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THE ASSOCIATION OF AFRICAN AMERICANS' PERCEPTIONS OF NEIGHBORHOOD CRIME AND DRUGS WITH MENTAL ILLNESS

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Abstract

Background—Many African Americans are socioeconomically disadvantaged and live in neighborhoods containing chronic sources of stress. Although environmental stressors can contribute to the development of mental illness, there is a paucity of national studies examining the association of neighborhood crime and drug problems with psychiatric disorders. This study aims to determine if higher levels of perceived neighborhood problems are associated with greater prevalence of 12-month and lifetime psychiatric disorders among African Americans.

Methods—To do so, we used cross-sectional data from the National Survey of American Life, which interviewed a nationally-representative sample of 3,570 African Americans.

Results—Of these African Americans, nearly 20% and 40% reported that crime and drug use are problems in their neighborhoods. Respondents reporting high levels of perceived neighborhood crime or drug problems are 1.5 to 2.9 times more likely to have a 12-month psychiatric disorder and 1.4 to 2.1 times more likely to have a lifetime psychiatric disorder compared to other respondents. After accounting for sociodemographics and chronic disease, neighborhood crime remains associated with 12-month mood, 12-month substance use, and lifetime substance use disorders, whereas neighborhood drug problems remain significantly associated with 12-month and lifetime anxiety and substance use disorders.

Conclusions—Among African Americans perceived neighborhood problems are widespread and positively associated with psychiatric disorders. Consideration of neighborhood context is important to more comprehensively understand mental illness and its treatment in this population.

Keywords

community health; disparities; epidemiology; psychiatric disorders

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Disclosures

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Introduction

African Americans disproportionately live in disadvantaged communities marked by concentrated poverty, residential instability, joblessness, violent crime, and educational deficiencies [1]. Such environments represent a source of chronic stress that can contribute to the development of mental illness [2–4]. To better understand these relationships, researchers are increasingly examining how neighborhoods influence health [5]. Although many neighborhood effects are likely underestimated [6], studies have demonstrated strong associations between impoverished communities and poor health outcomes [7, 8]. African Americans, a group struggling with healthcare inequities [9], are overrepresented in impoverished communities with nearly one-in-four African Americans living in poverty [10], which may subsequently place them at greater risk for exposure to health-adverse neighborhood conditions (e.g., lead in homes, illicit drugs).

Accruing evidence from mostly cross-sectional studies suggests that neighborhoods with high levels of social disruption may be vulnerable to also having high levels of mental illness [11]. Perceived neighborhood problems (including crime, drug, and gang activity) have been associated with anxiety and depression symptoms [12, 13], fear of crime has been correlated with poorer mental health and quality of life [14, 15], and serious violent crime has been associated with mental illness [16]. Neighborhood violence may affect depression through perception of neighborhood disorder and experiences of violence [17].

Despite this expanding evidence, important gaps in the literature remain. First, much research on neighborhood context in the United States is geographically limited [11] and can have unclear generalizability. Second, many studies examining the impact of community settings on mental health have uncertain clinical utility because they often rely on symptom severity measures rather than psychiatric diagnosis [11]. To address the geographic limitation and dearth of mental health diagnoses in previous studies, we used a nationally representative sample of African Americans to examine how perceptions of neighborhood crime and drug problems associate with anxiety, mood, and substance use disorders. We hypothesized that African Americans reporting higher levels of neighborhood crime and drug problems are more likely to suffer from 12-month and lifetime anxiety, mood, and substance use disorders.

Methods

Sample

The National Survey of American Life (NSAL) is a cross-sectional study conducted from 2001 to 2003 that characterized psychiatric illness among a nationally representative sample of US African Americans [18]. The NSAL interviewed a total of 6,199 individuals, 3,570 of whom are African American (weighted $n = 2,848$), with the African American sample having a 70.7% response rate [18]. Survey weights adjust for sampling design and non-response for this publically available dataset [19]. The University of Rochester Research Subjects Review Board approved our analyses of the NSAL database.

Neighborhood Crime and Drug Problems

The NSAL obtained information on neighborhood crime with this question: “How often are there problems with muggings, burglaries, assaults or anything else like that in your neighborhood? Would you say these things happen very often in your neighborhood, fairly often, not too often, hardly ever or never?” [19] We evaluated neighborhood drug use with this NSAL survey question: “How much of a problem is the selling and use of drugs in your neighborhood? Would you say it is a very serious problem, fairly serious, not too serious, or not serious at all?” [19] We defined neighborhood crime as problematic if respondents

endorsed “very often” or “fairly often” and drug use problematic if they stated it is “a very serious problem” or “fairly serious”; an analogous dichotomization was applied in analyses on perceived neighborhood safety [20]. There are 3,532 (weighted $n = 2,821$) and 3,487 (weighted $n = 2,786$) respondents with self-reported information on neighborhood crime and drugs (more than 97% of the total African American sample).

