Controlling Images: How Awareness of Group Stereotypes Affects Black Women’s Well-Being

Morgan C. Jerald, Elizabeth R. Cole, L. Monique Ward
University of Michigan

Lanice R. Avery
University of Virginia

Author Note

Morgan C. Jerald and L. Monique Ward, Department of Psychology, University of Michigan; Elizabeth R. Cole, Departments of Women’s Studies, Psychology, and Afroamerican & African Studies, University of Michigan; Lanice R. Avery, Departments of Psychology and Women, Gender, and Sexuality, University of Virginia.

Results from this study were previously presented at the Max Planck Research School on the Life Course (LIFE) Spring Academy 2016 at the University of Virginia, Charlottesville, Virginia. We thank Matthew A. Diemer for his helpful feedback on our statistical analyses. We also thank Naomi M. Hall-Byers for her immense help with the data collection.

Correspondence concerning this article should be addressed to Morgan C. Jerald, Department of Psychology, University of Michigan, Ann Arbor, 48104. Electronic mail may be sent to morgajer@umich.edu
Abstract

This paper presents research exploring how stereotypes that are simultaneously racialized and
gendered affect Black women. We investigated the mental and physical health consequences of
Black women’s awareness that others hold these stereotypes and tested whether this association
is moderated by the centrality of racial identity. A structural equation model tested among 609
young Black women revealed that metastereotype awareness (being aware that others hold
negative stereotypes of one’s group) predicted negative mental health outcomes (depression,
anxiety, hostility), which in turn predicted diminished self-care behaviors and greater drug and
alcohol use for coping. High racial centrality exacerbated the negative association between
metastereotype awareness and self-care. We discuss implications of the findings for clinical
practice and for approaches to research using intersectionality frameworks.

*Keywords:* intersectionality, stereotypes, mental health, self-care, substance use

Public Significance Statement: This research demonstrates that Black women’s awareness that
others hold negative stereotypes of their group has detrimental consequences for their health and
well-being.
Controlling Images: How Awareness of Group Stereotypes Affects Black Women’s Well-Being

Black women in the United States are more likely to suffer from many chronic physical and mental health conditions compared to women of other races and ethnicities. Black women report higher levels of hypertension, cardiovascular disease, diabetes, and obesity (National Center for Health Statistics, 2015; Roger et al., 2012) and experience lower cancer survival rates, lower life expectancy, and higher diabetes mortality than other women (Chin, 2015). They also report higher rates of generalized anxiety disorder, somatization, and panic disorder (Brown & Keith, 2003). Although many factors contribute to these health disparities, negotiating racism and sexism plays a significant role (for reviews, see Pascoe & Richman, 2009; Williams & Mohammed, 2013).

Black women also face particular forms of discrimination related to the intersection of race and gender (Collins, 2000; Crenshaw, 1989). One such form of discrimination is the prevalence and persistence of representations of Black women that characterize them as hypersexual Jezebels, verbally aggressive Sapphires, or resilient and emotionally tough Strong Black Women (Harris-Perry, 2013; Lewis & Neville, 2015; Parks, 2010). Psychologists are increasingly interested in the effect of stigma on health outcomes, even when stigma is not directly or explicitly experienced (Hatzenbuehler, 2016). Thus, this paper explores the extent to which perceiving gender-specific racism in the form of these stereotypes diminishes Black women’s health and well-being. Specifically, this study examines how Black women’s awareness of gendered racial stereotypes of their group is associated with decrements in their mental health, self-care, and use of alcohol and drugs for coping.

Perceived Discrimination and Health

Perceived racial discrimination— the belief that one has experienced differential, unfair
treatment based on one’s racial group membership—negatively influences mental health, physical health, and substance use. Among Black women, perceived discrimination has been linked to more symptoms of depression and anxiety (Keith, Lincoln, Taylor, & Jackson, 2010), less self-care (Mouton et al., 2010), and higher rates of smoking and alcohol use (Kwate, Valdimarsdottir, Guevarra, & Bovbjerg, 2003).

Most research in this area employs a stress and coping framework (Lazarus & Folkman, 1984). Racial discrimination is conceptualized as a social stressor, and chronic exposure to this stressor is posited to increase allostatic load or wear and tear on the body’s physiological systems that respond to stress (e.g., increased cortisol, heart rate, and blood pressure). This stress response increases the risk of negative health outcomes. Another proposed mechanism explains that the effort and energy it takes to cope with chronic experiences of discrimination may deplete self-regulatory resources necessary to engage in healthy behaviors and to avert unhealthy behaviors (Major, Mendes, & Dovidio, 2013; Pascoe & Richman, 2009). This link helps account for why individuals who perceive more discrimination report higher rates of smoking and substance use (Kwate, Valdimarsdottir, Guevarra, & Bovbjerg, 2003). They are also less likely to participate in behaviors that promote good health, such as seeking medical care (Mouton et al., 2010). Paradoxically, efforts to cope with perceived discrimination can indirectly contribute to negative health outcomes.

Finally, although mental health is the most commonly investigated outcome in studies examining the relation between perceived discrimination and health, Williams, Neighbors, and Jackson (2003) noted that it is also an intermediary pathway through which perceived discrimination influences physical health. Experiences with discrimination may heighten negative emotional states (e.g., depression and anxiety), which, in turn, impact health behaviors
that increase risk of adverse physical health conditions. Thus, we examine mental health as both an outcome and a mediator that also affects self-care and substance use for coping.

**Discrimination at the Intersections: Stereotypes of Black Women**

Intersectionality theory helps explain how interlocking systems of oppression construct distinctive experiences for Black women as a consequence of both racism and sexism (Cole, 2009; Collins, 2000; Crenshaw, 1989). These systems of oppression often position Black women on the margins of society and are maintained by racialized and gendered stereotypes. Negative stereotypes about Black women, deeply rooted in American culture, represent an ideological justification for structural racism. Collins uses the terms “controlling image” and “stereotype” interchangeably, (as do others writing in this area, see e.g., Thomas, Witherspoon, & Speight, 2004; West, 1995). However, we note that _stereotype_ refers to a psychological construct related to attitudes and cognitions, while _controlling image_ is a sociological construct relevant to ideology and structural inequality. Thus, stereotypes may be understood as the psychological manifestation of controlling images.

