Ethnic Differences in Mental Illness and Mental Health Service Use Among Black Fathers

Otima Doyle, PhD, Sean Joe, PhD, Cleopatra H. Caldwell, PhD

Objectives. We have presented nationally representative data on the prevalence and correlates of mental illness and mental health service use among African American and Caribbean Black (US-born and foreign-born) fathers in the United States.

Methods. We have reported national estimates of lifetime and 12-month prevalence rates of mental illness, correlates, and service use among African American (n = 1254) and Caribbean Black (n = 633) fathers using data from the National Survey of American Life, a national household survey of Black Americans. We used bivariate cross-tabulations and Cox proportional hazards regression approaches and adjusted for the National Survey of American Life's complex sample design.

Results. The prevalence of mental illness, sociodemographic correlates, and service use among Black fathers varied by ethnicity and nativity. US-born Caribbean Black fathers had alarmingly high rates of most disorders, including depression, anxiety, and substance disorders. Mental health service use was particularly low for African American and foreign-born Caribbean Black fathers.

Conclusions. These results demonstrate the need for more research on the causes and consequences of mental illness and the help-seeking behavior of ethnically diverse Black fathers. (*Am J Public Health.* 2012;102:S222–S231. doi: 10.2105/AJPH.2011.300446)

Limited empirical evidence exists regarding national prevalence rates of mental illness, the correlates of such illness, and service use among fathers.[1] Although scarce, community-based studies have shown that rates of particular mental illnesses differ between fathers and nonfathers,[1] and some evidence has been found for race-based mental health disparities among fathers. For example, the rate of 12-month depressive symptoms is 1.5 times higher among urban Black fathers than among the general population.[2] Urban Black fathers' rates of comorbid anxiety and substance use are also disproportionate.[2] Fathers who experience a mental illness may have impairments in parenting practices[3–6] that place their children at increased risk for mental illness and poor functioning.[7–19] Therefore, more research is needed on fathers' mental health, particularly among racial and ethnic populations who have known risk factors for mental disorders.

Black fathers are more likely than are fathers of different racial or ethnic backgrounds to experience adverse social circumstances associated with mental illness, such as high unemployment levels, discrimination, poverty,[20–24] and disruptions in family functioning (e.g., separations).[25,26] The nonmarital birth rate is high among Blacks,[27,28] and many Black fathers are nonresidential. However, in the United States Black fathers are just as involved with their children as, and sometimes more involved than, White and Hispanic fathers, even when they are no longer romantically involved with the child's mother.[29–31] Among nonresidential Black fathers, depressive symptoms are associated with less contact and closeness, lower monitoring, and increased conflict with their children.[32] Given the centrality of the provider role among Black fathers,[33,34] their ability to provide for their children may be impeded by symptoms of mental illness, and their inability may exacerbate those symptoms.

Despite noted racial disparities among fathers, little is known about differences in rate of mental illness and patterns of service use among Black fathers. The existing literature has focused primarily on depressive symptoms and has been based on information collected from special populations (e.g., nonresidential fathers, low-income fathers). Moreover, little nationally representative information has been available regarding disparities among Black fathers based on ethnic heterogeneity (e.g., African American vs Caribbean Black fathers). We have contributed to the sparse yet growing mental health profile of Black fathers by presenting nationally representative data from the National Survey of American Life (NSAL) on the prevalence of a range of mental illnesses, prevalence of mental health service use, and correlates of mental illness among African American and Caribbean Black (US-born and foreign-born) fathers. Creating a mental health profile of US fathers is consistent with the growing interest in men's physical and psychological health and the role of fathers in family life. Fatherhood status may either increase or decrease risk for mental illness among men,[35] as evidenced by community studies.[1] However, to our knowledge no existing study has provided national estimates of the prevalence of mental illness, service use, and the correlates of mental illness among fathers.

METHODS

Participants were drawn from the NSAL,[36] a nationally representative household survey of African Americans and Blacks of Caribbean descent (Caribbean Blacks).[37] The NSAL is the most comprehensive and detailed study of mental disorders and the mental health of Americans of African descent ever completed by the Program for Research on Black Americans at the University of Michigan's Institute for Social Research and is a part of the National Institute of Mental Health's (NIMH) Collaborative Psychiatric Epidemiology Surveys (CPES).Our subsample consisted of African American (n = 1254), US-born Caribbean Black (n = 175), and foreign-born Caribbean Black (n = 458) fathers.

Building on other studies of Black men,[38–41] we broadly defined fatherhood as having a living biological child (65% of participants) and nonbiological children whom participants had raised for at least 5 years (e.g., stepchild, adopted child, or other; 35% of participants). Data were collected from February 2001 to June 2003. We conducted the interviews face to face in respondents' homes, and respondents were compensated $50 for their time. The NSAL study was approved by the University of Michigan's institutional review board.

Measures

Mental illness. We assessed risks for *Diagnostic and Statistical Manual of Mental Disorders,* 4th ed. (DSM-IV)[42] mental disorders on the basis of the gold-standard measure for psychiatric epidemiological studies, the World Mental Health Composite International Diagnostic Interview. Its psychometric properties have been documented elsewhere.[36,37,43,44] We used this fully structured, lay-administered diagnostic interview to assess for a wide range of serious mental disorders, including mood disorders, anxiety disorders, substance disorders, disorders usually diagnosed in childhood, and eating disorders.

Mental health severity. Our measure of mental health severity (serious, moderate, mild, none), similar to those used in previous studies,[44,45] was based on an expanded version of the Sheehan Disability Scale.[46] We determined mental health severity for cases with at least one 12-month disorder.[47] Those classified as seriously ill met 1 or more of the following criteria:

1. said "yes" to at least 1 of the nonaffective psychosis screening questions and had been treated for psychosis,
2. met criteria for bipolar I or II,
3. met criteria for 12-month intermittant explosive disorder,
4. had a serious suicide attempt in the past 12 months,
5. had a score lower than 50 on the Global Assessment of Function as assessed during the Clinical Reappraisal Study,[48]
6. had substance dependence with severe role impairment as defined by substance-specific impairment questions, or
7. had a score of 7 to 10 on the Sheehan Disability Scale.[46]

We considered individuals not classified as seriously ill to be moderately ill if they had suicidal ideation, gesture, or plan; a Global Assessment of Function score between 51 and 60; substance dependence without severe role impairment; or moderate role impairment in the presence of a mental disorder. We defined all remaining cases who had a 12-month mental disorder or 12-month substance abuse as being mildly ill. Those who did not meet 12-month criteria for any disorder were defined as not being ill and were not included in the severity analyses.

