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ORIGINAL PAPER

Coping with Food Insecurity Among African American in Public-Sector Mental Health Services: A Qualitative Study

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Abstract
While there are high rates of food insecurity among individuals with serious mental illnesses, and among African Americans, there is very little research on the ways African Americans in public-sector mental health services cope with food insecurity. This research paper presents qualitative data from a mixed methods study on the prevalence and management of food insecurity among African Americans using public sector mental health services. We interviewed 21 people about their everyday experiences of food insecurity and strategies they used to cope. While participants reported experiencing high levels of food insecurity, they also described the use of communal strategies to help them cope, including sharing food and cooking meals jointly, which seemed to reduce the negative effects of living with high levels of food insecurity as well as a serious mental illness. Policy innovations like communal gardens and kitchens provided through public mental health services may be particularly helpful.

Keywords African American · Community mental health · Food security · Public policy · Serious mental illness

Introduction

This is one of the first studies to examine the very common experience of food insecurity among individuals diagnosed with serious mental illnesses in the public mental health system. This study looks at the ways our participants' local adaptations to food insecurity seemed to work protectively against the negative effects of a food insecure and structurally oppressive environment. Understanding these local adaptations, we argue, is important for individuals and

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organizations seeking to eliminate food insecurity among individuals with serious mental illnesses.

Food Insecurity is a Serious Problem in the U.S

Food insecurity is defined as the degree to which one experiences uncertainty concerning access to food to meet basic nutritional needs (Gundersen 2013). In the United States, food insecurity affects approximately 12.6% of American households (Coleman-Jensen et al. 2017). This study explores primarily African American public mental health services users' adaptations to the adverse circumstances of a serious mental illness and food insecurity.

Food Insecurity is Common Among Individuals with Serious Mental Illnesses

Individuals with serious mental health problems are at especially high risk of being food insecure due to multiple documented social and economic disadvantages (Caron et al. 2005; Cook 2006). Mangurian et al. (2013), for instance, found a 71% prevalence of food insecurity among attendees at psychiatric emergency services in a California hospital. Davison and Kaplan (2015), in a recent study in Canada, found that the prevalence of food insecurity is significantly higher for persons with serious mental illnesses as compared to general population estimates. A mixed methods study (of which this qualitative analysis is one piece) also found that 69% of a sample of 300 mental health service users in Washington, DC, experienced food insecurity (under review). Experiencing food insecurity affects mental health in a negative way (Compton 2014). Food insecure environments both contribute to poor mental health and worsen outcomes for persons living with serious mental health conditions (Davison et al. 2015; Dubowitz 2010; Muldoon et al. 2013; Tarasuk et al. 2013). Addressing food insecurity with policy interventions may reverse this trend (Heflin et al. 2005).

Food Insecurity and Mental Health Burden are Greater Among Individuals of Racial and Ethnic Minority Status

Studies have also shown close linkages between food insecurity, poor health, and racial and ethnic minority status, which many consider to be a social justice issue (Alkon and Agyeman 2011; Barrett 2010; Chilton et al. 2009; Libal and Harding 2015; Lund 2012; Olson 1999; Walker et al. 2010). In the United States, African American and other racial and ethnic minority families are estimated to be twice as likely as the general population to experience consistent food insecurity (Franklin et al. 2012; Jarrett et al. 2014; Wight et al. 2014). They also face a greater mental health burden (Williams and Williams-Morris 2000) as the negative impacts of mental illnesses, as with other adverse health conditions, is "patterned along racial lines" (Dressler et al. 2005; Gravlee 2009). The health consequences of food insecurity and other adverse food-related experiences for racial and ethnic minority populations are well established in the literature (Arfken and Houston 1996; Larson and Story 2015; Suratkar et al. 2010; Zenk et al. 2014). African Americans with serious mental illnesses are especially vulnerable and deserve further attention.