In particular, Collins (2000) identifies the Jezebel and the Sapphire as longstanding, pervasive, and negative “controlling images” of Black women (see also Thomas, Witherspoon, & Speight, 2004). The Jezebel image characterizes Black women as hypersexual, seductive, and manipulative. The Sapphire image represents Black women as verbally aggressive, nagging, and argumentative (West, 1995). Controlling images may also be manifestly positive, as in the case of the cultural ideal of the Strong Black Woman (SBW). The SBW is expected to prioritize others’ needs over her own, resist asking for help, exude strength despite adversities, and suppress her emotions. Although the content of this image is generally valued among African Americans, research has shown that Black women often experience this ideal as a stressful
prescription (e.g., Watson & Hunter, 2015a). Ultimately, each of these cultural narratives serves to restrict Black women’s sense of womanhood.

**Consequences of Negotiating These Images: Endorsement versus Awareness**

There are negative consequences for Black women who internalize or endorse these images. For example, Jezebel stereotype endorsement is associated with engagement in risky sexual behaviors (Townsend, Thomas, Neilands, & Jackson, 2010; Peterson, Wingood, DiClemente, Harrington, & Davies, 2007), binge drinking, and marijuana use (Peterson et al., 2007). Endorsing the Sapphire stereotype is associated with anger suppression (Walley-Jean, 2009). Moreover, endorsement of the seemingly positive SBW ideal may have negative consequences because its focus on others’ needs may lead Black women to neglect their own self-care (Watson & Hunter, 2015a; Woods-Giscombe, 2010). Black women who feel they must embody the SBW ideal report more stress (Woods-Giscombe, 2010), depressive symptoms (Beauboeuf-Lafontant, 2007; Speight, Isom, & Thomas, 2013; Watson & Hunter, 2015b), more symptoms of anxiety (Watson & Hunter, 2015b), emotional avoidance (Harrington, Crowther, & Shipherd, 2010; Watson & Hunter, 2015a), irregular sleep (Woods-Giscombe, 2010), binge eating (Harrington, Crowther, & Shipherd, 2010), and smoking (Woods-Giscombe, 2010).

However, we argue that Black women do not have to internalize these stereotypes for them to be damaging. Indeed, level of stereotype endorsement is often quite low among Black women in many studies (e.g., Jerald, Ward, Moss, Thomas, & Fletcher, 2016; Townsend et al., 2010). Simply being aware that stereotypes about Black women exist and that others may consequently judge their behavior against them may be sufficient to generate stress. Vorauer, Main, and O’Connell (1998) introduced the term *metastereotypes* to refer to “a person’s beliefs regarding the stereotype that out-groups members hold about his or her own group (p. 917).”
Thus, endorsing metastereotypes, that is, being aware that others hold negative stereotypes of one’s group, is a necessary precursor to experiencing stereotype threat, defined as a situational experience of anxiety associated with the prospect of being judged as a result of one’s membership in a negatively stereotyped group (Steele & Aronson, 1995). Metastereotyping can be conceptualized as a manifestation of perceived discrimination; thus, the process by which metastereotyping threatens Black women’s health and self-care can be understood within a stress and coping framework.

Because the perception of being a target of a group stereotype can be stressful, it can trigger coping responses that threaten mental and physical health and increase substance use. Major, Mendes, and Dovidio (2013) draw from social psychological research on intergroup processes to outline several possible coping responses. For example, individuals may attempt to suppress activated negative group stereotypes. The effort needed to suppress the stereotypes may deplete the cognitive resources used to regulate self-control, leaving them with less energy to dedicate to their own self-care and to the avoidance of unhealthy behaviors. Another proposed response is that individuals may participate in escape or avoidance coping strategies that include unhealthy behaviors, such as using substances and eating unhealthy foods. In addition, work on stigma consciousness, a related but distinct construct, can also help to conceptualize the consequences of metastereotype awareness. Stigma consciousness refers to the extent to which an individual believes that their stereotyped status influences their interactions with out-group members (Pinel, 1999). Individuals high in stigma consciousness are more likely to report perceived discrimination (Pinel, 1999) in comparison to those low in stigma consciousness, again highlighting the stress that accompanies awareness of group stereotypes. Taken together, this
research explains how the stress associated with metastereotype awareness may be linked to coping strategies that ultimately negatively impact health.

**Racial Identity as A Moderator**

Past research highlights the function of racial identity, the significance and meaning African Americans attach to their racial group membership (Multidimensional Model of Racial Identity (MMRI); Sellers, Smith, Shelton, Rowley, & Chavous, 1998), as both a risk factor and protective factor in regards to experiences of perceived discrimination and health outcomes (e.g., Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003). On the one hand, African Americans who consider their race to be fundamental to their identity (that is, those high in racial centrality) are more likely to report perceived discrimination (Sellers et al., 2003) and are more likely to interpret ambiguous events as discriminatory (Shelton & Sellers, 2000). At the same time, these individuals may be equipped with more effective coping skills for managing discriminatory experiences (Sellers et al., 2003) and may hold positive racial identity beliefs that may buffer them from the negative impact of perceived discrimination on health. Although no research has examined the protective role of racial centrality in the association between gendered racism and health, racial centrality does predict lower levels of depression in Black women (Settles, Navarrete, Pagano, Abdou, & Sidanius, 2010). Accordingly, we investigate whether the centrality of Black women’s racial identity moderates associations between metastereotype awareness and well-being.

**The Current Study**

Studies investigating the devastating health disparities that Black women face have identified perceived racial discrimination as one of several contributing forces. Perceived discrimination is linked to more negative mental health symptoms and substance abuse, and less
healthy behavior. However, little research has examined specific forms of discrimination that Black women face as a result of their intersectional identity, such as confronting racialized and gendered stereotypes. This study examines how Black women’s metastereotype awareness, that is, awareness that others hold stereotypes of their group, influences mental health, self-care, and substance use for coping. We also examine the moderating role of racial identity in these associations. Drawing on theories and concepts from health and social psychology, including metastereotyping, we expect that:

H1. Metastereotype awareness will be directly linked to more negative mental health symptoms, less self-care, and more drug and alcohol use for coping.

