ORIGINAL REPORTS: MENTAL HEALTH

RACIAL/ETHNIC DISPARITIES, SOCIAL SUPPORT, AND DEPRESSION: EXAMINING A SOCIAL DETERMINANT OF MENTAL HEALTH

Objective: We examined the risk of depression as it relates to social support among individuals from African American, Caribbean Black, and non-Hispanic White backgrounds.

Methods: 6,082 individuals participated in the National Survey of American Life (NSAL), a nationally representative, psychiatric epidemiological, cross-sectional survey of household populations. The survey is designed to explore racial and ethnic differences in mental disorders. NSAL survey questions were used as a proxy for social support. Logistic regression analysis was used to examine the correlates between having a DSM-IV diagnosis of major depressive disorder in the past year, demographic variables, and social support.

Results: African American race/ethnicity was associated with decreased odds of depression when compared to non-Hispanic Whites, even when controlling for social support variables and demographics (OR = 0.51, 95% CI = 0.43-0.60). We found a three-fold increase in risk of depression among individuals who reported feeling "not very close at all" with family members compared to those who reported feeling "very close" to family (OR = 3.35, 95% CI = 1.81-6.19).

Conclusions: These findings reinforce previous research documenting the important relationship between social support and depression, and perhaps should lead us to reexamine the individualistic models of treatment that are most evaluated in United States. The lack of evidence-based data on support groups, peer counseling, family therapy, or other social support interventions may reflect a majority-culture bias toward individualism, which belies the extensive body of research on social support deficits as a major risk factor for depression. (Ethn Dis. 2012;22(1):15–20)

Key Words: Disparities, Depression, Social Support, Race/Ethnicity, African Americans, Caribbean Blacks

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Introduction

The World Health Organization recently emphasized social conditions that impact health and well-being. The majority of existing research focuses on the impact of these conditions on physical illnesses, but social determinants also have a profound effect on mental health. To date, most research related to mental health has focused on the beneficial impact of social or relational support at the individual level, 2-4 specifically demonstrating that social support is a protective factor against the development of depression.

Evidence-based guidelines are available on effective treatment options for managing depression in primary care settings; yet, these guidelines tend to focus on individual treatments such as psychological counseling (especially cognitive-behavioral therapy) and pharmacologic interventions. While social support is known to be an independent predictor of functional disability associated with depression (especially among older patients),5 evidence-based interventions to increase social support, strengthen family resilience, or enhance community-connectedness are lacking.6

Relational interventions for depression at the family, social, and community levels may be especially relevant in cultural settings that are less individual-

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istic than is the majority culture in the United States. Unfortunately, racial and ethnic differences exist in relation to depression diagnosis and treatment within the United States. The recent Surgeon General's report, Mental Health: Culture, Race, and Ethnicity, discussed the issues of racial and ethnic disparities in mental health treatment, describing that racial/ethnic minority populations have less access to mental health treatment, greater need for services, and when they are treated, receive poorer quality of care. Even with the same Medicaid benefits, older African American individuals diagnosed with depression are less likely to receive either psychological or pharmacologic treatment.8 Furthermore, African American populations are more likely to access mental health care and services in primary care settings, rather than in mental health specialty clinics.9

While many studies have examined the impact of social support on rates of depression, few studies have looked at the association between race/ethnicity and social support on depression in primary care settings. In this study, we examined the risk of depression as it relates to social support among individuals from African American, Caribbean Black, and non-Hispanic White backgrounds. In evaluating these differences, we hope to conceptualize how these findings can be utilized by primary care providers to optimize treatment of depression and address issues of racial/ethnic disparities in mental health.