Psychiatric Disorders

The World Mental Health Composite International Diagnostic Interview evaluated the presence of mental illness, and DSM-IV based diagnostic algorithms determined the 12-month and lifetime presence of psychiatric disorders [18]. We grouped psychiatric illnesses into anxiety, mood, and substance use disorders to be consistent with prior research studies [21] and because there were not enough participants to power analyses for many of the individual psychiatric diagnoses. Anxiety disorders consist of adult separation anxiety disorder, agoraphobia (with and without panic disorder), generalized anxiety disorder, panic disorder, posttraumatic stress disorder, and social phobia. Mood disorders include bipolar I, bipolar II, dysthymia, and major depressive disorder, while substance use disorders encompass alcohol abuse, alcohol dependence, drug abuse, and drug dependence. To account for comorbid psychiatric disorders, we have not applied a hierarchical classification system with the exception of major depressive disorder (e.g., individuals meeting criteria for bipolar disorder are not counted as having major depressive disorder). Schizophrenic spectrum disorder diagnoses are unavailable.

Sample Characteristics

We examined respondents’ sociodemographic characteristics, some of which have known or suspected association with mental health, crime, or drug use, as well as the presence of chronic medical disease. Sociodemographic variables include: age in years (18–29, 30–44, 45–59, 60), gender, marital status (never married; divorced, separated, or widowed; married or cohabiting), region living (Midwest, Northeast, South, West), employment status (not in labor force, unemployed, employed), education years (0–11, 12, 13–15, 16), and household income in dollars (<15,000; 15,000–29,999; 30,000–49,999; 50,000–74,999; 75,000). The NSAL has self-reported information on chronic medical disease, which includes arthritis, ulcers, cancer, high blood pressure, diabetes, liver problem, kidney problem, stroke, asthma, chronic lung disease, blood circulation problem, sickle cell disease, heart trouble, glaucoma, and osteoporosis. In this study chronic medical disease is described as present or absent.

Data Analysis

All analyses accounted for NSAL’s complex survey design with SAS survey procedures that adjust for clustering and stratification sampling methods (SAS Institute, Inc., Cary, NC). In consideration of recommendations for complex survey data analysis [22], we used the Rao-Scott chi-square test to examine categorical variable differences between African Americans who reported problematic levels of neighborhood crime or drug use with those who did not. The Rao-Scott chi-square test examined differences of sociodemographics, chronic medical illness, and 12-month and lifetime psychiatric disorders prevalence levels between neighborhood stressor groupings. Logistic regression analyses characterized the association of perception of neighborhood crime and drug use with psychiatric illnesses. The logistic regression outcome variables were 12-month and lifetime presence of an anxiety, mood, and/or substance use disorder. The primary independent variables were either the original neighborhood crime (5 response levels) and drug problem (4 response levels) items or the binary categorization of neighborhood crime and drugs as problematic (yes/no). Both binary and non-binary categorization of the neighborhood variables were presented because the non-binary categorization enabled examination of an exposure-response association between

neighborhood characteristics and mental illness to assist with causal interpretation of the findings, while the binary classification yielded results that are easily interpretable and meaningful for informing policy. The adjusted logistic regression analyses included sociodemographics and chronic medical illness in the regression model. We accounted for the variability of subjects with missing data by using the “not missing completely at random” (i.e., *nomcar*) option in SAS 9.2 in our analyses.

Results

Sample Characteristics

Of this national sample of African Americans, 19.6% (weighted $n = 553$) and 39.7% (weighted $n = 1,106$) endorsed high levels of neighborhood problems with crime or drugs. African Americans reporting neighborhood crime and drug problems were more socioeconomically disadvantaged. They had less household income and were more likely to be unmarried, less educated, and not employed than other African Americans. Neighborhood crime and drug use are also highly correlated. Nearly 9 in 10 of those with neighborhood crime problems had problems with neighborhood drugs, and 4 in 10 respondents with neighborhood drug problems had problems with neighborhood crime (Table 1).

Psychiatric Illness

The 12-month and lifetime prevalence of anxiety, mood, and/or substance use disorders varies considerably by level of perceived neighborhood problems with crime and drugs (Table 2). In many cases, the prevalence levels are nearly twice as high in the most exposed groups – “very often” for frequency of neighborhood crime and “very serious” for neighborhood drug problem severity – compared to the least exposed groups. A positive association between neighborhood crime or drug problems is most evident in the any 12-month or lifetime psychiatric disorder groupings. With increasing perception of neighborhood crime, the prevalence of any 12-month (12.3%, 15.6%, 16.5%, 23.9%, and 22.4%) and lifetime (25.8%, 31.7%, 33.4%, 39.5%, and 45.0%) psychiatric disorder also rises. A similar pattern is present for neighborhood drug problems. If neighborhood crime frequency was problematic (i.e., crime reported as “very often” or “fairly often”), 23.4% of African Americans had a 12-month and 41.4% had a lifetime psychiatric disorder compared to 15.0% and 30.6% of the other respondents. If neighborhood drugs were problematic (i.e., drugs reported as a “very serious” or “fairly serious” problem), 21.1% of African Americans had a 12-month and 39.5% had a lifetime psychiatric disorder compared to 13.8% and 28.4%.