H2. Mental health symptoms will mediate the associations between metastereotype awareness and self-care and substance use for coping, such that higher levels of metastereotype awareness will predict more negative mental health symptoms, which in turn, will predict less self-care and more drug and alcohol use for coping.

H3. Racial centrality will buffer the impact of metastereotype awareness on well-being, such that the direct and indirect associations between metastereotype awareness, mental health, self-care, and drug and alcohol use for coping, will be weaker for women whose racial identity is more central to their self-concept.

Method

Participants and Procedure

Participants (N = 609) were recruited from two college campuses in the United States. University 1 (n = 374) is a large, predominately White, Midwestern public university (PWI). University 2 (n = 235) is a small, historically Black, Southeastern, public university (HBCU). Women in this study were self-identified Black/African American undergraduate and graduate
Students with a mean age of 22.13 ($SD = 5.32$).

Students at both sites were selected to participate in the study using demographic information provided by each university’s Office of the Registrar. At University 1, the Office of the Registrar sent recruitment emails directly to a random sample of currently enrolled students that self-identified as a Black/African American woman. At University 2, researchers sent recruitment emails to a random sample of students matching the inclusion criteria based on Registrar’s data. The recruitment email invited students to participate in a study that examined the health and well-being of Black women by taking an hour-long, anonymous, online survey. Before participating in the study, all participants read an online informed consent that described the nature of the study and specified that the research was approved by and complied with guidelines provided by an Institutional Review Board. All participants were compensated with a $25 VISA gift card.

Although most of the sample identified as Black/African American (81.3%), another 10.7% identified as Bi/Multi-racial, 2.7% as African, 1.9% as West Indian/Caribbean, 1.4% as Afro-Latina (e.g., South or Central American, Dominican, Puerto Rican, etc.), and 1.9% as Other. The young women sampled came from relatively well-educated backgrounds. On average, 23.2% of their mothers had completed Bachelor’s degrees and another 18.5% had earned a graduate or professional degree. Additionally, 16.5% of their fathers earned a Bachelor’s degree, and 14.7% of their fathers earned graduate or professional degrees.

**Indicators of Latent Constructs**

**Metastereotype Awareness.** To assess women’s awareness of the Jezebel and Sapphire stereotypes, we started with the 7-item Modern Jezebel Scale, which is adapted from the Stereotypic Roles of Black Women Scale and addresses stereotypes of both the Jezebel and
Sapphire (Townsend, Thomas, Neilands, & Jackson, 2010). We then drew on theoretical and empirical research discussing these stereotypes (Brown Givens & Monahan, 2005; Ladson-Billings, 2009; Stephens & Philips, 2003) to create additional items to address each stereotype. Items created to reflect the Jezebel stereotype include notions of Black women as more seductive than other women, sexually wild and uninhibited, and manipulative. Items created to reflect the Sapphire stereotype include constructions of Black women as bossy, argumentative, stubborn, and controlling. Resulting were a 12-item Jezebel subscale ($\alpha = .95$) and a 12-item Sapphire subscale ($\alpha = .97$). Previous studies that have used the Modern Jezebel Scale have established its construct validity. For example, stereotype endorsement was associated with lower self-esteem among 249 Black women (Brown, White-Johnson, & Griffin-Fennell, 2013). Further, Townsend, Thomas, Neilands, and Jackson (2010) found strong internal consistency reliability for the Modern Jezebel subscale ($\alpha = .82$) and its test-retest correlation was moderate ($r = .45, p < .001$).

Finally, in the initial scale development paper (Thomas, Witherspoon, & Speight, 2004), the Sapphire subscale significantly predicted lower self-esteem—even when racial identity was accounted for—establishing its predictive validity. It also demonstrated good internal consistency ($\alpha = .70$).

To assess women’s awareness of the SBW ideal, we used a modified version of the 9-item Strong Black Woman Scale - Endorsement (K. Thomas, 2006). A sample item is “Black women always find a way for their families to survive.” The scale was originally normed on a sample of Black college women at a PWI and an HBCU. All nine items loaded on one factor, with loadings ranging from .47 to .71 (K. Thomas, 2006). We added the following two items to make this scale comparable in length to the other scales: “Black women are uncomfortable being dependent on others” and “Black women feel uncomfortable letting others take care of them.”
These 11 SBW items ($\alpha = .90$) were mixed in with the Jezebel and Sapphire items.

Because our intent was to measure women’s awareness of these societal stereotypes and not their personal endorsement, we modified the instructions for these scales to read: “Now we’re going to ask you some questions about what society believes about Black women. You may or may not agree with a statement; we only want to know what you believe society thinks. How much do you think people believe that Black women are . . .” Participants indicated their level of agreement with each statement on a 5-point scale (1 = not at all; 5 = almost always). Mean scores were computed for each of the three subscales/constructs such that higher scores represent higher metastereotype awareness.

**Mental Health Symptoms.** Three subscales from the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) were used to operationalize participants’ mental health symptomology: depression ($\alpha = .91$), anxiety ($\alpha = .86$), and hostility ($\alpha = .85$). Each subscale is comprised of six items asking participants to indicate how much they have been distressed by a problem within the last seven days on a 5-point response scale (0 = not at all; 4 = extremely). Mean scores were calculated for each subscale, and higher scores indicate more negative mental health symptoms. In a sample of 247 Black college freshmen (57% women), the BSI yielded a Cronbach’s alpha of .96 (Bynum, Burton, & Best, 2007), and this scale has been used successfully with other African American samples (Neville & Lilly, 2000). In addition, Derogatis (1993) reported 1-week test–retest reliability coefficients ranging from .75 to .84. In addition, its concurrent validity has been demonstrated by its relations with other measures of mental health, such as the Minnesota Multiphasic Personality Inventory (Boulet & Boss, 1991) and the Positive and Negative Syndrome Scale (Kay, Eiszbein, & Opler, 1987).