Our Study is the First to Investigate Food Insecurity Among Persons who are Both African American and Dealing with a Serious Mental Health Diagnosis—Arguably, a Dually-Disadvantaged Population

Even though both the condition of food insecurity and mental health difficulties seem to be "patterned along racial lines" (Dressler et al. 2005; Gravlee 2009), there are no qualitative studies of the ways racial and ethnic minorities diagnosed with serious mental illnesses cope with and adapt to these adverse conditions. This particular study afforded us the opportunity to investigate issues relevant to that particular community. While we expected to learn a great deal about the negative experiences of food insecurity, our participants also wanted to share their strategies of resistance to the negative effects of food insecurity and "making do." Communal coping strategies may have helped our informants mitigate the negative psychological impacts of food insecurity. It is important to note these strategies to inform future public health interventions that can address the high rates of food insecurity in this population in culturally relevant and effective ways.

Materials and Methods

Sample

This study relied on data collected from individuals aged 18 to 65 (n = 21) with a diagnosis of a serious mental illness (mood or psychotic disorder) who were receiving care at one of five community mental health agencies across the Washington, DC area, known as a 'Core Service Agencies.' This sample was drawn from participants of a larger quantitative study of food insecurity that sampled 300 community mental health service users (under review). To complement the quantitative study, we simultaneously sought to contextualize experiences of food insecurity among persons with serious mental illnesses by also collecting qualitative interviews from some participants. Every fifth person who finished the

quantitative survey was selected to receive an invitation to participate in a qualitative interview.

As shown in Table 1, participants were almost evenly split between males (n = 11, 52%) and females (n = 10, 48%). The sample was predominantly non-Hispanic (n = 20, 95%) and African American (n = 17, 81%). None of the participants were married. Most had been unemployed in the past month (n = 20, 95%), and 18 (86%) received Supplemental Nutrition Assistance Program (SNAP) benefits ('food stamps').

Food security in the sample was measured using the current 'gold standard' in the field, the United States Department of Agriculture's (USDA) *Food Security Survey* (FSS) (USDA 2015). As shown in Table 2, the prevalence of food insecurity in this qualitative study's sample was quite high, at 71% (n = 15). Only three of our randomly sampled participants were food secure (14%) and three were marginally food secure (14%); in contrast, five (24%) met criteria for low food security and 10 (48%) for very low food security. To help contextualize the situation of respondents, the food security level of participants is indicated below after each quote as High, Marginal, Low, and Very Low based on their FSS scores.

Table 1 Demographic Characteristics of Study Participants (n = 21)

Characteristic	Mean (SD)
Age	50 (7)
	n (%)
Gender	
Male	11 (52)
Female	10 (48)
Race	
African American	17 (81)
White	1 (5)
Other	3 (14)
Ethnicity	
Hispanic/Latino	1 (5)
Marital status	
Single/never married	14 (66.66)
Separated	1 (5)
Divorced	6 (29)
Not employed in past month	20 (95)
Receives food stamps or SNAP benefits	18 (86)

Table 2 Levels of food insecurity among study participants

Level of food security	Frequency (n)	Percent (%)
High	3	14
Marginal	3	14
Total food secure	6	28
Low	5	24
very low	10	48
Total food insecure	15	72

Compliance with Ethical Standards

We did not have any potential conflicts of interest with this study. As the research involved human participants, this study was first approved by the George Washington University School of Medicine and Health Sciences Institutional Review Board. All interviews were audiorecorded only after participants signed an informed consent form authorizing the study procedures and audiorecording. A $10 gift card was provided to compensate participants for their time.

Semi-structured Interviews

All participants were interviewed using a semi-structured interview guide. Interviews lasted an average of 35 min. Interviews included questions about experiences with food growing up, experiences with food today, desired foods, barriers and facilitators to accessing desired foods, and linkages between experiences with food and mental health symptoms and mental health recovery.

