

EXAMINING CORRELATES OF PAST YEAR MAJOR DEPRESSIVE
EPISODE AMONG BLACK MEN AND BLACK WOMEN IN THE UNITED STATES

By

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A thesis submitted to the

Graduate School-Camden

Rutgers, The State University of New Jersey

For the degree of Master of Arts

Graduate Program in the Psychology

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Camden, New Jersey

May 2019

THESIS ABSTRACT

Examining Correlates of Past Year Major Depressive Episode Among Black Men and
Black Women in the United States

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Background: Depression is a major public health problem. Even though Black people are the second largest racial group in the United States, little data exists examining correlates of depression among Black adults. In addition, while attention to gender disparities in science has led to calls for gender-specific data analyses, only a handful of studies on depression have reported gender-specific findings for Black adults. **Methods:** This study examined gender-specific risk and protective correlates of past year major depressive episodes (PY-MDE). Participants were Black men (N=1,681) and Black women (N=2,437) who participated in wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions. The risk correlates studied included ten adverse childhood experiences (ACEs), past year intimate partner violence, and past year racial and gender discrimination. The protective correlates studied were religiosity and ethnic identity. **Results:** Intimate partner violence was the only correlate of PY-MDE for both Black men and women. The association between intimate partner violence and PY-MDE was larger for Black men (Adjusted odds ratio (AOR)=3.03) than Black women (AOR=1.70).

Childhood psychological and sexual abuse were associated with PY-MDE for Black women, but not men. Among Black women, the association between gender discrimination and PY-MDE was significant (AOR=2.21). Neither religiosity or ethnic identity were protective for Black men and women. **Discussion:** Findings suggest the need for gender-specific interventions for depression among Black adults that address racial and gender discrimination, IPV, and that include culturally adapted CBT and trauma informed therapy.

Introduction

Burden of Major Depression

In the United States, major depression affects around 15% of individuals during their lifetime (Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012) and it is the second leading cause of disability (Vos et al., 2012). Individuals with depression are more than twice as likely to have suicide ideation or to have made a suicide attempt (Ribeiro, Huang, Fox, & Franklin, 2018). Individuals with depression are also 1.5 times more likely to commit suicide (Ribeiro et al., 2018). Of individuals meeting criteria for major depressive disorder during a 12 month period, 64% also have at least one other mental disorder including substance use disorders (Hasin, Goodwin, Stinson, & Grant, 2005; Martins et al., 2012), dysthymia (Ronald C Kessler, Chiu, Demler, & Walters, 2005), generalized anxiety disorder (Ronald C Kessler et al., 2005; R. C Kessler et al., 2008), panic disorder (Roy-Byrne et al., 2000), and personality disorders (Hasin et al., 2005). The estimated economic burden of depression is \$98.9 billion annually due to expenses including therapeutic and pharmacologic treatments (Greenberg, Fournier, Sisitsky, Pike, & Kessler, 2015).

Overarching Theory/Model of Risk and Protective Correlates of Depression

Given the burden of depression, it is imperative we understand multiple risk and protective correlates of depression to inform interventions aimed to both prevent and treat depression. The Model of Developmental Adaptation posits that proximal (more recent) risk correlates, such as past year intimate partner violence victimization (IPV) and discrimination, and distal (events that took place earlier in life) risk correlates such as adverse childhood experiences (ACEs), affect mental health outcomes such as depression

(Martin & Martin, 2002). This model also includes social support (e.g. church attendance and ethnic identity) as an influence of health outcomes such as depression (Martin & Martin, 2002). Both proximal and distal events are suggested to influence depression, and individuals are thought to be at increased risk for depression when they have been greatly affected by distal events (e.g., ACEs) (Martin & Martin, 2002). The after effects of distal events can lead to poor coping skills and decreased resources during proximal events leading to negative outcomes such as depression. (Martin & Martin, 2002).

Risk Correlates of Depression: Adverse Childhood Experience

Findings from numerous studies suggest that ACEs are associated with increased risk for health problems (Kalmakis & Chandler, 2015; Loudermilk, Loudermilk, Obenauer, & Quinn, 2018; Thompson, Kingree, & Lamis, 2018) including depression (Bernet & Stein, 1999; Chapman et al., 2004; Choi, DiNitto, Marti, & Choi, 2017; Felitti et al., 1998; Lee & Chen, 2017; Merrick et al., 2017; Schilling, Aseltine, & Gore, 2007). The Adverse Childhood Experience (ACE) Study, which is one of the largest studies on childhood abuse and health (Center of Disease Control, 2016), examined the impact of three types of childhood abuse (i.e., childhood psychological abuse, childhood physical abuse, childhood sexual abuse,) and four types of household dysfunction (i.e., maternal battering, parental alcohol abuse or illicit drug use, household member history of incarceration, and parental mental illness) and the associations between both the individual and cumulative experiences of these adversities with various health problems including depressed mood (Felitti et al., 1998).