**Self-Care Behaviors.** To assess self-care and health behaviors, we used one of the seven
health behavior items used by Garcia (1998; “I get as much sleep as I can”) and two additional items that were included to expand the domains of self-care represented (“I get regular checkups with my gynecologist/doctor” and “I make my own health a priority”). Responses were indicated on a 5-point scale (1 = never; 5 = always). Higher scores indicate greater levels of self-care. We use these scale items as additive measures of self-care rather than as multiple items reflecting a single underlying construct. In other words, we do not expect that someone who does not get enough sleep is necessarily more likely to not get regular checkups with their doctor. In contrast, we argue that not getting enough sleep or visiting the doctor regularly “add up” to poorer self-care and health behavior. Thus, it is not meaningful to calculate the internal consistency for the three items. This approach mirrors past studies that have used these items as single-item constructs (e.g., Oyserman, Fryberg, & Yoder, 2007). Garcia (1998) validated his measure in a multiethnic sample (4% Black), in which higher self-esteem was associated with increased participation in health-related practices.

**Drug and Alcohol Use.** To assess women’s use of alcohol and marijuana for coping, we used the 5-item social expressiveness subscale of the revised 40-item Alcohol Expectancy Questionnaire (AEQ) (George et al., 1995). This subscale addresses use of alcohol as a social lubricant (e.g., “A few drinks make me feel less shy”). This scale has been used effectively and demonstrated good internal consistency in a sample of Black college students (34% women) (McCarthy, Miller, Smith, & Smith, 2001). In addition, its factor structure has been found to be invariant across racial and gender groups (George et al., 1995). The validity of AEQ is supported by its consistent, significant relations with several aspects of drinking behavior, including quantity and frequency of consumption, alcohol-related problems, and treatment outcomes (e.g., Ham & Hope, 2002). We made two small modifications. First, we added one general item: “It
helps me forget about my problems.” Second, although the scale was developed to examine only alcohol use, we modified the items and instructions to assess both marijuana and alcohol use. Participants used the prompt, “Some people drink alcohol or smoke weed to relieve stress. How does drinking or smoking marijuana/weed make YOU feel?” to respond to 6 items. Participants recorded their responses on a 6-point scale (1 = strongly disagree; 6 = strongly agree). If participants did not use marijuana or alcohol, they could select an “N/A” option. A mean score was computed across the items (α = .92), and higher scores indicate more use of drugs and alcohol to relieve stress.

**Racial Identity.** The Racial Centrality subscale of the Multidimensional Inventory of Black Identity Short (MIBI−S; Martin, Wout, Nguyen, Gonzalez, & Sellers, 2010), which assesses the extent to which a person considers race a central aspect of their self-concept, was used to operationalize racial identity. A sample item is “Being Black is an important reflection of who I am.” Participants indicated their level of agreement with four items on a 7-point scale (1 = strongly disagree; 7 = strongly agree). A mean score across the items was calculated (α = .92), and higher scores reflect that participants consider race to be more central to their self-definition. This short version of the MIBI was originally validated with Black college students at a PWI and a HBCU. It was demonstrated to be more reliable and fit the data better than the original MIBI (Martin et al., 2005; Yip, Sellers, & Seaton, 2006). The centrality subscale demonstrated strong internal consistency in several African American samples (e.g., Neblett, Banks, Cooper, & Smalls-Glover, 2013; Rucker, Neblett, & Anyiwo, 2014). Racial centrality has been demonstrated to be related to feeling positively about being Black, a greater likelihood of taking Black studies courses, and having African American close friends (Sellers et al., 1997).

**Data Analysis Plan**
We used structural equation modeling with Mplus (Muthén, & Muthén, 2010) to test the hypothesized direct and indirect associations among metastereotype awareness, mental health, self-care, and drug and alcohol use, depicted in Figure 1. We used a three-step approach to SEM (Kline, 2010; Maslowsky, Jager, & Hemken, 2015), first examining the association of indicators to their specified latent constructs (measurement model), second examining relations between the latent constructs (structural model), and finally examining the structural model with the interaction term between metastereotype awareness and racial centrality.

We used the item-to-construct balance technique to create three parcels for the indicators for metastereotype awareness and drug and alcohol use (Little, Cunningham, Shahar, & Widaman, 2002). This method creates factor loadings for each item using a one-factor model, and items are distributed across three parcels in order of their factor loadings (e.g., the highest loading item goes on Parcel 1, the second highest on Parcel 2, the third highest on Parcel 3, the fourth highest on Parcel 1, etc.) until all items are distributed. A mean score for each parcel is then calculated, and the three parcels are used as the indicators for the latent construct. Although the Stereotypic Roles of Black Women Scale was initially designed to measure each stereotype as a distinct, separate construct (Thomas, Witherspoon, & Speight, 2004), subsequent researchers have had difficulty distinguishing the subscales due to multicollinearity (Townsend, Thomas, Neilands, & Jackson, 2010). Further, much of the research using metastereotyping as a theoretical frame has tended to examine the collective influence of group metastereotypes, rather than assessing each metastereotype individually (e.g., Issmer, Stellmacher, & Gollwitzer, 2013;)

---

1 We attempted to use the subscales as indicators for the metastereotype awareness latent variable, but were unable to properly fit the model. This was due to several correlations greater than one among the latent variables, necessitating a modification of the model (Muthén & Muthén, 2010).
Kim & Oe, 2009). In addition, we are more interested in the collective influence of these stereotypes on Black women’s well-being than their individual contributions. For these reasons, we parcelled the items used to form the metastereotype awareness latent construct rather than using the three subscales as indicators.

For the mental health latent variable, scores on the depression, anxiety, and hostility subscales were used as the three indicators. For the self-care latent variable, the three items described earlier were used as indicators.

**Results**

Descriptive statistics for the variables of interest, including school-type differences, are provided in Table 1. Bivariate correlations are presented in Table 2. We began by checking indicators for nonnormality. No variables were highly skewed or kurtotic, so we proceeded to test the measurement model. Because all of our variables were normal and continuous, we used the ML estimator.

**Measurement Model**

The measurement model was tested by loading the indicators onto their respective latent constructs using CFA. The measurement model fit very well, $X^2(48) = 62.46, p > .05$, RMSEA = .02 with 90% CI [.00, .03], CFI = .98, TLI = .996, SRMR = .02. Each indicator loaded significantly onto its specified latent construct ($\beta = .42$ to .94). The model fit and significant loadings demonstrate construct validity for the operationalization of the latent constructs with these indicators (MacCallum & Austin, 2000). Zero-order latent variable correlations indicated that metastereotype awareness was significantly correlated with mental health symptoms ($r = .11, p < .01$) and drug and alcohol use for coping ($r = .16, p < .01$), but not significantly correlated with self-care ($r = -.06, p = ns$). Mental health symptoms were significantly correlated
METASTEREOTYPES AND BLACK WOMEN’S HEALTH

with self-care ($r = -.26, p < .001$) and drug and alcohol use for coping ($r = .25, p < .001$). Self-care was significantly correlated with drug and alcohol use for coping ($r = -.15, p < .01$).

