



Demographic and COVID-19-Related Factors Associated with Depressive and Anxiety Symptoms Among African American and Latina Women in a Midwestern State

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Abstract

Purpose The COVID-19 pandemic exacerbated racial and ethnic disparities among Latina and African American (AA) women, including risk factors for depression and anxiety. This study sought to identify demographic- and pandemic-related factors associated with depressive and anxiety symptoms in adult AA and Latina women living in a Midwestern state.

Methods Data for this secondary analysis of 1037 AA and Latina women were collected in May 2020 and June/July 2020. Participants completed an online survey about their demographic characteristics, job changes due to COVID-19, general concern about COVID-19, concern about the effects COVID-19 on their mental health, and whether they prayed to cope with COVID-19. Linear regressions with bootstrapping were conducted to determine associations.

Results Latinas had significantly higher depressive and anxiety symptoms than AA women. Older age was a buffer against depressive and anxiety symptoms. Women who anticipated a reduction in work hours or job loss had significantly higher depressive and anxiety symptoms than those with no job changes. A reduction in work hours was also a risk for higher depressive symptoms. General and specific concerns about the impact of COVID-19 were positively associated with higher depressive and anxiety symptoms. Race/ethnicity moderated the effect of praying to cope with COVID-19 on depressive symptoms.

Conclusions As the pandemic continues, mental health resources should be allocated to help AA and Latina women who experienced or anticipate reductions in paid hours and those concerned about its effects. Research is needed to identify how praying increased depressive symptoms in adult Latina women early in the pandemic.

Keywords Latina · African American · Women · COVID-19 · Depression · Anxiety

Introduction

The novel coronavirus SARS-CoV-2 (COVID-19) has resulted in more than 1 million deaths and infected more than 88 million people in the USA, as of July 8, 2022 [1, 2]. Age-adjusted statistics show that in the USA, Latinos and Black/African Americans are nearly twice as likely to die from COVID-19 than Whites [3]. Studies conducted in various states and cities across the USA show that among those who died of COVID-19, 34% were African Americans, even though they comprise only

13% of the US population [4–6]. Latinos in Midwestern states had increased risk of death from COVID-19 than other states in the USA [7]. The COVID-19 pandemic has had many psychological consequences, including a pervasive fear of transmitting the disease or becoming infected, especially among pregnant women and women with children [8]. The short- and long-term implications of poor mental health are numerous [9].

Racial and ethnic disparities in the pandemic's adverse psychological effects have been noted in the literature. African American (AA) women report more stress, worry, and anxiety about the pandemic-related financial burden and pre-existing vulnerability to economic hardships than White women [10–12]. African American and Latina women have faced higher unemployment rates than White women due to the pandemic [13]. Before the pandemic, AA and Latina women were more likely to participate in the labor force than their White and Asian counterparts (e.g., 62.4% AA

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women, 59.9% Latina women, 57.6% White women, and 58.6% Asian women) [14]. Employment rates were lowered during the pandemic by 9.7% among AA women and 8.6% among Latina women compared to 5.4% of White women [15]. Despite these critical data, few studies have compared the effects of pandemic-related changes in employment on depressive and anxiety symptoms between AA and Latina women, limiting our understanding of the consequences of the pandemic on these women.

Latina women faced numerous barriers to COVID-19 testing and treatment, despite high exposure to the virus, increasing economic and social inequities [16, 17]. Older AA women faced health and socioeconomic disparities before the pandemic, and during the pandemic, they became more vulnerable to infection and death from COVID-19 [18–20]. The pandemic also severely and negatively affected older Latinos, decreasing Latino life expectancy [21]. However, some recent findings on the pandemic and mental health suggest that older racial and ethnic minorities report fewer depressive and anxiety symptoms than younger adults [22–24]. Additionally, others have found a lower likelihood of prior mental health problems with an increase in age and income [25]. Yet, as some researchers have noted [24], racial and ethnic minority older adults who experience income and healthcare disparities may be at increased risk for poor mental health. The pandemic has amplified historical racial inequity in health and economics, increasing anxiety among women, including AAs and Latinas [23, 26]. For example, the anxiety rate increased every week during the pandemic among Latinas and adult Latinos [23, 26, 27]. Therefore, we must examine the psychological effects of the COVID-19 pandemic on AA and Latina women, including older women, which is critical to ensure their mental health needs are understood and addressed.

