vol. 5, pp. 132–135). <http://dx.doi.org/10.1037/10520-067>
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, 719–727. <http://dx.doi.org/10.1037/0022-3514.69.4.719>
- Ryff, C. D., Keyes, C. L., & Hughes, D. L. (2003). Status inequalities, perceived discrimination, and eudaimonic well-being: Do the challenges of minority life hone purpose and growth? *Journal of Health and Social Behavior*, 44, 275–291. <http://dx.doi.org/10.2307/1519779>
- Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*, 9, 13–39. <http://dx.doi.org/10.1007/s10902-006-9019-0>
- Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods*, 7, 147–177. <http://dx.doi.org/10.1037/1082-989X.7.2.147>
- Taylor, J., & Turner, R. J. (2002). Perceived Discrimination, Social Stress, and Depression in the Transition to Adulthood: Racial Contrasts. *Social Psychology Quarterly*, 65, 213–225. <http://dx.doi.org/10.2307/3090120>
- Thoen, M. A., & Robitschek, C. (2013). Intentional growth training: Developing an intervention to increase personal growth initiative. *Applied Psychology: Health and Well-Being*, 5, 149–170. <http://dx.doi.org/10.1111/aphw.12001>
- Thompson, E. H., Jr., & Pleck, J. H. (1986). The structure of male role norms. *American Behavioral Scientist*, 29, 531–543. <http://dx.doi.org/10.1177/000276486029005003>
- Torres, E. R. (2012). Psychometric Properties of the Center for Epidemiologic Studies Depression Scale in African-American and Black Caribbean Adults. *Issues in Mental Health Nursing*, 33, 687–696. <http://dx.doi.org/10.3109/01612840.2012.697534>
- Utsey, S. O. (1997). Racism and the psychological well-being of African American men. *Journal of African American Studies*, 3, 69–87.
- Vaingankar, J. A., Subramaniam, M., Chong, S. A., Abdin, E., Orlando Edelen, M., Picco, L., . . . Sherbourne, C. (2011). The Positive Mental Health instrument: Development and validation of a culturally relevant scale in a multi-ethnic Asian population. *Health and Quality of Life Outcomes*, 9, 92. <http://dx.doi.org/10.1186/1477-7525-9-92>
- Watkins, D. C., Green, B. L., Rivers, B. M., & Rowell, K. L. (2006). Depression and Black men: Implications for future research. *Journal of Men's Health & Gender*, 3, 227–235. <http://dx.doi.org/10.1016/j.jmhg.2006.02.005>
- Watkins, D. C., Hudson, D. L., Howard Caldwell, C., Siefert, K., & Jackson, J. (2011). Discrimination, mastery, and depressive symptoms among African American men. *Research on Social Work Practice*, 21, 269–277. <http://dx.doi.org/10.1177/1049731510385470>
- Watts-Jones, D. (1990). Toward a stress scale for African American women. *Psychology of Women Quarterly*, 14, 271–275. <http://dx.doi.org/10.1111/j.1471-6402.1990.tb00019.x>
- Weigold, I. K., Porfeli, E. J., & Weigold, A. (2013). Examining tenets of personal growth initiative using the Personal Growth Initiative Scale—II. *Psychological Assessment*, 25, 1396–1403. <http://dx.doi.org/10.1037/a0034104>
- Weigold, I. K., & Robitschek, C. (2011). Agentic personality characteristics and coping: Their relation to trait anxiety in college students. *American Journal of Orthopsychiatry*, 81, 255–264. <http://dx.doi.org/10.1111/j.1939-0025.2011.01094.x>
- Western, B., & Wildeman, C. (2009). The Black family and mass incarceration. *Annals of the American Academy of Political and Social Science*, 621, 221–242. <http://dx.doi.org/10.1177/0002716208324850>
- Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: Evidence and needed research. *Journal of Behavioral Medicine*, 32, 20–47. <http://dx.doi.org/10.1007/s10865-008-9185-0>
- Williams, D. R., Neighbors, H. W., & Jackson, J. S. (2003). Racial/ethnic discrimination and health: Findings from community studies. *American Journal of Public Health*, 93, 200–208. <http://dx.doi.org/10.2105/AJPH.93.2.200>
- Wirth, R. J., & Edwards, M. C. (2007). Item factor analysis: Current approaches and future directions. *Psychological Methods*, 12, 58–79. <http://dx.doi.org/10.1037/1082-989X.12.1.58>