Published in final edited form as:
J Immigr Minor Health. 2013 October ; 15(5): 903–909. doi:10.1007/s10903-012-9693-4.

Religious Participation and DSM IV Major Depressive Disorder among Black Caribbeans in the United States

Robert Joseph Taylor,
School of Social Work, Program for Research on Black Americans, Institute for Social Research, University of Michigan, Ann Arbor

Linda M. Chatters, and
School of Social Work, School of Public Health, Program for Research on Black Americans, Institute for Social Research, University of Michigan, Ann Arbor

Ann W. Nguyen
School of Social Work, Department of Psychology, University of Michigan, Ann Arbor

Introduction

Depression is a major mental health concern that affects all segments of the U.S. population[1] with significant health (e.g., increased rates of morbidity and mortality) and social burdens (e.g., lost productivity and health care expenditures). Despite advances in depression research, the role of social and cultural factors in the etiology of major depressive disorder (MDD) within racial minority groups remains only partially understood. Paradoxically, despite their lower social status, higher rates of poverty[1] and exposure to social stressors, the Black population has lower rates of both MDD[2, 3] and suicide[4] as compared to non-Hispanic Whites. Further, recent research on mental health profiles of U.S. Blacks[3, 5] indicates that ethnic diversity *within* this population (i.e., Blacks of Caribbean descent) is significant and consequential for mental health outcomes.

Presently, Blacks of Caribbean descent comprise roughly 4% of the U.S. Black population overall and up to 25% in large metropolitan areas of the Northeast and Southeast[6]. Although similar to the native African American population in several respects, Black Caribbeans are also distinct on various health and social characteristics[5]. With respect to MDD, Caribbean Blacks (12.9%) and African Americans (10.4%) have lower lifetime MDD prevalence estimates than non-Hispanic Whites (17.9%), but higher levels of chronicity and rated severity of MDD[5]. Further, for those meeting criteria for MDD, both African Americans and Caribbean Blacks were less likely than whites to receive treatment. Given differences in prevalence, severity, and treatment of MDD, research is needed that examines the role of unique cultural practices and institutions (e.g., religious involvement) as potential protective factors for MDD among Blacks of Caribbean descent[3].

Studies of religious participation indicate that both African Americans and Caribbean Blacks have high levels of involvement as compared to non-Hispanic Whites[7–9]. However, Black Caribbeans differ from native African Americans in denominational affiliations, rates of organizational religious participation and use of religious help-seeking[7, 8]. Black Caribbean churches and religion have had a significant role in the physical and psychosocial well-being

Address Communications to: Robert Joseph Taylor, School of Social Work, 1080 South University Avenue, Ann Arbor, MI, 48109. Phone: (734) 763-0411; FAX: (734) 763-3372. rjtaylor@umich.edu.

There is no conflict of interest with any of the authors with this manuscript.

of Caribbean immigrants by helping immigrants in adapting to life in the U.S.[10, 11], providing material, social and psychological assistance, fostering ethnic awareness and identity, and mediating the broader racial, social, and cultural environments for immigrants[10, 12]. However, no systematic attention has focused on religious factors in relation to mental health issues within this group.

Prior research[13, 14] indicates that religion is protective against the onset of depression and is associated with higher likelihood of recovery and shorter time to recovery[15]. Research also indicates that religious participation is inversely associated with depression and depressive symptoms[16–18].Although there is a limited body of research on the mental health of Black Caribbeans there is no available research that we know of on religion and MDD among this population. In a related area of research, religious participation was inversely associated with suicidal behavior among Black Caribbeans[19]. In particular, religious service attendance and the religious coping variable “Look to God for Strength” were inversely associated with both suicidal attempts and suicidal ideation. Subjective religiosity was also inversely associated with suicidal ideation.

The present study examines religious correlates of 12-month and lifetime prevalence of major depressive disorder among Black Caribbean adults who are respondents from the National Survey of American Life (NSAL). Diverse measures of religious involvement are assessed including organizational, non-organizational and subjective religious items. This investigation is an important addition to research on Black Caribbean mental health and religion that addresses questions concerning how religious factors are related to the occurrence of major depression within this population group.