Contemporary studies have expanded their examination of ACEs to include childhood physical and emotional neglect as forms of child abuse and parental divorce as

part of the assessment of household dysfunction (Cavanaugh, Petras, & Martins, 2015; Choi et al., 2017; Dube et al., 2003; Merrick et al., 2017; Ports, Ford, & Merrick, 2016). These aforementioned ACEs also have been shown to be related to depression. One study examined the influence of each of the aforementioned ten ACEs on lifetime major depressive disorder among older adults (i.e., at least 50 years old) and found that each of the ten ACEs was positively associated with lifetime major depressive disorder except parental divorce, witnessing domestic violence, and having a parent/other adult incarcerated during childhood (Choi et al., 2017). Another study examined associations between 11 ACEs, the 10 previously mentioned in addition to spanking and depression among 7,465 adult participants seeking care at clinics in California. That study found that all ACEs, except having incarcerated household member, were positively associated with depression (Merrick et al., 2017).

Risk Correlates for Depression: Intimate Partner Violence and Discrimination

Many studies have also found that IPV victimization is positively associated with depression (Beydoun, Beydoun, Kaufman, Lo, & Zonderman, 2012; Caetano & Cunradi, 2003; Lacey, McPherson, Samuel, Powell Sears, & Head, 2012; Pico-Alfonso et al., 2006; Simmons, Knight, & Menard, 2015; Zlotnick, Johnson, & Kohn, 2006). In a meta-analysis on the effects of intimate partner violence on women, women who experienced IPV were three times more likely to be diagnosed with major depressive disorder (Beydoun et al., 2012). While the association between IPV and depression among men has been studied less, a longitudinal study found that minor and violent IPV victimization of men was also associated with greater risk for depression (Simmons et al., 2015).

Both racial/ethnic (Britt-Spells, Slebodnik, Sands, & Rollock, 2018; Canady, Bullen, Holzman, Broman, & Tian, 2008; Chao, Mallinckrodt, & Wei, 2012; Chou, Asnaani, & Hofmann, 2012; McLaughlin, Hatzenbuehler, & Keyes, 2010) and gender discrimination (Canady et al., 2008; McLaughlin et al., 2010; Platt, Prins, Bates, & Keyes, 2016) have been positively associated with depression. In a national study, past year racial and gender discrimination each lead to about 2.5 greater odds of past of year depression among women and Black adults respectively (McLaughlin et al., 2010). There is a paucity of research examining racial and gender discrimination together in women, but one study that did examine racial and gender discrimination amongst pregnant Black and White women found that gender and racial discrimination were significantly correlated with depression when tested in separate models, however, when gender and racial discrimination were tested in the same model among a combined sample of Black and White Women, only gender discrimination was significantly associated with depression (Canady et al., 2008). We are unaware of any studies examining the influence of both gender and racial discrimination on depression specifically among Black women.

Protective Correlates for Depression: Ethnic Identity and Religiosity

Less attention has been paid to protective correlates of depression. Among the studies in this area, religiosity (Balbuena, Baetz, & Bowen, 2013; Barton, Miller, Wickramaratne, Gameraff, & Weissman, 2013; Ronneberg, Miller, Dugan, & Porell, 2014) and ethnic identity (Brittian et al., 2015; Neblett Jr, Banks, Cooper, & Smalls-Glover, 2013; Williams, Chapman, Wong, & Turkheimer, 2012) have been associated with decreased risk for depression. In a longitudinal national study in Canada, greater religious service attendance has also been associated with lower risk of reporting depression (Balbuena et

al., 2013). Positive racial/ethnic identity was shown to be negatively associated with depression in a sample of 211 Black young adults (Neblett Jr et al., 2013), however, other studies have found partial or no support for racial/ethnic identity being protective (Ai, Nicdao, Appel, & Lee, 2015; Bombay, Matheson, & Anisman, 2010). In addition, there is some evidence that ethnic identity could be a protective moderator of racial discrimination on depression (Banks & Kohn-Wood, 2007; Sellers & Shelton, 2003). Amongst Black college students, for those who held race as a core ideological, ethnic identity moderated the association between racial discrimination and depression while those who professed as wanting to assimilate to the mainstream were more negatively affected by racial discrimination (Banks & Kohn-Wood, 2007).