Treatment of mental illness. We also examined respondents' treatment experiences for mental disorders in the past 12 months, including receipt of treatment from a mental health sector (e.g., social workers, psychiatrists, hotlines), a general medical sector (e.g., general and specialized practitioners, family doctors, nurses, other health professionals), and a non–health care sector. Services in the non–health care sector included human services (e.g., counselors and social workers seen in non–mental health settings, religious and spiritual advisors) and complementary or alternative medicine (e.g., herbalists, chiropractors, spiritualists, self-help groups, Internet support groups). We defined "any care" as any mental health, medical, or non–health sector care.

Control variables. The control variables included in this study were sociodemographic correlates such as age, employment status, years of education completed, household income, marital status, nativity, and geographic region. In addition, we included body mass index (defined as weight in kilograms divided by the square of height in meters) as a physical health control variable.

Statistical Analysis

We weighted all analyses to be nationally representative of the populations and subgroups of interest and conducted them using SAS version 9.1.3 (SAS Institute, Cary, NC).[49] We used bivariate cross-tabulations to calculate the prevalence of mental illness and mental health service use. In all of the analyses, we used procedures to properly adjust standard errors, confidence intervals, and significance tests for the complex sample design of the National Survey of American Life.

The χ^2 and corresponding P values from these cross-tabulations are based on the Rao-Scott χ^2 test, a complex design-adjusted version of the Pearson χ^2 test.[49] We implemented a modified version of Balanced Repeated Replications[50] in a SAS macro to estimate the standard errors and confidence intervals of the Cox proportional hazards regression coefficients. We exponentiated these risk coefficients and their 95% confidence intervals (CIs), and we report them as adjusted odds ratios (AORs) for ease of interpretation. Reports of group differences were based on estimates adjusting for the control variables noted earlier. Reported prevalence rates were unadjusted. We calculated the multivariate χ^2 tests and corresponding P values associated with these regression models using the design-based variance–covariance matrices of the coefficients.

RESULTS

We found significant differences between African American and Caribbean Black fathers (Table 1). Approximately half of the fathers in each ethnic group completed more than a high school education, with the exception of African American fathers, of whom slightly fewer than 40% completed more than high school ($F[2.97, 169.48] = 2.78$; $P < .05$). More African American fathers (29.3%) than US-born (27.0%) and foreign-born (13.2%) Caribbean Black fathers were in the higher obesity classes. More US-born Caribbean Black fathers (44%; $F[3.51, 200.32] = 3.36$; $P < .05$) than foreign-born Caribbean black fathers (37.0%) and African American fathers (25.5%) reported earning more than $55 000. Approximately 50% of African American fathers and most foreign-born Caribbean Black fathers (69.8%) were either married or cohabitating, compared with 40% of US-born Caribbean Black fathers. African American and foreign-born Caribbean Black fathers were relatively evenly distributed across age ranges, whereas most US-born Caribbean Black fathers (52.7%) were aged 18 to 29 years. At least 70% of fathers in each ethnic category were employed, with foreign-born Caribbean Blacks reporting the highest employment level (80%).

TABLE 1—Sociodemographic Weighted Distribution by Father's Race and Ethnicity: National Survey of American Life, 2001–2003

Characteristic	African American (n = 1254), % (No.)[a]	US-Born Caribbean Black (n = 175), % (No.)[a]	Foreign-Born Caribbean Black (n = 458), % (No.)[a]	*F* (numerator-df, denominator-df)
Age, y				*F* (3.60, 205.08) = 3.52*
18–29	24.4 (274)	52.7 (86)	25.2 (99)	
30–44	37.0 (444)	26.3 (50)	30.5 (164)	
45–59	24.0 (321)	12.0 (22)	25.2 (111)	
≥ 60	14.6 (215)	9.0 (17)	19.0 (84)	
Work status				*F* (2.97, 169.48) = 1.52
Employed	71.4 (879)	76.0 (128)	80.0 (353)	
Unemployed	8.9 (104)	8.78 (23)	7.1 (36)	
Not in labor force	19.7 (271)	15.2 (24)	12.9 (69)	
Education, y				*F* (3.52, 200.78) = 2.78*
0–11	23.1 (314)	28.0 (25)	18.6 (108)	
12	39.7 (494)	21.6 (63)	33.6 (127)	
13–15	23.1 (283)	23.0 (52)	21.4 (115)	
≥ 16	14.0 (163)	27.5 (35)	26.4 (108)	
Household income, $				*F* (3.51, 200.32) = 3.36*
0–17 999	23.3 (343)	19.6 (28)	17.4 (86)	
18 000–31 999	23.2 (303)	21.4 (38)	21.5 (108)	
32 000–54 999	28.0 (346)	15.0 (44)	24.2 (128)	
≥ 55 000	25.5 (262)	44.0 (65)	37.0 (136)	
Marital status				*F* (2.81, 160.42) = 13.1*
Married or cohabitating	49.4 (546)	40.0 (68)	69.8 (263)	
Divorced, separated, or widowed	20.0 (318)	8.7 (21)	11.5 (83)	
Never married	30.6 (390)	51.4 (86)	18.7 (112)	
Nativity				*F* (1.89, 107.55) = 219*
US-born	96.7 (1 209)	100 (175)	0 (0)	
Foreign-born	3.3 (33)	0 (0)	100 (458)	
Region				*F* (2.73, 155.34) = 13.3*
Northeast	15.5 (147)	45.2 (127)	50.2 (284)	
Midwest	17.1 (196)	7.2 (2)	3.1 (3)	
South	57.0 (814)	17.0 (39)	37.3 (167)	
West	10.4 (97)	30.6 (7)	9.6 (4)	
Body mass index				*F* (3.03, 172.84) = 2.86*
Underweight or healthy weight (< 24.9 kg/m^2)	30.5 (366)	35.0 (67)	41.8 (174)	
Overweight (25.0–29.9 kg/m^2)	40.3 (495)	38.0 (56)	45.0 (215)	
Obesity classes 1-3 (≥ 30.0 kg/m^2)	29.3 (339)	27.0 (48)	13.2 (60)	

Note. Owing to missing data on nativity and body mass index, subgroup totals do not sum to sample sizes.
[a]Percentage is weighted; sample size is unweighted.
*$P < .05$.

Lifetime Prevalence of Mental Disorders

African American fathers reported lower rates of mental disorders than US-born Caribbean Blacks in 4 of 5 disorder categories (Table 2). African American fathers had lower rates of anxiety (13.6%; $P < .05$) and substance disorders (18.0%; $P < .05$) than did US-born Caribbean Black fathers (30.6% and 32.9%, respectively). African American fathers also had a lower prevalence of comorbidity between 2 disorders (8.7%) than did US-born Caribbean Black fathers (14.9%). US-born Caribbean Black fathers, however, reported a 20.2% prevalence of major depressive disorder (MDD), which was almost 3 times the prevalence among African American fathers (6.9%). They also reported more panic, obsessive–compulsive, posttraumatic stress, and alcohol abuse disorders than did African American fathers.