METHODS

Sample

The National Survey of American Life: Coping with Stress in the 21st Century (NSAL) was collected by the Program for Research on Black Americans at the University of Michigan‘s Institute for Social Research. The field work for the study was completed by the Institute for Social Research‘s Survey Research Center, in cooperation with the Program for Research on Black Americans. The NSAL sample has a national multi-stage probability design which consists of 64 primary sampling units (PSUs). Fifty-six of these primary areas overlap substantially with existing Survey Research Center’s National Sample primary areas.

The NSAL includes the first major probability sample of Black Caribbeans. For the purposes of this study, Black Caribbeans are defined as persons who trace their ethnic heritage to a Caribbean country, but who now reside in the United States, are racially classified as Black, and who are English-speaking (but may also speak another language). In both the African American and Black Caribbean samples, it was necessary for respondents to self-identify their race as black. Those self-identifying as black were included in the Black Caribbean sample if they: a) answered affirmatively when asked if they were of West Indian or Caribbean descent, b) said they were from a country included on a list of Caribbean area countries presented by the interviewers, or c) indicated that their parents or grandparents were born in a Caribbean area country.

The data collection was conducted from February 2001 to June 2003. The interviews were administered face-to-face and conducted within respondents‘ homes; respondents were compensated for their time. A total of 6,082 face-to-face interviews were conducted with persons aged 18 or older, including 3,570 African Americans, 891 non-Hispanic Whites, and 1,621 Blacks of Caribbean descent. After listwise deletion of cases, the analytic sample for this paper is 1,569 Black Caribbeans. The overall response rate was 72.3%. The response

rate was 77.7% for Black Caribbeans. Final response rates for the NSAL two-phase sample designs were computed using the American Association of Public Opinion Research (guidelines (for Response Rate 3 samples)[20] (see Jackson et al.[21] for a more detailed discussion of the NSAL sample). The NSAL data collection was approved by the University of Michigan Institutional Review Board.

Measures

Dependent Variable—The DSM-IV World Mental Health Composite International Diagnostic Interview (WMH-CIDI), a fully structured diagnostic interview, was used to assess both 12-month and lifetime major depressive disorder (MDD). The mental disorders sections used for NSAL are slightly modified versions of those developed for the World Mental Health project initiated in 2000[22] and the instrument used in the National Comorbidity Survey-Replication (NCS-R)[23].

Independent Variables

Religious Involvement: Measures of organizational, nonorganizational, and subjective religious participation, religious coping, and religious denomination are investigated in this analysis. Organizational religious participation, measured by frequency of service attendance, combines two items—frequency of attendance and whether or not the respondent attended services since the age of 18. The resulting categories are: attend nearly everyday, attend at least once a week, a few times a month, a few times a year, less than once a year and (except for weddings and funerals) never attended services since the age of 18. Four measures of nonorganizational religious participation are used in this analysis: reading religious books or other religious materials, watching religious television programs, listening to religious radio programs on the radio, and prayer. Respondents were asked how often they engaged in these activities (i.e., nearly everyday, at least once a week, a few times a month, at least once a month, a few times a year or never), which ranged from 6 for nearly everyday to 1 for never.

Subjective religiosity is measured by an item assessing respondents' self-ratings of religiosity: "How religious would you say you are?" This item had 4 categories ranging from 4 (very religious) to 1 (not religious at all). Religious coping is assessed by two measures. The first question asks: "How important is prayer when you deal with stressful situations?" very important (4), fairly important (3), not too important (2), or not important at all (1). The second question reflects an overall orientation toward God as a resource and asks respondents' level of agreement with the following statement: "I look to God for strength, support, and guidance." Respondents indicate whether they: strongly agree (4), somewhat agree (3), somewhat disagree (2), or strongly disagree (1) with this statement.

Control Variables: Demographic variables used in this analysis include age, gender, education, family income and number of physical health problems. Missing data for family income and education were imputed using an iterative regression-based multiple imputation approach incorporating information about age, gender, region, race, employment status, marital status, home ownership, and nativity of household residents. Given known associations between mental and physical health status, number of physical health conditions is also included as a control variable. This was measured by reports by respondents of the number of doctor-diagnosed physical conditions. The distribution of the study variables is presented in Table 1.

