Perceived barriers to access care, anticipated discrimination and structural vulnerability among African Americans with substance use disorders

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Abstract

Background: The application of the structural vulnerability construct in medicine addresses social structures as the source of health inequities. Evidence demonstrates structural vulnerability as the meta-problem that underlie health disparities faced by underrepresented minorities who are less likely to access care and face stigma for substance use disorders (SUDs).

Objective: The objective of this study is to assess perceived vulnerability at the structural and interpersonal levels depicted by barriers to care, treatment-related stigma and anticipated discrimination among African Americans with SUDs.

Methods: Participants were 58 consecutive African American patients receiving treatment at an acute inpatient substance use service of a teaching hospital from September to November 2019. Structural vulnerability, barriers to care and anticipated discrimination were assessed using the structural vulnerability assessment tool, Barriers to Access Care Evaluation (BACE) and the Questionnaire on Anticipated Discrimination (QUAD) surveys, respectively.

Results: The total mean scores for the BACE-3, BACE-3 stigma subscale and QUAD were 1.0, 1.15 and 1.51, respectively. No statistically significant differences are found in the stigma subscale based on gender and psychiatric diagnosis ($p > .05$). Furthermore, there were also no gender, age or differences based on psychiatric diagnosis across both the BACE and QUAD scales.

Conclusion: Structural and interpersonal factors remain sources of vulnerability, stigma and anticipated discrimination for African Americans with SUDs and comorbid mental illness.

Keywords

Structural vulnerability, social determinants of health, barriers to care, substance use disorders, stigma, addiction

Introduction

The construct of structural vulnerability captures the missing link between clinical medicine and the social sciences; it encompasses factors that invariably impact the care being provided patients, including race/ethnicity, risk environments, homelessness, poverty/financial insecurity, self-perception of barriers, stigma and discrimination. Structural vulnerability, as defined, is the condition of an imposed risk of negative health outcomes, for an individual or population, 'through their interface with socioeconomic, political, and cultural/normative hierarchies' (Bourgois et al., 2017; Holmes, 2011). Patients present structurally vulnerable when these aforementioned factors interfere with their abilities to access or benefit from reasonable care.

The limitation of resources and the challenge of navigating through structurally imposed obstacles at every

clinical encounter mark the reality of patient care particularly in minority communities. Even within this context of dire constraints, physicians must continue to provide care, taking patients' socioeconomic realities into account. Unfortunately, this leads to the 'subtle assumption that the

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genesis of vulnerability and suffering is the individual's choices' and the primary focus of clinicians on patients' risky behaviors may in fact, perpetuate the sufferings that underrepresented minorities (URM) face (Holmes, 2011). The common notion, that individuals' health maladies results only from their behavior, inadvertently and unwittingly blames the patient. Understanding structural vulnerability is thus a paradigm shift that addresses societal structures as the source of vulnerability, social suffering, social violence and health inequities.

Health disparities are rooted in the social and lived experiences of disadvantaged populations with the history of being subject to systematic and systemic socioeconomic disadvantages, who consequently suffer greater risks and worse health outcomes compared with other socially advantaged groups (Braveman, 2006). By definition, these health inequities could potentially be shaped by policies (Braveman, 2006). Margaret Whitehead noted that health disparities are differences that 'are not only unnecessary and avoidable but, are considered unfair and unjust'. Whitehead (1991) further defined equity in health care 'as equal access to available care for equal need, equal utilization for equal need, equal quality of care for all'. The Institute of Medicine (IOM, 2003) of the National Academy of Sciences described health disparities as 'racial and ethnic differences in the quality of health care that are not due to access-related factors or clinical needs, preferences, and appropriateness of intervention'.

Extant literature is awash with highlights of health disparities among African Americans who suffer disproportionate neglect both socially and economically. It is well documented that African Americans receive less treatment for myocardial infarction, and post-operative pain, and are more likely to be diagnosed with psychotic disorders, and more likely to be obese as they live in segregated neighborhoods (Anderson et al., 2009; Cintron & Morrison, 2006; Edwards et al., 2001; Gordon-Larsen et al., 2006; Green et al., 2003; Lopez et al., 2010; van Ryn et al., 2006). Furthermore, this disparity also underlie the societal, political and legislative responses to the crack epidemic with 'drug war' of the 1970s and 1980s and the robust response to the ongoing opioid epidemic (Netherland & Hansen, 2016; Pouget et al., 2018; Santoro & Santoro, 2018).