With regard to nativity, US-born Caribbean Black fathers had higher rates of any anxiety (30.6%; $P < .05$) and any substance disorder (32.9%) than did foreign-born Caribbean Black fathers (10.3% and 4.6%, respectively). US-born Caribbean Black fathers also had a higher prevalence of comorbidity for any 2 disorders

TABLE 2—Unadjusted Lifetime Prevalence of Mental Health Disorders by Father's Race and Ethnicity: National Survey of American Life, 2001–2003

Mental Disorder	Lifetime[a]		
	African American, % (95% CI)	US-Born Caribbean Black, % (95% CI)	Foreign-Born Caribbean Black, % (95% CI)
Anxiety disorders			
Panic disorder	2.4[d] (1.6, 3.8)	11.6[b] (4.2, 28.0)	1.8 (0.9, 3.5)
Agoraphobia without panic	2.0 (1.1, 3.6)	NA	2.6 (1.0, 6.5)
Social phobia	6.7[c] (5.4, 8.3)	8.8 (4.3, 17.3)	2.9 (1.6, 5.0)
Generalized anxiety disorder	3.1 (2.0, 4.7)	4.4 (1.1, 15.7)	2.2 (1.1, 4.3)
Obsessive-compulsive disorder	1.6[d] (1.0, 2.6)	6.1[b] (1.7, 19.1)	1.1 (0.4, 2.9)
Posttraumatic stress disorder	5.0[d] (3.8, 6.6)	15.9 (5.5, 38.3)	4.5 (1.6, 12.1)
Any anxiety disorder (of 6)	13.6[d] (11.3, 16.3)	30.6[b] (18.8, 45.6)	10.3 (6.2, 16.6)
Mood disorders			
Major depressive disorder with hierarchy	6.9[d] (5.6, 8.6)	20.2 (8.7, 40.3)	8.3 (3.8, 17.2)
Dysthymia	2.6 (1.8, 3.6)	8.0 (1.9, 28.2)	1.8 (0.7, 4.9)
Bipolar I–II disorder	2.2 (1.3, 3.9)	0.9 (0.3, 2.8)	1.1 (0.3, 3.7)
Any mood disorder	9.6 (7.7, 11.9)	21.2 (9.6, 40.7)	9.6 (4.8, 18.3)
Substance disorders			
Alcohol abuse	15.5[c,d] (13.4, 17.9)	32.4[b] (22.0, 44.8)	4.0 (1.5, 10.2)
Alcohol dependence	5.5[c] (4.2, 7.1)	10.5[b] (3.2, 29.8)	0.1 (0.0, 0.6)
Drug abuse	10.3[c] (8.4, 12.5)	19.5[b] (8.3, 39.3)	1.1 (0.5, 2.4)
Drug dependence	4.2[c] (2.9, 6.1)	6.9[b] (2.6, 17.1)	0.3 (0.1, 1.1)
Any substance disorder	18.0[c,d] (15.7, 20.6)	32.9[b] (22.6, 45.2)	4.6 (1.9, 10.6)
Disorders usually first diagnosed in childhood			
Separation anxiety disorder	3.9[3] (2.8, 5.5)	7.1 (2.7, 17.1)	7.9 (4.8, 12.6)
Oppositional defiant disorder	9.8 (7.8, 12.3)	8.2 (5.8, 11.6)	5.4 (2.9, 9.9)
Conduct disorder	14.2 (11.2, 17.9)	25.3[b] (11.8, 46.1)	7.0 (3.4, 13.9)
Attention-deficit disorder	5.3 (3.5, 7.8)	8.6 (3.5, 20.0)	6.5 (2.2, 17.6)
Any childhood disorder	23.8 (19.6, 28.6)	32.5 (16.5, 54.0)	24.7 (18.8, 31.7)
Eating disorders			
Anorexia	0.2 (0.1, 0.9)	NA	NA
Bulimia	1.0 (0.5, 2.0)	0.9 (0.2, 3.8)	0.5 (0.2, 1.8)
Any eating disorder (with binge)	1.1 (0.5, 2.3)	0.9 (0.2, 3.8)	0.5 (0.2, 1.8)
Any disorder, No. (of 17)			
1	18.9 (16.0, 22.2)	18.9 (10.8, 31.0)	15.3 (9.1, 24.8)
2	8.7[d] (6.7, 11.3)	14.9[b] (8.0, 25.9)	7.2 (3.5, 14.3)
≥ 3	12.8 (9.9, 16.4)	23.9 (10.4, 46.0)	10.0 (2.3, 34.5)

Note. CI = confidence interval; NA = CI was not calculated. We measured obsessive–compulsive disorder using the Composite International Diagnostic Interview Diagnostic and Statistical Manual of Mental Disorders Short Form. Bipolar I–II disorder represents the proportion of respondents who answered yes regarding either bipolar I or II. Within the category of disorders usually first diagnosed in childhood, respondents 45 years and older were not asked questions regarding oppositional defiant disorder, conduct disorder, or attention-deficit disorder. Prevalence of binge eating disorder is included in the any eating disorder category. In the any disorder analysis (any 1, 2, or 3 or more disorders) the 3 eating disorder variables were dropped because of the low prevalence.
[a]Reports of group differences were based on estimates adjusting for respondents' age, work status, education, family income, marital status, and body mass index. Reported prevalence rates, however, are unadjusted.
[b]Represents a significant contrast at the .05 level between US-born Caribbean Black and foreign-born Caribbean Black fathers.
[c]Represents a significant contrast at .05 level between African American and foreign-born Caribbean Black fathers.
[d]Represents a significant contrast at .05 level between African American and US-born Caribbean Black fathers.

(14.9%) than did foreign-born Caribbean Black fathers (7.2%). The prevalence of panic, obsessive–compulsive, conduct, and all substance disorders was higher among US-born Caribbean Black fathers than among foreign-born Caribbean Black fathers. The difference in prevalence rates for the substance disorders ranged from 8.1 times higher for alcohol abuse to 105 times higher for alcohol dependence.