Analysis Strategy

All percentages reported are weighted based on the distribution of African Americans and Black Caribbeans in the population. Bivariate cross-tabulations and means are presented to

illustrate the independent effect of each predictor on 12-month and lifetime MDD. Bivariate cross-tabulations are tested using the Rao-Scott χ^2 which is a complex design-corrected measure of association. An F means test is used for bivariate associations with continuous variables. For the multivariate analyses, logistic regression was used. Odds ratio estimates and 95% confidence intervals are presented. All analyses were conducted using SAS 9.13 which uses the Taylor expansion approximation technique for calculating the complex design-based estimates of variance. All statistical analyses accounted for the complex multistage clustered design of the NSAL sample, unequal probabilities of selection, nonresponse, and poststratification to calculate weighted, nationally representative population estimates and standard errors.

RESULTS

12 Month Major Depressive Disorder

Seven percent (7.74%, n=76) of Black Caribbeans met criteria for 12 month major depressive disorder. Bivariate analysis of the religious participation variables on 12 month MDD is presented in Table 2. Church attendance is the only variable that is significantly associated with 12 month MDD, but this relationship is non-linear. Respondents who reported that they attended religious services at least once per week and those respondents who never attended religious services were the least likely to have 12 month MDD. Multivariate analysis (Table 3) found that service attendance and the two religious coping variables were significantly associated with 12-month MDD. Compared to respondents who attended religious services at least once per week, those who attended religious services less than once per year, a few times per month, and nearly everyday, were significantly more likely to have 12-month major depressive disorder. The two religious coping variables were both inversely related to 12-month MDD.

Lifetime Major Depressive Disorder

Thirteen percent (13.52%, n=148) of Black Caribbeans had a major depressive disorder as some point in their lifetime. Bivariate analysis (Table 2) indicated that service attendance was the only religious participation variable significantly associated with lifetime MDD. Consistent with the analysis for 12-month MDD, respondents who attended religious services at least once per week and those who never attended religious services were the least likely to meet criteria for lifetime MDD. In the multivariate analysis (Table 3), frequency of service attendance, listening to religious programs, self-rated religiosity and the coping variable – looking to God for strength, were all significantly associated with lifetime MDD. Respondents who attended religious services less than once per year, a few times per year, a few times per month, and nearly everyday had greater likelihoods of having lifetime MDD than respondents who attended religious services at least once per week. Respondents who listened to religious radio programs were more likely to meet criteria for lifetime MDD (OR = 1.35, CI = 1.07 – 1.69), while those who had higher levels of self-rated religiosity and those who indicated that they were more likely to ‘Look to God for Strength’ were less likely to meet criteria for lifetime MDD.

Given the large number of religion variables in the regressions, we performed tests for multicollinearity. The Variance Inflation Factor, a commonly used test of multicollinearity between independent variables, was calculated. This supplementary analysis indicated that none of the Variance Inflation Factors reached the threshold of 10 (or the more stringent threshold of 4) which many researchers regard as a sign of severe or serious multicollinearity between independent variables[24].

DISCUSSION

Study findings confirmed the association between 12-month and lifetime MDD and a diverse group of religious participation factors within a national sample of Black Caribbean adults and controlling for established covariates of depression. Significant associations for organizational (i.e., service attendance) and non-organizational participation (i.e., religious radio), religious coping orientations, and religious self-characterizations are consistent with multidimensional frameworks of the association between religious involvement and depression. Service attendance was associated with both 12-month and lifetime MDD, which is consistent with prior research[13, 14] indicating that organizational participation is a robust and inverse correlate of depression (e.g., depressive symptoms, depression diagnoses). However, this analysis found that the relationship between service attendance and MDD was curvilinear; persons reporting both more (nearly everyday) and less frequent attendance were more likely to report 12-month and lifetime MDD, as compared to weekly attenders. Persons attending nearly everyday were 4 to 4.5 times more likely than weekly attenders to report MDD. Interestingly, those who never attended services were not significantly different from weekly attenders in reporting either 12-month or lifetime MDD. These findings indicate that, among Black Caribbeans, service attendance is associated with MDD in a curvilinear or U-shaped manner. This is consistent with several other studies in this field[25]. Previous research that assumes a linear association between attendance and MDD or measures service attendance as a dichotomous factor (i.e., never vs. at least once a year) potentially mispecifies the functional form of the relationship between attendance and outcomes and reduces variability in attendance, thus limiting the ability to detect effects[26].

