The Concrete Jungle: City Stress and Substance Abuse among Young Adult African American Men

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ABSTRACT *Substance use is prevalent among African American men living in urban communities. The impact of substance use on the social, psychological, and physical health of African American men has important public health implications for families, communities, and society. Given the adverse consequences of alcohol and drug abuse within communities of color, this study evaluated the relationship between city stress, alcohol consumption, and drug use among African American men. Eighty heterosexual, African American men, 18 to 29 years old, completed psychosocial risk assessments that assessed substance use and city stress. Multiple logistic regression analyses, controlling for age, indicated that participants reporting high levels of urban stress, relative to low levels of urban stress, were more likely to report a history of marijuana use (AOR=5.19, $p=.05$), history of ecstasy and/or GHB use (AOR=3.34, $p=.04$), having family/friends expressing strong concerns about their illicit drug use (AOR=4.06, $p=.02$), and being unable to remember what happened the night before due to drinking (AOR=4.98, $p=.01$). African American men living within the confines of a stressful urban environment are at increased risk for exposure to and utilization of illicit substances. Culturally competent public health interventions for substance use/abuse should address psychological factors, such as stress and neighborhood violence.*

KEYWORDS *City stress, Neighborhood, Substance use, African American, Men*

INTRODUCTION

Despite fluctuations in substance use over the past decade, the negative impact associated with drug and alcohol abuse remains widespread, particularly among African Americans.¹⁻³ From 2004 to 2008, the monthly rate of illicit drug use among African American adults was significantly higher than the national average (9.5 % vs. 7.9 %, respectively), and the monthly rate of alcohol use was 44.3 %.⁴ Among African American men, monthly rates of alcohol use and binge drinking were nearly equivalent to national averages [alcohol use 54 %; binge drinking 30.8 % (African American men) vs. alcohol use 62.3 %; binge drinking 33.8 % (national average)].⁴ However, African American men seem to use illicit substances

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at a disproportionately higher rate. Alarming, illicit drug use among adult African American men was higher than rates for African American men and women combined (13.7 % vs. 9.5 %) as well as the national average (13.7 % vs. 10.2 %).⁴ Alcohol and drug use/abuse have been associated with multiple negative consequences, including high-risk sexual behaviors,⁵⁻⁹ violence,¹⁰⁻¹² unintentional injury,^{13,14} and premature death^{15,16} among diverse populations. Therefore, it is important to examine factors that may contribute to increased substance use/abuse among African American men, especially due to the higher rates of illicit drug use in this population.

Social determinants of health are key factors contributing to health disparities in the United States, with one of those being exposure to a myriad of societal and urban stressors or neighborhood violence. African Americans comprise approximately 13 % of the US population, with the majority living in the southern United States or in urban areas.¹⁷ Between 17 and 25 % are without health insurance,^{4,18,19} 25 % live below poverty level,¹⁸ and 50 % have been raised in a single-parent female-headed household with no male figure present.²⁰ Also, mortality rates among African American men are higher for all leading causes of death, including chronic disease and homicide in comparison to other racial/ethnic groups.^{21,22}

African American men living in urban environments who are exposed to daily violence, discrimination, and poverty have a greater likelihood of developing depression,²³ race-related stress,^{24,25} using illegal substances,^{1,26,27} and becoming incarcerated.²⁸ Given the poor utilization and availability of mental health and substance abuse prevention programs,²⁹ increased substance use within many African American communities continues. Previous research on substance use among African American men has traditionally made racial comparisons by type, frequency, and duration of substance use,^{1,2} as opposed to examining associations between environmental or contextual factors unique to the African American community that may be associated with substance use.

Although existing literature confirms higher rates of illicit substance use among African American men,⁴ to our knowledge, a limited number of studies have examined the role of urban or city stress on substance use/abuse, specifically among the group most affected—young adult African American men. The current study aims to narrow this gap in knowledge by examining the associations between perceived city stress, alcohol consumption, and drug use/abuse among African American men living in an urban area. It is expected that men who are exposed to high levels of city stress in comparison to low levels will be more likely to report substance use/abuse and negative consequences associated with substance use.

METHODS

Participants and Procedures

The present study is part of a larger pilot study targeting African American men for an HIV/STI prevention trial from March 2009 to September 2009. Participants were recruited from community venues such as barber shops and recreational facilities frequented by African American men. African American men who were heterosexual, unmarried, 18 to 29 years old, and reported unprotected vaginal intercourse within the last 30 days were eligible. Overall, 96 men met eligibility criteria and of those, 80 (83.3 %) participated. Men completed an audio computer-assisted self-interview (ACASI) assessing several sociodemographic, psychosocial, and behavioral factors, including urban stress and substance use/abuse. The study protocol was

approved by the Emory University Institutional Review Board. Participants provided written consent and were compensated for their participation.

Measures

*City Stress Inventory (CSI)*³⁰ A shortened 11-item version of the CSI ($\alpha=.91$) assessed neighborhood disorder and exposure to neighborhood violence. Men were asked to report the frequency in which several events (e.g., gang, drug, and gun activity, public disputes, and abandoned buildings) occurred in their neighborhood during the past year. Response options ranged from never (1) to often (4). Scores were summed, and higher scores indicated greater exposure to neighborhood violence and overall urban stress.

Substance Use/Abuse Participants completed measures that assessed frequency of alcohol use, binge drinking, ever receiving alcohol treatment, history of illicit drug use (i.e., marijuana, ecstasy and/or GHB, crack/cocaine, heroin, or methamphetamine), and negative consequences resulting from their substance use/abuse (i.e., unable to remember the previous night due to drinking, family or friends expressing strong concerns regarding illicit drug use, or injury to self and/or others due to drinking).