Religion has historically served as a coping strategy among AA and Latina women. The research shows that praying reduces depressive and anxiety symptoms [28]. However, it is unclear whether there are differences in the use of prayer between AA and Latina women to cope with the stress of the pandemic. Clarifying potential differences can help identify protective practices among AA and Latina women during large-scale crises.

The objective of this study was to determine whether there were significant differences in depressive and anxiety symptoms by demographic characteristics and COVID-19-related factors (e.g., job changes) in a sample of AA and Latina adult women living in a Midwestern state. On the basis of the cited literature, we hypothesized that there would be a significant and positive association between age and depressive and anxiety symptoms. We also hypothesized that any job changes (e.g., job loss, reduced work hours) and concerns about the effects of COVID-19 would be associated with significantly higher depressive and anxiety symptoms.

Lastly, we hypothesized that prayer would be associated with significantly fewer depressive and anxiety symptoms.

Materials and Methods

Procedures and Setting

This cross-sectional, secondary data analysis is based on an online survey administered in a Midwestern state. Data were collected at two-time points: May 2020 and between June and July 2020. The second data collection wave was intended to increase participation among racial and ethnic minorities in the state. Two private research firms were contracted by the University of Illinois Urbana-Champaign to collect data using the Research Electronic Data Capture (REDCap) web application from residents in a Midwestern state. Eligible adult participants were identified from each firm's survey panel and were invited to complete the online survey. Rigorous sampling quality controls were implemented. Participants accessed and completed the online survey. The survey was available in English in the first data collection period, and Spanish was added in the second. The study was performed in line with the principles of the Declaration of Helsinki and was approved by the University of Illinois Urbana-Champaign's Institutional Review Board. Informed consent was obtained by all participants.

Sample

Four thousand, four hundred and thirty-seven individuals were surveyed. For this study, only adult respondents (18 years and older) who self-identified as Black/AA or Latina and female were included. We classified participants as Latina or non-Latino Black/AA (AA hereafter). Respondents who did not meet the inclusion criteria were excluded. A total of 1130 participants met the inclusion criteria. Of those, 1037 had outcome data. A power analysis showed that this sample size was sufficient to detect effects at 80% power.

Measures

Demographic Characteristics Participants' characteristics, including age, gender, highest level of education, household composition (e.g., children in the household, partner), language preference, and health insurance, were collected. Total yearly pre-pandemic income before taxes over the last year was also collected. Participants were also asked, "Do you currently have paid sick leave?" and "Do you have the kind of job where working from home could be an option, if required?" and whether they currently had health insurance. The possible response options were "yes," "no," or "unsure." We dichotomized responses as yes = 1 and no/unsure = 0.

We dummy coded wave of data collection, with wave 1 = 0 and wave 2 = 1.

Depressive Symptoms This dependent variable was assessed using the Patient Health Questionnaire-2 or PHQ-2 [29], a widely used, two-item depression screening measure derived from the Patient Health Questionnaire-9 [30] shown to have high sensitivity and specificity for depression [29, 31, 32]. Respondents were asked to use a 4-point Likert scale (0 = “Not at all” to 3 = “Nearly every day”) to indicate the extent to which they were bothered by two problems: “Little interest or pleasure in doing things” and “Feeling down, depressed or hopeless” in the past 2 weeks. Scores on each item are summed to compute a total score (0–6), with a higher score indicating more symptomatology. A score of 3 or higher is the suggested cutoff for screening positive for depression [29, 33]. The PHQ-2 has been used with Spanish-speaking individuals in the USA and Latin America, [32, 34] and AAs [35, 36]. The cutoff score was used for descriptive purposes, and the continuous score was used as the dependent variable in the bivariate and multivariate models. Cronbach’s alpha indicated good internal consistency ($\alpha = 0.84$).

