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RACE AND RELIGION: DIFFERENTIAL PREDICTION OF ANXIETY SYMPTOMS BY RELIGIOUS COPING IN AFRICAN AMERICAN AND EUROPEAN AMERICAN YOUNG ADULTS

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Background: *Psychosocial factors, including religious coping, consistently have been implicated in the expression of anxiety disorders. This study sought to investigate the relationship between religious coping on anxiety symptoms among a nonclinical sample of African American and European American young adults.* ***Methods:*** *One hundred twenty-one European American and 100 African American young adults completed measures of anxiety and religious coping.* ***Results:*** *As predicted, results differed according to race. African Americans reported significantly more positive religious coping, less negative religious coping, and experienced fewer anxiety symptoms than European Americans. European Americans demonstrated a significant, positive relationship between negative religious coping and anxiety symptoms, and an opposite trend related to anxiety and positive religious coping. However, no such relationships emerged among the African American sample.* ***Conclusions:*** *Implications and suggestions for future research are discussed. Depression and Anxiety 27:316–322, 2010.*

Key words: *anxiety disorders; African Americans; religious coping; race*

INTRODUCTION

The pervasive nature of anxiety disorders has been well established in the literature with approximately 17% of the US population, roughly 28 million people, either currently diagnosed with an anxiety disorder or having been diagnosed with one in the past.[1] A number of psychosocial factors have been identified as endemic to anxiety disorders, such as perceptions of uncontrollability and unpredictability of personally salient events [for review, see references],[2–6] affectionless control [i.e., high control, low warmth][7–15] and the general experience of negative affectivity.[16,17] Although many psychosocial factors have been delineated in the existing literature related to the expression of anxiety and related disorders, the majority of these factors have been related to maladaptive attempts at dealing with anxiety with little attention given to potential adaptive coping strategies. Additionally, the existing literature pertaining to anxiety disorders is comprised of predominantly European American samples, with limited attention paid to African Americans [for review, see References].[18–23] Given that African American samples have historically relied on specific, external coping strategies [i.e., kin support networks, spirituality and religious involvement] in the face of adverse circumstances,[24,25] one would presume that these coping strategies may be employed in the face of anxiety and related concerns. As such, this

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study examines positive and negative religious coping strategies and their relation with self-reported anxiety symptoms, with particular attention to whether these relationships differ between African American and European American young adults.

ANXIETY DISORDERS AND AFRICAN AMERICANS: UNSOLVED MYSTERY

The existing literature pertaining to anxiety disorders and African Americans remains underdeveloped, but indicates that some assumptions about the prevalence, comorbidity, and symptom expression of anxiety developed in European American samples may not apply to African Americans.[18–23] Studies indicate that African Americans may develop certain anxiety disorders more than their European counterparts and that the prevalence of certain anxiety disorders may be higher in African Americans.[18,19,22,23,26–28] Prevalence rates for panic disorder appear similar,[20,23] although African Americans may manifest these symptoms differently than Europeans.[19,20,22,23] These results suggest that anxiety disorders in African American remains an unsolved mystery in need of further investigation.

RELIGIOUS COPING

Religious beliefs and activities have demonstrated consistent links with higher well-being and more satisfactory health [for reviews see References].[29,30] Using such beliefs and activities in the face of stress appears to be the preferred way of coping for religious people,[31,32] Thus, given the large numbers of religious people in the United States [e.g.,],[33] religious coping warrants empirical scrutiny. A distinction has been made between positive religious coping [e.g., praying, trusting God] and negative religious coping [appraising events as evidence of one's guilt, viewing God as malevolent] As can be expected, positive religious coping has been positively related to life satisfaction, stress-related growth, well-being, and even better physical health, as well as inversely related to depression, occupational stress, anxiety, hostility. [e.g.,][33–40] Conversely, negative religious coping has been positively related to depression, anxiety, and post-traumatic stress symptoms [see References],[33] as well as higher mortality.[41] Thus, research supports the contention that religious coping may be an effective way for people to improve their adaptation to stress.

Some research suggests that cultural and ethnic factors may moderate the relation of religious coping to well-being and psychological distress [e.g., Catholics versus Protestants].[42] Given the centrality and importance of religion to African Americans[43] it is particularly important to explore whether the current conceptions of religious coping [positive is beneficial, negative is harmful] hold in this racial/ethnic group.