Lagisetty and colleagues, in a recent study, reported a clear discordance in buprenorphine treatment of opioid use disorders with concentration of treatment among Whites, those with private insurance and those who can pay for treatment. According to this study, between 2012 and 2015, Whites had significantly more buprenorphine prescription visits than other races/ethnicities. The authors concluded that African American patients had lower odds of receiving buprenorphine prescription at their scheduled office visits (adjusted odds ratio,.23; 95% CI, 0.13–0.44; Lagisetty et al., 2019).

African Americans also report more significant barriers to accessing affordable care, lower utilization and higher drop-out rates from treatment in the face of disproportionate incarceration, stigma and consequential poorer health outcomes (Marsh et al., 2009; Mennis & Stahler, 2016; Wells et al., 2001). Wells et al. (2001) have also reported a significant unmet need for African Americans who were more likely to have no access to alcohol treatment or other treatment for substance use disorders (SUDs).

In this present study, we utilize quantitative measures to describe patients' perceived barriers to access care, treatment-related stigma and anticipated discrimination among African Americans seeking inpatient substance use treatment. We also describe self-reported structural vulnerability using the structural vulnerability tool (SVAT).

To the best of our knowledge, this is the first study that adapts and operationalizes the Barriers to Access Care Evaluation-3 (BACE-3), the Questionnaire on Anticipated Discrimination (QUAD) scales and the SVAT among inpatients with SUDs. The results of this study may, hopefully, 'reorient medical and public health attention away from individual behaviors towards examining social structures' (Holmes, 2011).

Method

Study design

This study utilizes the observational cross-sectional design to assess perceived structural vulnerability, perceived barriers to access care and anticipated discrimination among African American patients currently in inpatient treatment for SUD. Participants were selected on a consecutive basis of admission to the inpatient substance use services of a community teaching hospital in Brooklyn, New York. The data were collected between September and November 2019. Services to which patients were admitted include the acute stabilization/detoxification unit and the 28-day inpatient substance use rehabilitation unit. Study participation was voluntary, patients signed consent forms provided by the institutional ethics committee. The surveys were administered by the same research assistants who reviewed the study protocol and obtained signed informed consent from those interested in participation. The medical charts for each patient who agreed to participate in the study were reviewed for SUD diagnosis, comorbid psychiatric diagnosis and the urine toxicology report, race and ethnicity were collected only by self-report.

Study setting

The institution is a 287-bed, multi-site community teaching hospital system with a network of ambulatory care clinics across the central Brooklyn communities of Crown Heights and Bedford–Stuyvesant. The hospital serves over

250,000 patients each year, majority of whom are of Afro-Caribbean descent. The inpatient acute stabilization and rehabilitation services are voluntary services, each with 20-bed units for male and female patients. Patients are admitted to the inpatient acute stabilization units from the psychiatry emergency room, but the substance use rehabilitation unit gets referrals from the inpatient detox or other outpatient or inpatient programs.

Ethics

The protocol for this study was approved by the Institutional Review Board of Interfaith Medical Center, Brooklyn, New York. Participants were African Americans who were at least 18 years of age at the time of the study and with a diagnosis of a SUD with or without comorbid psychiatric diagnoses. Patients signed an informed consent form before participation after a discussion of the details of the study including that participation was totally voluntary and in no way involved in their ongoing care. Patients were not presented with any incentives to participate in this study.

Measures/instrumentation

The BACE v3 and QUAD are structured scales designed for use in patients with mental illness. Patients were informed to consider the question items on the scales both in the context of their SUDs for those with or without comorbid primary mental illness.