Anxiety Symptoms Anxiety symptoms (dependent variable) were captured using the Generalized Anxiety Disorder-2 (GAD-2), a two-item anxiety screening tool developed from the GAD-7 scale [37]. Participants were asked how often they felt nervous, unable to stop or control worrying, on edge, or restless over the past 2 weeks, with answers ranging from 0 = “Not at all” to 3 = “Nearly every day.” Responses are summed to yield a total score between 0 and 6, with a higher score indicating higher anxiety symptoms [38]. A cutoff score of 3 is recommended. A systematic review showed that a cutoff score of 3 was acceptable [33, 39]. A study conducted to examine the reliability and validity of the GAD-2 based on data from a nationally representative study suggests that the GAD-2 has sufficient internal consistency ($\alpha = 0.82$) and construct validity and has consistent sensitivity and specificity, including among Spanish-speaking and AA populations [38, 40, 41]. Cronbach’s alpha indicated good internal consistency ($\alpha = 0.84$).

Employment Changes due to the Pandemic To assess employment changes due to the pandemic, participants were asked, “Have you lost a job, been put on leave, or otherwise had your hours reduced because of the Coronavirus pandemic?” Participants selected from the following list of response options: “Yes, lost job entirely,” “Yes, had paid hours reduced,” “No, but I expect to lose employment or paid hours in the next few weeks,” or “No, my employment hasn’t changed or my hours have increased.”

Concerns About COVID Participants were asked, “How concerned do you feel about COVID-19?” to assess general

concern about the effects of the pandemic. Response options included 5 = “Not at all concerned,” 4 = “A little concerned,” 3 = “Moderately concerned,” 2 = “Very concerned,” and 1 = “Extremely concerned.” Responses were reverse-coded so that a higher score indicated a higher degree of concern.

Concerns About Mental Health due to COVID-19 Respondents were asked “How concerned” they felt about COVID-19 regarding their “personal mental well-being.” Response options ranged from 1 = “Not at all” to 5 = “Extremely concerned.”

Prayer to Cope with COVID-19 To assess possible coping behaviors with COVID-19, we used an item taken from a list of COVID safety behaviors, which asked, “Which of the following have you done in the last seven days to keep yourself safe from coronavirus in addition to what you normally do? Only consider actions that you took or decisions that you made personally.” “Prayed” was among the response options participants selected.

Data Analysis

Skewness, kurtosis, and histogram tests indicated that the data were not normally distributed. Therefore, unadjusted and adjusted regressions with bootstrapping (5000 samples) with bias-corrected and accelerated (BCa) confidence intervals were used due to skewed data. Continuous variables were summarized using medians and percentages for categorical variables. Unadjusted linear regressions with bootstrapping were used to determine which demographic variables or situational variables (e.g., job loss, reduced hours, expected job changes, no changes in job, ability to work from home, coping/prayed, and concern about mental health due to COVID-19) acted as covariates or confounders and which to include in the models. Interaction effects were considered for variables with significant main effects on the dependent variables (i.e., depressive and anxiety symptoms). The final linear regression analysis model with bootstrapping controlled for significant covariates, confounders, and interactions when appropriate. Missing data were not imputed. All statistical tests were 2-sided and performed using a 5% significance level, leading to 95% (2-sided) confidence intervals.

Results

Table 1 shows the demographic characteristics of the sample.