Need for Gender- & Racial-Specific Examinations of Risk and Protective Correlates of Depression Among Black Individuals

Intersectionality theory suggests the need to understand correlates of depression in the context of the multiple social membership categories to which individuals belong such as race and gender (Cole, 2009). One way to examine individuals' multiple identities (e.g., gender and racial identity) is to conduct analyses separately for the different social membership groups studied in order to generate more contextualized findings for groups that have been overlooked in psychology (e.g., Black men and Black women), (Elizabeth R. Cole, 2009). In addition, there have been calls to address the gender equity gap in research by conducting gender-specific analyses (Heidari, Babor, De Castro, Tort, & Curno, 2016). Yet, most of the research pertaining to correlates of depression has either focused on women or Black adults, with only a handful of studies elucidating gender-specific findings for Black adults on this topic. As a result, little is known about

depression among Black men and Black women even though Black people are the second largest racial group in the United States (United States Census Bureau, 2017). Having data specific to Black people allows researchers to consider the social cultural factors that are specific to this group (i.e. ethnic identity and racial discrimination), and consider the power dynamics that exist while giving voice to a group that is often underrepresented (Hall, Yip, & Zárate, 2016).

Among the few gender-specific studies pertaining to correlates of depression for Black adults, IPV victimization was found to be positively associated with depression for both Black men and Black women (Huang & Gunn, 2001). Additionally, childhood physical and sexual abuse was associated with greater odds of depression for both Black men and women; however, Black men who had experienced childhood sexual abuse had almost double the odds of having depression than the women (Roxburgh & MacArthur, 2014). While these studies have elucidated important gender-specific findings for Black adults, these studies have been limited by convenience samples as one study pertained to incarcerated Black adults (Roxburgh & MacArthur, 2014) and the other was based upon 140 Black college students with only 30 males (Huang & Gunn, 2001). We are unaware of any large studies examining gender-specific correlates of depression for Black men and women.

This study seeks to extend the extant literature by generating empirical findings about gender-specific correlates of depression for Black men and Black women since these populations has been understudied. Specifically, this study aims to test a comprehensive model of correlates of depression including ACEs, IPV, racial and gender discrimination, racial identity, and religiosity with past year major depressive episodes

(PY-MDE) in gender-specific analyses for Black men and women. Forming hypotheses was complicated by the decision to base hypotheses on large studies on combined racial/ethnic groups or studies specific to Black individuals that are limited by convenience samples. It was decided to hypothesize based on the current literature on gender-stratified research on Black adults when possible since it is more closely related to the current study. The following was hypothesized: (1) childhood physical and sexual abuse will be significantly associated with PY-MDE for both Black men and Black women (Roxburgh & MacArthur, 2014), (2) past year IPV victimization will be significantly associated with PY-MDE for both Black men and Black women (Huang & Gunn, 2001), (3) ethnic identity and religious service attendance will be protective of PY-MDE for Black men and women (Balbuena et al., 2013; Brittian et al., 2015; Neblett Jr et al., 2013; Ronneberg et al., 2014), (4) racial discrimination will be significantly associated with PY-MDE for Black men and women (McLaughlin et al., 2010), (5) gender discrimination will only be significantly correlated to PY-MDE for Black women (Canady et al., 2008), and (6) ethnic identity will moderate the association between racial discrimination and depression for Black men and women (Banks & Kohn-Wood, 2007).

Methods

Procedure and Participants

This study used data from Wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). Wave 2 of the NESARC data was collected in 2004-2005 using face to face interviews with consenting participants from Wave 1 with a response rate of 86.7%, ($N= 34,653$). The interviews asked questions about participants' experiences with adversity and their mental health problems. This study was restricted to participants who identified their race as Black ($N= 6,587$). Since questions about past year IPV were asked only among participants who were in a romantic relationship during the past year, this study was restricted to the Black respondents who were in romantic relationships during the past year ($N= 4,298$). Of the 4,298 participants 180 (4.2%) were missing data on one of the variables of interest and were removed from the sample. The final analytic sample consisted of 4,118 Black adults (1,681 Black men and 2,437 Black women), who were married, dating, or involved in a romantic relationship during the past year and we are not missing data on the variables of interest.

Measures

Past Year Major Depressive Episode. PY-MDE was measured by the Alcohol Use Disorder and Associated Disabilities Interview Schedule-IV (AUDADIS-IV) (Grant & Dawson, 2006). The AUDADIS-IV included questions that assessed symptoms for major depression in accordance with the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (DSM-IV) (Grant & Dawson, 2006). Questions included whether participants had experienced a major depressive

episode in the past year. A dichotomous variable was used to examine the presence/absence of a past year major depressive episode.