Data Analysis Plan

Descriptive statistics assessed sociodemographic and substance use/abuse characteristics. City stress was categorized into high vs. low levels of experience utilizing a median split (median=27). Multivariate logistic regression analyses, controlling for age, examined the associations between city stress, and substance use and negative consequences resulting from substance use.

RESULTS

The mean age of the sample was 23.4 years ($SD=3.6$ years). Approximately half (53.8 %) reported earning a high school diploma or GED, and 16.2 % reported attending some college. Less than half of the sample had a paying job and 41 % of men reported living in a household that received public assistance. Table 1 displays participant characteristics for the substance use/abuse variables.

Multiple logistic regression analyses, controlling for age, indicated that participants reporting high levels of city stress, relative to low levels of city stress, were more likely to report a history of marijuana use ($AOR=5.19, p=.05$), history of ecstasy and/or GHB use ($AOR=3.34, p=.04$), having family/friends expressing strong concerns about their illicit drug use over the past 3 months ($AOR=4.06, p=.02$), and being unable to remember what happened the night before due to drinking ($AOR=4.98, p=.01$) (Table 2). There were no significant associations between city stress and frequency of alcohol use, binge drinking, injury to self and/or others due to drinking, and history of other illicit drug use.

DISCUSSION

To our knowledge, the present study is one of the few that has examined the association between city stress, substance use/abuse, and negative consequences of substance use among young adult African American men. The findings highlighted

TABLE 1 Participant characteristics on substance use and negative outcomes resulting from substance use

	N(%)
History of marijuana use	
Yes	68 (85 %)
No	12 (15 %)
History of ecstasy and/or GHB use	
Yes	21 (26.3 %)
No	59 (73.8 %)
History of cocaine and/or crack use	
Yes	9 (11.3 %)
No	71 (88.8 %)
History of heroin use	
Yes	0 (0 %)
No	80 (100 %)
History of methamphetamine use	
Yes	0 (0 %)
No	80 (100 %)
Frequency of alcohol use	
Never	9 (11.3 %)
Monthly or less	18 (22.5 %)
2 to 4 times a month	27 (33.8 %)
2 to 4 times a week	20 (25 %)
4 or more times a week	6 (7.5 %)
Binge drinking	
Yes	48 (67.6 %)
No	23 (32.4 %)
Family/friends expressing strong concerns about illicit drug use	
Yes	19 (23.8 %)
No	61 (76.3 %)
Unable to remember events from the previous night due to drinking	
Yes	19 (26.8 %)
No	52 (73.2 %)
Injury to self and/or others due to drinking	
Yes	4 (5.6 %)
No	67 (94.4 %)
History of receiving alcohol treatment	
Yes	4 (5.6 %)
No	67 (94.4 %)

the associations between perceived high levels of city stress and negative consequences of drinking, illicit drug use, and concern from family and friends regarding their illicit drug use.

Findings should be considered in light of study limitations. Cross-sectional analyses were conducted; therefore, causal and temporal associations cannot be assessed. Due to the small sample size and number of men reporting substance use/abuse, the reported confidence intervals were large, indicating lower precision of effect estimates. Also, the measures of substance use rely on retrospective data. Participants may have had difficulty recalling important information or could have provided a socially desirable response to sensitive questions. Finally, the sample was

TABLE 2 Logistic regression examining associations between city stress, substance use, and negative outcomes resulting from substance use

	High levels of city stress <i>N</i> (%)	Low levels of city stress <i>N</i> (%)	AOR ^a	95 % CI ^b	<i>p</i>
History of marijuana use	36 (94.7 %)	31 (77.5 %)	5.19	1.02–26.34	.05
History of ecstasy and/or GHB use	14 (36.8 %)	6 (15 %)	3.34	1.09–10.22	.04
Family and friends expressing strong concerns about illicit drug use over past 3 months	14 (36.8 %)	5 (12.5 %)	4.06	1.28–12.89	.02
Unable to remember events from the previous night due to drinking	14 (40 %)	4 (11.8 %)	4.98	1.43–17.35	.01

^aAdjusted odds ratio controlling for age

^b95% confidence interval

homogeneous, all African American young adult men from the southeastern United States. Thus, results may have limited generalizability, and replication with diverse populations would be needed.

In spite of these limitations, these findings have several clear implications. Since African American men living within the confines of a stressful urban environment are at increased risk for a diverse array of social challenges, culturally competent public health interventions for substance use/abuse are pertinent. It is possible that increased substance use may be used to cope with stressful environments.^{26,31} Additionally, it is possible that in stressful environments where high rates of violent activity occur, there is also a high rate of drug-related activity, which increases men's exposure and accessibility to substances. Such exposure may promote substance use as well as increase the likelihood for initiation. Therefore, in addition to creating tailored substance use interventions, it is equally important to directly impact city stressors, which have been associated with negative outcomes.^{1,23–28} In this study, city stress was characterized by events such as gang, drug, and gun activity, public disputes, and abandoned buildings indicative of community disorganization. However, these events represent a small proportion of ways to define city stress. It is important to also examine other contextual factors that would demonstrate city stress, such as low socioeconomic status, incarceration rates, unstable housing, economic and social deprivation, poor educational opportunities, residential segregation, and inadequate health care.^{26,32} Subsequently, structural and community-level interventions are necessary to inform policy change, improve access to resources, and for community mobilization. These efforts would help strengthen social and familial networks, improve educational systems, reduce neighborhood violence, and improve overall health and standard of living within urban communities.

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