12-Month Prevalence of Mental Disorders

The prevalence of any 12-month disorder was lower among African American fathers (7.0%) than among US-born Caribbean Black

TABLE 3—Unadjusted 12-Month Prevalence of Mental Health Disorders by Father's Race and Ethnicity: National Survey of American Life, 2001–2003

Mental Disorder	12-Month Prevalence[a]		
	African American, % (95% CI)	US-Born Caribbean Black, % (95% CI)	Foreign-Born Caribbean Black, % (95% CI)
Anxiety disorders			
Panic disorder	1.4[c] (0.8, 2.4)	9.8[b] (2.0, 36.5)	1.0 (0.4, 2.7)
Agoraphobia without panic	1.3 (0.7, 2.2)	NA	0.6 (0.1, 4.3)
Social phobia	3.4 (2.5, 4.6)	5.3 (1.3, 19.0)	2.2 (1.0, 4.6)
Generalized anxiety disorder	1.5 (0.8, 2.8)	3.4 (0.6, 17.1)	1.7 (0.6, 4.2)
Obsessive–compulsive disorder	1.4[d] (0.8, 2.4)	6.1[b] (1.7, 19.1)	0.7 (0.2, 2.3)
Posttraumatic stress disorder	2.4[d] (1.6, 3.6)	14.5 (5.2, 34.2)	3.1 (0.8, 11.5)
Any anxiety disorder (of 5)	7.1[d] (5.4, 9.2)	23.2[b] (11.9, 40.5)	6.3 (3.1, 12.4)
Mood disorders			
Major depressive disorder with hierarchy	3.1[d] (2.2, 4.3)	15.9 (6.2, 34.9)	4.5 (2.1, 9.5)
Dysthymia	1.8 (1.1, 2.9)	7.6 (1.6, 29.0)	1.0 (0.2, 4.7)
Bipolar I–II disorder	1.6[d] (0.8, 3.2)	0.2 (0.1, 1.1)	1.0 (0.3, 3.6)
Any mood disorder	5.0[d] (3.7, 6.9)	16.2 (6.5, 35.0)	5.5 (2.8, 10.6)
Substance disorders			
Alcohol abuse	3.6 (2.5, 5.1)	13.9 (3.5, 41.7)	NA
Alcohol dependence	1.9[c] (1.1, 3.1)	5.1[b] (1.2, 19.3)	0.1 (0.0, 0.6)
Drug abuse	1.6[c,d] (1.0, 2.8)	8.5[b] (2.3, 27.4)	0.2 (0.0, 1.0)
Drug dependence	1.2 (0.6, 2.3)	0.8 (0.2, 2.7)	NA
Any substance disorder	4.3[c] (3.1, 6.0)	15.0[b] (4.4, 40.7)	0.3 (0.1, 1.0)
Disorders usually first diagnosed in childhood			
Separation anxiety disorder	0.3[c,d] (0.2, 0.5)	5.2 (1.2, 20.4)	2.1 (0.3, 12.6)
Oppositional defiant disorder	0.7 (0.3, 2.0)	0.6 (0.1, 5.0)	1.7 (0.6, 4.6)
Conduct disorder	1.3 (0.6, 2.7)	2.6 (0.8, 8.0)	0.2 (0.0, 1.7)
Attention-deficit disorder	2.9 (1.8, 4.8)	7.0 (2.0, 21.7)	4.5 (1.1, 16.7)
Any childhood disorder	4.4 (2.9, 6.6)	9.6 (4.0, 21.3)	5.9 (1.9, 16.7)
Eating disorders			
Anorexia	0.1 (0.0, 0.9)	NA	NA
Bulimia	0.3 (0.1, 0.9)	0.7 (0.1, 3.8)	0.3 (0.1, 1.2)
Any eating disorder (with bingeing)	0.3 (0.1, 0.9)	0.7 (0.1, 3.8)	0.3 (0.1, 1.2)
Any disorder, No. (of 17)			
1	7.0[d] (5.2, 9.5)	24.6[b] (18.2, 32.3)	10.3 (6.0, 17.2)
2	3.6[d] (2.4, 5.4)	1.5 (0.6, 3.7)	4.8 (0.9, 22.2)
≥ 3	4.0 (2.3, 6.9)	16.0[b] (3.5, 50.0)	0.8 (0.2, 3.3)

Note. CI = confidence interval; NA = CI was not calculated. Obsessive–compulsive disorder was measured using the Composite International Diagnostic Interview Diagnostic and Statistical Manual of Mental Disorders Short Form. Bipolar I–II disorder represents proportion of respondents who answered yes regarding either bipolar I or II. Within the category of disorders usually first diagnosed in childhood, respondents 45 years or older were not asked questions regarding oppositional defiant disorder, conduct disorder, or attention-deficit disorder. 12-month adult separation anxiety was not assessed. Prevalence of binge eating disorder was included in the any eating disorder category. In the any disorder analysis (any 1, 2, or ≥ 3 disorders) the 3 eating disorder variables were dropped because of the low prevalence.

[a]Reports of group differences are based on estimates adjusting for respondents' age, work status, education, family income, marital status, and body mass index. Reported prevalence rates, however, are unadjusted.

[b]Represents a significant contrast at .05 level between US-born Caribbean Black and foreign-born Caribbean Black fathers.

[c]Represents a significant contrast at .05 level between African American and foreign-born Caribbean Black fathers.

[d]Represents a significant contrast at .05 level between African American and US-born Caribbean Black fathers.

fathers (24.6%); however, the prevalence of comorbidity for any 2 disorders was higher among African American fathers (3.6%) than among US-born Caribbean Black fathers (1.5%) (Table 3). The prevalence of any anxiety (7.1%) and any mood disorder (5.0%) was lower among African Americans than among US-born Caribbean Black fathers (23.2% and 16.2%, respectively). The prevalence of panic, obsessive–compulsive, posttraumatic stress, major depressive, drug abuse, and separation anxiety disorders was higher among US-born

Caribbean fathers than among African American fathers.

With regard to nativity, the prevalence of any anxiety disorder (23.2%) and any substance disorder (15.0%) was higher among US-born Caribbean Black fathers than among foreign-born Caribbean Black fathers (6.3% and 0.3%, respectively). The prevalence of any 12-month disorder (24.6%) and comorbidity across 3 or more disorders (16%) was higher among US-born Caribbean Black fathers than among foreign-born Caribbean Black fathers (10.3% and 0.8%, respectively). The prevalence of panic, obsessive–compulsive, alcohol dependence, and drug abuse disorders was also higher among US-born Caribbean Black fathers than among foreign-born Caribbean Black fathers.

Multivariate Analysis

Table 4 displays the findings for 6 separate multivariate models of the correlates of risk for both lifetime and 12-month disorders for each subgroup of Black fathers. Results revealed that the correlates of risk varied by ethnicity, nativity, and whether lifetime or 12-month prevalence of mental disorders was examined. Among African American fathers, the odds of having any lifetime disorder was 2 times as high for unemployed fathers (AOR = 2.0; 95% CI = 1.0, 3.9) and fathers who were not in the labor force (AOR = 1.9; 95% CI = 1.0, 3.6) than for employed fathers. The odds of having any lifetime disorder were quadrupled for African American fathers if they had less than a high school degree (AOR = 4.1; 95% CI = 1.9, 8.6) and were 2.4 times as high if they were divorced, separated, or widowed (AOR = 2.4; 95% CI = 1.5, 3.7). The odds of having any 12-month disorder for African American fathers who were divorced, separated, or widowed were more than 2 times as high as those for African American fathers who were married (AOR = 2.2; 95% CI = 1.1, 4.4).