Depressive Symptoms

Results from the unadjusted linear regressions showed that Latinas reported significantly more depressive symptoms than AA women ($B = 0.59$, $p < 0.001$, BCa95%CI [0.35, 0.82]) (not

Table 1 Medians (ranges) and percentages reported for descriptive statistics, COVID-19-related variables, and depressive and anxiety symptoms

	Median (range)/%
Race and ethnicity	
African American	58.5
Latina	41.5
Wave	
One	23.6
Two	76.4
Age	35.00 (18–85)
Household composition ^a	
Lives with children (yes)	39.4
Lives with partner (yes)	36.3
Education	
High school/GED or less	28.7
Some college or vocational	33.9
College degree	24.4
Graduate or professional	13.0
Income prior to COVID-19	
< \$20,000	27.1
\$20,000–\$49,999	34.6
\$50,000–\$100,000	27.6
\$100,000+	10.8
Employment benefits ^a	
Health insurance (yes)	82.2
Sick leave (yes)	26.9
Work from home (yes)	38.9
Job changes due to COVID-19	
Lost job entirely	14.1
Paid hours reduced	20.7
Expect job changes	10.0
No job changes	55.2
Response to COVID-19	
COVID-19 concern	4.00 (1–5)
Concern about mental health due to COVID-19	3.00 (1–5)
Prayed to cope with COVID-19	45.5
Depressive symptoms	1.00 (0–6)
% probable depression	30.3
Anxiety symptoms	1.00 (0–6)
% probable anxiety	28.6

Distributions are based on available data. ^aNot mutually exclusive

shown). Older women reported significantly fewer depressive symptoms ($B = -0.04$, $p < 0.001$, BCa95%CI $[-0.04, -0.03]$). The results also indicated that women with health insurance reported significantly fewer depressive symptoms than those without the benefit ($B = -0.32$, $p < 0.037$, BCa95%CI $[-0.63, -0.02]$). Additionally, job loss ($B = 0.78$, $p < 0.001$, BCa95%CI $[0.42, 1.15]$), reduction in work hours ($B = 0.85$, $p < 0.001$, BCa95%CI $[0.56, 1.16]$), and expected job changes ($B = 1.34$, $p < 0.001$, BCa95%CI $[0.96, 1.73]$) were associated

with significantly higher depressive symptoms than no job changes. Furthermore, there was a significant and positive association between depressive symptoms and concerns about COVID-19 ($B = 0.34$, $p < 0.001$, BCa95%CI $[0.24, 0.43]$) and concerns about how COVID-19 might affect the individual's mental health ($B = 0.63$, $p < 0.001$, BCa95%CI $[0.55, 0.70]$). Lastly, individuals who reported praying to cope with COVID-19 reported significantly fewer depressive symptoms than those who did not ($B = -0.40$, $p < 0.001$, BCa95%CI $[-0.63, -0.17]$).

As shown in Table 2, when the significant covariates (age, Latino, and health insurance) and job changes due to COVID-19 were entered in model 1, health insurance was no longer statistically significant. The full model (i.e., model 2) shows that concerns about COVID-19 ($B = 0.19$, $p < 0.001$, BCa95%CI $[0.10, 0.29]$) and concerns about the effects of COVID-19 on one's mental health ($B = 0.47$, $p < 0.001$, BCa95%CI $[0.38, 0.56]$) were significantly associated with depressive symptoms when controlling for other variables. The findings also revealed that the effect of job loss on depressive symptoms was no longer significant. We also found an interaction between race/ethnicity and praying to cope with COVID-19 ($B = 0.47$, $p < 0.029$, BCa95%CI $[0.05, 0.89]$). As model 2 shows, there was no significant effect of race/ethnicity on depressive symptoms. However, race/ethnicity moderated the effect of prayer on depressive symptoms (see Fig. 1). Those who prayed had lower depressive symptoms than those who did not pray by 0.45 units. The results also indicated that race/ethnicity moderated the effect of praying on depressive symptoms. As Fig. 1 shows, the effect of prayer on countering depression is more prominent in AA women than in Latina women. For Latinas, the mean difference in the depression score for praying and not praying was 0.05 unit. In contrast, the mean difference in mean depressive scores for praying and non-praying for African Americans was 0.52. Depressive symptoms increased by 0.02 units in Latinas who prayed. In contrast, depressive symptoms decreased by 0.45 units among AA women who prayed.

