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Depression in the African American Christian Community: Examining Denominational and Gender Differences

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Abstract

Depression among African American adults can diminish their daily functioning and quality of life. African American communities commonly uses religion and spirituality (R/S) to cope with life stressors; however, it is unclear whether R/S contribute to mental health risk or resilience. Since men and women differ in their R/S participation and Christian denominations have varying gender roles and expectations, it is critical to determine if they experience similar mental health effects. This study examines whether self-reported denominational affiliation predicts dissimilar odds of reporting elevated depressive symptoms among African American young adults and if these effects are different for women and men, using the National Longitudinal Study of Adolescent to Adult Health (Add Health). Results indicate that the odds of having elevated depressive symptoms are three times higher for Catholic women compared to Baptist women, but no denominational differences were found among men. This study highlights how unique denominational and gender subcultures within African American Christian communities may predict depression outcomes. Healthcare professionals and church-based outreach programs should consider the role of denomination and gender when designing and participating in efforts to support mental health equity.

Keywords Depression \cdot African Americans \cdot Religiosity \cdot Christian denominations \cdot Women's mental health \cdot Gender

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Introduction

Depression is a serious medical illness that negatively affects how a person feels, thinks, and acts (American Psychiatric Association, 2020). The associated symptoms, such as feelings of sadness and a loss of interest in previously enjoyed activities, can lead to a variety of emotional and physical conditions and decrease one's ability to function (American Psychiatric Association, 2020). Research demonstrates that factors such as culture, the environment, social context, as well as physical, neurological and chemical imbalances can affect depression (McEwen, 2012). Moreover, depression is also a risk factor for other diseases such as dementia (Singh-Manoux et al., 2017), Alzheimer's disease (Green et al., 2003), coronary artery disease (Shah et al., 2014), suicide, osteoporosis (Wu et al., 2018), and Type 2 diabetes (Hackett & Steptoe, 2017).

Depression is an issue of concern within the African American community due to its prevalence and the fact that it impairs both physical and psychosocial functioning. A meta-analysis suggests that the prevalence of major depression among African American men ranges from 5 to 10% (Ward & Mengesha, 2013). While another study found that African American women report almost twice the rate of major depression as their male peers (Williams et al., 2007).

Depression is also concerning specifically for African Americans because it is a risk factor for cardiovascular disease (CVD) (Bibbins-Domingo et al., 2009; Sims et al., 2015). CVD is the leading cause of death among all Americans (Heron, 2019), but is particularly deadly for Black Americans (National Center for Health Statistics, 2016). Furthermore, Black women have higher rates of death due to heart disease compared to White women (U.S. Department of Health and Human Services, Office of Minority Health, 2021). This may be in part due to higher levels of stress and hypertension among Black women (Burroughs Pena et al., 2020; Virani et al., 2020), as well as disparities in access to medical care and/or willingness to seek medical treatment (Graham, 2015; Prather et al., 2018).

Less than half of all Americans with a mental disorder get the treatment that they need (National Institute on Minority Health & Health Disparities, 2021). However, the proportion of African Americans who need mental health treatment and receive it is only half that of Whites (National Institute on Minority Health & Health Disparities, 2021). Churches might be an opportune place to help African American people get support and resources for treatment of depression because religiosity and spirituality (R/S) is an important aspect of many African American lives (Chatters, Bullard, et al., 2008, b, 2009; Taylor et al., 2007), and there may be mistrust of medical professionals hindering some African Americans from getting treatment (Glover et al., 2017).

Scholars have examined the relationship between R/S and depression, and R/S is widely considered to be a social determinant of health. While there are distinct denominational cultures among African Americans (Taylor et al., 2004, 2014), few have looked at denominational differences in depression within this community. Additionally, it has been shown that some African American women are especially involved in R/S and identify more strongly with R/S than African American men

(Taylor et al., 2014), and these gender differences in R/S may differ across denominations. It is important to better understand how divergent engagement with religion plays a role in the mental health of African American Christians, and to do so while considering that men and women may vary on their religious experiences and mental health outcomes. Thus, this study will investigate denominational and gender differences in depressive symptomology among African American Christians.

Religion and Depression in the African American Community

Research demonstrating R/S effects on mental health among African Americans has been inconsistent. Some studies have found that as service attendance increases, depressive symptoms, (Ellison & Flannelly, 2009; Olphen et al., 2003) mood disorders (b; Chatters, Bullard, et al., 2008), and twelve-month and lifetime major depression (Taylor et al., 2012) all decrease. Furthermore, Holt et al. (2013) found that service attendance reduced depression. These studies highlight the protective nature of service attendance, but prayer also is associated with better mental health. Specifically, researchers found that Black women who prayed more often had fewer depressive symptoms after controlling for sociodemographic variables and physical functioning (Olphen et al., 2003). While, Taylor et al. (2012) found that coping by "looking to God for strength," was linked to decreased odds of having experienced major depression during the last twelve months.

Additionally, church-based social support has been associated with a reduced risk of suicidal thoughts (Chatters et al., 2011) and reduced psychological distress and depressive symptoms (Chatters et al., 2015) among older African American adults. Hope et al. (2017) found that among African Americans and Afro-Caribbean Americans, religious social support reduces the risk of psychiatric disorders, including depression, and Jang and Johnson (2004) found that religiously-committed African Americans exhibit lower levels of distress compared to nonreligious African Americans.

While R/S have been shown to be associated with lower reported depression among African Americans, R/S have also been associated with *higher* reported depression. For example, Le et al. (2007) found a positive relationship between religiosity (i.e., affiliation and internal/external religiousness) and depression in African Americans. Another study determined that African Americans who attended service nearly every day had the highest prevalence of both twelve-month and lifetime major depression (Taylor et al., 2012).