The results for US-born and foreign-born Caribbean Black fathers were less clear, given the smaller number of cases per cell that increased the confidence interval, yet some findings are worth noting. The odds of having a lifetime or 12-month disorder were higher for US-born Caribbean Black fathers if they were not in the labor force or were working-class fathers (i.e., income between $18 000 and $31 999). US-born Caribbean Black fathers not in the labor force were 22.6 times (95% CI = 2.3, 226.8) and 16.3 times (95% CI = 1.4, 193.4) more likely than employed fathers to have a disorder in their lifetime or in the past year, respectively. Similarly, US-born Caribbean Black fathers with household incomes between $18 000 to $31 999 were 12.1 (95% CI = 1.0, 142.3) and 7.9 (95% CI = 1.4, 43.1) times as likely as those making $55 000 or more to have a mental disorder in their lifetime or the past year, respectively. Among foreign-born Caribbean Black fathers, we found 1 factor that significantly elevated the risk for lifetime disorder: being underweight or at a healthy weight rather than obese (AOR = 7.3; 95% CI = 1.5, 35.3). Age was related to the risk for lifetime or 12-month disorders for Caribbean Black fathers regardless of nativity with young fathers (aged 18–29 years) being at lower risk than older fathers (aged 30–44 years). The only exception was for 12-month prevalence among foreign-born Caribbean Black fathers. An AOR was not available for those 45 years or older given that 100% of respondents in those categories had a lifetime or 12-month mental disorder. We found no significant differences among sociodemographic correlates of 12-month disorders for foreign-born Caribbean Black fathers.

Mental Health Service Use

Regardless of severity, African American fathers sought mental health services from any sector (7.4%; $P < .05$) less frequently than did US-born Caribbean Black fathers (21.4%), but they had a higher rate of service use than did foreign-born Caribbean Black fathers (5.5%; $P < .05$). The prevalence of service use was lower among African American fathers (6.1%) than among US-born Caribbean Black fathers (21.1%). Among those with a severe disorder, a higher percentage of US-born Caribbean Black fathers (78.8%) sought mental health or medical care services than did African American fathers (50.6%) and foreign-born Caribbean Black fathers (13.0%). We found no significant differences in service use for those with moderate, mild, or no severity.

DISCUSSION

Our objective in this study was to contribute to the growing body of research on the mental health profile of US Black fathers by estimating the prevalence of mental illness, correlates of mental disorders, and mental health service use among African American and Caribbean Black (US-born and foreign-born) fathers. We were not able to make direct comparisons with previous findings for Black fathers because of differences in measurement (e.g., DSM-IV–based vs symptomatology-based estimates) and our use of a nationally representative sample. However, our findings supported previous conclusions that the mental health needs of Black fathers are substantial and must be addressed.[2] Our findings also expand previous knowledge by providing DSM-IV–based national estimates for a full range of mental illnesses among Black fathers on the basis of ethnicity and nativity.

We found sizable mental health prevalence estimates for several lifetime and 12-month disorder categories, with estimates as high as 33%. Depending on ethnicity and nativity, these estimates were higher than those previously reported for Black men, particularly for US-born Caribbean Black fathers.[44,51,52] In general, the prevalence of mental disorders among Caribbean Black fathers was higher than among African American fathers, a finding that is consistent with National Survey of American Life findings regarding lifetime rates of MDD[44] and patterns of risk for 12-month disorders among Caribbean Black and African American men.[52] Nativity patterns (i.e., higher for US-born and lower for foreign-born Caribbean Black fathers) were consistent with previous reports of lifetime patterns for substance abuse[51] and for MDD among US-born and foreign-born Caribbean Black men,[52] suggesting that risk increases with acculturation. The experience of acculturation may increase the risk of disorders by situating US-born Caribbean Black fathers between the more patriarchal and authoritarian roles of Caribbean Black fathers and the arguably more flexible roles (i.e., more involvement in child care activities) of many African American fathers.[53] More research is needed to disentangle factors related to

TABLE 4—Demographic Correlates of Lifetime and 12-Month Mental Health Disorders Among Fathers by Race and Ethnicity: National Survey of American Life, 2001–2003

Characteristics	African American (n = 1254)		US-Born Caribbean Black (n = 175)		Foreign-Born Caribbean Black (n = 458)	
	Any Lifetime Disorder (n = 685), AOR (95% CI)	Any 12-Month Disorder (n = 683), AOR (95% CI)	Any Lifetime Disorder (n = 132), AOR (95% CI)	Any 12-Month disorder (n = 132), AOR (95% CI)	Any Lifetime Disorder (n = 260), AOR (95% CI)	Any 12-Month Disorder (n = 260), AOR (95% CI)
Age, y						
18–29 (Ref)	1.0	1.0	1.0	1.0	1.0	1.0
30–44	1.1 (0.7, 1.9)	0.9 (0.4, 2.0)	0.1* (0.0, 0.5)	0* (0.0, 0.4)	0.2* (0.1, 0.4)	0.5 (0.1, 1.8)
45–59	NA	NA	NA	NA	NA	NA
≥ 60	NA	NA	NA	NA	NA	NA
Work status						
Unemployed	2.0* (1.0, 3.9)	1.8 (0.9, 3.5)	0.2 (0.0, 1.9)	0.1 (0.0, 2.1)	0.3 (0.1, 1.5)	0.4 (0.1, 1.8)
Not in labor force	1.9* (1.0, 3.6)	1.5 (0.6, 4.1)	22.6* (2.3, 226.8)	16.3* (1.4, 193.4)	0.8 (0.1, 8.8)	0.9 (0.2, 5.3)
Employed (Ref)	1.0	1.0	1.0	1.0	1.0	1.0
Education, y						
0–11	4.1* (1.9, 8.6)	2.2 (1.0, 4.8)	0.4 (0.0, 11.3)	1.3 (0.0, 36.4)	3.9 (0.8, 18.6)	0.3 (0.1, 1.1)
12	1.8 (1.0, 3.3)	1.1 (0.5, 2.2)	0.1 (0.0, 1.8)	0.0 (0.0, 1.7)	1.8 (0.6, 5.6)	1.0 (0.3, 3.1)
13–15	2.0 (0.9, 4.4)	0.9 (0.4, 2.0)	0.1 (0.0, 1.0)	0.1 (0.0, 1.0)	1.3 (0.5, 3.7)	1.3 (0.4, 3.6)
≥ 16 (Ref)	1.0	1.0	1.0	1.0	1.0	1.0
Income, $						
0–17 999	1.1 (0.6, 2.0)	0.8 (0.4, 1.6)	7.6 (0.5, 115.8)	3.3 (0.3, 34.7)	0.8 (0.2, 3.5)	2.2 (0.3, 14.7)
18 000–31 999	1.0 (0.5, 1.8)	0.8 (0.4, 1.8)	12.1* (1.0, 142.3)	7.9* (1.4, 43.1)	0.5 (0.1, 2.1)	1.0 (0.2, 4.7)
32 000–54 999	1.0 (0.6, 1.8)	0.7 (0.4, 1.2)	2.0 (0.4, 9.8)	1.0 (0.2, 4.5)	1.1 (0.6, 2.1)	1.8 (0.6, 5.2)
≥ 55 000 (Ref)	1.0	1.0	1.0	1.0	1.0	1.0
Marital status						
Divorced, separated, or widowed	2.4* (1.5, 3.7)	2.2* (1.1, 4.4)	11.5 (0.4, 351.1)	282.0* (1.5, 54278.6)	2.0 (0.7, 6.1)	1.9 (0.3, 13.1)
Never married	0.9 (0.6, 1.4)	1.1 (0.6, 2.0)	0.3 (0.1, 1.5)	0.6 (0.1, 5.0)	1.2 (0.8, 2.0)	2.4 (0.5, 12.6)
Married or cohabiting (Ref)	1.0	1.0	1.0	1.0	1.0	1.0
Body mass index						
Underweight or healthy weight (< 24.9 kg/m^2)	1.2 (0.7, 2.0)	1.0 (0.5, 2.1)	1.0 (0.3, 3.8)	1.6 (0.2, 11.8)	7.3* (1.5, 35.3)	2.0 (0.3, 13.1)
Overweight (25.0–29.9 kg/m^2)	0.9 (0.6, 1.5)	0.8 (0.4, 1.3)	1.1 (0.3, 4.3)	2.6 (0.2, 31.5)	3.4 (0.7, 17.0)	0.7 (0.1, 4.4)
Obesity classes 1–3 (≥ 30.0 kg/m^2) (Ref)	1.0	1.0	1.0	1.0	1.0	1.0