Anxiety Symptoms

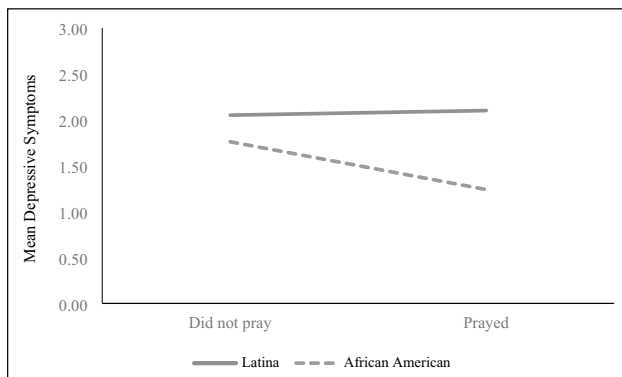
Results from the unadjusted linear regressions (not shown) indicated that, like depressive symptoms, Latinas also had significantly higher anxiety symptoms than AA women ($B = 0.68$, $p < 0.001$, BCa95%CI $[0.45, 0.89]$). Women enrolled in wave 2 were significantly more likely to report fewer anxiety symptoms than those in wave 1 ($B = -0.32$, $p = 0.022$, BCa95%CI $[-0.59, -0.05]$). As with depressive symptoms, age was inversely associated with anxiety symptoms ($B = -0.03$, $p < 0.001$, BCa95%CI $[-0.03, -0.02]$). Moreover, women who experienced a job loss ($B = 0.81$, $p < 0.001$, BCa95%CI $[0.46, 1.17]$), reduced paid hours ($B = 0.59$, $p < 0.001$,

Table 2 Results from the adjusted linear regression models for depressive symptoms

	Model 1				Model 2			
	<i>B</i>	<i>p-value</i>	BCa95%CI		<i>B</i>	<i>p-value</i>	BCa95%CI	
Demographic variables								
Age	−0.03	<0.001	−0.03	−0.02	−0.02	<0.001	−0.03	−0.01
Latina	0.30	0.013	0.07	0.54	0.03	0.818	−0.25	0.31
Health insurance (yes)	−0.01	0.938	−0.34	0.30	−0.02	0.888	−0.31	0.27
Job changes due to COVID-19								
Lost job entirely (yes)	0.53	0.005	0.16	0.89	0.24	0.155	−0.09	0.57
Paid hours reduced (yes)	0.55	<0.001	0.25	0.85	0.38	0.006	0.11	0.65
Expect job changes (yes)	0.98	<0.001	0.56	1.40	0.72	<0.001	0.34	1.10
No job changes (ref)								
Response to COVID-19								
COVID-19 concern					0.19	<0.001	0.10	0.29
Concern about mental health due to COVID-19					0.47	<0.001	0.38	0.56
Prayed to cope with COVID-19 (yes)					−0.45	<0.001	−0.71	−0.19
Latina by prayed to cope with COVID-19					0.47	0.029	0.05	0.89

Table 3 Results from the adjusted linear regression models for anxiety symptoms

	Model 1				Model 2			
	<i>B</i>	<i>p-value</i>	BCa95%CI		<i>B</i>	<i>p-value</i>	BCa95%CI	
Demographic variables								
Wave	−0.17	0.227	−0.44	0.10	−0.16	0.198	−0.40	0.08
Age	−0.02	<0.001	−0.03	−0.01	−0.01	0.001	−0.02	−0.01
Latina	0.39	0.004	0.15	0.62	0.35	0.003	0.13	0.57
Job changes due to COVID-19								
Lost job entirely	0.62	<0.001	0.26	0.99	0.28	0.113	−0.07	0.62
Paid hours reduced	0.35	0.022	0.05	0.65	0.15	0.276	−0.12	0.42
Expect job changes	0.87	0.001	0.44	1.28	0.63	0.003	0.23	1.02
No job changes (ref)								
Response to COVID-19								
COVID-19 concern					0.24	<0.001	0.14	0.33
Concern about mental health due to COVID-19					0.47	<0.001	0.37	0.56