**Structural Model**

We proceeded to examine the proposed structural relationships between the latent constructs in the model (Figure 2; dashed lines indicate nonsignificant paths). We allowed the latent constructs self-care and drug and alcohol use for coping to correlate, expecting these latent constructs to be associated with each other. Because our sample had a large age range (17-58 years) and the data were collected from two different school sites, we controlled for age and school by regressing metastereotype awareness, mental health symptoms, self-care, and drug and alcohol use for coping on age and school. We also controlled for participants’ mothers’ education level, used as a proxy for socioeconomic status (SES), which has been identified as a contributor to mental and physical health disparities (Adler & Newman, 2002). In addition, low SES status is a risk factor for substance use (Mulia, Schimdt, Bond, Jacobs, & Korcha, 2008). In our model, school site significantly predicted metastereotype awareness, such that women attending the HBCU were more likely to be aware of group stereotypes. Age was also a significant predictor; older women were more likely to be aware of group stereotypes, but less likely to experience negative mental health symptoms. Finally, women whose mothers had received more education reported more negative mental health symptoms.

The structural model fit well, $X^2(81) = 182.67, p < .001$, RMSEA = .04 with 90% CI [.04, .05], CFI = .98, TLI = .97, SRMR = .04. In line with our second hypothesis, higher levels of metastereotype awareness were related to more negative mental health symptoms, which in turn was related to less self-care and more drug and alcohol use for coping. Contrary to our first hypotheses, metastereostype awareness was not significantly, directly related to self-care or drug
and alcohol use for coping. Table 3 summarizes the results of the bootstrapping procedures used to examine the indirect associations. Results from the 1,000 bootstrap samples indicated that the mean indirect associations among metastereotype awareness and both self-care and drug and alcohol use for coping were significant. The model explained 6.8% of the variance in mental health symptoms, 12.3% of the variance in self-care, and 9.0% of the variance in drug and alcohol use for coping.

**Racial Centrality as a Moderator**

We used the latent moderated structural equations method (LMS) (Maslowsky, Jager, & Hemken, 2015) to test our hypothesis regarding racial centrality as a moderator. Because Mplus does not provide model fit indices when assessing latent variable interactions, Maslowsky, Jager, and Hemken (2015) suggest first testing the main effects of the predictors, without considering relevant interactions to obtain fit indices, and then testing the interaction in a separate step. Regression coefficients for main effects and the latent interaction are obtained from the model that includes the interaction term. Though we did not propose specific hypotheses regarding the main effect of racial centrality on mental health, self-care, or drug and alcohol use, the first-order relations of racial centrality on the endogenous variables were included in the structural model to interpret the interaction correctly. Women whose race was more central to their self-concept were more likely to report higher levels of self-care and fewer negative mental health symptoms. Racial centrality was not significantly related to drug and alcohol use for coping. Because our structural model demonstrated an adequate fit, we proceeded by adding the interaction term between metastereotype awareness and racial centrality to the model, with paths from the interaction term to mental health symptoms, self-care, and drug and alcohol use.

The metastereotype awareness x racial centrality interaction term was a significant
predictor of self-care, $\beta = -0.13$, SE = .06, $p < .05$; however, the interaction did not significantly predict mental health symptoms or drug and alcohol use for coping. To interpret the significant interaction effect, we examined the relation between metastereotype awareness and self-care at low (one standard deviation below) and high (one standard deviation above) levels of the racial centrality (Figure 3; Aiken & West, 1991). Simple slope analyses indicated that the negative association between metastereotype awareness and self-care was significant at both low ($t(607) = -2.30, p < .05$) and high ($t(607) = -2.24, p < .05$) levels of racial centrality; this effect was exacerbated for women high in racial centrality.

**Alternative Model**

It is possible that participants who engaged in less self-care and more drug and alcohol use for coping reported more negative mental health symptoms. We tested this reverse causality model, examining whether self-care and drug and alcohol use for coping are instead more predictive of mental health, to obtain some sense of the directionality of these relations. The reverse causality model switches the order of the mental health and physical health latent constructs, but is otherwise identical to the proposed model in Figure 2.

This reverse causality alternative model did not fit as well (RMSEA = .04 with 90% CI [.04, .05], CFI = .98, TLI = .97, SRMR = .04, AIC = 16220.88, BIC = 16491.28) as the proposed model (RMSEA = .04 with 90% CI [.04, .05], CFI = .98, TLI = .98, SRMR = .04, AIC = 15344.20, BIC = 15617.74). Because the chi-square statistic is sensitive to large samples (Kline, 2010), comparing raw chi-square values between models is preferable to performing a chi-square difference test. The alternative model had a larger chi-square value ($X^2 = 184.73$) than the proposed model ($X^2 = 182.67$), providing another indicator of poorer fit. The model comparison suggests that mental health is more predictive of self-care and drug and alcohol use for coping.
than self-care and drug and alcohol use are of mental health. We therefore rejected the alternative model in favor of the proposed model in Figure 2.

**Discussion**

As members of a stigmatized group, Black women must interact and engage daily in a world where others may hold negative stereotypes of their sexuality, dominance, and emotional resilience. Although past research has outlined the negative consequences of endorsing these stereotypes for Black women, it is less clear how general awareness that others hold these stereotypes affects health. This study employs theories and concepts from health and social psychology and intersectionality to address these questions. We aimed to investigate the contribution of metastereotype awareness to Black women’s mental health symptomology, self-care, and drug and alcohol use for coping. We found support for most of our hypotheses. Endorsement of metastereotypes about Black women was both directly and indirectly associated with poorer health and more substance use for coping.