METHODS

Sample and Procedures

The sample included individuals who participated in the National Survey of American Life (NSAL), a nationally representative, psychiatric epidemiological, cross-sectional survey of household populations in the 48 contiguous states. 10 The NSAL is one of three national surveys that make up the National Institute of Mental Health Collaborative Psychiatric Epidemiology Surveys, which also includes the National Comorbidity Survey Replication (NCS-R) and National Latino and Asian American Study. The NSAL interview was designed to explore racial and ethnic differences in mental disorders, psychological distress, and informal and formal service use. 10 The survey was administered between February 2001 and June 2003 to 6,082 adults aged 18 years and older; the response rate was 72.3%. Our sample included 3,336 African Americans, 1,378 Caribbean Blacks, and 858 non-Hispanic Whites.

Measures

The risk of depression was measured by using a Diagnostic and Statistical Manual (DSM-IV) diagnosis of major depressive disorder within the past year. A variety of questions within the NSAL were used as a proxy for social support. Respondents were questioned about

Table 1. Demographic information from the National Survey of American Life, n (%)

Demographics	Caribbean Blacks	African Americans	Non-Hispanio Whites	Total <i>P</i> value
Sex				
Male Female	544(50.4) 834(49.7)	1190(44.3) 2146(55.7)	, ,	2093(46.1) .07 3479(53.9)
Marital Status				
Married/cohabiting Divorced/separated/ widowed Never married	594(50.2) 311(18.5) 473(31.3)	1157(42.0) 1078(26.3) 1101(31.7)	274(23.7)	2168(48.5) <.001 1663(24.7) 1741(26.7)
Poverty Level				
Below the poverty threshold 1–2 times above the poverty threshold 3 or more times above the poverty threshold	77(5.5) 597(42.8) 704(51.7)	340(9.4) 1749(49.9) 1247(40.7)		448(6.8) <.001 2672(40.9) 2452(52.4)
Education Less than high school High school graduate College graduate	511(38.8) 435(32.9) 432(28.2)	1303(38.8) 1347(40.0) 686(21.2)	324(35.2)	2059(33.9) <.001 2106(37.4) 1407(28.7)

their feelings of closeness toward family and friends with these questions:

How close do you feel toward your family members (friends)? Response options: very close, fairly close, not too close, or not close at all.

How often do your family members (friends) help you out? Response options: very often, fairly often, not too often, or never?

Demographics of interest included sex, race/ethnicity, education, poverty status, and marital status. Educational attainment was categorized into three groups: less than high school, high school graduate, and college graduate. Marital status was classified as never married, divorced/separated/widowed, and married/cohabiting. Poverty status was measured based on family income and family size using federal poverty guidelines. Poverty status was classified into three categories: below the poverty threshold, 1-2 times above the poverty threshold, and 3 or more times above the poverty threshold.

Statistical Analysis

Cross-tabulations were conducted to evaluate social support and demographic information. Logistic regression analysis was used to examine the correlates between having a DSM-IV diagnosis of major depressive disorder in the past year, demographic variables, and social support. 11 All statistical computations were done using SUDAAN.

RESULTS

Demographic information for the overall sample is listed in Table 1. Within the demographic subgroups, the sample was similar in terms of sex, but there were significant differences in the population for education, marital status, and level of poverty across racial/ ethnic groups. Non-Hispanic Whites were more likely to be married than African Americans or Caribbean Blacks, while African Americans were more likely to be divorced, separated, or widowed than non-Hispanic Whites or Caribbean Blacks (P<.001). Also, the African Americans in the sample were more likely to have a poverty level below the poverty threshold than non-Hispanic Whites or Caribbean Blacks, while non-Hispanic Whites had higher rates of living 3 or more times above the poverty threshold than Caribbean

Table 2. Levels of social support from family members and friends by ethnicity (Caribbean Blacks, African Americans, and non-Hispanic Whites), n (%)