Adverse Childhood Experiences. Ten ACEs occurring before the age of 18 were assessed (Ruan et al., 2008). Related questions were adapted from the ACE study (Dong, Anda, Dube, Giles, & Felitti, 2003; Dube et al., 2003) and were originally part of the Conflict Tactics Scale (Straus 2017) and the Childhood Trauma Questionnaire (Bernstein et al., 1994; Wyatt, 1985). Childhood sexual abuse was assessed with questions used by other investigators (Ruan et al., 2008; Wyatt, 1985). The following ten ACEs were examined in this study: 1) childhood psychological abuse, 2) childhood physical abuse, 3) childhood sexual abuse, 4) childhood emotional neglect, 5) childhood physical neglect, 6) parental divorce, 7) witnessing maternal battering mother/female caregiver 8) household member substance abuse, 9) household member mental illness, 10) household member incarceration (Ruan et al., 2008). Responses to the ACE questions were coded to be consistent with previous studies (Cavanaugh et al., 2015; Chapman et al., 2004) (Ruan et al., 2008). The alpha value for the ACEs categories ranged from .78- .90 (Ruan et al., 2008). All ACE variables were dichotomous (yes/no).

Past Year IPV Victimization. Past year IPV victimization was assessed using six multiple choice questions taken from scales that were adapted from other studies (Cunradi, Caetano, Clark, & Schafer, 1999; Lipsky, Caetano, Field, & Larkin, 2006; White & Chen, 2002). The scale had an alpha level of .70 (Ruan et al., 2008). Participants were asked how often within the last 12 months their spouse/partner had (a) “pushed, grabbed, or shoved you.” (b) “slapped, kicked, bit, or hit you.” (c) “your partner/spouse threatened you with a weapon (knife, gun),” (d) “cut or bruised you,” (e) “forced you to have sex,” or (f)

“injured you enough for you to get medical care” (Ruan et al., 2008). Response options were 1) never, 2) once, 3) 2 to 3 times, 4) once a month, and 5) more than once a month and were coded dichotomously, 1=0 and 2-5=1 consistent with other studies (Hahn, McCormick, Silverman, Robinson, & Koenen, 2014; La Flair et al., 2012). A participant was considered to have had past year IPV if they reported any experience of the six types of IPV assessed.

Past Year Racial and Gender Discrimination. Past Year Racial and Gender discrimination were both assessed with six questions that were adapted from the Experiences with Discrimination Scale, originally developed by Krieger (Krieger, 1990, 2008; Krieger & Sidney, 1997; Krieger, Sidney, & Coakley, 1998; Krieger, Smith, Naishadham, Hartman, & Barbeau, 2005; Ruan et al., 2008). The questions asked if the participants experienced discrimination within the past year when 1) obtaining health care, 2) receiving care, 3) in public places, 4) obtaining a job or on the job, getting admitted to school/training or obtaining housing, 5) called a racist or sexist name, or 6) verbally or physically threatened or harmed. The answer choices were; 1= never, 2=almost never, 3=sometimes, 4=often, and 5= very often. The measure for racial discrimination had an alpha level of .74, and gender discrimination had an alpha level of .72 (Ruan et al., 2008). Congruent with previous studies (Carliner et al., 2016; Carliner, Sarvet, Gordon, & Hasin, 2017), response options for each type of discrimination were collapsed to create two dichotomous variables to assess gender and racial discrimination. Original responses of, 1-2 were recoded to be 0 and responses 3-5 were recoded as 1.

Frequency of Religious Service Attendance. Participants were asked one question about their frequency of attendance with the following question from the NESARC, “How

often do you attend services?” The answer choices were 1) once a year, 2) a few times a year, 3) 1 to 3 times a month, 4) once a week, 5) twice a week or more. Consistent with other studies (Ransome & Gilman, 2016; Salas-Wright, Vaughn, & Maynard, 2015), the items were coded into four categories 0= do not attend, 1= once to a few times a year, 2= 1 to 3 times a month, 3= once a week, and 4= twice a week or more.

Racial/Ethnic Identity. Participants’ racial/ethnic identity was assessed with the racial/ethnic identity scale which is comprised of eight questions from multiple scales (Barry, 2002; Phinney, 1992; Rahim-Williams et al., 2007), which measures the part of a person’s self-concept that comes from his or her knowledge of, or membership in, a social group and was adopted from scales assessing diverse race-ethnic groups. The items asked about participants’ agreeance to statements related to racial/ethnic identification, racial/ethnic pride, importance of racial/ethnic heritage, role of racial/ethnic background in respondents’ interactions with others, and shared racial/ethnic values, attitudes and behaviors such as, “your race/heritage is important in your life,” “you are proud of your race/heritage,” (Ruan et al., 2008). This scale had an alpha level of .79 (Ruan et al., 2008). The items were scored on a six-point Likert scale ranging from 1= strongly agree to 6= strongly disagree (Ruan et al., 2008). The scale was coded as a continuous variable resulting in a score ranging between 1 and 48 after appropriate items were reversed coded, higher scores denoted higher degrees of racial/ethnic identification (Ruan et al., 2008).