Some studies have found that negative interactions with church members are associated with higher risks of psychological distress and depressive symptoms (Chatters et al., 2015). And, the frequency of religious reading has been shown to be positively associated with twelve-month and lifetime major depression (Taylor et al., 2012).

Several qualitative studies have also shed light on some of the potential harmful effects religion may have on mental health. Specifically, a study that interviewed ministers from a Black mega church showed that some ministers had misconceptions of what constitutes clinical depression. Some ministers that used prayer and

scripture for "faith healing" stated that they felt unequipped to provide counsel, and even suggested that if congregants are depressed they must work on their relationship with God (Hankerson et al., 2013). The latter approach may suggest that if someone is feeling depressed that something is wrong with his or her relationship with God, while dismissing the other possible sources of depression.

Breland-Noble et al. (2011) raise a similar point in a study where participants describe the church as the center of the Black community and that a key hindrance to mental illness treatment is the significance of prayer as well as the lack of information from the pulpit about depression and mental health challenges. Specifically, they found that some African American youth do not see depression as a medical disease but perceive it as something to be controlled by strong will and religious faith (Breland-Noble et al., 2011).

These inconsistent findings make it unclear whether religiosity contributes to depression a risk to one's mental health, a protective factor that provides psychological resilience, or both. As Hackney and Sanders (2003) discussed in their metaanalysis, there is evidence of positive and negative relationships between religiosity and mental health which leads to contradictory findings and some confusion in this research area. A recent example of the risk and resilience that is sometimes present when relating religiosity to depressive symptoms found that those who attended religious services one to three times per week had lower odds of having elevated symptoms compared to people who attend only once or fewer times per year (Robbins et al., 2020). However, that study also found that participating in more non-organized religious activities such as prayer and reading religious texts predicted higher odds of elevated depressive symptoms (Robbins et al., 2020). Religiosity might be simultaneously linked to better and worse mental health among African Americans, but research is inconclusive about which aspects of religiosity affect their depression and how these affects might differ for various religious people.

African American Christian Denominations, Gender, and Mental Health

Examining denominational differences is important because religious teachings, history, social norms, gender roles and philosophy vary within and across denominations, and these differences may play a role in mental health outcomes (Maselko & Kubzansky, 2006; McFarland, 2010; Taylor et al., 2004). For example, in some religious communities, the teachings justify patriarchal domination, control, and subordination of women (Mattis & Grayman-Simpson, 2013), which can affect mental health. Women participating in more patriarchal denominations may expose them to the idea that they are inferior or subordinate to men, which could contribute to higher levels of depression (Petts, 2008).

There is limited research on mental health and denominational differences in the African American Christian community. Previous research that has paid attention to denominational comparisons in mental health outcomes that include African Americans have consolidated them into overly aggregate groups like "Black Protestants" and blend Black Catholics with all other Catholics (Maselko & Kubzansky, 2006; Sternthal et al., 2010). This strategy does not acknowledge nor examine the potential

for denominational differences among Black congregants or between Blacks and others who may share their faith but have culturally distinct church experiences. A recent study that used an entirely Black American sample found that denominational differences in the odds of having elevated depressive symptoms may vary for Black men and women (Robbins et al., 2020). Specifically, researchers found that among some denominations (i.e., Catholic and Baptist), Black men and women had similar odds of reporting elevated depression symptoms. Whereas, members of the Methodist and Pentecostal faiths displayed a larger gender difference in elevated depressive symptom odds (Robbins et al., 2020). That study emphasizes the importance of disaggregating the data of African American people to better understand how denomination and gender might contribute to differences in mental health outcomes.

These findings are unsurprising considering the previously discussed denominational differences and that men and women behave, participate, and worship in different ways (Jones et al., 2011; Maselko & Kubzansky, 2006; Taylor et al., 2009), and these differences might play a role in whether congregants within particular denominations have elevated depressive symptoms. For example, it has been found that African American men who are more subjectively spiritual report a deepened and supportive emotional connection with male friends, but it is not clear that African American women experience the same connectivity and support with female or male friends (Mattis & Grayman-Simpson, 2013), suggesting that R/S may have differing effects on men and women.

Furthermore, some African American women experience a social pressure to act like a "superwoman who is strong, self-sacrificing, and free of emotion to cope with the stress of race- and gender-based discrimination in daily life" (Walker-Barnes, 2014; Woods-Giscombé, 2010). This identity profile has been referred to as the "strong Black woman" (SBW) schema (Watson & Hunter, 2016). Empirical findings have demonstrated that endorsement of the SBW intersectional race-gender identity was associated with emotion dysregulation, increased distress, and obesity (Beauboeuf-Lafontant, 2007; Giscombé & Lobel, 2005; Harrington et al., 2010; Romero, 2000; Woods-Giscombé, 2010). Furthermore, researchers found that maintaining the image of the self-reliant Black woman might delay or hinder seeking mental health treatment among African American women, thus adversely affecting depression symptom management.

Current Study

This study fills in a gap in the literature by examining whether denominational differences affect mental health among African American Christian young adults. Specifically, this analysis determines whether denominational differences in the odds of reporting elevated depression symptoms (EDS) are present among Catholic, Baptist, Methodist, Pentecostal, and non-denominational Protestant men and women.

Materials and Methods

The present study uses data from the National Longitudinal Study of Adolescent to Adult Health [Add Health] (Harris, 2009). Participants in this nationally representative, stratified random sample were originally interviewed as adolescents in the 7th through the 12th grades in 1995 and followed across five waves through 2018. The current study used data from Wave IV—at which time the participants were ages 24–34—since it contained data about current denomination and depressive symptoms. This study used the subsample of people who self-identified as African American or Black. As part of the study design, Add Health oversampled Black students who had parents with a college degree.