Data Analysis

Upon completion, interviews were transcribed by the team and uploaded into NVivo 10 software for coding and analysis. NVivo 10 is a qualitative software package used to code data, identify key themes, and assess their recurrence across participants. Using a grounded theory approach (Charmaz 2006) five members of the team developed a codebook of relevant codes through consensus-building about the salient content of the interviews. In regular meetings, they generated, edited, revised, and narrowed codes. Two teams of two then used the codebook to apply codes to the dataset. After every third interview, the codes applied by each pair of coders were compared, discussed, and modified until that pair achieved theoretical saturation, or the point at which no frequently occurring new codes emerged from the data. Working with the two coding pairs, the lead author then identified the dominant emergent themes, quantified the occurrence of the themes, and chose illustrative quotes representative of each theme from across the dataset.

Results

'Having Enough' Versus 'Not Having Enough'

Fifteen people (71%) of the individuals in our study met criteria for food insecurity in the past year using the gold standard measure. However, surprisingly, two-thirds (n = 14) of our sample claimed in the qualitative interview that they personally felt they had enough food on any given day. The remaining seven participants felt that they did not have enough food on any given day.

Does Food Insecurity Contribute to Mental Distress?

Despite some initial studies suggesting that mental illness and food insecurity mutually exacerbate one another, only three participants (14%) experiencing both noted a relationship between the two. Some participants made general statements about food being important for mind and body; for example, 'food helps you grow stronger' (626, Low). However, no one discussed food in terms of any specific mental health diagnosis or effect. If there is a synergistic relationship between poverty and poor mental health and food insecurity, it had not yet become part of our participants' narratives of everyday life.

The Effects of Mental Health on Daily Food Habits

When asked directly about the relevance of food to mental illness, participants instead offered ways in which mental illness affected their daily food habits, such as consumption and preparation. Most commonly, 76% of participants (n = 16) reflected on their altered appetite or the actual quantity of food eaten in relation to their illness or its treatment. They thought of these changes as a side effect of medications; for example:

> I also take Suboxone for my drug addiction. So it might cut down on my appetite a little bit too because it makes me not hungry sometimes. And as the days go down, I get tired and take my sleeping pill and I just don't even think about eating (3611, Very Low).

Interestingly, some reported using psychiatric medications strategically to avoid thinking about eating.

Additionally, participants reported that their eating patterns fluctuated with their moods. Some described experiencing diminished appetite when under stress, whereas others mentioned using food to improve feelings of loneliness or depression. One woman suggested: 'I think a lot of people, obesity, the way they eat … is just out of frustration. Got nothing else to do, why not eat' (882, Very Low). Another participant explained, '[s]ometimes when I get depressed, I would eat just ice cream. I don't be hungry and I just sit there and eat anyway. I was feeling better, but then, after I finish, I'm like—wow, I can't believe I ate all that' (896, Very Low).

Moreover, those who reported running out of food frequently worried about being able to procure food regularly, which adversely affected their mental health status. One participant explained:

> Especially because…you [are] limited in getting income or whatever...You always gonna be concerned and worried. I still sacrifice and I probably won't eat so much because I know how there's a limitation on stuff until the next time the food stamps come (698, Low).

The relative ease or difficulty of options for accessing food when one was running out—be it by spending money on buying food at the grocery store, or utilizing food assistance programs—was also a major source of mental distress for the study participants. One participant noted that she felt most stressed when she had difficulty obtaining transportation to acquire more food: 'When I run out [of food], and I need somebody to get me a ride…and it's hard to find somebody. Because I need people to drive me around to get to my destination' (O72, Marginal).

The Social Uses of Food

Interviews often turned to participants' strategies to share food and opportunities to eat with others, which appeared to be a long-term cultural tradition for most. Fifteen participants (71%) discussed using food creatively in social ways to make the most of the limited food on hand. For example, one participant reflected on the ways that preparing meals for one person was burdensome and potentially wasteful:

> After I get done cooking for myself I don't want to eat because I've been eating it all the time I've been cooking… When it's finished, two or three bites, and I'm finished. Waste of time, waste of money, food. So that's not good. (68, Marginal)

Another woman described having friends over to cook every weekend, and taking turns with who was cooking and providing food (490, Very Low). Another described occasionally cooking for her roommate (367, Very Low), but only if 'she buys her own food and I buy my own food.'