Further, the finding that increased risk for MDD is associated with both infrequent and very frequent service attendance (nearly everyday) suggests the operation of different causal mechanisms in relation to MDD. Service attendance effects on depression have typically been viewed as a reflection of the protective effects of contact with religious communities that provide access to social resources (e.g., social support) that insulate people from stressors and/or moderate their impact[27, 28]. Presumably, attending at least once a week is indicative of active involvement and integration within religious settings that confers specific benefits and resources that are protective against depression. Further, weekly attendance provides opportunities to become better acquainted with individuals and their social circumstances and increases the likelihood that clergy and church members will recognize changes in behavior or mood of persons who may be at risk for MDD. These levels of integration and familiarity may be overlooked in persons who attend less frequently. Accordingly, attendance is assumed to have an inverse linear and protective or preventive effect in which higher levels of attendance are associated with lower rates of mental health problems.

However, an alternative model of religion's effect on mental health, the resource mobilization perspective, suggests that a serious challenge or threat is accompanied by an increase in religious participation as part of ongoing efforts to cope[29, 14]. For example, Ellison[30] found that non-organizational religious behaviors (i.e., prayer, reading religious materials and meditation) were positively associated with depressive symptoms among southern blacks and whites. Similarly, Ai et al.[31] found high rates of prayer among patients who had reported depression 1-month after coronary artery bypass graft. At 1 year post surgery, however, prayer was related to *lower* psychosocial distress. In the present study, high levels of service attendance among persons reporting MDD may reflect their efforts to mobilize resources (e.g., social support) as part of their coping strategies. Similarly, listening to religious radio was associated with greater likelihood of reporting 12-month and lifetime MDD, suggesting a comparable effort to engage these activities as part of one's coping efforts.

Interestingly, other non-organizational activities (religious reading, watching religious television and private prayer) were unrelated to MDD. Importantly, in contrast to previous findings[30], private prayer and reading religious materials were not associated with MDD. Further, persons who never attended services were not significantly different from weekly attenders in regards to 12-month or lifetime MDD, a finding that merits further study. Turning to religious coping and subjective religiosity, persons who looked to God for strength and viewed themselves as religious were less likely to meet criteria for 12-month and lifetime MDD; persons who said prayer was important in stressful situations were less likely to report 12-month MDD. The current study's findings are consistent with prior research indicating that religious coping orientations/strategies and self-characterizations as being religious have a salutary impact on a variety of health stressors and conditions[32, 14], including depression[31, 13]. Religious coping strategies and viewing oneself as religious may reflect psychosocial resources that: 1) help to reframe problems and effectively manage distress associated with life difficulties 2) bolster positive self-attributions (e.g., self-efficacy and competence), and/or 3) mediate the impact of stressors on depression[27, 13].

In conclusion, the findings of this study can be summarized as follows. Religious service attendance was associated with MDD in a curvilinear manner. Looking to God for strength was negatively associated with both 12 month and lifetime MDD. The importance of prayer during stressful situations was negatively associated with 12 month MDD and self-rated religiosity was negatively associated with lifetime MDD. Lastly, listening to religious programs was positively associated with lifetime MDD, a finding that was consistent with the resource mobilization perspective of religion and health.

Limitations

This study has several limitations. First, individuals who do not speak English (i.e., persons who only speak Spanish, Haitian-French, or Creole dialects) were not included in the sample. As a consequence, the study findings are not generalizable to these groups of Caribbean Blacks. Second, findings are not generalizable to segments of the population such as homeless and institutionalized individuals who were not represented in the sample. Third, given the cross-sectional nature of the data, causal inferences regarding the relationships between religious participation and MDD (i.e., protective effects, resource mobilization) are suggestive and await confirmation with prospective data.