1. *BACE v3*. The BACE was developed by Clement et al. It identifies key barriers to care experienced by people 'who currently use, or have recently used, secondary mental health services'. It consists of a 30-item scale that incorporates a 12-item treatment stigma subscale. Each item is scored on a 4-point Likert-type scale ranging from 0 (*Strongly disagree*) to 3 (*Strongly agree*). The BACE-3 shows good internal consistency and construct validity (Clement et al., 2012).
2. *QUAD*. The QUAD is a 14-item questionnaire developed by Farrelly and colleagues. The tool assesses the level of anticipated discrimination in certain areas of life. Each item is scored on a 4-point Likert-type scale ranging from 0 (*Strongly disagree*) to 3 (*Strongly agree*). Psychometric analyses of the QUAD indicate good internal consistency and construct validity (Farrelly et al., 2014).
3. *SVAT*. The psychometric properties of this tool is not yet established and so cannot be regarded as a scale, but adapted in this study only for descriptive purposes and as an 'observational guide' for the screening of patients' level of health risk 'imposed by societal forces to organize a comprehensive health

Table 1. Demographic and clinical characteristics of sample (*N* = 58).

Variables	*N*	%
Sex		
Male	46	79.3
	12	20.7
Age		
18–40	15	25.9
41–65	41	70.7
>65	2	3.4
Psychiatric diagnosis		
Yes	26	44.8
No	32	55.2
Urine toxicology[a] (*n* = 126)		
Opioids	10	7.9
Alcohol	54	42.8
Cocaine	34	27.0
Benzodiazepines	9	7.1
Cannabis	16	12.7
Others	3	2.4

[a]Some patients were positive for more than one drug *N* = 126.

treatment plan that mobilizes supportive resources both inside and outside the clinical setting' (Bourgois et al., 2017). It contains eight domains, including financial security, residence, risk environments, food access, social network, legal status, education and discrimination. Each domain was graded as a Yes/No, dichotomous variable.

Statistical analysis

Descriptive and frequency statistics were employed to describe the patients' demographic and clinical characteristics, as well as the items on the BACE-3, QUAD and SVAT. The mean scores of each domain in the BACE (including the treatment stigma subscale) and QUAD were calculated and the frequency analyses of each line items for the BACE-3, QUAD and SVAT were reported. Independent t-test was used to compare mean scores on the BACE-3 (including the stigma subscale) and QUAD among the categories of gender, psychiatric diagnosis and age groups. All data were analyzed using the SPSS version 26.

Results

The demographic and clinical characteristics of the sample are shown in Table 1. The population included 79.3% men, majority of the entire population aged between 41 and 65 years (70.7%, ranged 29–69 years), and mean age of 49.6 ± 10.4 years old. Urine toxicology screens shows 42.8% and 27.0% positive for alcohol and cocaine, respectively. Independent t-test shows no statistically significant

Table 2. Proportion reporting each line items of the BACE-3.

No.	Line items	Percentage reporting
1	Being unsure where to go to get professional care	46.6
2[a]	**Wanting to solve the problem on my own**	**67.2**
3[a]	**Concern that I might be seen as weak for having a mental health problem**	**67.2**
4	Fear of being put in hospital against my will	31.0
5	Concern that it might harm my chances when applying for jobs	27.6
6[a]	**Problems with transport or traveling to appointments**	**53.4**
7[a]	**Thinking the problem would get better by itself**	**51.7**
8[a]	**Concern about what my family might think, say, do or feel**	**51.7**
9[a]	**Feeling embarrassed or ashamed**	**58.6**
10	Preferring to get alternative forms of care (e.g. traditional/religious healing or alternative/ complementary therapies))	34.5
11[a]	**Not being able to afford the financial costs involved**	**55.2**
12	Concern that I might be seen as 'crazy'	46.6
13	Thinking that professional care probably would not help	22.4
14	Concern that I might be seen as a bad parent	37.9
15	Professionals from my own ethnic or cultural group not being available	22.4
16	Being too unwell to ask for help	34.5
17	Concern that people I know might find out	48.3
18	Dislike of talking about my feelings, emotions or thoughts	48.3
19	Concern that people might not take me seriously if they found out I was having professional care	39.7
20	Concerns about the treatments available (e.g. medication side effects)	41.4
21	Not wanting a mental health problem to be on my medical records	41.4
22	Having had previous bad experiences with professional care for mental health	43.1
23	Preferring to get help from family or friends	29.3
24	Concern that my children may be taken into care or that I may lose access or custody without my agreement	17.2
25[a]	**Thinking I did not have a problem**	**51.7**
26	Concern about what my friends might think, say or do	41.4
27	Difficulty taking time off work	32.8
28	Concern about what people at work might think, say or do	24.1
29	Having problems with childcare while I receive professional care	10.3
30	Having no one who could help me get professional care	32.8