Measures

The dependent variable, elevated depression symptoms, was measured using the Center for Epidemiologic Studies Depression Scale (CES-D) scale. This shorter version of the scale consisted of ten items, which were combined for a minimum value of 0 and a maximum value of 30. This variable was dichotomized using a score of 10 or higher as evidence of having elevated depressive symptoms, following a previously-established approach (Kohout et al., 1993; Torres, 2012). Participants were asked if they had experienced the symptoms within the past seven days, and response options ranged from, *never or rarely*, which had a value of zero to *most or all of the time* with a value of three.

The key independent variable was denomination, which included the following categorical response options: Catholic, Methodist, Pentecostal, Baptist and nondenominational Protestant. The control variables were religious coping, religious importance, frequency of church attendance, education (i.e., high school graduate or less, some college or vocational training, and college graduate), household income, subjective health, and region. Religious coping responses ranged from *never* to *very often*, religious importance responses ranged from *not important* to *more important than anything*, and church attendance measures ranged from *never* to *greater than one time per week*. Household income was categorized into four groups with lower bounds separated by \$50,000 increments. Subjective health was measured as *poor/fair, good, very good*, and *excellent*. Finally, the four regions where participants live are Northeast, Midwest, South, and West.

Analysis

To analyze the data, Stata 16 and its survey command, *svy*, were used to apply the appropriate weights for the given survey design. Two separate logistic regressions were conducted, one for each gender, instead of analyzing interaction effects between denomination and gender. This study compared the odds of reporting EDS in men and women for each denomination vs. another denomination. For example, the analysis determined the odds of reporting EDS for Catholic women vs. Baptist women, and the odds of having EDS in Methodist men vs. Baptist men. Post hoc

analyses used the *sidak* command to adjust for the use of multiple pairwise comparisons. The final sample, which excluded those with missing data, included 1916 African American Christian adults, with 1155 women and 759 men. The tables include descriptive statistics, odds ratios, and 95% confidence intervals (CI).

Results

Descriptive Statistics

Participant ages ranged from 24 to 32 years. Baptist was the largest denomination with 60% of study participants, whereas the smallest was Catholic at 6%. Twenty-five percent of women and 18% of men reported elevated depressive symptoms (i.e., CES-D score of 8 or greater). The distribution of descriptive characteristics and R/S variables for the sample are reported in Table 1.

Most of the participants attended church at least once a month (60%). This suggests that the majority of the sample were regular churchgoers. Also, the majority of participants are from the South (66%). For both men and women, the highest percentage of reported religious coping was *very often*, however 20% more women reported using religious coping compared to men. Religious coping is described as "religiously framed cognitive, emotional, or behavioral responses to stress, encompassing multiple methods and purposes as well as positive and negative dimensions" (Wortmann, 2013). Fifty-seven percent of women reported using religious coping very often, which suggests that it was widely used among the women in this sample.

Logistic Regression Results

Among women, the odds of having elevated depression symptoms were 3.1 times higher for Catholic women compared to Baptist women after controlling for religious coping, religious importance, church attendance, income, education, subjective health, and region (OR 3.10, 95% CI [1.43, 6.72]; see Table 2). In the post hoc analysis, the odds of having elevated depression symptoms were 4.21 times higher for Catholic women compared to non-denominational Protestant women (OR 4.21, 95% CI [1.07, 16.52]). Reporting better subjective health and higher household income predicted lower odds of reporting EDS, compared to women with poor or fair health and those with household incomes less than \$50,000, respectively.

The logistic regression model for men shows no denominational differences in the odds of having elevated symptoms. However, three variables that had significant effect on EDS in men were church attendance, income and subjective health. Specifically, men who attend church 2–3 times per month had 68% lower odds of EDS compared to those who never attended. Men who earned \$50,000–99,999 and \$100,000–149,999 had 50% lower odds and 75% lower odds of reporting EDS compared to men earning less than \$50,000, respectively. For subjective health, men

Table 1	Descriptive statistics	for total sample,	women, and men
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Variable	Total $n = 2088$ n (%)	Women $n = 1244$ n (%)	Men <i>n</i> = 844 <i>n</i> (%)
Denomination			
Methodist	151 (7.2)	90 (7.2)	61 (7.2)
Baptist	1250 (59.9)	745 (59.9)	505 (59.8)
Catholic	137 (6.6)	69 (5.6)	68 (8.1)
Pentecostal	274 (13.1)	166 (13.3)	108 (12.9)
Non-denominational	276 (13.2)	174 (14.0)	102 (12.1)
Education			
High school/GED or less	505 (24.2)	246 (19.8)	259 (30.7)
Some college/vocational	840 (40.2)	498 (40.0)	342 (40.5)
College/vocational degree	743 (35.6)	500 (40.2)	243 (28.8)
Income			
Less than \$50,000	1138 (59.6)	722 (62.4)	416 (54.5)
\$50,000-\$99,999	559 (29.3)	332 (28.7)	237 (31.0)
\$100,000-\$149,999	131 (6.9)	62 (5.4)	69 (9.0)
\$150,000 or more	83 (4.3)	41 (3.5)	42 (5.5)
Region			
Midwest	237 (11.4)	192 (15.4)	45 (5.3)
Northeast	218 (10.4)	89 (7.2)	129 (15.3)
South	1381 (66.1)	832 (66.9)	549 (65.1)
West	252 (12.1)	131 (10.5)	121 (14.3)
Subjective health			
Excellent	373 (18.1)	162 (13.0)	211 (25.0)
Very good	720 (35.0)	421 (33.8)	299 (35.4)
Good	728 (35.4)	468 (37.6)	260 (30.8)
Poor/fair	236 (11.5)	162 (13.0)	74 (8.8)
Church attendance			
Never	245 (11.7)	111 (8.9)	134 (15.9)
A few times/year	588 (28.2)	311 (25.0)	277 (32.9)
One time/month	199 (9.5)	108 (8.7)	91 (10.8)
2–3 times /month	466 (22.3)	302 (24.3)	164 (19.5)
1 time/week	347 (16.6)	239 (19.1)	108 (12.8)
>1 time/week	241 (11.6)	173 (13.9)	68 (8.1)
Religious importance			
Not and somewhat important	291 (14.0)	153 (12.3)	138 (16.4)
Very important	1271 (60.9)	755 (60.7)	516 (61.1)
More important than anything	524 (25.1)	336 (27.0)	188 (22.3)
Religious coping			
Never, rarely, sometimes	515 (25.1)	258 (20.8)	287 (34.0)
Often	518 (25.2)	275 (22.1)	243 (28.8)
Very often	1023 (49.8)	709 (57.1)	314 (37.2)
Elevated depressive symptoms (CES- $D \ge 8$)			
Not elevated	1620 (77.7)	929 (74.7)	691 (82.0)
Elevated	466 (22.3)	314 (25.3)	152 (18.0)