Note. AOR = adjusted odds ratio; CI = confidence interval; NA = 100% of those respondents falling in that category have lifetime or 12-month mental health disorders. Analyses represent within racial and ethnic group logistic regressions, predicting either any lifetime disorder or any 12-month disorder.
*$P < .05$.

life experiences (e.g., acculturation) that may place US-born Caribbean Black fathers at markedly increased risk for mental illnesses.

Although caution must be taken in interpreting some prevalence estimates (i.e., among US-born Caribbean Black fathers because of large CIs), to our knowledge the current findings represent the first nationally available estimates of mental disorders among ethnic populations of Black fathers. The prevalence of disorders among US-born Caribbean Black fathers was alarmingly high, with prevalence of 3 of 5 categories of 12-month mental disorders (any anxiety, mood, and substance disorder) at 15% and higher. The 15.9% prevalence of 12-month MDD among US-born Caribbean Black fathers is higher than previous reports of depressive symptomatology for urban Black fathers (12%).[54]

The influence of socioeconomic variables on Black fathers' mental illness also differed by ethnicity and nativity. Perhaps most striking among African Americans was the 3-fold increase in risk of any lifetime mental disorder for fathers with less than a high school education. We did not observe this difference among US-born Caribbean Black fathers. Conversely, income did not increase the risk for mental illness for African American fathers; however, it did increase the risk substantially for US-born Caribbean Black fathers from working-class families. The odds of any lifetime disorder increased for foreign-born Caribbean Black fathers who were healthy or underweight. This finding is consistent with previous findings for risk of substance abuse among Blacks, without accounting for ethnicity or nativity.[55] The increased risk of mental illness on the basis of socioeconomic variables is consistent with previous findings for urban

Black fathers with depression.[54] Which specific economic variables are most important to understand will depend on the ethnic subgroup of Black fathers being examined. Further research in this area is warranted, particularly given the continued educational and employment disparities and the salience of the provider role for Black fathers.[33,34]

A concerning yet expected finding was that African American fathers who were divorced, separated, or widowed were more than twice as likely as married or cohabitating fathers to be at risk for any 12-month and lifetime disorders. The elevated risk for those who were divorced, separated, or widowed is consistent with previous research on lifetime prevalence rates of MDD for both African American and Caribbean Blacks [44] and lifetime prevalence rates of substance use disorders among African Americans.[51] Our findings, however, are the first to document this risk factor and its variance among a nationally representative sample of Black fathers. Further research is needed to determine the directionality of this relationship. That is, does being divorced, separated, or widowed result in higher risk for mental illness among fathers, or are fathers who experience mental illnesses more likely to become divorced or separated?

Fathers' never-married status did not, surprisingly, increase the risk of any lifetime or 12-month mental disorder. This finding is contrary to general trends found for depressive and anxious symptoms among fathers in the Fragile Families and Child Wellbeing study.[25,26,56] It is also contrary to previous findings related to marital status and lifetime MDD among both African Americans and Caribbean Blacks in general.[52] These contrary findings may be attributed to sample or measurement differences. More research is needed to understand the complex relationship between marital status and the mental health of Black fathers in the United States.

Rates of mental health service use also varied by ethnicity and nativity. The 7% prevalence of any service use among African American fathers is identical to the prevalence rate previously found among African American men.[45] However, nativity differences in our findings yielded a substantially and surprisingly higher prevalence of any service use among US-born Caribbean Black fathers than previously reported for Caribbean Black men as a whole.[45] Among Black fathers diagnosed with a serious mental illness, 4 of 5 US-born Caribbean Black fathers used mental health services—a rate nearly double that of previously reported rates of service use among the general population.[56,57]

Strengths and Limitations

We have presented, for the first time, nationally representative estimates of the prevalence and correlates of mental illness and the prevalence of service use among an ethnically diverse sample of Black fathers. Study limitations included the use of self-report measures, the cross-sectional nature of the study, and the small number of Caribbean Black fathers in some cells. These small cells yielded some wide CIs (e.g., 12-month estimates) that should be interpreted with caution. Additionally, the World Mental Health Composite International Diagnostic Interview may yield higher 12-month prevalence rates of MDD among Caribbean Blacks as a whole than the Structured Clinical Interview for the DSM-IV.[44]

Despite these limitations, this is the first time such estimates have been available for African American and Caribbean Black (US-born and foreign-born) fathers. A particular strength is that the prevalence rates presented include both lifetime and 12-month estimates of a broad range of mental disorders based on DSM-IV diagnostic criteria rather than on mental health symptomatology. We have increased our understanding of fatherhood as a social context for men's mental health and further enabled health care professionals to effectively meet Black fathers' health care needs.