**Fig. 1** Illustration of the interaction between race/ethnicity and prayer on depressive symptoms.

BCa95%CI [0.31, 0.87]), or expected a job loss ($B = 1.14$, $p < 0.001$, BCa95%CI [0.73, 1.49]) reported significantly higher symptoms than those who did not experience any job changes. Finally, results from the unadjusted linear regressions indicated that there was a positive and significant association between anxiety symptoms and concerns about COVID-19 ($B = 0.40$, $p < 0.001$, BCa95%CI [0.31, 0.49]) and concerns about the effects of COVID-19 on participants' mental health ($B = 0.62$, $p < 0.001$, BCa95%CI [0.55, 0.69]).

In Table 3, model 1 shows that the results from the bivariate analysis for age, Latino ethnicity, and job changes remained significant, but the effect of wave disappeared. Model 2 in Table 3 shows that while controlling for covariates and work-related changes, concerns about COVID-19 ($B = 0.24$, $p < 0.001$,

BCa95%CI [0.14, 0.33]) and concerns about the effects of COVID-19 on one's mental health were significantly and positively associated with anxiety symptoms ($B=0.47$, $p<0.001$, BCa95%CI [0.37, 0.56]). The model also shows that those COVID-19 response variables eliminated the significant effects of job loss and reduced work hours on anxiety symptoms.

Discussion

This study identified demographic- and pandemic-related factors associated with depressive and anxiety symptoms in racial and ethnic minority women living in a Midwestern state with high COVID-19 cases early in the pandemic. Our hypotheses were largely supported. We found differences in depressive and anxiety symptoms by job changes due to the COVID-19 pandemic, and specific and general concerns about the effects of the pandemic. We also found that race/ethnicity moderated the effect of prayer on depressive symptoms. The results also yielded unexpected findings related to age.

The findings indicated that age was protective against depressive and anxiety symptoms, which was surprising given that older AA and Latinos were at elevated risk of contracting the virus [42]. However, the results support recent studies showing an inverse association between age and depressive and anxiety symptoms [22–24]. Others found that older adults engaged in healthy behaviors, such as physical activity, reported significantly fewer depressive symptoms than their less active counterparts [43]. The evidence that older adults fared better than younger adults is mounting. Our study shows that this is also true for AA and Latina women. Some evidence suggests that the adverse effects of the pandemic on older adults are attributable to loneliness and isolation [24, 44, 45]. It is possible that older AA and Latina women benefited from emotional support and protection provided by family members. Also, as others have suggested, a benefit of age is perspective and wisdom [46]. African American and Latina older adults, like other racial and ethnic older adults, have likely survived several adverse life events, which may have provided them with resilience that buffered the potential negative psychological effects of the pandemic. An alternative explanation is that older adults experiencing distress may have been more reluctant to participate in the study.

We also found that prayer was protective but only against depressive symptoms. The findings also revealed that race/ethnicity moderated the effect of prayer on depressive symptoms. We found that depressive symptoms declined among AA women who prayed. These results support prior studies on the benefits of prayer against depression among women [47, 48]. Others have found that higher religiosity was associated with fewer depressive symptoms during the pandemic [49].

However, we found that depressive symptoms increased for Latinas who prayed. These results suggest that Latinas who prayed to cope with COVID-19 did not yield the benefits often reported in the literature. It is possible that prayer did not provide the relief they sought but exacerbated depressive symptoms among Latinas [50]. Some research suggests that prayer during a period of distress can promote what is referred to as resource mobilization or increased use of a specific coping strategy like prayer [51]. Further research is needed to identify how praying increased depressive symptoms in adult Latina women early in the pandemic. Prayer was not associated with anxiety symptoms.