As hypothesized, metastereotype awareness was indirectly associated with less self-care and more substance use for coping, although it did not directly predict these outcomes. Instead, self-care behaviors and substance use were predicted indirectly through mental health, which fits within the literature on stress and coping. Consistent with this framework, stress generated from negotiating others’ stereotypes of Black women may utilize vital cognitive resources that may reduce mental well-being and, in turn, impair healthy behavior and increase substance use for coping. Individuals may have less cognitive energy to dedicate to making their health a priority or to abstain from substance use. Thus, our first hypothesis that metastereotype awareness would have direct associations with the outcomes was not supported, and our second hypothesis that it would have indirect associations through mental health was fully supported. While this finding
suggests the role of mental health as a mediator, it is important to note that mediation cannot be fully established with cross-sectional data. These findings expand the extensive literature on perceived discrimination and health (e.g., Pascoe & Richman, 2009). Indeed, whereas most past research has largely focused on *experiences* of perceived discrimination, Williams and Mohammed (2013) argue that the *anticipation* of being discriminated against is just as meaningful. Our results suggest that the mere awareness of a stereotype can have a similar, negative impact on health. In addition, the current research extends the literature on metastereotype awareness to demonstrate its negative influence on Black women’s health. These findings confirm Collins’ (2000) argument that the existence of these controlling images is harmful to Black women.

We rejected an alternative, reverse causality model examining whether self-care and drug and alcohol use for coping are more predictive of mental health in favor of the proposed model. Though the empirical differences between the fit indices of two models were minimal, past research provides some theoretical justification for rejecting the alternative model in favor of the proposed model. For example, previous research on the co-occurrence of mental health and substance use suggests that negative mental health symptoms precede substance use (for review, see Najt, Fusar-Poli, & Brambilla, 2011). Further, scholars have argued that more research on perceived discrimination and health should examine mental health as a mediating pathway, contending that discriminatory experiences may lead to increased negative emotional states, including negative mental health symptoms, which in turn, promote more negative health behaviors and well-being (Williams, Neighbors, & Jackson, 2003). It is important to acknowledge that there is likely a great deal of reciprocal causation acting on these relations that we are unable to model with cross-sectional data, however. Longitudinal analyses are needed to
further explicate the nature of these relationships.

Finally, we also expected that racial centrality would buffer the impact of metastereotype awareness on well-being for women whose racial identity was more central to their self-concept. Instead, we found the opposite; high racial centrality exacerbated the negative association between metastereotype awareness and self-care. These findings are in line with previous studies that have identified racial centrality as a risk factor for the relation between experiences of perceived discrimination and health outcomes (e.g., Sellers et al., 2003; Shelton & Sellers, 2000). It is also important to consider that it is likely that women high in racial centrality experience more discrimination in general, and thus suffer more negative well-being outcomes; that is, certain correlates of racial centrality and mental health (e.g., discrimination) may better account for the findings rather than centrality itself. More research is needed to empirically test whether racial identity serves distinct functions in the context of stereotyping in comparison to general experiences of perceived discrimination.

The most positive well-being outcomes (i.e., highest levels of self-care) were observed for women who were both highly identified with their racial group and who tended to believe that others do not hold negative stereotypes of Black women. This finding suggests that another dimension of the MMRI—public regard—may also be important to consider in relation to Black women’s well-being. This study included only one dimension of racial identity; importantly, the MMRI is a multidimensional model, and aspects of racial identity other than centrality may play important roles in moderating the association between awareness of stereotypes and health outcomes. In particular, the dimension of public regard, which refers to the extent to which one believes that others hold one’s racial group in positive esteem, may be closely associated with metastereotype awareness. Thus, inclusion of public regard in this model
as a control variable would help isolate the distinct contribution of stereotype awareness to health behaviors.

Limitations and Future Directions

Several limitations of the current study should be noted. First, we did not account for the influence of stereotype endorsement in our model. Endorsing the Jezebel and Sapphire stereotypes and SBW schema also adversely influences Black women’s health and well-being (e.g., Peterson, Wingood, DiClemente, Harrington, & Davies, 2007; Walley-Jean, 2009; Watson & Hunter, 2015b). Thus, it is unclear whether metastereotype awareness has a negative impact on Black women’s well-being regardless of stereotype endorsement. Future research should examine the cumulative (and possibly interactive) impact of Black women’s awareness of a stereotype and endorsement of a stereotype on their health and well-being.

Second, our measure of metastereotype awareness assessed the belief that people, in general, hold stereotypical beliefs about Black women. We did not specify White people or another, specific out-group. An important aspect of metastereotypes is that they are relational in nature and can change depending on the in-group and out-group under observation (Vorauer, Main, & O’Connell, 1998). For example, older adults’ metastereotypes of younger adults (older adults’ beliefs about the stereotypes young people have about older adults) differ from older adults’ metastereotypes of middle-aged adults (older adults’ beliefs about the stereotypes middle-aged people have about older adults) (Finkelstein, Ryan, & King, 2013). Therefore, future research should clearly delineate the in-groups and out-groups under examination in order to more precisely measure metastereotype awareness.

Third, given the available variables in our dataset, we were not able to measure identity intersectionally. Although racial identity has been demonstrated to be an important protective
factor for African Americans, one previous study indicates that Black women rate their identity as Black women as more important than both their Black identity and woman identity (Settles, 2006). Just as it is impossible to disentangle the racist and sexist components of stereotypes about their group, this research suggests that Black women are unable to separate the race and gender components of their identity. Accordingly, future research would be greatly enriched by assessing Black women’s gendered racial identity centrality.

Fourth, longitudinal research is needed to examine the cumulative influence of metastereotype awareness over time and to confirm the proposed directionality of the associations under examination. Although the comparison of the fit statistics of our model to those of the alternative model provides some evidence, it is possible that women who report more negative mental health symptoms, for example, report more metastereotype awareness.

Finally, our student sample had high levels of educational attainment and many were from higher socioeconomic (SES) backgrounds. Class is another identity that intersects with race and gender, and its influence should be taken into account in research about Black women. For example, Black women from lower income backgrounds may have to negotiate additional stereotypes (e.g., the Welfare Queen) related to their class identity (Davis, 1990; Hancock, 2004). These women also face distinct health disparities (Adler & Newman, 2002; Bridges, 2011) and may be exposed to additional, chronic stressors that increase their risk for substance abuse relative to higher income women (Mulia, Schimdt, Bond, Jacobs, & Korcha, 2008). Thus, Black women from lower social class backgrounds may be more susceptible to the associations between metastereotype awareness and negative well-being. In addition, our results indicate that school site is associated with individuals’ awareness that others hold negative stereotypes of Black women. In particular, women at the HBCU were more likely to report higher levels of
metastereotype awareness. Future studies would benefit from examining school context as an important correlate of metastereotype awareness.