who reported very good and excellent health had 80% and 87% lower odds of EDS, respectively, compared to those in poor or fair health.

Discussion

Contrary to findings wherein religiosity has been shown to be a protective factor, African American Catholic women's religious affiliation appears to be linked with higher odds of reporting elevated depression symptoms. This section will discuss why our findings suggest that Catholic young adult women may be at particular risk for adverse depression outcomes, when compared to other Christians. Specifically, this article will discuss (1) the role of gender and denominational differences on depression, and (2) the need for more research on African American Catholic women and depression.

Messaging from the pulpit pays a big role in African American congregants' lives and it is vital that there be more health promotion and focus from church leadership (Harmon et al., 2018), particularly support for women and their roles in family and church life. Some Christian teachings are more patriarchal than others and even suggest submissive behaviors (Mattis & Grayman-Simpson, 2013; Nason-Clark, 2017) rather than egalitarian partnerships in marriage and society. Submissive behaviors have been shown to be related to depressive outcomes (Johnson et al., 2012). Furthermore, patriarchal teachings can lead to shame, lower self-esteem, added stress, and reduced self-care, which can all impact a woman's depression symptomology. This is particularly true when submissive behaviors informed by patriarchy conflict with the strong Black woman role. As, Walker-Barnes (2014) explains, aspects of the Strong Black Woman ideology-such as emotional strength, caregiving, and independence—can contribute to Black Women not only taking on too much, and adversely impacting their physical and mental health, but that this ideology is perpetuated in a patriarchal society wherein men are not socialized to feel self-sacrificing in the same way. She explains that in a place of worship and theology, wherein Christian principles focus on sacrifice, that pastors be extremely careful in their messaging to Black women for a number of reasons: one reason being, they may appear to be strong on the outside, but crumbling on the inside (Walker-Barnes, 2014).

In addition to gender differences in how Black men and women are socialized and the ideologies instilled in them within Christianity, there may also be gender differences in terms of how Black men and women discuss, communicate, and report depression. It has been found that African American men have a documented tendency to underreport depressive symptoms (Das et al., 2006) because of a mental health stigma that is exacerbated by gender norms (Vredenburg et al., 1986). In a focus group of African American men in a rural faith community, Bryant et al. (2014) found that participants felt that expressing depressive feelings is not part of a man's role and that a reason for not admitting such feelings is because they are "too blessed to be stressed." Therefore, it is possible that Christian men in this study had similar rates of EDS as women, but underreported their depressive symptoms relative to women.

	Women		Men	
	OR	95% CI	OR	95% CI
Depression (ref = Baptist)				
Pentecostal	1.60	0.87 - 2.93	1.17	0.54-2.56
Methodists	0.70	0.28 - 1.74	0.79	0.25-2.57
Non-denominational	0.77	0.43 - 1.39	0.82	0.28–2.42
Catholic	3.10^{**}	1.43 - 6.73	0.42	0.12 - 1.48
Religious coping (ref = never/rarely/sometimes)	arely/sometimes)			
Often	0.57	0.28-1.17	1.03	0.48–2.21
Very often	0.74	0.44-1.26	1.50	0.78-2.88
Religious importance (ref = not or somewhat important)	t or somewhat important)			
Very important	0.95	0.55-1.63	1.29	0.56–2.96
More important than anything	1.31	0.61 - 2.84	1.43	0.53 - 3.85
Church attendance (ref = never)	r)			
A few times/year	0.81	0.38-1.69	0.71	0.36 - 1.40
1 time/month	0.33*	0.14-0.78	0.48	0.17 - 1.35
2-3 times/month	0.65	0.29 - 1.46	0.32*	0.11-0.89
1 time/week	0.76	0.32-1.78	0.53	0.19 - 1.47
> 1 time/week	0.60	0.22 - 1.66	0.67	0.22-2.04
Education (ref = high school/GED or less)	JED or less)			
Some college/vocational	0.86	0.51 - 1.45	0.89	0.50-1.61
College/vocational degree	0.80	0.46 - 1.40	0.63	0.31 - 1.29
Income (ref = less than $$50,000$)	(0)			
\$50,000-\$99,999	0.44^{**}	0.26-0.76	0.50*	0.29 - 0.87
\$100,000-\$149,999	0.64	0.22-1.82	0.25*	0.08 - 0.84
\$150,000 or more	0.14^{***}	0.05 - 0.42	2.06	0.70-6.08