The results also showed women who experienced a loss of paid work hours and who expected to lose their job or reduce paid work hours reported significantly more depressive symptoms, on average than those who did not experience any job changes. Anticipated job changes were associated with higher anxiety symptoms when controlling for other variables. Concerns about job loss are particularly relevant for AA and Latinas, who experienced high rates of employment changes due to the pandemic [52]. Employment insecurity is associated with anxiety and depressive symptoms, including during the pandemic [53, 54]. Surprisingly, our findings on the effects of complete job loss differed from some of the current literature [55], which shows that it had adverse psychological effects, particularly among AA and Asians. While job loss is a risk for poor mental health, others have found that job insecurity during a global period of unpredictability may be more distressing than knowing whether you have a job [54]. Still, alternative explanations are differences in measure and investigation period that may explain the disparate findings. For example, Matthews et al. [38] focused on the past 30-day period, and our study examined symptoms in the past 14 days.

The results on the general concerns about COVID-19 and specific concerns about the effects of COVID-19 on mental health showed that these factors were significantly associated with depressive and anxiety symptoms. While these variables were correlated, they show that their effect remained even after controlling for demographic- and other pandemic-related factors suggesting a robust effect. While we could have excluded general concerns about the effects of COVID-19 because our preliminary analyses indicated that it did not improve the model, we decided to include it in the model to show that both general and specific concerns mattered. The findings also support the need to examine general and specific concerns among women of color, who experience complex gender and racial/ethnic disparities that have been exacerbated during the pandemic [56].

Limitations

This study has many strengths. However, here we note the limitations of this investigation. First, this was a cross-sectional, secondary analysis of women who self-selected for

the study. Related, due to data access limitations, the sample was restricted to AA and Latina adult women without a comparison group (e.g., White women). Thus, the generalizability of the findings is limited to our sample. Second, the data were collected early in the COVID-19 pandemic, before the availability of vaccines and the emergence of the Omicron variant. Therefore, we could not determine the effect of vaccine availability, the duration of the pandemic, or potential exposure to the Omicron variant on depressive and anxiety symptoms. Third, the survey did not inquire about religiosity, frequency of prayer, or reasons for praying or not. Finally, our measures of depressive and anxiety symptoms were screeners that could not diagnose or verify depression or anxiety. Additionally, the brief depression and anxiety measures provided a limited range of symptoms that had low levels of endorsement, possibly suggesting low likelihood of clinical significance and transient reactions. While the measures have been shown to have acceptable validity, sensitivity, and specificity [33], the findings should be evaluated with caution.

Conclusions

Recent studies showed that age was protective against depressive and anxiety symptoms early in the pandemic. While older adults are particularly vulnerable to COVID-19 and its detrimental effects, our study suggests something to be learned from older AA and Latina women about psychological responses to a global crisis. Prayer also provided a buffering effect against depressive symptoms among AA women, but not Latinas. Anticipated job changes proved to be a risk factor for depressive and anxiety symptoms. The current economic downturn and inflation may exacerbate the deleterious mental health effects of job insecurity among AA and Latina women. Therefore, additional federal, state, and local resources should be invested to ensure the emotional wellbeing of AA and Latina women experiencing job insecurity. Finally, our findings showed that general and specific concerns about COVID-19 had adverse effects on AA and Latina women's mental health. Our cross-sectional data prevented us from determining the long-term effects of general and specific COVID-19-related concerns. Therefore, investigators and clinicians should assess the effects of the ongoing COVID-19 pandemic on AA and Latina women's mental health to identify those with mental health needs.

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Author Contribution SL-C conceptualized the study and secured the data. BM drafted the introduction and conducted preliminary data analysis. MEM drafted the methods and assisted with the references. SL-C drafted the data analysis plan, conducted the analysis, and wrote

the results and discussion. All the authors reviewed and approved the entire manuscript.

Data Availability The data were made available by the Center for Social and Behavioral Sciences at the University of Illinois Urbana-Champaign.

Code Availability Not applicable.

Declarations

Ethics Approval The University of Illinois at Urbana-Champaign provided Institutional Review Board (IRB) approval (IRB #20868).

Consent to Participate All participants were required to provide informed consent before starting the online survey.

Consent for Publication Not applicable.

Competing Interests The authors declare no competing interests.

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