Social Support	Caribbean Blacks	African Americans	Non-Hispanic Whites	Total	P value
Closeness you feel toward to	friends				0.005
Very close	596(47.9)	1534(44.8)	412(47.3)	2542(46.1)	
Fairly close	594(39.9)	1355(42.4)	355(42.1)	2304(42.2)	
Not too close	163(9.3)	341(9.9)	76(9.1)	580(9.5)	
Not close at all	24(2.9)	102(2.9)	15(1.5)	141(2.2)	
Closeness you feel toward to	family members				0.096
Very close	948(74.1)	2411(71.8)	587(69.2)	3946(70.6)	
Fairly close	336(21.1)	703(21.6)	209(24.4)	1248(23.0)	
Not too close	79(4.2)	166(5.0)	46(5.3)	291(5.1)	
Not close at all	14(0.6)	54(1.5)	15(1.1)	83(1.3)	
Frequency that friends help	you out				< 0.001
Very often	231(18.6)	608(18.3)	155(18.1)	994(18.2)	
Fairly often	389(33.7)	953(28.1)	317(39.7)	1659(34.1)	
Not too often	461(26.3)	1054(32.2)	241(28.4)	1756(30.1)	
Never	196(14.3)	529(15.8)	93(9.0)	818(12.3)	
Never needed help	99(7.2)	191(5.6)	52(4.9)	342(5.3)	
Frequency that family helps	s you out				0.057
Very often	379(32.0)	1031(31.3)	260(30.3)	1670(30.8)	
Fairly often	349(21.0)	892(27.0)	241(27.5)	1482(27.1)	
Not too often	389(28.8)	887(25.9)	225(29.4)	1501(27.8)	
Never	172(11.6)	366(11.2)	93(9.6)	631(10.4)	
Never needed help	89(6.7)	160(4.5)	39 (3.3)	288(4.0)	

Table 3. Association between depression and demographic variables among respondents of the National Survey of American Life

	Odds Ratio	95% Confidence Interval	P Value
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Race			
Caribbean Blacks	0.62	(0.40-0.95)	.03
African Americans	0.52	(0.44-0.61)	<.001
Non-Hispanic Whites	1.00	1.00-1.00	-
Education			
Less than high School	0.79	(0.56-1.11)	.17
High School Graduate	0.79	(0.54-1.15)	.21
College graduate	1.00	1.00-1.00	_
Age			
	0.98	(0.97-1.00)	.03
Marital status			
Never married	0.94	(0.54-1.65)	.84
Divorced/separated/widowed	1.57	(0.95-2.59)	.08
Married/cohabiting	1.00	1.00-1.00	_
Sex			
Male	0.84	(0.59-1.20)	.34
Female	1.00	1.00-1.00	_
Poverty level			
Below poverty threshold	1.37	(0.79-2.36)	.26
1–2 times above poverty threshold	1.09	(0.79–1.51)	.59
3 or more times above poverty threshold	1.00	1.00–1.00	_

Blacks or African Americans (P<.001). In addition, non-Hispanic Whites in the sample had greater rates of college graduation than African Americans or Caribbean Blacks in the sample (P<.001).

Table 2 shows levels of social support from family members and friends that different racial groups describe. Generally, the majority of the sample reported overall closeness with family members and friends. However, a large number of respondents described the frequency that friends (30.1%) and family (27.8%) helped them out as "not too often." There were significant differences among races/ethnicities in the frequency that friends helped out and the closeness felt toward friends. Caribbean Blacks (47.9%) and non-Hispanic Whites (47.3%) reported higher rates of feeling "very close" to friends compared to African Americans

Logistic regression analysis was done on the sample to determine risk for depression among racial/ethnic groups and other demographic variables. The results are shown in Table 3. African American race/ethnicity was associated with decreased odds of depression compared to the reference group of non-Hispanic Whites (OR = 0.52, 95% CI = 0.44-0.61, P < .001). These results persisted when controlling for social support variables and demographics (OR = 0.51, 95% CI = 0.43-0.60, P < .001), as shown in Table 4. Caribbean Blacks also had decreased odds of depression compared to the reference group (OR = 0.62, 95% CI = 0.40-0.95, P=0.03); however, this association did not persist after controlling for social support variables and demographics (OR = 0.64, 95% CI= 0.41-1.00, P=.05). Also, there was a three-fold increase in risk of depression among individuals who reported feeling "not very close at all" with family members compared to those who reported feeling "very close" to family (OR = 3.35, 95% CI= 1.81-6.19, P<.001).