Logistic regression analyses provide further evidence of a positive association between reported neighborhood crime and drug problems with psychiatric disorder prevalence levels (Tables 3 and 4). In the unadjusted logistic regression models, every 12-month and lifetime anxiety, mood, and substance use disorder category is significantly associated with elevated levels of neighborhood crime or drug problems. Respondents with high levels of neighborhood crime are 1.6 to 2.8 and 1.5 to 1.9 times more likely to have a 12-month and lifetime psychiatric disorder compared to other respondents. If neighborhood drugs were problematic, African Americans are 1.5 to 2.9 and 1.4 to 2.1 times more likely to have a 12-month and lifetime disorder. In the adjusted logistic regression model (accounts for age, gender, region, marital status, education, employment status, household income, and chronic medical disease) neighborhood crime remains associated with 12-month mood, 12-month substance use, and lifetime substance use disorders, whereas neighborhood drug problems stay significantly associated with 12-month and lifetime anxiety and substance use

disorders. We did not find interactions by age or gender on the association of neighborhood characteristics with psychiatric disease (data not shown).

Discussion

Many community-dwelling African Americans interviewed in the NSAL endorsed high levels of neighborhood crime and drug problems – 1 in 5 and 2 in 5, respectively. Although the directionality is uncertain, there is a positive association between reported neighborhood stressors and psychiatric disorder prevalence, which is consistent with previous work suggesting that perceived neighborhood problems correspond with increased mental distress [12, 13]. Furthermore, while the status of previous neighborhood environments in which the participants resided is unknown, the association we found between a 12-month history of mental illness with the current neighborhood environment is suggestive that a link between mental health and living environment may exist. Overall community-dwelling African Americans are less likely to have psychiatric disorders than whites [21], however, this study's sample of African Americans that reported problems with neighborhood stressors had more substance use and similar levels of anxiety and mood disorders compared to a national (largely white) population [23]. The association between perceived neighborhood problems and mental illness is concerning because a large proportion of African Americans reported these problems and African Americans also suffer from mental healthcare inequities. Relative to whites, African Americans are more likely to lack health insurance and have Medicaid (a health insurance program for the poor) [24], experience a more severe, chronic course of depression [25], not access and receive adequate mental health services [26, 27], prematurely terminate treatment [28], and be less accurately diagnosed with mental illness in primary care clinics [29]. Neighborhood stressors endured by many African Americans may have an underappreciated contribution to the presence of mental healthcare disparities and merit further consideration as potential healthcare barriers. For example, very frequent neighborhood crime may interfere with a person's ability to comfortably and safely attend primary care visits or psychotherapy sessions.

The association between these neighborhood stressors and mental illness may result in part because African Americans perceiving higher levels of neighborhood problems were more socioeconomically disadvantaged than other African Americans. Those reporting high levels of neighborhood problems were more likely to be unemployed, be unmarried, have less education, and have lower income – all of which may either impact mental health or result from mental illness [21, 30–32]. After accounting for these characteristics in logistic regression modeling, however, the association between neighborhood problems and psychiatric disorders persisted. Interestingly, the association between neighborhood characteristics and mental illness was strongest for the substance use disorders and weaker for mood disorders. The reasons for these differential findings are unclear. One proposed hypothesis is that African Americans living in stressful environments may engage in unhealthy behaviors (e.g., drug use) as a coping mechanism, which may be associated with lower levels of depression in African Americans [4].

Defining cause and effect relationships between psychiatric illness and neighborhood variables is difficult, because individual factors can affect neighborhood factors and vice versa [7]. For example, psychiatric disorders can result in substantially decreased earnings [33]. Decreased earnings can limit a person's housing options, leading to relatively more mentally ill people residing in distressed communities (i.e., “downward drift”), as well as a person's ability to positively invest in the community. Distressed communities may in turn have fewer formal (e.g., primary care offices) and informal (e.g., social support networks) resources to help alleviate residents' mental illness. In such a situation, both the individual- (mental illness resulting in less income) and neighborhood-level (community's

socioeconomic distress leading to fewer formal and informal resources) variables could negatively impact each other.