A number of sociodemographic variables including age (Aranda et al., 2012; Hasin et al., 2005), income (Brown, Schulberg, & Madonia, 1996), education (Carliner et al., 2016) and marital status (Aranda et al., 2012), have been associated with depression and

were therefore controlled for in this study. Personal past year income is measured by 17 choices in the NESARC from 0 income to \$100,000 or more. This variable was recoded to comprise four categories in a manner that was consistent with prior research (<\$19,000; \$20,000-\$34,999; \$35,000-\$69,999; >\$70,000) (Carliner et al., 2016; Hasin et al., 2005). Education was measured with a categorical variable (<high school, high school or GED, >high school) similar to other studies (Carliner et al., 2016; Hasin et al., 2005; Ruan et al., 2008). Marital status was coded as a categorical variable (married or livings as if married; widowed, divorced, or separated; never married) consistent with other studies (Carliner et al., 2017; Hasin et al., 2005; Ruan et al., 2008).

Data Analytic Plan

The data was analyzed on SPSS using a logistic regression. Each of the correlates for depression was tested separately for Black men and Black women. The correlates that were significant in the simple logistic regressions were then be tested in simultaneous logistic regression model tested separately for Black men and Black women. The simultaneous logistic regression models controlled for sociodemographic variables that were significant in the simple logistic regression models. The analytic plan involved testing an interaction effect between ethnic identity and racial discrimination with PY-MDE in the simultaneous regression model.

Results

Sample Demographics

Descriptive statistics are presented in Table 1. There were (N=1,681) Black men with a mean age of 47.40. The majority of the men had at least some college (52.8%), reported being married or living together (62.5%), and had an income over \$20,000 (\$20,000-34,999) (26.7%), (\$35,000-\$69,999) (32.1%). The most common ACEs were childhood physical abuse (24.3%), household substance abuse (23.0%), and divorce (19.5%). Past year IPV was experienced by 9.6% of Black men. Past year gender discrimination was reported by 7.6% of Black men and racial discrimination was reported by 26.5% of Black men. The majority of the men did not attend religious services (33.6%).

Black women (N=2,437) had a mean age of 43.3 with the majority having at least some college (59.7%), married or living together (49.9%), and had a personal income over 20,000 (\$20,000-34,999) (27.7%), (\$35,000-\$69,999) (21.7%). The most common ACEs were household substance abuse (25.9%), divorce (21.1%), and childhood physical abuse (20.6%). Past year IPV was reported by 9.6% of Black women. Past year gender discrimination was reported by 14.3% of Black women and past year racial discrimination was reported by 26.5%.

Hypothesis 1: Childhood physical and sexual abuse will be significantly associated with PY-MDE for both Black men and Black women

The unadjusted and adjusted odds ratios for the associations between the variables studied and PY-MDE are shown in Table 2. It was hypothesized that childhood physical and sexual abuse would be significantly correlated to PY-MDE for Black men and

women, this hypothesis was partially supported since childhood sexual abuse was positively associated with PY-MDE for Black women (AOR=1.50, 95% CI=1.07-2.10, $p < .05$). Childhood physical abuse was not associated with PY-MDE for neither Black men nor Black women. Although it was not hypothesized, child psychological abuse was significantly associated with PY-MDE for Black women (AOR=2.10, 95% CI=1.37-3.21, $p < .01$).

Hypothesis 2: Past year IPV victimization will be significantly associated with PY-MDE for both Black men and Black women

IPV was positively associated with PY-MDE for both men (AOR=3.03, 95% CI=1.69-5.55, $p < .01$), and women (AOR=1.70, 95% CI=1.16-2.50, $p < .01$), which provided full support for hypothesis 2. Specifically, compared to Black men without a history of IPV, Black men with a history of IPV had 3.03 greater odds of PY-MDE. Additionally, compared to Black women without a history of IPV, Black women with a history of IPV had 1.72 greater odds of PY-MDE.

Hypothesis 3: Ethnic identity and religious service attendance will be protective of PY-MDE for Black men and women

It was also hypothesized that religiosity and ethnic identity would be protective for Black men and women. However, this hypothesis was only partially supported. Ethnic identity was slightly protective for women only (AOR=1.04, 95% CI=1.01-1.07, $p < .05$), and religious service attendance was not significant for Black women nor men.