Table 4. Association between depression, demographic variables, and social support among respondents of the National Survey of American Life

	Adjusted Odds Ratio	95% Confidence Interval	P Value
Race			
Caribbean Blacks	0.64	(0.41-1.00)	.05
African Americans	0.51	(0.43-0.60)	<.001
Non-Hispanic Whites	1.00	1.00-1.00	-
Age			
	0.99	(0.97-1.00)	.02
Education			
Less than high school	0.78	(0.55-1.12)	.17
High school graduate	0.77	(0.52-1.14)	.19
College graduate	1.00	1.00-1.00	-
Marital Status			
Never married	0.96	(0.55-1.66)	.88
Divorced/separated/widowed	1.57	(0.97-2.56)	.07
Married/cohabiting	1.00	1.00-1.00	-
Sex			
Male	0.82	(0.55-1.20)	.30
Female	1.00	1.00–1.00	_
Poverty level			
Below poverty threshold	1.37	(0.80-2.35)	.25
1–2 times above poverty threshold	1.07	(0.77-1.50)	.68
3 or more times above poverty threshold	1.00	1.00–1.00	_
Closeness you feel toward family members			
Very close	1.00	1.00–1.00	_
Fairly close	1.22	(0.86–1.74)	.26
Not too close Not close at all	1.32 3.35	(0.73–2.39) (1.81–6.19)	.36 <.001
	3.33	(1.01-0.19)	<.001
Closeness you feel toward friends	1.00	1 00 1 00	
Very close Fairly close	1.00 0.75	1.00–1.00 (0.60–0.95)	.02
Not too close	0.76	(0.52–1.11)	.16
Not close at all	0.72	(0.42–1.24)	.23
Frequency friends help you out			
Very often	1.00	1.00-1.00	_
Fairly often	1.17	(0.54–2.53)	.69
Not too often	1.45	(0.72-2.89)	.29
Never	1.34	(0.68-2.66)	.39
Never needed help	0.86	(0.25-2.90)	.80
Frequency family helps you out			
Very often	1.00	1.00-1.00	-
Fairly often	1.61	(0.99-2.62)	.05
Not too often	1.16	(0.72–1.87)	.53
Never peeded help	1.38	(0.86–2.23)	.18
Never needed help	0.68	(0.31–1.48)	0.32

DISCUSSION

Comparable to previous studies, our results demonstrate that poor family relationships may be an important risk factor for depression. Addressed in the key determinants of health and health

disparities are many interacting factors, including not only the physical and social environment of the individuals, but their actual biological makeup and behaviors, and policies and interventions affecting their access to quality health care. ¹² Several populations have

been determined to be highly impacted by unusual, dysfunctional, stressful, or otherwise suboptimal family relations and functioning. Unfortunately, these individuals are often overlooked and include, but are not limited to, persons with disabilities and their caretakers, 13,14 persons self-identified as lesbian, gay, bisexual, transgender, intersex, or queer (LGBTIQ), 15-17 and persons who have suffered child abuse and neglect, often ultimately resulting in adult obesity and related sequelae. 18 In our analysis, there was a three-fold increase in risk for depression among individuals who reported feeling no closeness toward their family members. In the LGBTIQ population, family acceptance is protective against both depression and other related poor health outcomes. This same population is at higher risk of childhood abuse than heterosexuals, and family rejection during adolescence contributes to the 8.4 times increase in attempted suicide, and 5.9 times higher level of depression in persons so identified, or even unsure of their sexual orientation. 15 However, it is difficult to determine specifically from this study's findings if the illness of depression has caused individuals to feel isolated and withdrawn from family members, or if poor relationships with family members led to isolation and the symptoms of depression. In either case, primary care providers can play an important role in recognizing and treating depression by paying particular attention to social relationships among their patients. Screening all patients for depression is one strategy, but more specific diagnostic tools may be needed for individuals at higher risk, such as those with less family closeness those who report conflict or social distance with family members, 19 and those at increased risk of having social, physical, mental, financial, or sibling and/or parental dysfunction. Unfortunately, there is little clinical trial evidence in primary care settings to support whether treatment should be directed at the