Conclusions

To our knowledge this study provided the first nationally available estimates of mental disorders among ethnic populations of Black fathers. The current findings demonstrated that the mental health needs of Black fathers vary by ethnicity and nativity, are substantial, and must be addressed. US-born Caribbean Black fathers have alarmingly high rates of most disorders, whereas African American fathers' risk of disorders was elevated based on a greater number of sociodemographic correlates, most notably the absence of a high school education. These results demonstrated the need for more research on the causes and consequences of mental illness and the help-seeking behavior of ethnically diverse Black fathers. The mental health profile of Black fathers provided by the current findings enables physicians and clinicians to consider issues relevant to fatherhood in their decision making process.[35] Physicians and clinicians should inquire about the mental health of Black fathers. Furthermore, physicians and clinicians should consider how Black fathers' social, economic, and familial experiences may impact their mental health. Addressing Black fathers' mental health needs not only has potential impact for the improved psychiatric health of fathers, but also for their children and families. ■

About the Authors

Otima Doyle is with the Department of Psychiatry and Behavioral Sciences, Duke University Medical Center, Durham, NC. Sean Joe and Cleopatra H. Caldwell are with the Program for Research on Black Americans, Institute for Social Research, University of Michigan, Ann Arbor. Sean Joe is also with the School of Social Work, University of Michigan. Cleopatra H. Caldwell is also with the Department of Health Behavior and Health Education, School of Public Health, University of Michigan.

Correspondence should be sent to Otima Doyle, Duke University Medical Center, DUMC 3527, 2608 Erwin Road, Durham, NC 27707 (e-mail: otima.doyle@duke.edu). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

This article was accepted August 30, 2011.

Contributors

All authors contributed significantly to the development, conceptualization, and drafting of this article. In addition, O. Doyle drafted the introduction and conclusion of the article. S. Joe was responsible for the data analysis and the methods and results sections of the article. C. H. Caldwell played a significant role in the conceptualization, review, and editing of the article.

Acknowledgments

The National Survey of American Life (NSAL) is supported by the National Institute of Mental Health (NIMH; grant U01-MH57716) with supplemental support from the Office of Behavioral and Social Science Research, University of Michigan, and the National Institute on Drug Abuse of the National Institutes of Health (Principal

Investigator: James S. Jackson, PhD). S. Joe and the data analysis for this study were supported by NIMH (grant R01-MH82807). O. Doyle was supported by NIMH (grant R01-MH-081947-02S2; Principal Investigator: David Goldston, PhD).

We appreciate the assistance provided in all aspects of the NSAL by Program for Research on Black Americans faculty and research staff, including Lili Deng, Myriam Torres, Niki Matusko, and Jamie Abelson. We thank the staff at the Research Lab on Race and Self Destructive Behaviors at the University of Michigan School of Social Work for their assistance with tables and references. Special thanks to Dr. James S. Jackson for development of the NSAL data used in this study.

Human Participant Protection

The National Survey of American Life study was approved by the University of Michigan's institutional review board.

References

1. Nicholson J, Nason MW, Calabresi AO, Yando R. Fathers with severe mental illness: characteristics and comparisons. *Am J Orthopsychiatry.* 1999;69(1):134–141.

2. Sinkewicz M, Lee R. Prevalence, comorbidity, and course of depression among Black fathers in the United States. *Res Soc Work Pract.* 2010;21(3):289–297.

3. Paulson JF, Dauber S, Leiferman JA. Individual and combined effects of postpartum depression in mothers and fathers on parenting behavior. Pediatr. 2006;118(2):659–668.

4. Kane P, Garber J. The relations among depression in fathers, children's psychopathology, and father-child conflict: a meta-analysis. *Clin Psychol Rev.* 2004;24(3):339–360.

5. Das Eiden R, Leonard KE. Paternal alcoholism, parental psychopathology, and aggravation with infants. *J Subst Abuse.* 2000;11(1):17–29.

6. McMahon TJ, Winkel JD, Rounsaville BJ. Drug abuse and responsible fathering: a comparative study of men enrolled in methadone maintenance treatment. *Addiction.* 2008;103(2):269–283.

7. Beardslee WR, Versage EM, Giadstone TR. Children of affectively ill parents: a review of the past 10 years. *J Am Acad Child Adolesc Psychiatry.* 1998;37(11):1134–1141.

8. Klein DN, Lewinsohn PM, Rohde P, Seeley JR, Olino TM. Psychopathology in the adolescent and young adult offspring of a community sample of mothers and fathers with major depression. *Psychol Med.* 2005;35(3):353–365.

9. Lieb R, Isensee B, Hofler M, Pfister H, Wittchen H-U. Parental major depression and the risk of depression and other mental disorders in offspring: a prospective-longitudinal community study. *Arch Gen Psychiatry.* 2002;59(4):365–374.

10. Tully EC, Iacono WG, McGue M. An adoption study of parental depression as an environmental liability for adolescent depression and childhood disruptive disorders. *Am J Psychiatry.* 2008;165(9):1148–1154.

11. Koenen KC, Harley R, Lyons MJ, et al. A twin registry study of familial and individual risk factors for trauma exposure and posttraumatic stress disorder. *J Nerv Ment Dis.* 2002;190(4):209–218.

12. Clark DB, Cornelius J, Wood DS, Vanyukov M. Psychopathology risk transmission in children of parents with substance use disorders. *Am J Psychiatry.* 2004;161(4):685–691.

13. Glowinski AL, Jacob T, Bucholz KK, Scherrer JF, True W, Heath AC. Paternal alcohol dependence and offspring suicidal behaviors in a children-of-twins study. *Drug Alcohol Depend.* 2004;76(suppl):S69–S77.

14. Pfeffer CR, Normandin L, Kakuma T. Suicidal children grow up: relations between family psychopathology and adolescents' lifetime suicidal behavior. *J Nerv Ment Dis.* 1998;186(5):269–275.

15. Cooke CG, Kelley ML, Fals-Stewart W, Golden J. A comparison of the psychosocial functioning of children with drug- versus alcohol-dependent fathers. *Am J Drug Alcohol Abuse.* 2004;30(4):695–710.

16. Kelley ML, Fals-Stewart W. Psychiatric disorders of children living with drug-abusing, alcohol-abusing, and non-substance-abusing fathers. *J Am Acad Child Adolesc Psychiatry.* 2004;43(5):621–628.

17. Ohannessian CM, Hesselbrock VM, Kramer J, et al. Parental substance use consequences and adolescent psychopathology. *J Stud Alcohol* 2004;65(6):725–730.

18. Fals-Stewart W, Kelley ML, Cooke CG, Golden JC. Predictors of the psychosocial adjustment of children living in households of parents in which fathers abuse drugs: the effects of postnatal parental exposure. *Addict Behav.* 2003;28(6):1013–1031.