Hypothesis 4: Racial discrimination will be significantly correlated with PY-MDE for Black men and women

The hypothesis that racial discrimination would be significantly correlated with PY-MDE for Black men and women was partially supported by the data. Racial discrimination was associated with 2.22 greater odds of PY-MDE (AOR=2.22, 95% CI=1.27-3.78, $p < .01$) for Black men and was not significant for Black women.

Hypothesis 5: Gender discrimination will be significantly correlated with PY-MDE for Black women

It was hypothesized that gender discrimination would be significantly correlated with PY-MDE for women only and that was fully supported in the data. Black women who reported gender discrimination in the past year had 2.21 greater odds of PY-MDE (AOR=2.21, 95% CI=1.55-3.15, $p < .01$).

Hypothesis 6: Ethnic identity will moderate the association between racial discrimination and depression

It was hypothesized that ethnic identity would moderate the relationship between past year racial discrimination and PY-MDE. However, the interaction between racial discrimination and ethnic identity with PY-MDE was not statistically significant for either Black men or Black women.

Discussion

Intersectionality theory suggests the need for understanding individuals in terms of the multiple social membership categories for which they belong (e.g., race and gender) (Elizabeth R Cole, 2009), yet research studies on correlates of depression have focused primarily on mixed racial or gender samples (Balbuena et al., 2013; Beydoun et al., 2012; Choi et al., 2017; Chou et al., 2012; Merrick et al., 2017; Neblett Jr et al., 2013; Platt et al., 2016; Simmons et al., 2015) leaving it unclear how correlates of depression operate specifically among Black men and Black women even though such data may inform interventions to prevent and treat depression in these populations. This study examined a comprehensive model of correlates of PY-MDE among Black men and women separately in order to provide empirical evidence for these underrepresented subgroups.

Our hypotheses were partially supported by the results of this study. Based on the limited research available specific to Black people with and without gender-stratified data (Balbuena et al., 2013; Canady et al., 2008; Huang & Gunn, 2001; McLaughlin et al., 2010; Roxburgh & MacArthur, 2014), it was hypothesized that childhood physical and sexual abuse and IPV would be significantly related to PY-MDE for Black men and women. However, only IPV was significant for both groups and childhood sexual abuse was associated with PY-MDE only for Black women. The latter finding suggests the possibility of gender differences in the effects of childhood sexual abuse on PY-MDE among Black adults and these findings contrast with other reports that the effects of childhood abuse on depression may be similar across men and women (Lee & Chen, 2017). It is unclear whether the effects of specific types of childhood abuse vary by gender

or whether they vary by gender for some racial/ethnic groups. Additional studies are needed to provide clarity about this.

There was no support in this study for the protective correlates. It was hypothesized that religiosity and ethnic identity would be protective for Black men and women, but ethnic identity was slightly positively correlated with PY-MDE for Black women, opposite of the hypothesis, and was not protective for Black men. Discrepant findings may have resulted because of variations in how ethnic identity is measured across studies (Banks & Kohn-Wood, 2007; Brittian et al., 2015; Neblett Jr et al., 2013). Ethnic identity also did not moderate the relationship between past year discrimination and PY-MDE despite that being the case in other studies (Banks & Kohn-Wood, 2007; Sellers & Shelton, 2003).

While IPV was found to be associated with PY-MDE for both Black men and Black women, it is noteworthy that Black men who reported IPV had three times greater odds of PY-MDE while Black women had 1.72 greater odds of PY-MDE. These findings underscore the importance of addressing IPV victimization for both Black men and women who are experiencing PY-MDE but underscore a particular need to do so for Black men. To date, the majority of the literature has focused on Black men as perpetrators of IPV (Bent-Goodley, 2013; Potter, 2007; Raj, Reed, Welles, Santana, & Silverman, 2008), with little known about the effects of IPV victimization on Black men's health. Other scholars have also noted the need for a shift in the research and services available pertaining male victimization of IPV (Espinoza & Warner, 2016).

This study addressed a gap in the literature pertaining to the influence of both racial and gender discrimination on depression. Both racial and gender discrimination

have been associated with depression (Greer, 2011; Kelso et al., 2014; Salupo Rodriguez, 2008; Upton, Panter, Daye, Allen, & Wightman, 2012), but there is a paucity of studies testing both of these forms of discrimination simultaneously in regards to depression. Findings from this study suggest that racial discrimination influences PY-MDE for Black men whereas gender discrimination influences PY-MDE for Black women. Additional, studies should continue to examine how multiple forms of discrimination (e.g., racial/ethnic, gender, and sexual orientation discrimination) affect health and even more importantly, how treatment approaches may need to address discrimination.