Despite these limitations, the significant advantages of the sample and study variables provided the first opportunity to examine how diverse measures of religious participation and potential mechanisms/pathways of influence (i.e., resource mobilization and protective effects) were associated with major depressive disorder among a representative sample of Caribbean Blacks. Importantly, study findings indicating that religious radio, religious coping, and self-attributions of religiosity are all significant, coupled with evidence that service attendance has a curvilinear relationship with MDD, suggest several future areas of inquiry.

Acknowledgments

The data collection on which this study is based was supported by the National Institute of Mental Health (NIMH; U01-MH57716) with supplemental support from the Office of Behavioral and Social Science Research at the National Institutes of Health (NIH) and the University of Michigan. The preparation of this manuscript was supported by grants from the National Institute on Institute of Mental Health to Drs. Chatters and Taylor (R01-MH082807), R01-MH084963 to Dr. Chatters, and from the National Aging for Dr. Taylor (P30-AG15281).

References

1. National Center for Health Statistics: Health, United States. 2009: With Special Feature on Medical Technology. Hyattsville, MD: National Center for Health Statistics; 2010.
2. Centers for Disease Control and Prevention. Suicide rates among persons ages 65 years and older, by race/ethnicity and sex, United States, 2002–2006: national suicide statistics at a glance. Accessed March 4, 2011http://www.cdc.gov/violenceprevention/suicide/statistics/rates05.html Updated September 30, 2009.
3. Williams DR, Haile R, González HM, Neighbors H, Baser R, Jackson JS. The mental health of Black Caribbean immigrants: results from the National Survey of American Life. Am J Public Health. 2007b; 97:52–59. [PubMed: 17138909]
4. National Center for Health Statistics. Deaths: leading causes for 2006. National Vital Statistics Reports. 2010; 58:1–20. http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_14pdf.
5. Williams DR, Gonzalez HM, Neighbors H, et al. Prevalence and distribution of major depressive disorder in African Americans, Caribbean Blacks, and non-Hispanic Whites: results from the National Survey of American Life. Arch Gen Psychiatry. 2007a; 64:305–315. [PubMed: 17339519]
6. Logan, JR.; Deane, G. Black Diversity of Metropolitan America. Albany, NY: University at Albany, Lewis Mumford Center for Comparative Urban and Regional Research;
7. Chatters LM, Taylor RJ, Lincoln KD, Jackson JS. Religious coping among African Americans, Caribbean Blacks, and non-Hispanic Whites. J Community Psychol. 2008; 36:371–386. [PubMed: 21048887]
8. Chatters LM, Taylor RJ, Bullard KM, Jackson JS. Race and ethnic differences in religious involvement: African Americans, Caribbean Blacks and Non-Hispanic Whites. Ethn Racial Stud. 2009; 32:1143–1163. [PubMed: 20975850]
9. Taylor RJ, Chatters LM, Jackson JS. Religious and spiritual involvement among older African Americans, Caribbean Blacks and non-Hispanic Whites: findings from the National Survey of American Life. J Gerontol B Psychol Sci Soc Sci. 2007; 62:S238–S250. [PubMed: 17673537]
10. Bashi, V. Survival of the Knitted: Immigrant Social Networks in a Stratified World. Stanford, CA: Stanford University Press; 2007.
11. Warner, RS.; Wittner, JG. Gatherings in Diaspora: Religious Communities and the New Immigration. Philadelphia: Temple University Press; 1998.
12. Waters, MC. Black Identities: West Indian Immigrant Dreams and American Realities. New York: Russell Sage Foundation; 1999.
13. George, LK. Social factors, depression and aging. In: Binstock, RH.; George, LK., editors. Handbook of Aging and the Social Sciences. 7th ed. New York: Academic Press; 2011. p. 149-162.
14. Koenig, HG.; McCullough, ME.; Larson, DB. Handbook of Religion and Health. 1st ed. New York: Oxford University Press; 2001.
15. Koenig HG, George LK, Peterson BL. Religiosity and remission of depression in medically ill older patients. Am J Psychiatry. 1998; 155:536–542. [PubMed: 9546001]
16. Taylor, RJ.; Chatters, LM.; Levin, J. Religion in the Lives of African Americans: Social, Psychological, and Health Perspectives. Thousand Oaks: Sage; 2004.
17. Ellison CG, Flannelly KJ. Religious involvement and risk of major depression in a prospective nationwide study of African American Adults. J Nerv Ment Dis. 2009; 197:568–573. [PubMed: 19684492]
18. Chatters LM, Bullard KM, Taylor RJ, Woodward AT, Neighbors HW, Jackson JS. Religious participation and DSM-IV disorders among older African Americans: Findings from the National Survey of American Life (NSAL). Am J Geriatr Psychiatry. 2008; 16:957–965. [PubMed: 19038894]
19. Taylor RJ, Chatters LM, Joe S. Religious involvement and suicidal behavior among African Americans and Black Caribbeans. J Nerv Ment Dis. 2011; 199:478–486. [PubMed: 21716062]
20. American Association for Public Opinion Research. Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 4th edition. Lenexa, Kansas: AAPOR; 2006.