Religious involvement as a potential protective factor in African Americans. Extensive church involvement and the church family historically have been a source of support for African Americans in the United States.[24,44–47] Research has suggested that the use of religion and spirituality to cope with a variety of stressors may particularly benefit African Americans.[48–50] Thus small, but growing body of research indicates that religion and spirituality may be important factors to consider in research related to African American health and well-being. In this way, religious coping may be similar to anxiety, with racial and ethnic factors playing a role in how both are expressed and experienced. Thus, this study was aimed to examine potential differences in how positive and negative religious coping are related to anxiety in a sample comprised of both African American and European American young adults. Based on the existing literature related to the reliance upon religion and spirituality to cope with stressors, it was hypothesized that African Americans would report more positive religious coping and less negative religious coping than the European American sample. Second, based on the dearth in the literature regarding the utilized measures across race, it was hypothesized that the African Americans in the current sample would report significantly less anxiety symptoms than the European American sample. Third, it was further hypothesized that positive religious coping would have a significantly more negative relationship with reported anxiety symptoms in the African American sample than in the European American sample; conversely, we hypothesized that there would be a significantly more positive relationship between negative religious coping and reported anxiety symptoms among the European American sample than in the African American sample.

METHODS

PARTICIPANTS

Participants were 221 undergraduate students from a large public Midwestern university. Students were recruited from two sources: an introductory psychology class ($N = 130$) and introductory level Pan African Study classes ($N = 91$). Participants were either given class credit, when warranted, for participating in the study. The sample included 71 males and 150 females with a mean age of 20 years ($SD = 5.8$). Fifty-five percent of the sample was European American, whereas the remaining 45% was African American. Participants completed a battery of self-report questionnaires that measured anxiety and related constructs as part of a larger study measuring ethnic differences in anxiety. Table 1 presents additional demographics for the sample. This study was approved by the university's Human Subjects Protection office.

MEASURES

Beck Anxiety Inventory [BAI; 51]. Because of its focus on somatic symptoms, the BAI may be particularly adept at identifying anxiety in diverse samples. The BAI is a widely utilized measure of both cognitive and somatic symptoms of anxiety experienced over the past

TABLE 1. Demographics

	African American	European American	t/χ^2
Gender			.11
Male	31	40	
Female	69	81	
Age			4.0***
M	21.7	19.1	
SD	5.8	3.5	
Living Arrangements			3.4
On campus, Alone	57	54	
Off campus, Alone	43	62	
Family Income			25.2***
<$29,999	26	17	
$30,000–$59,999	44	27	
>$60,000	29	76	
	+1	+1	

Notes. +non-responses.
***$P<.001$.

week. The BAI is comprised of 21 items rated on a scale from 0 to 3 with total scores ranging from 0 to 63. Total scores on the BAI were used as an indicator for the recursive path model. The overall internal consistencies for the BAI items in the current sample were excellent overall [$\alpha = .88$], the European American sample [$\alpha = .86$], and the African American sample [$\alpha = .88$]. These reliabilities are consistent with the study conducted by Contreas and colleagues[52] in a sample of European American and Latino college students.

Brief Religious Coping [Brief-RCOPE; Pargament, Smith, Koenig, and Perez, 1998]. The Brief RCOPE is a ten item measure adapted from a larger measure of religious coping [RCOPE; 53]. Items from the Brief RCOPE were determined through a factor analysis of the 21 original RCOPE items and yield a positive religious coping subscale [PRCOPE; i.e., benevolent religious practice in the search for personal meaning] and a negative religious coping subscale [NRCOPE; i.e., personal struggle with religious coping methods]. The RCOPE has been shown to have internal consistency as well as criterion and discriminant validity.[54] The internal consistency was high in the overall sample [$\alpha = .90$ PRCOPE; .73 NRCOPE], moderate to high in the European American sample [$\alpha = .92$ PRCOPE; .68 NRCOPE], and the African American sample [$\alpha = .79$ PRCOPE; .81 NRCOPE].

RESULTS

DEMOGRAPHIC COMPARIONS

African American and European American participants significantly differed with respect to age and income [see Table 1]. This finding is likely to be an artifact of sampling in that the European Americans were largely recruited from an introductory to psychology course whereas the African Americans were largely recruited from courses in Pan-African studies. Significant differences did not exist among the two groups on living arrangements and gender. Partial correlations were conducted with each indicator along with participant age and income while controlling for ethnicity. As shown in Table 2, age and income were not significantly correlated with either religious coping or anxiety after controlling for ethnicity; accordingly age and income were not included in subsequent analyses.