Implications

This study's findings may inform interventions for depression among Black individuals. Evidence-based practices for depression include the use of cognitive behavioral therapy (CBT) (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012), including a culturally adapted group CBT for Black adults (Ward & Brown, 2015) and trauma-focused CBT for treating depression among youth (Deblinger, Pollio, Runyon, & Steer, 2017). Findings from this study may inform culturally adapted, trauma-focused CBT interventions for depression among Black men and Black women. Specifically, findings from this study suggest that trauma-focused treatments may need to be tailored for Black men and women since some traumatic experiences were associated with PY-MDE for both genders (i.e., IPV) whereas other traumatic experiences were associated with PY-MDE only for Black women (i.e. childhood psychological and sexual abuse, and gender discrimination), or only for Black men (i.e. racial discrimination).

Limitations

While there are several novel findings in this study there are some limitations to be considered. IPV, racial and gender discrimination, ACEs, and religious service attendance relied on retrospective self-report which can lead to inaccurate recall. Also, because of the sensitive nature of IPV and the stigma that is associated with it there is a possibility it was under reported especially by men. The religiosity variable does not refer to activity in the past year like IPV, discrimination and PY-MDE which makes it inconsistent with our other measures which means the times they are reporting religious service attendance may not align with when they experienced an adverse event or PY-MDE and can confound the relationship between the variables. This study was restricted to participants from the NESARC who were married, dating or involved in a romantic relationship within the past year since past year IPV was only assessed among participants in romantic relationships. Study findings may not generalize to the national population that includes individuals who are not in romantic relationships. Lastly, ethnic identity is often examined through breaking it down into different constructs (i.e. racial centrality and private regard) (Neblett Jr et al., 2013), providing a more nuanced operationalization and the use of ethnic identity as a continuous variable in the current study did not allow for that.

Conclusion

This study added to the current literature by testing a comprehensive model of proximal and distal correlates of PY-MDE separately among Black men and women. Collapsing race and or gender is often done to make studies generalizable however this approach may obscure our understanding of depression among specific subgroups of individuals such as Black men and women. By taking an intersectionality approach, we have two different profiles for Black men and Black women that reflect their different

experiences that would have otherwise been overlooked. This approach also allows for a more equitable representation of women and minorities in research and supports tailored interventions. There are too few studies that do this and there needs to be more research for specific subgroups where possible to better inform future research, intervention, policies and practice.

Table 1. Descriptive statistics

Variable	Black Men (N=1, 681)	Black Women (N=2,437)
	Mean (Standard Deviation)	Mean (Standard Deviation)
Age:	47.40 (15.30)	43.30 (14.00)
Ethnic Identity¹	16.46 (5.57)	16.71 (5.60)
Education		
At least some college	887 (52.8)	1454 (59.7)
Less than high school	309 (18.4)	295 (12.1)
High school	485 (28.9)	688 (28.2)
Marital Status		
Married or living together	1050 (62.5)	1217 (49.9)
Widowed, divorced, or separated	269 (16.0)	524 (21.5)
Never married	362 (21.5)	696 (28.6)
Personal Income		
≥\$70,000	141 (8.4)	84 (3.4)
0-\$19,999	551 (32.8)	1148 (47.1)
\$20,000-\$34,999	449 (26.7)	675 (27.7)
\$35,000-\$69,999	540 (32.1)	530 (21.7)
Adverse Childhood Experiences		
Childhood psychological abuse	161 (9.6)	235 (9.6)
Childhood physical abuse	409 (24.3)	503 (20.6)
Childhood sexual abuse	122 (7.3)	421 (17.3)
Childhood emotional neglect	159 (9.5)	284 (11.7)
Childhood physical neglect	116 (6.9)	201 (8.2)
Parents divorced	328 (19.5)	514 (21.1)
Witnessed maternal battering	200 (11.9)	362 (14.9)
Household substance abuse	387 (23.0)	632 (25.9)

Household mental illness	90 (5.4)	173 (7.1)
Household incarceration	173 (10.3)	251 (10.3)
Past year physical or sexual intimate partner violence victimization	161 (9.6)	234 (9.6)
Past year gender discrimination	127 (7.6)	349 (14.3)
Past year racial discrimination	453 (26.9)	647 (26.5)
Frequency of religious service attendance		
Do not attend religious services	564 (33.6)	584 (24.0)
Attend religious services once or a few times yearly	208 (12.4)	208 (8.5)
Attend religious services 1-3 times monthly	321 (19.1)	523 (21.5)
Attend religious services once a week	328 (19.5)	601 (24.7)
Attend religious services twice a week or more	260 (15.5)	521 (21.4)
Past year major depressive episode	67 (4.0)	255 (10.5)