Table 2 (continued)				
	Women		Men	
	OR	95% CI	OR	95% CI
Subjective health (ref = poor/fair)	oorffair)			
Good	0.45**	0.27 - 0.74	0.45	0.19–1.05
Very good	0.21^{***}	0.10-0.41	0.21***	0.085-0.49
Excellent	0.31^{***}	0.16-0.60	0.14^{***}	0.05-0.39
Region (ref = south)				
Northeast	0.69	0.26 - 1.83	1.51	0.39–5.88
Midwest	0.75	0.46 - 1.22	1.19	0.79–1.77
West	0.84	0.34 - 2.09	1.43	0.46-4.47
Age	1.06	0.95 - 1.18	1.06	0.94 - 1.20
Z	1115		759	
OR - odds ratio; CI - confidence interval	idence interval			

We - out statuo; CI - connuence inter * p < 0.05; ** p < 0.01; *** p < 0.001

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Furthermore, when struggling with depressive symptoms, African American Christians may choose to rely on their spiritual relationships, rather than seeking professional help due to religious doctrine or stigma within their church communities. For example, a commonly referenced Bible verse states: "Trust in the Lord with all your heart and lean not on your own understanding; in all your ways submit to Him, and He will make your paths straight" (Proverbs 3:5–6). Those who interpret this verse literally might believe that expressing negative emotions shows a lack of faith or that the Bible discourages secular help-seeking.

Moreover, researchers have shown that some African Americans feel stigmatized regarding receiving treatment for depression (Hudson et al., 2018). For instance, a study by Ward et al. (2013) found that some African American adults reported a lack of openness to acknowledging depression and high concern about stigma related to having depression. Among African American Christians, it has been found that treatment for depression can be delayed by religious coping such as prayer and church community support (Garner & Kunkel, 2020; Ward et al., 2009).

Depression stigma is also an issue among African American clergy, with past research finding that church leaders with the highest religiosity have a greater tendency to avoid seeking mental health services for themselves (Okunrounmu et al, 2016). Moreover, a study of African American Pentecostal preachers found that language in some of their sermons suggested depression is a weakness, encouraged the notion that "saints don't cry," and discouraged the use of psychiatrists and other mental health professionals (Payne, 2008).

As was the case with previous research, this study was unable to determine whether R/S is a protective factor or a risk factor for depression. Church attendance did predict lower odds of elevated depression symptoms; however, being a Catholic woman was associated with higher EDS odds compared to being a Baptist and nondenominational Protestant women. What is not well understood from the current study or past research is why Black Catholic women might have been more likely to report elevated depression symptoms. Most of the research thus far has focused on African American Protestants in part because the majority (66%) of African Americans are Protestants, whereas, only 5% identify as Catholic. These findings show that African American Catholic women's mental health outcomes warrant more attention in research. Investigations should consider whether distinct religious or cultural norms influence how Catholic women view themselves and challenges they may encounter. Studies might also determine if there are unique social factors or religious coping strategies being applied within the Catholic church that are either unhelpful for or exacerbating to depressive symptoms. An additional factor that should be considered is whether these women attend predominately Black Catholic churches or churches with greater percentages of White people. There are potential differences in how the SBW identity and other social identities might be reinforced within these culturally distinct contexts. Finally, future studies should assess whether these women might have been more prone to reporting elevated symptoms because they are more comfortable acknowledging their feelings than women from other denominations.

Limitations

This study examines whether there is a relationship between reporting elevated depression symptoms and self-identified Christian denomination, without establishing whether this association is causal. In future analyses, researchers will need to use longitudinal data to determine if R/S has a causal influence on depression for young adults. Another limitation to this study is that it measured self-reported depression symptoms using questions that assess how the respondent felt in the past seven days. Thus, this study was unable to establish whether participants qualified for a clinical depression diagnosis and was only able to suggest that these differences in stated depressive symptoms were present over this limited timeframe. This study also was unable to assess changes in denomination and R/S or the effect of each of these variables on depression symptoms over time. Future researchers should address this issue with appropriate longitudinal designs and analyses that account for these potential changes. Finally, some researchers are skeptical about using mainstream psychological measurement of symptomology to assess depression among African Americans, who may differently display their depression. Therefore, this study may not have identified everyone in the sample who suffers from concerning levels of depressive symptoms. Many studies show that African Americans are underdiagnosed for depression, and this represents a major limitation within the field that must continue to be addressed in order to improve the accuracy of research examining mental health outcomes among African Americans.

Conclusion

Depression is a serious medical illness that negatively affects the lives of many African Americans. Previous research on the association between R/S and depression has been unclear, with research showing that R/S can be a protective factor, a risk factor, or both for depression. A major gap in the literature is research on denominational and gender differences in depression among African American Christian young adults. Thus, the current study determined whether denominational differences in the odds of reporting elevated depression symptoms are present among Catholic, Methodist, Protestant, Pentecostal, Baptist and non-denominational African American men and women. This study found that Catholic women had higher odds of reporting elevated depression symptoms. It is imperative that future research places special attention on African American Catholic women to better understand what is leading to their higher levels of reported depression. Furthermore, healthcare professionals and church-based community engagement programs should consider the role of denomination and gender when designing and participating in mental health equity efforts.

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Declarations

Conflict of interest The authors have no conflicts of interest to declare.