Implications

This study has important implications for clinicians and counselors. First, evidence indicates that Black women experience gendered racial discrimination based on others’ perceptions of their behavior in many different contexts, including during counseling (Owen, Tao, Imel, Wampold, & Rodolfa, 2014). Moreover, research suggests clients’ perceptions of prejudice and discrimination by providers are negatively related to establishing a working alliance and satisfaction with services and therapy outcomes (Constantine, 2007; Owen et al., 2011). These findings indicate that to the extent that discrimination by counselors enhances Black women’s metastereotype awareness, counseling could have a deleterious effect on Black women’s mental health.

Outside of discrimination, African Americans’ perceptions of various counseling-related sensitivities and of cross-racial interactions can shape their experience of and satisfaction with mental health services (Constantine, 2007). There is consistent evidence that a client’s perceptions of a therapist’s multicultural competencies— that is skills, knowledge, and awareness necessary to work with diverse clients (Owen et al. 2016)— can have a powerful, positive impact on therapy processes and outcomes (e.g., Constantine, 2007; Owen et al., 2016; Tao, Owen, Pace, & Imel, 2015). One of the three components of multicultural competence (Sue Arredondo, & McDavis, 1992) concerns the therapist’s awareness of their own assumptions, values, and beliefs, and how they can affect interactions with a client or perceptions of the presenting issue (Tao, Owen, Pace, & Imel, 2015). In line with the findings of our research, counselors need to be mindful of any stereotypical assumptions about Black women that could
make metastereotypes more salient for their clients. Not only can acting according to these assumptions be perceived as a manifestation of culturally incompetent behavior (Tao, Owen, Pace, & Imel, 2015), our findings suggest such behavior could have a negative impact on Black women’s mental health and, indirectly, their health behavior.

How do therapists and those working to train therapists confront this problem? No therapist is immune from unintentionally offending or invalidating their clients (Owen et al., 2014); instead, therapists must realize that developing a strong multicultural orientation requires a consistent willingness to examine attitudes, biases, and beliefs, reflected in a culturally humble stance with clients. Our findings suggest that counselors also need to be sensitive to the stress Black women may experience because of their awareness of these stereotypes, and their concerns of being judged accordingly. We encourage current training programs to incorporate information on how awareness of societal stereotypes may be a stressor for Black women.

**Methodology for Intersectionality**

Psychologists and other social scientists are increasingly interested in identifying methods suited for investigating research questions that employ an intersectionality framework. The research presented here employs a within-group focus design, making comparisons within a single group defined at the intersection of two or more marginalized groups. Although the use of a within-group design may pose limits to generalizability (Else-Quest & Hyde, 2016), our study suggests the approach carries specific benefits as well. First, our finding that the impact of metastereotypes on health outcomes was moderated by racial centrality, an individual difference variable, reveals the importance of attending to the diversity of identity and experience within a group (Lewis & Grzanka, 2016). Thus, a within-group focus may resist the tendency to define minoritized groups homogeneously, as studies relying on comparisons with majority groups
sometimes do (Cole & Stewart, 2001). Second, our focus on a single group allowed us to conceptualize a model including constructs that are culturally and historically specific to the group being studied, in a way that research based on between-group comparisons often do not, or cannot.

Our research illustrates the productivity of the theoretical concept of intersectionality as it travels to the disciplines and can be operationalized using methods beyond critical theory (Cho, Crenshaw, & McCall, 2013). Within-group studies such as this one represent one way to move beyond using intersectionality descriptively to simply define different social locations or multiple identity groups (‘‘flattening’’ intersectionality, Fine quoted in Guidroz & Berger, 2009). Our work demonstrates how the construct of intersectionality offers an opportunity for research in the disciplinary mainstream, including studies employing quantitative methods, to approach the study of under-represented groups with both enhanced cultural specificity and nuance.

In her recent monograph, May (2015) reminds scholars that intersectionality is a ‘‘set of ongoing intellectual and political commitments that are fundamentally oriented toward antisubordination and social transformation’’ (p. 3). Clearly then, the methodologies we choose to explore research questions informed by intersectionality frameworks must be rooted in social justice research. Cokley and Awad (2013) have made recommendations for quantitative research in this tradition, including: avoiding unnecessary comparisons between groups, which risk invoking deficit models; the use of proximal variables (such as identity and constructs related to culture) rather than distal variable (such as group membership) to explain differences between groups; and employment of empirical constructs rooted in the experiences of minoritized groups. Research exploring the diversity of experience within a single group defined at the intersection of two or more marginalized groups addresses these criteria generally, as does the empirical
example we have presented here.

**Conclusion**

This study demonstrates the detrimental health consequences of Black women’s awareness of others’ stereotypes of their group and establishes the potential of racial identity to exacerbate this effect. The findings are useful for understanding how these stereotypes operate in the daily lives of Black women and suggest a need to continue examining identity intersectionally, simultaneously considering the role of both racial and gender oppression in Black women’s health disparities. Health care providers should be particularly cognizant of how stereotyping may compromise Black women's mental health.
References


Black woman”. *Journal of Consulting and Clinical Psychology*, 78(4), 469.


women. *Journal of the National Medical Association, 95*(6), 450–460.


mediates the association between ethnic-racial socialization and depressive symptoms.

*Cultural Diversity & Ethnic Minority Psychology, 19*(2), 200-207.


Personality and Social Psychology, 75(4), 917.


Figure 1. Conceptual Model.

Note. All latent constructs regressed on age, school, and mother’s education covariates; not depicted for clarity.
Figure 2. Proposed Structural Model including Interaction Term.