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individual, or whether family therapy or social support interventions might also be effective.

The limited research available suggests that social support interventions can be beneficial to overall health. ²⁰ Community support may assist with mental well-being during the transitions from work to retirement. ²¹ Community support can also positively influence quality of life among persons with spinal cord injury after rehabilitation. ²²

Our study shows that, despite racial and ethnic disparities in mental health care, African Americans may be at less risk for depression when compared to non-Hispanic Whites. This difference persisted, even after adjustment for social support variables and demographics. These findings support previous research that has found lower rates of major depressive disorder among African Americans in the past. 23,24 Positive social support has been discussed as an explanation of differences in prevalence rates of major depressive disorder among races, but our findings show that African Americans have less risk of depression even when controlling for social support. However, the lower risk of depression does not necessarily mean that African Americans are less vulnerable to depression. They are traditionally more likely than Whites to be under-diagnosed⁷ or misdiagnosed.²⁵ When African Americans are diagnosed to have a major depressive disorder, it tends to be more chronic and severe.²⁴ Moreover, African Americans are less likely to receive depression care than White Americans.^{7,26} Previous research has also explained the lower incidence of depression in the African American community with higher levels of resilience and greater religious support.²⁷

There are methodological limitations to these findings. Responses to the NSAL are by self-report, and thus, may be confounded by social desirability bias. In addition, the questions used in the NSAL are a proxy used to describe and define social support for the purposes of this study. In actuality, the construct of social support is far more complex than assessed in the survey questions posed to respondents.

Nevertheless, these findings reinforce an extensive body of research documenting the important relationship between social support and depression, and perhaps should lead us to reexamine our highly individualistic models of treatment in the United States. Most clinical trials on depression in the past decade have evaluated the efficacy of pharmacologic treatment, individual counseling such as cognitive-behavioral therapy (CBT), interpersonal therapy (IPT), or both. The lack of clinical trials on support groups, peer counseling, family therapy, or other social support interventions may reflect a majorityculture bias toward individualism, which belies the tremendous body of data on social support deficits as a major risk factor for depression.

ACKNOWLEDGMENTS

This work was supported by funding from the Agency for Healthcare Research and Quality (1R24HS019470), and the Office of Minority Health (1MPCMP0610110100).

REFERENCES

- Wilkinson RG, Marmot M. Social Determinants of Health: The Solid Facts. World Health Organization; 2003.
- Barnett PA, Gotlib IH. Psychosocial functioning and depression: Distinguishing among antecedents, concomitants, and consequences. *Psychological Bulletin*. 1988;104:97–126.
- 3. Frasure-Smith N, Lesperance F, Gravel G, et al. Social support, depression, and mortality