21. Jackson JS, Torres M, Caldwell CH, et al. The National Survey of American Life: a study of racial, ethnic and cultural influences on mental disorders and mental health. Int J Methods Psychiatr Res. 2004; 13:196–207. [PubMed: 15719528]
22. World Health Organization: the prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. JAMA. 2004; 291:2581–2590. [PubMed: 15173149]
23. Kessler RC, Ustun TB. The World Mental Health (WMH) survey initiative version of the World Health Organization (WHO) Composite International Diagnostic Interview (CIDI). Int J Methods Psychiatr Res. 2004; 13:93–121. [PubMed: 15297906]
24. O'Brien RM. A caution regarding rules of thumb for variance inflation factors. Qual Quant. 2007; 41:673–690.
25. Sternthal MJ, Williams DR, Musick MA, Buck AC. Depression, anxiety and religious life: a search for mediators. J Health Soc Behav. 2010; 51:343–359. [PubMed: 20943594]
26. Rasic D, Robinson JA, Bolton J, Bienvenu OJ, Sareen J. Longitudinal relationships of religious worship attendance and spirituality with major depression, anxiety disorders, and suicidal ideation and attempts: findings from the Baltimore epidemiologic catchment area study. J Psychiatr Res. 2011; 45:848–854. [PubMed: 21215973]
27. Ellison, CG. Religion, the life stress paradigm, and the study of depression. In: Levin, JS., editor. Religion in Aging and Health: Theoretical Foundations and Methodological Frontiers. Thousand Oaks, CA: Sage; 1994. p. 78-121.
28. Ellison CG, Taylor RJ. Turning to prayer: social and situational antecedents of religious coping among African Americans. Rev Relig Res. 1996; 38:111–131.
29. Ellison CG, Levin JS. The religion-health connection: evidence, theory, and future directions. Health Educ Behav. 1998; 25:700–720. [PubMed: 9813743]
30. Ellison CG. Race, religious involvement, and depressive symptomatology in a southeastern US community. Soc Sci Med. 1995; 40:1561–1572. [PubMed: 7667660]
31. Ai A, Dunkle R, Peterson C, Bolling SF. The role of private prayer in psychosocial recovery among midlife and aged patients following cardiac surgery. Gerontologist. 1998; 38:591–601. [PubMed: 9803647]
32. Bediako SM, Lattimer L, Haywood C Jr, Ratanawongsa N, Lanzkron S, Beach MC. Religious coping and hospital admissions among adults with sickle cell disease. J Behav Med. 2011; 34:120–127. [PubMed: 20812027]