TABLE 2. Partial Correlations of Age and Income with Model Indicators

	1	2	3	6	7
Age		−.11	.07	.09	−.09
Family income			−.03	−.06	−.02
BAI				−.06	.15
Pos. relig. coping					−.39**
Neg. relig. coping					

**$P<.01$; *$P<.05$.

TABLE 3. Mean differences in anxiety and religious coping among African American and European Americans Participants

	African Americans	European Americans	t	Effect size d
BAI				
M	8.4	11.0	2.42*	.31
SD	7.9	7.7		
Positive RCOPE				
M	16.7	12.9	6.87***	.94
SD	3.0	5.0		
Negative RCOPE				
M	6.8	8.3	3.73*	.52
SD	2.6	2.9		

***$P<.001$; *$P<.05$.

RACIAL COMPARIONS ON ANXIETY AND RELIGIOUS COPING

Mean differences were also compared between the African American and European American participants for the religious coping and anxiety scales. As shown in Table 3, the African Americans and European Americans in the current sample significantly differed on the BAI, positive religious coping, and negative religious coping with European Americans endorsing more anxiety symptoms as measured by the BAI and engaging in more negative religious coping than African Americans. Consistent with hypotheses, African Americans reported significantly more positive religious coping, fewer anxiety symptoms, and less negative religious coping than their European American counterparts. The means and standard deviations were consistent with previous work in nonclinical samples [see][52,55,56] and higher than previous work in clinical samples [see References].[57,58]

BIVARIATE CORRELATIONS

Bivariate correlations were conducted among religious coping variables and anxiety scales to examine the

association between variables. As expected, positive religious coping was negatively correlated with reported anxiety [$r = -.43$, $p < .001$] and negative religious coping [$r = -.45$, $p < .001$]. Negative religious coping was unrelated to reported anxiety symptoms.

RACIAL DIFFERENCES IN THE RELATION BETWEEN RELIGIOUS COPING AND ANXIETY SYMPTOMS

In order to investigate whether the relations between positive and negative religious coping with anxiety differed between European Americans and African Americans, we adopted the moderator analytic approach.[59,60] This approach involves entering standardized religious coping scale scores and a contrast-coded variable for race in the first step of a multiple regression, and entering an interaction term created from the product of religious coping and race in the second step. If the second step containing the interaction term accounts for significant additional variance, then racial groups differ in the direction or strength of the relation between religious coping and anxiety.

Positive religious coping. Results from the analysis examining moderation of the relation between positive religious coping and anxiety are presented in Table 4. The step containing the interaction term was not significant, indicating that African American and European American participants did not differ in terms of the relation between positive religious coping and anxiety.

Negative religious coping. We repeated the moderator analysis looking at the relation between negative religious coping and anxiety [Table 4]. The step containing the interaction term was significant [see Fig. 1]. Simple slopes analysis[61] indicated that there was a significant positive relation between negative religious coping and anxiety among European Americans [$\beta = .29$, $p < .001$], but a nonsignificant relation between these variables among African Americans [$\beta = -.03$, $p > .10$]. Thus, the expected patterns of relation between positive religious coping and anxiety only hold true among European American participants.

DISCUSSION

This study is among the first to investigate the impact of both positive and negative religious coping on anxiety symptoms in a sample of African American and European American young adults. The results of this study indicated that European Americans reported more anxiety than African American. Results further indicated that African Americans reported engaging in more positive religious coping whereas European Americans reported engaging in more negative religious coping. Further analyses revealed that negative religious coping was significantly, positively related to anxiety symptoms among European Americans. In contrast, among African American, negative religious coping was unrelated to anxiety symptoms.

Several results from this study are worth further consideration. First, the finding that African Americans reported significantly fewer anxiety-related symptoms has several research implications. Based on both the scarcity and ambiguity that characterize the literature pertaining to affective disorders in African American samples, the current findings may imply that the African American young adults in the current sample experience fewer anxiety-related symptoms than their European American counterparts. To corroborate this notion, Scott and colleagues[28] examined worry in a sample of African American, European American, and Asian American young adults and found that the African Americans sample reported significantly less worry than the other two groups. Although the construct of worry rather than anxiety symptoms was

TABLE 4. Moderator analysis of the influence of race on relations between positive and negative religious coping and anxiety

	b	SE_b	95% CI	β	ΔR^2	ΔF	*Adj.* R^2
Step 1					.03	3.49*	.02
Positive Religious Coping	−.22	.67	−1.53, 1.10	−.03			
Race	−1.23	.61	−2.44, −.03	−.16*			
Step 2					.01	1.58	.03
Positive Religious Coping *Race	.84	.67	−.48, 2.16	.10			
Step 1					.05	5.57**	.04
Negative Religious Coping	1.01	.55	−.07, 2.09	.13+			
Race	−1.07	.54	−2.14, −.01	−.14*			
Step 2					.02	5.25*	.06
Negative Religious Coping *Race	−1.25	.55	−2.33, −.18	−.15*			