References

- American Psychiatric Association. (2020). What is depression? https://www.psychiatry.org/patients-famil ies/depression/what-is-depression
- Beauboeuf-Lafontant, T. (2007). You have to show strength: An exploration of gender, race, and depression. Gender & Society, 21(1), 28–51. https://doi.org/10.1177/0891243206294108
- Bibbins-Domingo, K., Pletcher, M. J., Lin, F., Vittinghoff, E., Gardin, J. M., Arynchyn, A., Lewis, C. E., Williams, O. D., & Hulley, S. B. (2009). Racial differences in incident heart failure among young adults. *New England Journal of Medicine*, 360(12), 1179–1190. https://doi.org/10.1056/NEJMo a0807265
- Breland-Noble, A. M., Bell, C. C., & Burriss, A. (2011). "Mama just won't accept this": Adult perspectives on engaging depressed African American teens in clinical research and treatment. *Journal of Clinical Psychology in Medical Settings*, 18(3), 225–234. https://doi.org/10.1007/ s10880-011-9235-6
- Bryant, K., Haynes, T., Greer-Williams, N., & Hartwig, M. S. (2014). "Too blessed to be stressed": A rural faith community's views of African-American males and depression. *Journal of Religion and Health*, 53(3), 796–808. https://doi.org/10.1007/s10943-012-9672-z
- Burroughs Pena, M. S., Mbassa, R. S., Slopen, N. B., Williams, D. R., Buring, J. E., & Albert, M. A. (2019). Cumulative psychosocial stress and ideal cardiovascular health in older women: Data by race/ethnicity. *Circulation*, 139(17), 2012–2021. https://doi.org/10.1161/CIRCULATIONAHA.118. 033915
- Chatters, L. M., Bullard, K. M., Taylor, R. J., Woodward, A. T., Neighbors, H. W., & Jackson, J. S. (2008). Religious participation and DSM-IV disorders among older African Americans: Findings from the National Survey of American Life. *The American Journal of Geriatric Psychiatry*, 16(12), 957–965. https://doi.org/10.1097/JGP.0b013e3181898081
- Chatters, L. M., Taylor, R. J., Bullard, K., & Jackson, J. S. (2008). Spirituality and subjective religiosity among African Americans, Caribbean Blacks, and non-Hispanic Whites. *Journal for the Scientific Study of Religion*, 47(4), 725–737.
- Chatters, L. M., Taylor, R. J., Bullard, K. M., & Jackson, J. S. (2009). Race and ethnic differences in religious involvement: African Americans, Caribbean blacks and non-Hispanic whites. *Ethnic and Racial Studies*, 32(7), 1143–1163. https://doi.org/10.1080/01419870802334531
- Chatters, L. M., Taylor, R. J., Lincoln, K. D., Nguyen, A., & Joe, S. (2011). Church-based social support and suicidality among African Americans and Black Caribbeans. Archives of Suicide Research, 15(4), 337–353. https://doi.org/10.1080/13811118.2011.615703
- Chatters, L. M., Taylor, R. J., Woodward, A. T., & Nicklett, E. J. (2015). Social support from church and family members and depressive symptoms among Older African Americans. *The American Journal* of Geriatric Psychiatry, 23(6), 559–567. https://doi.org/10.1016/j.jagp.2014.04.008
- Das, A., Olfson, M., McCurtis, H., & Weissman, M. (2006). Depression in African Americans: Breaking barriers to detection and treatment: Community-based studies tend to ignore high-risk groups of African Americans. *Journal of Family Practice*, 55(1), 30–40.

- Ellison, C. G., & Flannelly, K. J. (2009). Religious involvement and risk of major depression in a prospective nationwide study of African American adults. *The Journal of Nervous and Mental Disease*, 197(8), 568–573. https://doi.org/10.1097/NMD.0b013e3181b08f45
- Garner, M., & Kunkel, D. (2020). Quality improvement of pastoral care for major depression in the community of an African American religious organization. *Issues in Mental Health Nursing*, 41(7), 598–573.
- Giscombé, C. L., & Lobel, M. (2005). Explaining disproportionately high rates of adverse birth outcomes among African Americans: The impact of stress, racism, and related factors in pregnancy. *Psychological Bulletin*, 131(5), 662–683. https://doi.org/10.1037/0033-2909.131.5.662
- Glover, L. M., Sims, M., & Winters, K. (2017). Perceived Discrimination and Reported Trust and Satisfaction with Providers in African Americans: THe Jackson Heart Study., 27(3), 8.
- Graham, G. (2015). Disparities in cardiovascular disease risk in the United States. Current Cardiology Reviews, 11(3), 238–245. https://doi.org/10.2174/1573403X11666141122220003
- Green, R. C., Cupples, L. A., Kurz, A., Auerbach, S., Go, R., Sadovnick, D., Duara, R., Kukull, W. A., Chui, H., Edeki, T., Griffith, P. A., Friedland, R. P., Bachman, D., & Farrer, L. (2003). Depression as a risk factor for Alzheimer disease: The MIRAGE study. *Archives of Neurology*, 60(5), 753. https://doi.org/10.1001/archneur.60.5.753
- Hackett, R. A., & Steptoe, A. (2017). Type 2 diabetes mellitus and psychological stress—A modifiable risk factor. *Nature Reviews Endocrinology*, 13(9), 547–560. https://doi.org/10.1038/nrendo.2017.64
- Hankerson, S. H., Watson, K. T., Lukachko, A., Fullilove, M. T., & Weissman, M. (2013). Ministers' perceptions of church-based programs to provide depression care for African Americans. *Journal of Urban Health*, 90(4), 685–698. https://doi.org/10.1007/s11524-013-9794-y
- Harmon, B. E., Strayhorn, S., Webb, B. L., & Hébert, J. R. (2018). Leading god's people: perceptions of influence among African-American pastors. *Journal of Religion and Health*, 57(4), 1509–1523. https://doi.org/10.1007/s10943-018-0563-9
- Harrington, E. F., Crowther, J. H., & Shipherd, J. C. (2010). Trauma, binge eating, and the "strong Black woman." *Journal of Consulting and Clinical Psychology*, 78(4), 469–479. https://doi.org/10.1037/ a0019174
- Harris, K. M. (2009). The National Longitudinal Study of Adolescent to Adult Health (Add Health). Carolina Population Center University of North Carolina at Chapel Hill.
- Heron, M. (2019). Deaths: Leading causes for 2017. National Center for Health Statistics, 66(6), 77.
- Holt, C. L., Oster, R. A., Clay, K. S., Urmie, J., & Fouad, M. (2011). Religiosity and physical and emotional functioning among African American and White colorectal and lung cancer patients. *Journal* of Psychosocial Oncology, 29(4), 372–393. https://www.tandfonline.com/doi/full/10.1080/07347 332.2011.582634
- Hope, M. O., Assari, S., Cole-Lewis, Y. C., & Caldwell, C. H. (2017). Religious social support, discrimination, and psychiatric disorders among Black Adolescents. *Race and Social Problems*, 9(2), 102–114. https://doi.org/10.1007/s12552-016-9192-7
- Hudson, D., Eaton, J., Banks, A., Sewell, W., & Neighbors, H. (2018). "Down in the sewers"-perceptions of depression and depression care among African American Men. American Journal of Men's Health, 12(1), 126–137.
- Jang, S. J., & Johnson, B. R. (2004). Explaining religious effects on distress among African Americans. Journal for the Scientific Study of Religion, 43, 239–260.
- Johnson, S. L., Leedom, L. J., & Muhtadie, L. (2012). The dominance behavioral system and psychopathology: Evidence from self-report, observational, and biological studies. *Psychological Bulletin*, 138(4), 692–743. https://doi.org/10.1037/a0027503
- Jones, J. M., St. Peter, J. R., Fernandes, S. J., Herrenkohl, T. I., Kosterman, R., & Hawkins, J. D. (2011). Ethnic and gender variation in religious involvement: Patterns of expression in young adulthood. *Review of Religious Research*, 53(2), 207–225. https://doi.org/10.1007/s13644-011-0006-5
- Kohout, F. J., Berkman, L. F., Evans, D. A., & Cornoni-Huntley, J. (1993). Two shorter forms of the CES-D depression symptoms index. *Journal of Aging and Health*, 5(2), 179–193.
- Le, T. N., Tov, W., & Taylor, J. (2007). Religiousness and depressive symptoms in five ethnic adolescent groups. *The International Journal for the Psychology of Religion*, 17(3), 209–232.
- Maselko, J., & Kubzansky, L. D. (2006). Gender differences in religious practices, spiritual experiences and health: Results from the US General Social Survey. *Social Science & Medicine*, 62(11), 2848– 2860. https://doi.org/10.1016/j.socscimed.2005.11.008
- Mattis, J. S., & Grayman-Simpson, N. A. (2013). Faith and the sacred in African American life. In K. I. Pargament, J. J. Exline, & J. W. Jones (Eds.), APA handbook of psychology, religion, and spirituality