19. Brook DW, Brook JS, Rubenstone E, Zhang C, Castro FG, Tiburcio N. Risk factors for distress in the adolescent children of HIV-positive and HIV-negative drug-abusing fathers. *AIDS Care.* 2008;20(1):93–100.

20. Klonoff EA, Landrine H, Ullman JB. Racial discrimination and psychiatric symptoms among Blacks. *Cultur Divers Ethnic Minor Psychol.* 1999;5(4):329–339.

21. Landrine H, Klonoff EA. The schedule of racist events: a measure of racial discrimination and a study of its negative physical and mental health consequences. *J Black Psychol.* 1996;22(2):144–168.

22. Broman CL, Mavaddat R, Hsu S- Y. The experience and consequences of perceived racial discrimination: a study of African Americans. *J Black Psychol.* 2000;26(2):165–180.

23. Sellers RM, Copeland-Linder N, Martin PP, L'Heureux Lewis R. Racial identity matters: the relationship between racial discrimination and psychological functioning in African American adolescents. *J Res Adolesc.* 2006;16(2):187–216.

24. DeNavas-Walt C, Proctor BD, Smith JC. *Income, Poverty, and Health Insurance Coverage in the United States: 2008.* Washington, DC: US Census Bureau; 2009. Current population reports P60-236.

25. Huang CC, Warner LA. Relationship characteristics and depression among fathers with newborns. *Soc Serv Rev.* 2005;79(1):95–118.

26. DeKlyen M, Brooks-Gunn J, McLanahan S, Knab J. The mental health of married, cohabiting, and non-coresident parents with infants. *Am J Public Health.* 2006;96(10):1836–1841.

27. Ventura SJ, Bachrach CA, Hill L, Kaye K, Holcomb P, Koff E. *Report to Congress on Out-of-Wedlock Childbearing.* Washington, DC: US Department of Health and Human Services; 1995.

28. Wilson WJ. The woes of the inner-city African American father. In: Clayton O, Mincy RB, Blankenhorn D, eds. *Black fathers in Contemporary American Society: Strengths, Weaknesses, and Strategies for Change.* New York, NY: Russell Sage Foundation; 2003.

29. King V, Heard HE. Nonresident father visitation, parental conflict, and mother's satisfaction: what's best for child well being? *J Marriage Fam.* 1999;61(2):385–396.

30. King V, Harris KM, Heard HE. Racial and ethnic diversity in nonresident father involvement. *J Marriage Fam.* 2004;66(1):1–21.

31. Edin K, Tach L, Mincy R. Claiming fatherhood: race and the dynamics of paternal involvement among unmarried men. *Ann Am Acad Pol Soc Sci.* 2009;621(1):149–177.

32. Davis RN, Caldwell CH, Clark SJ, Davis MM. Depressive symptoms in nonresident African American fathers and involvement with their sons. *Pediatrics.* 2009;124(6):1611–1618.

33. McAdoo JL. The roles of African American fathers: an ecological perspective. *Fam Soc.* 1993;74(1):28–35.

34. McLanahan S, Carlson MS. Fathers in fragile families. In: Lamb ME, ed. *The Role of the Father in Child Development.* 4th ed. Hoboken, NJ: Wiley; 2004:368–396.

35. Garfield CF, Clark-Kauffman E, Davis MM. Fatherhood as a component of men's health. *JAMA.* 2006;296(19):2365–2368.

36. Pennell BE, Bowers A, Carr D. The development and implementation of the National Comorbidity Survey Replication, the National Survey of American Life, and the National Latino and Asian American Survey. *Int J Methods Psychiatr Res.* 2004;13(4):241–269.

37. 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(4):196–207.

38. Black MM, Dubowitz H, Raymond H, Starr J. African-American fathers in low-income, urban families: development, behavior, and home environment of their three-year-old children. *Child Dev.* 1999;70(4):967–978.

39. Coley RL. (In)visible men: emerging research on low-income, unmarried, and minority fathers. *Am Psychol.* 2001;56(9):743–753.

40. Greene AD, Moore KA. Nonresident father involvement and child well-being among young children in families on welfare. *Marriage Fam Rev.* 2000;29(2–3):159–180.

41. Jayakody R, Kalil A. Social fathering in low-income, African American families with preschool children. *J Marriage Fam.* 2002;64(2):504–516.

42. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders.* 4th ed. Washington, DC: American Psychiatric Association; 1994.

43. 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(2):93–121.

44. Williams DR, Gonzalez H, 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.* 2007;64(3):305–315.

45. Neighbors HW, Caldwell C, Williams DR, et al. Race, ethnicity, and the use of services for mental disorders: results From the National Survey of American Life. *Arch Gen Psychiatry.* 2007;64(4):485–494.

46. Leon AC, Olfson M, Portera L, Farber L, Sheehan DV. Assessing psychiatric impairment in primary care with the Sheehan Disability Scale. *Int J Psychiatry Med.* 1997;27(2):93–105.

47. Kessler RC, Chiu WT, Demler O, Walters EE. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication [published correction appears in *Arch Gen Psychiatry.* 2005;62(7):709]. *Arch Gen Psychiatry.* 2005;62(6):617–627.

48. Luborsky L. Clinicians' judgments of mental health. *Arch Gen Psychiatry.* 1962;7:407–417.

49. SAS Institute. *SAS/STAT User's Guide, Version 9.1.* Cary, NC: SAS Institute, Inc.; 2005.

50. Kovar JG, Rao JNK, Wu CFJ. Bootstrap and other methods to measure error in survey estimates. *Can J Stat.* 1988;16(suppl 1):25–45.

51. Broman CL, Neighbors HW, Delva J, Torres M, Jackson JS. Prevalence of substance use disorders among African Americans and Caribbean Blacks in the National Survey of American Life. *Am J Public Health.* 2008;98(6):1107–1114.

52. Williams DR, Haile R, Gonzalez 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.* 2007;97(1):52–59.

53. Roopnarine JL. African American and African Caribbean fathers: level, quality, and meaning of involvement. In: Lamb ME, ed. *The Role of the Father in Child Development.* 4th ed. Hoboken, NJ: Wiley; 2004;pp.58–97.

54. Sinkewicz M, Lee R. Prevalence, comorbidity, and course of depression among Black fathers in the United States. *Res Soc Work Pract.* 2011;21(3):289–297.

55. Simon GE, Von Korff M, Saunders K, et al. Association between obesity and psychiatric disorders in the US adult population. *Arch Gen Psychiatry.* 2006;63(7):824–830.

56. Kessler RC. The prevalence and correlates of untreated serious mental illness. *Health Serv Res.* 2001;36(6)(pt 1):987–1007.

57. Wang PS, Lane M, Olfson M, Pincus HA, Wells KB, Kessler RC. Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey Replication. *Arch Gen Psychiatry.* 2005;62(6):629–640.