Notes. ***$P < .001$; **$P < .01$; *$P < .05$ Race is coded −1 = African American, 1 = European American.

assessed in the Scott et al.[28] study, their results seems to support the notion that African American young adults, particularly in a college setting, may experience fewer anxiety symptoms. Second, it is possible that the widely used measures of anxiety that were employed in this study lead to under-reporting of anxiety-related symptoms by African Americans. If this was the case, their use in clinical settings might imply some degree of under-diagnosis among African American populations. There are two possibilities that could lead to under-reporting of symptoms. The current findings could reflect a response pattern among African American participants marked by hesitancy to endorse symptoms of psychological difficulties. As previously suggested [see References],[19,22] the greater historical, socio-cultural stigma placed on mental health symptoms, as opposed to problems with putative physical roots [i.e., nerves], among African Americans may have reduced the current sample's endorsement of symptoms. Alternatively, it is possible that the symptoms associated with anxiety differ between European American and African American samples, as many have argued [see Reference].[62] As previously noted, ethnographic accounts of African American anxiety symptoms suggest a greater emphasis on somatic complaints. However, further examination of the ethnographic literature seems to indicate that there are semantic differences in the description of similar phenomena due to the cultural influence of folk disorders in many African Americans. For example, the ethnographic literature describes folk descriptions, such as "falling-out," "nerves," "high-pertension," which seem to be related to the physiological aspects of anxiety and cardiovascular functioning.[19] As such, as noted by Heurtin-Roberts,[63] individuals from African descent have often characterized blood as a gauge for emotional states and environmental conditions. These ethnographic sources of information could indicate a distinct phenomenology of anxiety among African Americans that differs in substantive ways from the dominant models of anxiety built around European American phenomenology.

The African American and European American young adults in the current sample also differed in their endorsement of religious coping methods, as well as the relationships of religious coping with anxiety symptomatology. African American participants reported higher positive religious coping and less negative religious coping compared to the European American sample. These findings are consistent with the existing literature pertaining to the historical roles of religion and spirituality in the lives of African Americans [see 24, 64]. The roles of religion and spirituality in the lives of African Americans also seem to transcend application to singular, circumscribed problems, as indicated by the existing literature. For example, in reference to African Americans suffering from alcoholism, Brisbane and Womble[25] noted that although many African Americans may not be involved in organized religion, many African Americans maintain a conviction of the existence of spiritual power and an unwavering belief in God providing for their needs and this may permeate all facets of one's existence. This notion has been corroborated in the empirical literature pertaining to African American coping with various medical and psychological conditions such as blood pressure,[50] racism-related stress,[46] HIV/AIDS,[49] and Bipolar disorder.[65] Moreover, if the strength and breadth of religious beliefs and convictions is higher among African Americans, it seems likely that religious coping would mainly find positive, as opposed to negative, expressions.

LIMITATIONS

The results from this study should be considered in light of several limitations. First, because this sample is composed of young adults, it is not clear whether findings would generalize to older or younger samples. Second, the present sample is not a clinical sample; it is possible that the relation between religious coping and anxiety would be different among people suffering from clinical anxiety disorders. Third, participants were not asked to answer coping questions in the context of a specific stressor. It is possible that the relation between religious coping and anxiety might be different if participants were asked to respond to a recent stressor, or even a shared stressor, such as a natural disaster or act of terrorism. Thus, this study focuses on the relations of stable, enduring levels of anxiety symptoms with the typical uses of positive and negative religious coping endorsed by a sample of normal young adults. Last, the relatively small sample size [$N = 221$] and recruiting subjects from different settings should also be noted.

CONCLUSIONS

The results of this study indicate that European Americans report more anxiety, and that African Americans report typically using positive religious coping more often, and negative religious coping less often, than European Americans. Based on the results of the current findings, there appears to be no protective role, related to anxiety symptoms, for deliberate uses of religion to cope with stressors among African Americans. It is possible, however, that evidence of such benefits could emerge from investigations into the extent to which African Americans endorse a pervasive approach to everyday life in which religion plays a central role in identity. These findings challenge assumptions about the universal benefits of positive religious coping and suggest that new models are needed to understand both anxiety and religious coping in African American populations.

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