Table 1

Distribution of Study Variables and Demographic Characteristics of the Sample

	%	N	Mean	S.D.	Range
Organizational Religiosity					
Church Attendance					
Never	6.97	148			
Less that Once Per Year	13.94	183			
Few Times Per Year	24.61	359			
Few Times Per Month	20.97	299			
At Least Once a Week	29.67	548			
Nearly Everyday	3.81	82			
Non-Organizational Religiosity					
Reading Religious Materials			4.19	0.60	1–6
Watch Religious Television			3.46	0.63	1–6
Listen to Religious Radio			3.26	0.70	1–6
Prayer			5.53	0.42	1–6
Subjective Religiosity					
Rated Religiosity			3.03	0.26	1–4
Religious Coping					
Importance of Prayer in Stressful Situations			3.80	0.19	1–4
Look to God for Strength			3.80	0.20	1–4
Age			40.27	5.77	18–94
Education			12.88	1.01	0–17
Income			47,044	15,190	0-484,000
Gender					
Male	50.87	643			
Female	49.13	978			
# of Chronic Health Conditions			1.04	0.55	0–13

Percents and N are presented for categorical variables and Means and Standard

Deviations are presented for continuous variables. Percents are weighted; frequencies are unweighted.

Table 2

Bivariate Analysis of Religious Involvement on 12 Month and Lifetime DSM–IV MDD Among Black Caribbeans

	12 Month		Lifetime	
	Yes	No	Yes	No
Organizational Religiosity				
Church Attendance				
Never	2.84	97.16	6.84	93.16
Less that Once Per Year	11.14	88.86	19.94	80.06
Few Times Per Year	6.60	93.40	15.43	84.57
Few Times Per Month	14.89	85.11	20.19	79.81
At Least Once a Week	2.57	97.43	4.77	95.23
Nearly Everyday	10.03	89.97	18.42	81.58
Rao-Scott	11.19 *		15.39 **	
Non-Organizational Religiosity				
Reading Religious Materials	4.11	4.23	4.08	4.24
F	0.05		0.30	
Watch Religious Television	3.42	3.49	3.18	3.53
F	0.02		0.84	
Listen to Religious Radio	3.43	3.27	3.52	3.24
F	0.17		1.32	
Prayer	5.21	5.54	5.38	5.54
F	0.35		0.32	
Subjective Religiosity				
Self-Rated Religiosity	2.78	3.06	2.79	3.08
F	1.04		3.04	
Religious Coping				
Importance of Prayer in Stressful Situations	3.59	3.83	3.68	3.83
F	0.55		0.87	
Look to God for Strength	3.52	3.83	3.61	3.84
F	0.90		1.48	
N	1569		1569	

Percentages and Rao-Scott Chi-Squares are presented for Cross-Tabulations of Categorical Variables; Means and F-tests are presented for Continuous Variables.

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

Table 3

Logistic Regression Analysis of Religious Involvement on 12 Month and Lifetime DSM-IV MDD among Black Caribbeans (n=1,569).

	12 Month			Lifetime		
	OR	**95% CI**	**P**	**OR**	**95% CI**	**P**
Organizational Religiosity						
Service Attendance						
Never	0.70	.11–4.64	.715	1.09	.30–3.96	.894
Less than Once Per Year	3.83	1.69–8.67	.001	4.37	1.68–11.36	.002
Few Times Per Year	2.59	.67–10.04	.168	3.54	1.74–7.22	.000
Few Times Per Month	5.33	1.60–17.68	.006	4.13	1.73–9.84	.001
At Least Once a Week[a]	--	--	--	--	--	--
Nearly Everyday	3.94	1.53–10.11	.004	4.66	2.01–10.80	.000
Non-Organizational Religiosity						
Reading Religious Materials	1.29	.87–1.91	.200	1.19	.89–1.59	.225
Watch Religious Television Programs	0.98	.69–1.40	.933	0.85	.65–1.11	.233
Listen to Religious Radio Programs	1.19	.92–1.55	.176	1.35	1.07–1.69	.010
Prayer	1.02	.69–1.50	.909	1.20	.91–1.59	.191
Subjective Religiosity						
Self-Rated Religiosity	0.69	.36–1.30	.257	0.62	.42–.910	.015
Religious Coping						
Importance of Prayer in Stressful Situations	0.62	.40–0.94	.025	0.71	.43–1.17	.181
Look to God for Strength	0.59	.36–0.97	.039	0.57	.32–.999	.049

OR=Odds Ratio, CI=Confidence Interval, Analysis controls for age, gender, education, income and the number of chronic health conditions.