Note. $N = 609$. Standardized regression coefficients are noted for each path. $^*p \leq .05$; $^{**}p \leq .01$; $^{***}p \leq .001$. Only significant paths from the covariates are depicted. PWI = Predominately White Institution. HBCU = Historically Black College or University.
Figure 3. Interaction of Metastereotype Awareness and Racial Centrality Predicting Self-care.
Table 1

*Descriptive Statistics for Variables of Interest*

<table>
<thead>
<tr>
<th>Latent variables</th>
<th>Full Sample</th>
<th>PWI</th>
<th>HBCU</th>
<th>t</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metastereotype awareness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parcel 1</td>
<td>3.65 (0.88)</td>
<td>3.74 (0.79)</td>
<td>3.52 (0.98)</td>
<td>2.90**</td>
<td>.25</td>
</tr>
<tr>
<td>Parcel 2</td>
<td>3.52 (0.86)</td>
<td>3.58 (0.79)</td>
<td>3.44 (0.96)</td>
<td>1.92*</td>
<td>.16</td>
</tr>
<tr>
<td>Parcel 3</td>
<td>3.53 (0.88)</td>
<td>3.58 (0.82)</td>
<td>3.44 (0.97)</td>
<td>1.84</td>
<td>.16</td>
</tr>
<tr>
<td>Mental Health Symptoms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>1.92 (1.01)</td>
<td>2.01 (1.03)</td>
<td>1.80 (0.96)</td>
<td>3.00**</td>
<td>.21</td>
</tr>
<tr>
<td>Anxiety</td>
<td>1.64 (0.81)</td>
<td>1.69 (0.79)</td>
<td>1.59 (0.84)</td>
<td>1.82</td>
<td>.12</td>
</tr>
<tr>
<td>Hostility</td>
<td>1.65 (0.76)</td>
<td>1.57 (0.67)</td>
<td>1.75 (0.86)</td>
<td>-3.23***</td>
<td>.23</td>
</tr>
<tr>
<td>Self-care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep</td>
<td>3.19 (1.14)</td>
<td>3.26 (1.13)</td>
<td>3.10 (1.14)</td>
<td>2.04*</td>
<td>.14</td>
</tr>
<tr>
<td>Doctor Visits</td>
<td>3.71 (1.37)</td>
<td>3.65 (1.40)</td>
<td>3.78 (1.33)</td>
<td>-1.43</td>
<td>.10</td>
</tr>
<tr>
<td>Health Priority</td>
<td>3.96 (0.99)</td>
<td>3.97 (0.93)</td>
<td>3.94 (1.06)</td>
<td>0.50</td>
<td>.03</td>
</tr>
<tr>
<td>Drug and Alcohol Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parcel 1</td>
<td>3.29 (1.48)</td>
<td>3.31 (1.51)</td>
<td>3.25 (1.44)</td>
<td>.48</td>
<td>.04</td>
</tr>
<tr>
<td>Parcel 2</td>
<td>3.48 (1.48)</td>
<td>3.47 (1.51)</td>
<td>3.49 (1.44)</td>
<td>-0.16</td>
<td>.01</td>
</tr>
<tr>
<td>Parcel 3</td>
<td>3.25 (1.37)</td>
<td>3.20 (1.43)</td>
<td>3.33 (1.28)</td>
<td>-1.01</td>
<td>.10</td>
</tr>
</tbody>
</table>

Note. PWI = Participants attending a Predominately White Institution. HBCU = Participants attending a Historically Black College or University. *p ≤ .05; **p ≤ .01; ***p ≤ .001.
Table 2

Bivariate correlations among manifest variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MA1</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. MA2</td>
<td>.94**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. MA3</td>
<td>.93**</td>
<td>.94**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Depression</td>
<td>.10**</td>
<td>.08</td>
<td>.09*</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Anxiety</td>
<td>.11**</td>
<td>.10*</td>
<td>.10*</td>
<td>.74**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Hostility</td>
<td>.12**</td>
<td>.10*</td>
<td>.11**</td>
<td>.61**</td>
<td>.66**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Sleep</td>
<td>-.03</td>
<td>-.02</td>
<td>.00</td>
<td>-.16**</td>
<td>-.14**</td>
<td>-.10**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Doctor Visits</td>
<td>-.02</td>
<td>.00</td>
<td>.01</td>
<td>-.10**</td>
<td>-.12**</td>
<td>-.11**</td>
<td>.20**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Health Priority</td>
<td>-.07</td>
<td>-.06</td>
<td>.06</td>
<td>-.18**</td>
<td>-.15**</td>
<td>-.12**</td>
<td>.33**</td>
<td>.39**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. DAU1</td>
<td>.14*</td>
<td>.10</td>
<td>.09</td>
<td>.29**</td>
<td>.23**</td>
<td>.14**</td>
<td>-.05</td>
<td>-.08</td>
<td>—</td>
<td>.12**</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>11. DAU2</td>
<td>.16**</td>
<td>.13*</td>
<td>.12*</td>
<td>.22**</td>
<td>.20**</td>
<td>.12**</td>
<td>-.05</td>
<td>-.07</td>
<td>-.10*</td>
<td>.88**</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>12. DAU3</td>
<td>.15**</td>
<td>.12*</td>
<td>.09</td>
<td>.26**</td>
<td>.24**</td>
<td>.14**</td>
<td>-.08</td>
<td>-.05</td>
<td>-.11*</td>
<td>.77**</td>
<td>.80**</td>
<td>—</td>
</tr>
</tbody>
</table>

* p < .05. ** p < .01.
Note. MA = metastereotype awareness parcels; DAU = drug and alcohol use parcels.
Table 3

*Bootstrap Analysis of Magnitude and Statistical Significance of Indirect Relations*

<table>
<thead>
<tr>
<th>Indirect Effect</th>
<th>$\beta$ (standardized indirect effect)</th>
<th>Mean indirect effect ($B^a$)</th>
<th>SE of mean$^a$</th>
<th>95% CI for mean indirect effect$^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metastereotype awareness → Mental health → Self-care</td>
<td>-0.04</td>
<td>-0.043</td>
<td>0.021</td>
<td>-0.091, -0.009*</td>
</tr>
<tr>
<td>Metastereotype awareness → Mental health → Drug and alcohol use</td>
<td>0.04</td>
<td>0.038</td>
<td>0.015</td>
<td>0.012, 0.071*</td>
</tr>
</tbody>
</table>

$^a$These values are based on the unstandardized path coefficients.  
*p < .05.*