^aReference category=at least some education; ^bReference category=married or living together; ^cReference category is at least \$70,000, ^dReference category is absence of this type of adverse childhood experience; ^eReference category=do not attend religious services

Table 2. Logistic Regression Models Testing Correlates of PY-MDE among Black Adults

Variables	Black Men (N=1681)				Black Women (N=2,437)			
	OR	95% CI	AOR	95% CI	OR	95% CI	AOR	95% CI
Age	0.99	0.97-1.00	--	--	0.99**	0.98-0.99	0.99	0.98-1.00
Education^a								
At least some college	1.00	--	--	--				
Less than high school	1.36	0.71-2.59	--	--	1.82**	1.28-2.60	1.71*	1.12-2.60
High school	1.42	0.82-2.48	--	--	1.01	0.75-1.38	0.98	0.69-1.38
Marital Status^b								
Married or living together	1.00	--	1.00	--	1.00	--	1.00	--
Widowed, divorced, or separated	3.38**	1.89-6.03	2.44**	1.31-4.57	1.91**	1.39-2.63	1.56*	1.11-2.21
Never married	1.98*	1.08-3.64	1.23	0.63-2.39	1.53**	1.12-2.08	1.16	0.81-1.67
Personal Income^c								
At least \$70,000	1.00	--	1.00	--				
0-\$19,999	3.70*	1.13-12.12	3.07	0.90-10.54	5.88*	1.43-24.17	5.47*	1.26-23.71
\$20,000-\$34,999	1.05	0.28-3.86	1.06	0.28-4.01	4.52*	1.09-18.79	4.36	1.00-19.01
\$35,000-\$69,999	1.14	0.32-4.04	1.52	0.74-4.10	3.10	0.84-14.86	3.88	0.88-17.04
Adverse childhood experiences^d								
Child psychological abuse	3.18**	1.77-5.72	1.52	0.74-3.10	4.51**	3.28-6.19	2.10**	1.37-3.21
Child physical abuse	1.91*	1.15-3.17	1.05	0.57-1.94	2.85**	2.17-3.74	1.26	0.88-1.81
Child sexual abuse	2.35*	1.17-4.73	0.96	0.42-2.24	3.11**	2.35-4.13	1.50*	1.07-2.10
Child emotional neglect	1.31	0.62-2.80	--	--	2.84**	2.06-3.99	1.37	0.93-2.01
Child physical neglect	2.82**	1.44-5.55	1.48	0.66-3.33	3.28**	2.31-4.66	1.19	0.75-1.89
Divorce	1.20	0.67-2.16	--	--	1.14	0.84-1.56	--	--
Maternal battering	2.66**	1.50-4.71	1.60	0.79-3.28	2.34**	1.72-3.16	1.00	0.68-1.48
Household substance abuse	2.68**	1.63-4.40	1.62	0.90-2.94	1.93**	1.47-2.53	1.21	0.86-1.69
Household mental illness	2.53*	1.17-5.48	1.32	0.54-3.21	1.90**	1.25-2.89	1.25	0.77-2.04

Household incarceration	2.42**	1.31-4.45	1.12	0.53-2.37	1.74**	1.21-2.51	0.74	0.47-1.16
Past year physical or sexual intimate partner violence victimization	4.81**	2.79-8.29	3.03**	1.66-5.51	2.99**	2.13-4.19	1.70**	1.16-2.50
Past year gender discrimination	3.17**	1.68-6.00	1.34	0.64-2.83	3.48**	2.60-4.65	2.21**	1.55-3.15
Past year racial discrimination	2.94**	1.80-4.81	2.22**	1.27-3.78	2.24**	1.72-2.92	2.09	0.82-5.37
Ethnic Identity¹	1.02	0.98-1.07	0.99	0.9-1.05	1.05**	1.03-1.08	1.04*	1.01-1.07
Frequency of religious service attendance^e								
Do not attend church	1.00	--	--	--	1.00	--	1.00	--
Once or a few times yearly	0.80	0.36-1.78	--	--	1.05	0.65-1.70	1.10	0.66-1.85
1-3 times monthly	0.91	0.47-1.76	--	--	0.86	0.59-1.26	1.04	0.69-1.55
Once a week	0.69	0.34-1.41	--	--	0.62*	0.42-0.92	0.94	0.61-1.41
Twice a week or more	0.55	0.24-1.28	--	--	0.90	0.62-1.31	1.27	0.84-1.92
Racial Discrimination x Ethnic Identity	--	--	1.04	0.95-1.14	--	--	0.98	.93-1.03

^aReference category=at least some education; ^bReference category=married or living together; ^cReference category is at least \$70,000,

^dReference category is absence of this type of adverse childhood experience; ^eReference category=do not attend religious services;

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

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