(Vol. 1): Context, theory, and research (pp. 547–564). American Psychological Association. https://doi.org/10.1037/14045-030

- McEwen, B. S. (2012). Brain on stress: How the social environment gets under the skin. Proceedings of the National Academy of Sciences, 109(Supplement_2), 17180–17185. https://doi.org/10.1073/pnas. 1121254109
- McFarland, M. J. (2010). Religion and mental health among older adults: Do the Effects of religious involvement vary by gender? *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 65B(5), 621–630. https://doi.org/10.1093/geronb/gbp112
- Nason-Clark, N. (2017). When terror strikes at home: The interface between religion and domestic violence. In J. Eekelaar (Ed.), *Family rights and religion* (1st ed., pp. 245–253). Routledge.
- National Center for Health Statistics. (2016). *Health, United States, 2015: With Special Feature on Racial* and Ethnic Health Disparities, 461.
- National Institute on Minority Health and Health Disparities. (2021). Mental Health Snapshot of African American Men. https://www.nimhd.nih.gov/docs/byomm_factsheet02.pdf
- Okunrounmu, E., Allen-Wilson, A., Davey, M., & Davey, A. (2016). Black church leaders' attitudes about seeking mental health services: Role of religiosity and spirituality. *International Journal of Religion* & Spirituality in Society, 6(4), 45–55.
- Olphen, J., Schulz, A., Israel, B., Chatters, L., Klem, L., Parker, E., & Williams, D. (2003). Religious involvement, social support, and health among African-American women on the east side of Detroit. *Journal of General Internal Medicine*, 18(7), 549–557. https://doi.org/10.1046/j.1525-1497.2003. 21031.x
- Payne, J. S. (2008). "Saints don't cry": Exploring messages surrounding depression and mental health treatment as expressed by African-American pentecostal preachers. *Journal of African American Studies*, 12(3), 215–228. https://doi.org/10.1007/s12111-008-9044-7
- Petts, R. J. (2008). Religion and adolescent depression: The impact of race and gender. *Review of Reli*gious Research, 49, 21.
- Prather, C., Fuller, T. R., Jeffries, W. L., Marshall, K. J., Howell, A. V., Belyue-Umole, A., & King, W. (2018). Racism, African American women, and their sexual and reproductive health: A review of historical and contemporary evidence and implications for health equity. *Health Equity*, 2(1), 249– 259. https://doi.org/10.1089/heq.2017.0045
- Robbins, P. A., Bentley-Edwards, K. L., Blackman Carr, L. T., Conde, E., Van Vliet, R., & Darity, W. A. (2020). Shades of Black: Gendered denominational variation in depression symptoms among Black Christians. *Psychology of Religion and Spirituality*. https://doi.org/10.1037/rel0000398
- Romero, R. E. (2000). The icon of the strong Black woman: The paradox of strength. In L. C. Jackson & B. Greene (Eds.), *Psychotherapy with African American women: Innovations in psychodynamic perspective and practice* (pp. 225–238). The Guilford Press.
- Shah, A. J., Ghasemzadeh, N., Zaragoza-Macias, E., Patel, R., Eapen, D. J., Neeland, I. J., Pimple, P. M., Zafari, A. M., Quyyumi, A. A., & Vaccarino, V. (2014). Sex and age differences in the association of depression with obstructive coronary artery disease and adverse cardiovascular events. *Journal of the American Heart Association*. https://doi.org/10.1161/JAHA.113.000741
- Sims, M., Redmond, N., Khodneva, Y., Durant, R. W., Halanych, J., & Safford, M. M. (2015). Depressive symptoms are associated with incident coronary heart disease or revascularization among blacks but not among whites in the reasons for geographical and racial differences in Stroke study. *Annals of Epidemiology*, 25(6), 426–432. https://doi.org/10.1016/j.annepidem.2015.03.014
- Singh-Manoux, A., Dugravot, A., Fournier, A., Abell, J., Ebmeier, K., Kivimäki, M., & Sabia, S. (2017). Trajectories of depressive symptoms before diagnosis of dementia: A 28-year follow-up study. JAMA Psychiatry, 74(7), 712. https://doi.org/10.1001/jamapsychiatry.2017.0660
- Sternthal, M. J., Williams, D. R., Musick, M. A., & Buck, A. C. (2010). Depression, anxiety, and religious life: A search for mediators. *Journal of Health and Social Behavior*, 51(3), 343–359. https://doi.org/10.1177/0022146510378237
- Taylor, R. J., Chatters, L. M., & Abelson, J. M. (2012). Religious involvement and DSM-IV 12-month and lifetime major depressive disorder among African Americans. *The Journal of Nervous and Mental Disease*, 200(10), 856–862. https://doi.org/10.1097/NMD.0b013e31826b6d65
- Taylor, R. J., Chatters, L. M., & Brown, R. K. (2014). African American religious participation. *Review of Religious Research*, 56(4), 513–538. https://doi.org/10.1007/s13644-013-0144-z
- Taylor, R. J., Chatters, L. M., & Jackson, J. S. (2007). Religious and spiritual involvement among older African Americans, Caribbean Blacks, and non-Hispanic Whites: Findings from the National