[a]Line items with more than 50% of respondents.

difference between the proportion of respondents who had primary psychiatric disorder and those who did not (26 vs 32, $p > .05$).

Perceived barriers to care

Perceived barriers to care was explored using the 30-item BACE-3 scale (12 of the 30 items constitute the stigma subscale; Clement et al., 2012). Each item was ranked on a Likert-type scale of 0–3. Table 2 shows the proportion of individuals reporting each line items. As shown, the items which captured more than 50% of respondents indicating 'some barrier' include 'wanting to solve the problem on my own' (67.2%), 'concern that I might be seen as weak for having a mental health problem' (67.2%), 'problems with transport or travelling to appointments' (53.4%), 'thinking the problem would get better by itself' (51.7%), 'concern about what my family might think, say, do or feel' (51.7%),

'feeling embarrassed or ashamed' (58.6%), 'not being able to afford the financial costs involved' (55.2%) and 'Thinking I did not have a problem' (51.7%). These items cover all the domains of the BACE, including structural-, attitudinal- and stigma-related domains. The mean score of the BACE was calculated as 1.00 (males: 0.90 ± 0.62 and females: 1.00 ± 0.41), the stigma subscale as 1.15 for the entire group ($N = 58$). These differences were not statistically different when explored by age, gender or psychiatric diagnosis ($p > .05$) as is the differences in the stigma subscales by gender and psychiatric diagnosis (Tables 3–5).

Anticipated discrimination

Table 6 shows the proportion of individuals reporting each line items of the QUAD. Almost all the items had more than half of the population reporting at least some anticipated discrimination as shown. Of note, over 70% of

individuals, each reported anticipated discrimination by housing officials/landlords (75.9%), teachers (75.9%), employers (84.5%), colleagues (75.9%), police (81%) and

Table 3. Total mean scale and subscale scores for the BACE-3, stigma subscale and QUAD.

Scales	Mean
BACE-3	1.0
Stigma subscale (BACE-3)	1.15
QUAD	1.51

BACE-3: Barriers to Access Care Evaluation-3; QUAD: Questionnaire on Anticipated Discrimination.

Table 4. Stigma subscales by gender and psychiatric diagnosis.

Variable		Mean	SD	p-value
Sex	Male	1.06	0.89	.09
	Female	1.50	0.69	
Psychiatric diagnosis	Yes	1.31	0.85	.19
	No	1.01	0.87	

SD: standard deviation.

children/teenagers in the community (75.9%). The mean QUAD score of the entire population is 1.15 (males: 1.56 ± 0.71 and females: 1.33 ± 0.75). No statistically significant differences were found in the discrimination scores by age, sex or comorbid psychiatric diagnosis ($p > .05$).

Self-reported structural vulnerability

Eight domains of structural vulnerability, including financial security, residence, risk environments, food access, social network, legal status, education and discrimination were explored. As shown in Table 7, of the total respondents, 82.8% indicated that they did not have financial security, 70.7% did not have a safe, stable residence, 60.3% did not feel safe and healthy in the places where they spend most of the day and 75.9% had faced some discrimination.

Discussion

The goal of this present study was to explore interpersonal factors (using the BACE and QUAD) and structural factors (using the SVAT) that impact African American

Table 5. Mean scores of the BACE-3 and QUAD scales by sex, age and psychiatric diagnosis.