Our finding that African Americans living in communities with higher levels of perceived crime and drugs are more likely to suffer from mental illness is concerning because mentally ill people are also more likely to be victimized by crime [34]. This may result in a circular situation in which those suffering from mental illness are more likely to be exposed to crime, which perpetuates their illness, and so on. In such situations, traditional therapeutic approaches (e.g., prescription medications, primary care, and outpatient mental health) may successfully treat the disease symptoms while neglecting important social factors (e.g., neighborhood vandalism, crime, and drugs). Different approaches may be warranted, especially since community-dwelling populations may suffer from anxiety and depression for many years [35, 36] and psychiatric disorders can have serious consequences.

More comprehensively understanding neighborhood context may inform treatment and research approaches that better account for the social and psychological factors of disease. Investigating neighborhood context thereby has great potential to further our understanding of disease development and to inform neighborhood-level policy to counter disease development [7]. Mental health experts can apply their expertise to inform the development of neighborhood interventions, and many have already done so (e.g., enhancing support networks, strengthening community block organizations) [2]. Improving neighborhood characteristics such as collective efficacy (e.g., social cohesion and willingness to work towards the common good) may result in less neighborhood violence [37]. Neighborhoods also have the potential to help mentally ill people recover [38] as well as protect against mental illness [39]. It follows that future interventions may be more effective if they consider both a person's mental illness symptoms and neighborhood factors that could contribute to such symptoms.

This study has some limitations. First, we do not have objective information (e.g., crime reports) on the levels of crime and drug use in respondents' neighborhoods. While self-reported neighborhood problems correlate with objective measures of crime, individual characteristics may also differentially influence experience in and perception of the neighborhood [40]. For instance, anxious respondents may (or may not) systematically over-report neighborhood problems. Future studies should thereby include objective neighborhood reports to confirm the association we found between mental illness and self-reported neighborhood crime and drug use. Second, the self-reported neighborhood problems only approximate neighborhood-level variables as they are individual-level assessments of the neighborhood. The publically available dataset did not have census tract information available, which precludes us from grouping residents by their neighborhoods. Lacking this information also prevents us from incorporating objective assessments of the neighborhoods such as poverty and educational status. Third, the analyses examine cross-sectional data, and we can only speculate on the direction of the relationship between our exposure and outcome variables. Fourth, the research interviews were not conducted by mental health professionals, and reliance on non-mental health professionals for data collection may lead to inaccuracies in psychiatric disorder prevalence estimates. When compared to the gold standard clinician-administered Structured Clinical Interview for the DSM-IV, however, the Composite International Diagnostic Interview demonstrated a moderate to good concordance (area under the ROC curves were between 0.6 and 0.9) for lifetime history of anxiety, mood, and substance use disorders as well as 12-month anxiety and mood disorders [41]. Fifth, the length of time participants had lived in their neighborhood is unknown. We are subsequently unable to examine how the duration of neighborhood residency associates with mental illness. Sixth, African Americans are overrepresented in disadvantaged groups not examined by the NSAL (e.g., homeless

population), exclusion of which may result in underestimation of the actual mental illness burden and obscure the relationship between neighborhood problems and mental illness.

Nevertheless, to our knowledge these analyses are the first to use a nationally representative sample of African Americans to characterize the association between perceived neighborhood problems with crime and drugs with anxiety, mood, and substance use disorders in this population. This study provides evidence of a positive association between these neighborhood stressors and psychiatric disorders. After accounting for sociodemographics and chronic illness, the association between perceived neighborhood problems and mental illness remained. Our findings raise further support for investigating neighborhood factors and designing interventions that target both individuals as well as the disadvantaged communities in which many of them reside. In particular, the association between recent mental illness and current neighborhood living environment is of concern. Longitudinal studies are needed to determine the directionality of this association. To confirm our findings, the association between mental illness and objective measures of neighborhood stress such as poverty levels, educational attainment, and crime reports should be further examined.

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TABLE 1
African American sample characteristics by perceived neighborhood crime and drug problem groupings