Activities surrounding food seemed to be a significant part of familial and social bonding. Cooking was frequently mentioned as a hobby, an outlet for stress, and an opportunity to connect with others, which was relaxing and enjoyable. For example, one respondent told us:

> I love to cook and I love to eat. And I love people to taste my cooking, you know, that's one of my favorites

there. I like to show off, I'll be honest, I like to show my cooking off. I love that. Because I've got three sons, right. And each and every one of them is with their ladies, with their girlfriends…On Sundays I prepare a nice meal…because one of them is going to stop by, if not all three of them. That's just about every Saturday and Sunday. You know, one of my sons may come by on Saturday morning and cook breakfast for us, you know. Sit back, and we talk, we chat. (118, Low)

The centrality of food to social life seemed to be something participants also recalled from their formative years. When reflecting on their uses of food as children, many people described eating with family: 'everybody ate together… my mother wasn't having it any other way' (657, Very Low). Several participants fondly described holidays and the delicious food involved; for example, one participant described Thanksgiving in this way: 'All of us would prepare a dish, right? And we would just come over and everybody would eat' (168, Very Low).

Some also explicitly described adaptive strategies to make food last for everyone in the family, which made them feel they had enough: 'we might not have had a whole lot of food but we went to bed full. We might have had to stretch it a little bit, or maybe something that will make a whole lot like rice or stews but we never went to bed hungry' (367, Very Low).

Our participants also discussed how their families and friends helped them manage current food insecurity. One participant shared: "There are a lot of times where I'm thinking I might run out of food. There are a lot of times that I run out. Sometimes it stresses me out," but the respondent adds: 'then I ask my family. I have a sister and brother so sometimes I might get to borrow some money from them until I get my money to get some food' (168, Very Low). Another participant commented on partnering with his fiancée to make ends meet: 'Yeah, I have sources of getting food…my fiancée, she gets money. We buy food together, you know, combine together and get food and everything' (651, High).

Other Strategies

Some also described food assistance programs as providing some sense of security: 'Well, I've been homeless three times before, but I never had a problem with food. I know where to go and eat. I know where I can get free breakfast and dinner' (409, Low). Several also described limiting their food intake: 'Sometimes I do hold out on the stuff I like throughout the month. Sometimes I just eat one meal a day. I don't eat two meals' (698, Low).

Not Being Able to Share Food Hurts Social Relationships

Some people were so reliant on sharing that they thought that not being able to share negatively impacted meaningful social relationships, which are important for mental health. One woman described how food insecurity interrupted an important relationship with her niece:

I felt bad because I had to send her home because I didn't have food…That's just incorrect. I felt bad. And I haven't invited her back over because I want my refrigerator to be full. And then that way she can eat and she don't have to share or have her portion cut down in size because she's a growing child and she needs that. (574, Marginal)

Discussion

Everyday social contexts shape the health and mental health of the individuals we aim to serve (Astell-Burt 2013; Biehl and Moran-Thomas 2009). Interestingly, over half of participants in our sample who met USDA FSS criteria for past-year food insecurity also reported that on any given day they felt they had enough food. This finding suggests that there may be protective features of the local social context that mitigate the experience of food insecurity and the negative mental health impact of food insecurity among our informants. In *Standing in the Need: Culture, Comfort and Coming Home after Katrina*, anthropologist Katherine Browne (2015) similarly explored how the ties between African American families and food are often a source of pride, bonding, and resilience, even in the face of deprivation and disaster. The book movingly depicts how a 150-member African American family, resettled in Dallas, Texas, after Hurricane Katrina, shares food in ways that both binds them together and reminds them of their shared memories of personal and familial resilience to overcome adversities. Her work orients us culturally to consider the ways African Americans with serious mental illnesses treated in public mental health settings are adapting socially to conditions of food insecurity beyond—or as a complement to—institutional provisions, and how public mental health programs can build on these efforts to counter food insecurity and its negative effects on mental health. There are barriers to acquiring food among low-income African Americans documented in the literature (Zenk et al. 2005, 2011), but perhaps social connections around food can help people "make do" in spite of those barriers.