Survey of American Life. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 62(4), S238–S250. https://doi.org/10.1093/geronb/62.4.S238

- Taylor, R. J., Chatters, L. M., & Levin, J. (2004). Religion in the lives of African Americans: Social, psychological, and health perspectives. SAGE Publications.
- Taylor, R. J., Chatters, L. M., McKeever Bullard, K., Wallace, J. M., & Jackson, J. S. (2009). Organizational religious behavior among older African Americans: Findings from the National Survey of American Life. *Research on Aging*, 31(4), 440–462. https://doi.org/10.1177/0164027509333453
- Torres, E. (2012). Psychometric properties of the Center for Epidemiologic Studies Depression Scale in African American and Black Caribbean US adults. *Issues in Mental Health Nursing*, 33(10), 687– 696. https://doi.org/10.3109/01612840.2012.697534
- U.S. Department of Health and Human Services, Office of Minority Health. (2021). Profile: Black/African Americans. https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=61
- Virani, S. S., Alonso, A., Benjamin, E. J., Bittencourt, M. S., Callaway, C. W., Carson, A. P., Chamberlain, A. M., Chang, A. R., Cheng, S., Delling, F. N., Djousse, L., Elkind, M., Ferguson, J. F., Fornage, M., Khan, S. S., Kissela, B. M., Knutson, K. L., Kwan, T. W., Lackland, D. T., Lewis, T. T., ... American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Subcommittee. (2020). Heart disease and stroke statistics—2020 Update: A report from the American Heart Association. *Circulation*. 141(9), e139–e596. https://www.ahajournals. org/doi/10.1161/CIR.000000000000757
- Vredenburg, K., Krames, L., & Flett, G. (1986). Sex differences in the clinical expression of depression. Sex Roles, 14(1/2), 37–49.
- Walker-Barnes, C. (2014). Too heavy a yoke: Black women and the burden of strength. Cascade Books.
- Ward, E. C., Clark, L. O., & Heidrich, S. (2009). African American women's beliefs, coping behaviors, and barriers to seeking mental health services. *Qualitative Health Research*, 19(11), 1589–1601. https://doi.org/10.1177/1049732309350686
- Ward, E. C., & Mengesha, M. (2013). Depression in African American men: A review of what we know and where we need to go from here. *American Journal of Orthopsychiatry*, 83(2–3), 386–397. https://doi.org/10.1111/ajop.12015
- Ward, E. C., Wiltshire, J., Detry, M., & Brown, R. (2013). African American Men and Women's attitude toward mental illness, perceptions of stigma, and preferred coping behaviors. *Nursing Research*, 62(3), 185–194.
- Watson, N. N., & Hunter, C. D. (2016). "I had to be strong": Tensions in the strong Black woman schema. Journal of Black Psychology, 42(5), 424–452. https://doi.org/10.1177/0095798415597093
- Williams, D. R., González, H. M., Neighbors, H., Nesse, R., Abelson, J. M., Sweetman, J., & Jackson, J. S. (2007). Prevalence and distribution of major depressive disorder in African Americans, Caribbean Blacks, and non-Hispanic Whites: Results from the National Survey of American Life. *Archives of General Psychiatry*, 64(3), 305. https://doi.org/10.1001/archpsyc.64.3.305
- Woods-Giscombé, C. L. (2010). Superwoman schema: African American women's views on stress, strength, and health. *Qualitative Health Research*, 20(5), 668–683. https://doi.org/10.1177/10497 32310361892
- Wortmann, J. (2013). Religious coping. In M. D. Gellman & J. R. Turner (Eds.), Encyclopedia of behavioral medicine. Springer.
- Wu, Q., Liu, B., & Tonmoy, S. (2018). Depression and risk of fracture and bone loss: An updated metaanalysis of prospective studies. *Osteoporosis International*, 29(6), 1303–1312. https://doi.org/10. 1007/s00198-018-4420-1

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