| Sample Characteristics | Crime a Problem N = 553 | | | Crime Not a Problem N = 2,267 | | | Drugs a Problem N = 1,106 | | | Drugs Not a Problem N = 1,680 | | | P ^a |
|--------------------------------|----------------------------|-----|------|----------------------------------|------|-----|------------------------------|-----|--|----------------------------------|----|--|---------------------|
| | % | SE | | % | SE | | % | SE | | % | SE | | |
| Age, years | | | | | | | | | | | | | 0.800 ^b |
| 18-29 | 27.9 | 2.1 | 23.5 | 1.3 | 25.4 | 1.5 | 23.9 | 1.4 | | | | | |
| 30-44 | 35.2 | 2.5 | 35.5 | 1.0 | 36.0 | 1.6 | 35.5 | 1.3 | | | | | |
| 45-59 | 23.0 | 2.0 | 24.0 | 0.9 | 23.3 | 1.3 | 24.2 | 1.1 | | | | | |
| 60 | 13.9 | 1.4 | 17.0 | 0.9 | 15.3 | 1.2 | 16.4 | 1.2 | | | | | |
| Gender | | | | | | | | | | | | | 0.086 ^c |
| Female | 57.5 | 2.1 | 55.7 | 1.1 | 57.8 | 1.3 | 54.3 | 1.3 | | | | | |
| Male | 42.5 | 2.1 | 44.3 | 1.1 | 42.2 | 1.3 | 45.7 | 1.3 | | | | | |
| Marital Status ^d | | | | | | | | | | | | | <0.001 ^e |
| Married/Cohabiting | 34.7 | 2.0 | 43.4 | 1.3 | 37.0 | 1.2 | 44.9 | 1.4 | | | | | |
| Divorced/Separated/Widowed | 29.0 | 1.7 | 26.2 | 0.8 | 28.9 | 1.4 | 24.5 | 1.0 | | | | | |
| Never Married | 36.3 | 2.3 | 30.4 | 1.4 | 34.1 | 1.6 | 30.5 | 1.5 | | | | | |
| Region | | | | | | | | | | | | | <0.001 ^b |
| Northeast | 22.8 | 2.5 | 13.9 | 1.1 | 20.3 | 1.6 | 12.5 | 1.3 | | | | | |
| Midwest | 24.2 | 3.8 | 17.6 | 1.9 | 23.9 | 3.2 | 15.4 | 2.1 | | | | | |
| South | 41.3 | 3.3 | 59.9 | 2.7 | 46.4 | 2.8 | 62.8 | 3.2 | | | | | |
| West | 11.7 | 3.3 | 8.6 | 1.5 | 9.3 | 1.7 | 9.3 | 1.9 | | | | | |
| Education, years | | | | | | | | | | | | | 0.002 ^b |
| 0-11 | 34.1 | 1.9 | 21.8 | 1.3 | 28.1 | 1.4 | 21.3 | 1.6 | | | | | |
| 12 | 39.0 | 2.5 | 37.5 | 1.1 | 38.7 | 1.5 | 37.6 | 1.5 | | | | | |
| 13-15 | 17.7 | 1.3 | 25.3 | 1.1 | 21.5 | 1.3 | 25.6 | 1.5 | | | | | |
| 16 | 9.2 | 1.5 | 15.3 | 1.3 | 11.7 | 1.3 | 15.5 | 1.6 | | | | | |
| Employment Status ^f | | | | | | | | | | | | | <0.001 ^e |
| Employed | 60.8 | 2.3 | 68.4 | 1.2 | 62.9 | 1.3 | 69.9 | 1.4 | | | | | |
| Unemployed | 14.3 | 1.5 | 8.9 | 0.7 | 12.7 | 1.1 | 8.5 | 0.8 | | | | | |

| Sample Characteristics | Crime a Problem N = 553 | | | Crime Not a Problem N = 2,267 | | | Drugs a Problem N = 1,106 | | | Drugs Not a Problem N = 1,680 | | | P ^a |
|------------------------------|----------------------------|-----|------|----------------------------------|------|-----|------------------------------|-----|---|----------------------------------|---|----|---------------------|
| | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | |
| Not in Labor Force | 24.9 | 2.1 | 22.7 | 1.1 | 24.4 | 1.2 | 21.6 | 1.3 | | | | | <0.001 ^g |
| Household Income, dollars | | | | | | | | | | | | | |
| <15,000 | 33.3 | 1.9 | 22.5 | 1.4 | 29.2 | 1.7 | 21.4 | 1.5 | | | | | |
| 15,000–29,999 | 32.2 | 1.9 | 27.4 | 1.2 | 30.7 | 1.1 | 26.5 | 1.6 | | | | | |
| 30,000–49,999 | 19.2 | 1.7 | 23.9 | 1.1 | 22.9 | 1.4 | 23.5 | 1.1 | | | | | |
| 50,000–74,999 | 9.3 | 1.2 | 15.0 | 1.1 | 10.3 | 0.9 | 16.2 | 1.3 | | | | | |
| 75,000 | 5.9 | 1.4 | 11.3 | 1.2 | 6.9 | 1.1 | 12.4 | 1.4 | | | | | |
| Chronic Medical Disease | | | | | | | | | | | | | |
| Yes | 57.8 | 2.4 | 57.7 | 1.1 | 58.8 | 1.5 | 56.8 | 1.4 | | | | | 0.308 ^c |
| No | 42.2 | 2.4 | 42.3 | 1.1 | 41.2 | 1.5 | 43.2 | 1.4 | | | | | |
| Crime a Problem ⁱ | | | | | | | | | | | | | |
| Yes | N/A | N/A | N/A | N/A | 42.3 | 2.1 | 4.6 | 0.6 | | | | | <0.001 ^c |
| No | N/A | N/A | N/A | N/A | 57.7 | 2.1 | 95.4 | 0.6 | | | | | |
| Drugs a Problem ⁱ | | | | | | | | | | | | | |
| Yes | 85.8 | 1.6 | 28.5 | 1.8 | N/A | N/A | N/A | N/A | | | | | N/A |
| No | 14.2 | 1.6 | 71.5 | 1.8 | N/A | N/A | N/A | N/A | | | | | |

^a P determined by the Rao-Scott chi-square test; degrees of freedom (numerator, denominator) = b 3, 207; c 1, 69; e 2, 138; g 4, 276.