- during the first year after myocardial infarction. *Circulation*. 2000;101:1919–1924.
- 4. Kawachi I, Berkman LF. Social ties and mental health. *J Urban Health*. 2001;78:458–467.
- Travis LA, Lyness JM, Shields CG, King DA, Cox C. Social support, depression, and functional disability in older adult primarycare patients. Am J Geriatric Psych. 2004;12: 265–271.
- Armstrong MI, Birnie-Lefcovitch S, Ungar MT. Pathways between social support, family well being, quality of parenting, and child resilience: What we know. J Child Fam Studies. 2005;14:269–281.
- Satcher D. Mental Health: Culture, Race, and Ethnicity —A Supplement to Mental Health: A Report of the Surgeon General. Rockville, MD: US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institute of Mental Health. 2001.
- Strothers III HS, Rust G, Minor P, Fresh E, Druss B, Satcher D. Disparities in antidepressant treatment in Medicaid elderly diagnosed with depression. *J Am Geriatrics Soc.* 2005;53:456–461.
- Snowden LR, Pingitore D. Frequency and scope of mental health service delivery to African Americans in primary care. Mental Health Services Res. 2002;4:123–130.
- 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. *Intl J Methods Psychiat Res.* 2004;13:196–207.
- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders: DSM-IV-TR. Amer Psychiatric Pub Inc; 2000.
- Satcher D. Ethnic disparities in health: The public's role in working for equality. PLoS Medicine. 2006;3:e405.
- Raina P, O'Donnell M, Rosenbaum P, et al. The health and well-being of caregivers of children with cerebral palsy. *Pediatrics*. 2005;115:e626.
- 14. Carnevale FA. Revisiting Goffman's Stigma: the social experience of families with children requiring mechanical ventilation at home. *J Child Health Care*. 2007;11:7–18.
- Ryan C, Huebner D, Diaz RM, Sanchez J. Family rejection as a predictor of negative health outcomes in White and Latino lesbian, gay, and bisexual young adults. *Pediatrics*. 2009;123:346–352.
- Ryan C, Russell ST, Huebner D, Diaz R, Sanchez J. Family acceptance in adolescence and the health of LGBT young adults. J Child Adolesc Psychiatric Nurs. 2010;23:205–213.
- Balsam KF, Lehavot K, Beadnell B, Circo E. Childhood abuse and mental health indicators among ethnically diverse lesbian, gay, and

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- bisexual adults. *J Consulting Clin Psychol*. 2010;78:459–468.
- Bentley T, Widom CS. A 30-year follow-up of the effects of child abuse and neglect on obesity in adulthood. *Obesity*. 2009;17:1900– 1905.
- Pignone MP, Gaynes BN, Rushton JL, et al. Screening for depression in adults: a summary of the evidence for the US Preventive Services Task Force. *Annals Intern Med.* 2002;136: 765–776.
- Brown SC, Mason CA, Spokane AR, Cruza-Guet MC, Lopez B, Szapocznik J. The relationship of neighborhood climate to perceived social support and mental health in older Hispanic immigrants in Miami, Florida. *J Aging Health*. 2009;21:431–459.
- Olesen SC, Berry HL. Community participation and mental health during retirement in community sample of Australians. *Aging Ment Health*. 2011;15:186–197.

- Botticello AL, Chen Y, Cao Y, Tulsky DS. Do communities matter after rehabilitation? The effect of socioeconomic and urban stratification on well-being after spinal cord injury. Arch Physical Med Rehabilitation. 2011;92:464–471.
- Riolo SA, Nguyen TA, Greden JF, King CA. Prevalence of depression by race/ethnicity: findings from the National Health and Nutrition Examination Survey III. Am J Public Health. 2005;95:998–1000.
- Williams DR, Gonzalez HM, Neighbors H, et al. Prevalence and distribution of major depressive disorder in African Americans, Caribbean Blacks, and Non-Hispanic Whites. Arch Gen Psychiatry. 2007;64:305–315.
- Ruiz P, Primm A. Disparities in Psychiatric Care: Clinical and Cross-Cultural Perspectives. New York, NY: Lippincott Williams & Wilkins. 2009.
- 26. Young AS, Klap R, Sherbourne CD, Wells KB. The quality of care for depressive and

- anxiety disorders in the United States. *Arch Gen Psychiatry*. 2001;58:55–61.
- Williams DR, Neighbors HW. Social Perspectives on Mood Disorders. The American Psychiatric Publishing Textbook of Mood Disorders. 2005:145.

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