Mean scores	Sex		Age			Psychiatric diagnosis	
	Male	Female	18–40	41–65	>65	Yes	No
BACE-3	0.90 ± 0.62	1.00 ± 0.41	1.11 ± 0.52	0.85 ± 0.60	0.84 ± 0.68	1.04 ± 0.57	0.81 ± 0.58
QUAD	1.56 ± 0.71	1.33 ± 0.75	1.66 ± 0.79	1.51 ± 0.69	0.47 ± 0.19	1.62 ± 0.75	1.42 ± 0.70

BACE-3: Barriers to Access Care Evaluation-3; QUAD: Questionnaire on Anticipated Discrimination.

Table 6. Proportion reporting each line items on the QUAD.

No.	Line items	Percentage reporting
1[a]	**If friends know about my mental health problem, they will treat me unfairly**	**56.9**
2[a]	**If people in my neighborhood know I have a mental health problem, they will treat me unfairly**	**65.5**
3[a]	**If a person I want to date or have an intimate relationship with knows I have a mental health problem; they will treat me unfairly**	**60.3**
4[a]	**If housing officials or landlords know I have a mental health problem; they will treat me unfairly**	**75.9**
5[a]	**If teachers, lecturers or tutors know I have a mental health problem; they will treat me unfairly**	**75.9**
6[a]	**If my family knows about my mental health problem, they will treat me unfairly**	**50.0**
7[a]	**If employers know I have a mental health problem, they will treat me unfairly**	**84.5**
8[a]	**If work colleagues know I have a mental health problem, they will treat me unfairly**	**75.9**
9[a]	**If transport drivers and officials (e.g. bus driver, ticket inspector, taxi driver) know about my mental health problem, they will treat me unfairly**	**67.2**
10[a]	**If benefit officials know I have a mental health problem, they will treat me unfairly**	**62.1**
11	If religious officials or the community (e.g. at church, mosque or temple) know I have a mental health problem; they will treat me unfairly	43.1
12[a]	**If the police know I have a mental health problem, they will treat me unfairly**	**81.0**
13	If physical health staff (e.g. GP, nurse, dentist) know I have a mental health problem, they will treat me unfairly	44.8
14[a]	**If children and teenagers in my community know I have a mental health problem, they will treat me unfairly**	**75.9**

QUAD: Questionnaire on Anticipated Discrimination; GP: general practitioner
[a]Line items with more than 50% of respondents.

Table 7. Proportion reporting line items on the SVAT.

No.	Line items	Yes (%)	No (%)
1	*Financial security.* I have enough money to live comfortably – pay rent, get food, pay utilities/telephone?	17.2	**82.8**
2	*Residence.* I have a safe, stable place to sleep and store my possessions	29.3	**70.7**
3	*Risk environments.* I feel safe and healthy in the places where I spend my time each day	39.7	**60.3**
4	*Food access.* I have adequate nutrition and access to healthy food?	56.9	43.1
5	*Social network.* I have friends, family, or other people who help me when I need it	51.7	48.3
6	*Legal status.* I **DO NOT** have any legal problems	72.4	27.6
7	*Education.* I can read and write	98.3	1.7
8	*Discrimination.* I have **NEVER** experienced discrimination	24.1	**75.9**

patients in the setting of a community inpatient substance use treatment. The study expanded the definition of these vulnerability factors to include perceived barriers to addiction treatment and patients' anticipated discrimination. The intersectionality of social factors and health is best understood when considered within the context of an ecological framework at the intrapersonal, interpersonal, institutional, societal, community and political levels.

Although there has been increasing interest in this field, literature specifically addressing these challenges among African Americans remains scant (Conner & Rosen, 2008). In fact, to the knowledge of the authors, this is the first study that explores these measures as among African Americans in a community inpatient SUD setting. Social determinants of health shape risk behavior and the health of people with SUDs by indirectly shaping individual drug-use behaviors (Galea & Vlahov, 2002). Inadequate finances or low socioeconomic status, homelessness and incarceration have been conceptualized as 'root causes of health inequalities' and also as independent contributors to adverse health outcomes among people with SUD (Galea & Vlahov, 2002).