Some characteristics are missing data and the weighted samples analyzed with information on neighborhood crime are: d 2,814; f 2,813; h 2,710; i 2,769.

The weighted samples analyzed with information on neighborhood drugs are: d 2,779; f 2,778; h 2,677; i 2,769.

^h Chronic medical disease includes arthritis, ulcers, cancer, high blood pressure, diabetes, liver problem, kidney problem, stroke, asthma, chronic lung disease, blood circulation problem, sickle cell disease, heart trouble, glaucoma, and osteoporosis.

Twelve-month and lifetime psychiatric disorder prevalence among African Americans by perceived neighborhood crime and drug problem categories

TABLE 2

| | 12-Month Disorders | | | | | | Lifetime Disorders | | | | | | | | | |
|---|--------------------|-----|--------|-----|---------------|-----|--------------------|-----|--------|-----|---------------|-----|--------|-----|--------|-----|
| | Anxiety | | Mood | | Substance Use | | Anxiety | | Mood | | Substance Use | | Any | | | |
| | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | % | SE | | |
| Frequency of Neighborhood Crime ^a | | | | | | | | | | | | | | | | |
| Very Often | 16.0 | 2.8 | 11.8 | 2.4 | 5.5 | 1.6 | 22.4 | 3.1 | 29.1 | 3.4 | 16.9 | 2.4 | 19.2 | 3.5 | 45.0 | 3.0 |
| Fairly Often | 16.5 | 1.9 | 10.6 | 1.5 | 6.4 | 1.5 | 23.9 | 2.3 | 27.6 | 2.3 | 16.4 | 2.1 | 16.0 | 2.4 | 39.5 | 2.5 |
| Not Too Often | 12.4 | 1.2 | 5.5 | 0.9 | 2.6 | 0.6 | 16.5 | 1.5 | 21.9 | 1.5 | 11.8 | 1.1 | 12.0 | 1.2 | 33.4 | 1.6 |
| Hardly Ever | 11.5 | 1.1 | 6.3 | 1.0 | 2.0 | 0.5 | 15.6 | 1.4 | 20.4 | 1.5 | 12.8 | 1.3 | 10.6 | 1.3 | 31.7 | 1.8 |
| Never | 8.5 | 1.1 | 5.8 | 1.1 | 2.0 | 0.7 | 12.3 | 1.7 | 18.1 | 1.6 | 9.2 | 1.3 | 7.1 | 1.2 | 25.8 | 2.0 |
| <i>P</i> ^b | <0.001 | | 0.004 | | <0.001 | | <0.001 | | <0.001 | | 0.007 | | <0.001 | | <0.001 | |
| Neighborhood Crime a Problem ^a | | | | | | | | | | | | | | | | |
| Yes | 16.3 | 1.7 | 11.0 | 1.3 | 6.1 | 1.2 | 23.4 | 2.0 | 28.1 | 2.0 | 16.6 | 1.5 | 17.1 | 1.8 | 41.4 | 1.9 |
| No | 11.0 | 0.8 | 5.9 | 0.5 | 2.2 | 0.4 | 15.0 | 1.0 | 20.3 | 1.1 | 11.4 | 0.7 | 10.1 | 0.7 | 30.6 | 1.3 |
| <i>P</i> ^c | <0.001 | | <0.001 | | <0.001 | | <0.001 | | 0.001 | | <0.001 | | <0.001 | | <0.001 | |
| Neighborhood Drug Problem Severity ^e | | | | | | | | | | | | | | | | |
| Very Serious | 17.9 | 1.7 | 10.3 | 1.2 | 6.2 | 0.9 | 24.1 | 1.7 | 32.1 | 2.2 | 17.8 | 1.4 | 19.6 | 1.8 | 45.2 | 2.0 |
| Fairly Serious | 12.3 | 1.4 | 6.1 | 1.2 | 3.3 | 0.9 | 17.4 | 1.7 | 20.9 | 1.8 | 10.6 | 1.4 | 12.4 | 1.5 | 32.3 | 2.2 |
| Not Too Serious | 10.4 | 1.5 | 6.0 | 1.2 | 2.0 | 0.4 | 14.9 | 1.7 | 20.1 | 1.9 | 12.8 | 1.5 | 9.4 | 1.0 | 31.5 | 2.2 |
| Not Serious At All | 9.5 | 1.2 | 5.9 | 0.9 | 1.5 | 0.4 | 12.9 | 1.2 | 16.9 | 1.6 | 9.6 | 1.1 | 7.6 | 0.9 | 25.8 | 1.9 |
| <i>P</i> ^d | <0.001 | | 0.027 | | <0.001 | | <0.001 | | <0.001 | | <0.001 | | <0.001 | | <0.001 | |
| Neighborhood Drugs a Problem ^e | | | | | | | | | | | | | | | | |
| Yes | 15.4 | 1.2 | 8.4 | 0.8 | 4.9 | 0.7 | 21.1 | 1.2 | 27.1 | 1.5 | 14.6 | 1.0 | 16.4 | 1.2 | 39.5 | 1.4 |
| No | 9.9 | 0.9 | 6.0 | 0.6 | 1.7 | 0.3 | 13.8 | 0.9 | 18.4 | 1.1 | 11.1 | 0.8 | 8.5 | 0.8 | 28.4 | 1.5 |
| <i>P</i> ^c | <0.001 | | 0.010 | | <0.001 | | <0.001 | | <0.001 | | 0.007 | | <0.001 | | <0.001 | |

^aHow often are there problems with muggings, burglaries, assaults or anything else like that in your neighborhood? Would you say these things happen very often in your neighborhood, fairly often, not too often, hardly ever or never? If respondents endorse "very often" or "fairly often" then neighborhood crime is considered problematic.

^bDetermined by Rao-Scott chi-square test; degrees of freedom (numerator, denominator)= 4, 276; ^c 1, 69; ^d 3, 207.

^e“How much of a problem is the selling and use of drugs in your neighborhood? Would you say it is a very serious problem, fairly serious, not too serious, or not serious at all?” If respondents endorse “a very serious problem” or “fairly serious” then neighborhood drugs are considered problematic.

TABLE 3
The association of perceived neighborhood crime and drugs with 12-month psychiatric disorders among African Americans

| | Anxiety | | Mood | | Substance Use | | Any | |
|---|------------|-------------------------|------------|-------------------------|---------------|-------------------------|------------|-------------------------|
| | Odds Ratio | 95% Confidence Interval | Odds Ratio | 95% Confidence Interval | Odds Ratio | 95% Confidence Interval | Odds Ratio | 95% Confidence Interval |
| Neighborhood Crime ^a | | | | | | | | |
| Very Often | 2.05** | 1.24–3.41 | 2.16* | 1.19–3.89 | 2.87* | 1.10–7.50 | 2.05** | 1.23–3.42 |
| Fairly Often | 2.13** | 1.54–2.95 | 1.91* | 1.07–3.41 | 3.36** | 1.47–7.67 | 2.23** | 1.58–3.17 |
| Not Too Often | 1.52** | 1.11–2.08 | 0.94 | 0.61–1.46 | 1.33 | 0.74–2.39 | 1.41* | 1.05–1.89 |
| Hardly Ever | 1.40* | 1.01–1.95 | 1.08 | 0.60–1.93 | 1.02 | 0.41–2.53 | 1.31 | 0.87–1.98 |
| Unadjusted Model: Crime Problem (Y/N) ^{a, b} | | | | | | | | |
| | 1.59** | 1.23–2.05 | 1.98** | 1.42–2.77 | 2.84** | 1.69–4.79 | 1.73** | 1.33–2.26 |
| Adjusted Model: Crime Problem (Y/N) ^{c, d} | | | | | | | | |
| | 1.27 | 0.96–1.66 | 1.65** | 1.14–2.38 | 2.02* | 1.15–3.56 | 1.37 | 0.99–1.90 |
| Neighborhood Drugs ^a | | | | | | | | |
| Very Serious | 2.07** | 1.45–2.97 | 1.81** | 1.20–2.72 | 4.34** | 2.55–7.41 | 2.15** | 1.68–2.75 |
| Fairly Serious | 1.33 | 0.93–1.92 | 1.03 | 0.63–1.68 | 2.24* | 1.05–4.78 | 1.42* | 1.05–1.91 |
| Not Too Serious | 1.11 | 0.71–1.73 | 1.01 | 0.57–1.79 | 1.33 | 0.78–2.29 | 1.19 | 0.84–1.67 |
| Unadjusted Model: Drug Problem (Y/N) ^{a, b} | | | | | | | | |
| | 1.65** | 1.28–2.13 | 1.45* | 1.09–1.92 | 2.94** | 1.99–4.34 | 1.67** | 1.40–1.98 |
| Adjusted Model: Drug Problem (Y/N) ^{c, d} | | | | | | | | |
| | 1.33* | 1.03–1.71 | 1.16 | 0.89–1.53 | 2.33** | 1.43–3.79 | 1.34** | 1.10–1.65 |

^aThe weighted samples for crime are: 2,701, Anxiety; 2,709, Mood; 2,704, Substance Use; 2,701, Any Psychiatric Disorder. The weighted samples for drugs are: 2,670, Anxiety; 2,677, Mood; 2,672, Substance Use; 2,670, Any Psychiatric Disorder. These analyses do not adjust for other covariates.