In our study 82.8% of the population reported financial insecurity, not having 'enough money to live comfortably – pay rent, get food, pay utilities/telephone'; 70.7% reported not having a safe, stable place to sleep and store their possessions. Homelessness has been associated with higher rates of risky sexual behavior and injection drug use (Kral et al., 2000). McNiel et al. (2005) in a study of homelessness, incarceration, mental illness and comorbid SUDs reported that 78% of homeless inmates with a severe mental disorder had co-occurring SUD. According to their results, those with dual diagnoses were more likely to be homeless, more violent and more likely to be jailed for much longer than inmates charged with similar crimes but without comorbid SUD (McNiel et al., 2005).

Similar to the study by Hayward and Honegger (2018), our results suggest that African Americans with SUDs present barriers to seeking care for their mental illness and addictions. The most salient factors in our study are around attitudinal and possibly cultural issues, such as 'wanting to solve the problem on my own', 'concern that I might be seen as weak' (Hayward & Honegger, 2018).

Other significant attitudinal issues observed in our study population, include 'thinking the problem would get better by itself'; 'concern about what family might think, say do or feel' and 'feeling ashamed'.

The effect of stigma, identified by several studies as a major barrier to substance use treatment, has not received the deserved attention in literature (Conner & Rosen, 2008). The explored line items on the BACE-3 examined stigma-related questions, the calculated mean stigma subscale for the entire cohort was 1.15 (on a 0–3 scale). The strength of our result on the stigma subscale highlights the concept of additive or multiple stigmas reflecting the various ways in which our study population experience stigma, as described in the study by Conner and Rosen (2008) that showed eight distinct stigmas experienced by a population of patients on methadone maintenance (Conner & Rosen, 2008).

The issue of transportation is often overlooked but can be a significant barrier to seeking care (Guidry et al., 1997). Literature shows that provision of transportation provides the structure needed for patients to recover and may be perceived by patients as providing the necessary structure that is emblematic of a program invested in their recovery, thus improving retention in treatment. Other hypotheses proposed to support the importance of transportation provision include that the influence of the vehicle driver as a form of social support especially when drawn from the community creating interactions that have proven to be of therapeutic value and the act of vehicular pickup might lessen exposure to risky environments (Friedmann et al., 2001).

The respondents in our cohort also show very high levels of anticipated discrimination consistent with previous studies (Farrelly et al., 2014; Henderson & Thornicroft, 2009; Lasalvia et al., 2013; Thornicroft et al., 2009). Except for religious and medical staff, more than 50% of our population reported anticipated discriminations in all other areas. Farelly et al. (2014) studied discrimination in people with primary psychiatric disorders and reported 92.6% reported discrimination. It is remarkable that 100% of the participants in this study experienced discrimination in at least one of the areas.

This study did not find any statistically significant differences in relation to perceived barriers to care, and anticipated

discrimination among patients with different diagnostic groups with and without comorbid psychiatric disorders as well as with gender and in among different age groups. Similar to our finding, several studies have consistently reported no differences in anticipated discrimination among diagnostic groups (Farrelly et al., 2014; Ritsher et al., 2003). Possible explanations for this could be the racial and diagnostic homogeneity of our sample population.

This study provides evidence that SUDs are independent risk factors for perceived barriers to care, anticipated discrimination and structural vulnerability among African Americans in the inpatient setting. To the best of our knowledge, this is the first study that utilizes the BACE-3, QUAD and SVAT specifically among individuals with SUDs and comorbid primary psychiatric disorders. There are some limitations, however, not the least of which is the limited generalizability of our results due to our restriction on inpatient sample and limited sample size. Our results, therefore, should be interpreted with caution based on these limitations.

Conclusion

The results of this exploratory study suggest that African Americans with SUDs perceived barriers to care, anticipate discrimination, experience multiple stigmas and self-reports structural vulnerabilities. The construct of structural vulnerability in the field of addiction psychiatry highlights the link between traditional medicine and the social sciences. These factors represent the meta-problem that underlie health disparities and inequities faced by URM with SUDs. Further studies may apply the constructs in this study to a larger sample of community dwellers and across different racial/ethnic groups of people with SUDs.

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