^bThe crime and drug categorical logistic regression reference groups are “Never” and “Not Serious At All”, and the unadjusted logistic regression reference groups are “No”.

^cThe weighted samples in the adjusted logistic regressions for crime are: 2,698, Anxiety; 2,706, Mood; 2,701, Substance Use; 2,699, Any Psychiatric Disorder. The weighted samples for drugs are: 2,667, Anxiety; 2,674, Mood; 2,670, Substance Use; 2,667, Any Psychiatric Disorder.

^dAdjusted logistic model analyses simultaneously accounting for age, gender, region, marital status, education status, work status, household income, and chronic medical disease; crime and drug reference groups are “No”.

* $P < 0.05$;

** $P < 0.01$.

TABLE 4
The association of perceived neighborhood crime and drugs with lifetime psychiatric disorders among African Americans

| | Anxiety | | Mood | | Substance Use | | Any | |
|---|------------|-------------------------|------------|-------------------------|---------------|-------------------------|------------|-------------------------|
| | Odds Ratio | 95% Confidence Interval | Odds Ratio | 95% Confidence Interval | Odds Ratio | 95% Confidence Interval | Odds Ratio | 95% Confidence Interval |
| Neighborhood Crime ^a | | | | | | | | |
| Very Often | 1.85** | 1.21–2.85 | 2.00** | 1.37–2.92 | 3.10** | 1.85–5.20 | 2.36** | 1.70–3.27 |
| Fairly Often | 1.72** | 1.29–2.30 | 1.93** | 1.23–3.04 | 2.50** | 1.50–4.17 | 1.88** | 1.46–2.41 |
| Not Too Often | 1.27 | 1.00–1.61 | 1.31 | 0.93–1.85 | 1.79** | 1.22–2.62 | 1.44** | 1.17–1.78 |
| Hardly Ever | 1.16 | 0.90–1.50 | 1.44 | 0.98–2.12 | 1.55 | 0.95–2.53 | 1.34* | 1.04–1.72 |
| Unadjusted Model: Crime Problem (Y/N) ^{a, b} | | | | | | | | |
| | 1.54** | 1.20–1.97 | 1.55** | 1.22–1.97 | 1.85** | 1.39–2.45 | 1.60** | 1.34–1.93 |
| Adjusted Model: Crime Problem (Y/N) ^{c, d} | | | | | | | | |
| | 1.27 | 0.94–1.71 | 1.32 | 1.00–1.75 | 1.45* | 1.09–1.93 | 1.30* | 1.04–1.64 |
| Neighborhood Drugs ^a | | | | | | | | |
| Very Serious | 2.33** | 1.74–3.11 | 2.04** | 1.48–2.81 | 2.96** | 2.09–4.19 | 2.38** | 1.89–3.00 |
| Fairly Serious | 1.30 | 0.95–1.78 | 1.11 | 0.77–1.60 | 1.72** | 1.23–2.40 | 1.38* | 1.04–1.83 |
| Not Too Serious | 1.24 | 0.87–1.75 | 1.38 | 0.94–2.03 | 1.25 | 0.95–1.66 | 1.32* | 1.01–1.73 |
| Unadjusted Model: Drug Problem (Y/N) ^{a, b} | | | | | | | | |
| | 1.65** | 1.34–2.04 | 1.37** | 1.09–1.73 | 2.13** | 1.64–2.76 | 1.65** | 1.40–1.93 |
| Adjusted Model: Drug Problem (Y/N) ^{c, d} | | | | | | | | |
| | 1.40** | 1.13–1.74 | 1.14 | 0.92–1.40 | 1.95** | 1.53–2.48 | 1.39** | 1.17–1.65 |

^aThe weighted samples for crime are: 2,701, Anxiety; 2,709, Mood; 2,704, Substance Use; 2,702, Any Psychiatric Disorder. The weighted samples for drugs are: 2,670, Anxiety; 2,677, Mood; 2,672, Substance Use; 2,670, Any Psychiatric Disorder. These analyses do not adjust for other covariates.

^bThe crime and drug categorical logistic regression reference groups are “Never” and “Not Serious At All”, and the unadjusted logistic regression reference groups are “No”.

^cThe weighted samples in the adjusted logistic regressions for crime are: 2,699, Anxiety; 2,706, Mood; 2,701, Substance Use; 2,699, Any Psychiatric Disorder. The weighted samples for drugs are: 2,667, Anxiety; 2,674, Mood; 2,670, Substance Use; 2,667, Any Psychiatric Disorder.

^dAdjusted logistic model analyses simultaneously accounted for age, gender, region, marital status, education status, work status, household income, and chronic medical disease; the crime and drugs reference groups are “No”.

* $P < 0.05$;

** $P < 0.01$.