Our informants typically modeled their subjective experience of "having enough" and "not having enough" food in terms of social relationships. Many who felt they had enough

food described adapting to food insecurity *with* others, such as families, roommates, romantic partners, and friends. Adaptations include sharing food, cooking together, pooling government food assistance benefits, and visiting family and friends to supplement one's diet when food and money were in short supply. These people seemed less anxious about their food insecurity in general. Our findings are supported by another important study of African Americans' relationship to food, which suggested that cultural attitudes and values surrounding the sharing and consumption of food, as well as continued assessment and adaptation to adverse food environments in socially strategic ways, may be a central aspect of African American food practices (Airhihenbuwa et al. 1996).

In contrast, some folks who felt they did not have enough food also described having fewer relationships with others and seemed more anxious about their food insecurity. Participants who felt they did not have enough food were worried about running out of food or about insufficient money for food, expressed concerns related to finding more food, and claimed to limit food intake at times to make it through the month. This is clinically relevant because it suggests that individuals who are experiencing food insecurity and have a limited social network may need more assistance managing anxiety, and should also be encouraged to (and given real opportunities to) make social connections and share food with others. Offering food assistance in ways that benefit groups of persons who cook together and share food rather than individuals alone may be critical for continuing to curb food insecurity and the negative mental health impact of food insecurity in this remarkably food insecure population.

Our findings also suggest that African Americans using public mental health services may not necessarily seek out help with food even if they are experiencing high levels of food insecurity, and they also may not respond to food interventions that do not offer them more opportunities to cook, greater healthy food choices, and the opportunity to prepare and share food socially with others. Alongside ensuring better, year-round availability of food, it might be fruitful to nurture positive social spaces and practices around food preparation and consumption (such as community kitchens), or address the association of food consumption with negative emotional states rather than typical, generic 'education' about healthy and unhealthy eating.

In terms of how they related their relationship with food to their mental illness, many focused on the impacts of their psychiatric medications. Some linked hunger levels to the side effects of psychiatric medications—either as a cause of increased appetite or as a way to escape hunger (e.g., with sleeping pills). Others described using food to self-soothe, especially junk food. And some described the situation of having no food as frustrating or a point of shame, for example, when the aunt could not feed her visiting niece. People desired to share food with others, and it seemed that doing so bolstered their sense of resilience, promoted personal pride, and helped maintain social relationships—all of which can strengthen one's mental health.

We acknowledge that participants' responses to the qualitative questions may have been constrained by the lack of racial diversity among the interviewers for this project, who were all Caucasian. It is also possible that the qualitative interviews were not well-tailored to the population and so respondents were claiming to feel less insecure than they actually were because of some issue with the way interview questions were posed or interpreted, although the diversity of responses suggests this was not an issue across the study. We also regret not having a larger sample. Future research would benefit from adding further geographical, racial and ethnic diversity to samples.

We would also like to learn more about how people use SNAP benefits specifically, which are supposed to limit food insecurity. Studies have shown that SNAP participation lowers the incidence of food insecurity (McGuire 2012), so it is notable that although 86% of those sampled for this study received SNAP benefits, 71% still met criteria for food insecurity. Further research is warranted to determine if these findings are based upon underutilization of the benefits, inadequacy of the offerings in volume or variety of food or some other confounding factor.

In a future study, it would also be helpful to directly ask participants what policy changes they would like to see around food insecurity in the African American community, and among public mental health service users. Lee and Greif (2008) discuss the complexity of food insecurity for public policy, which is greater than just helping people obtain enough food to eat. They identify four key aspects of the issue: consumption, food quality, food source, and cost. All of these factors were touched upon in our study, as well. Lee and Greif (2008) argue that each aspect must be addressed in the formulation of policy and programs to successfully decrease food insecurity as it occurs across varied populations, and our participants' responses confirm these findings.

An example of a community-based program in Detroit, Michigan—the Detroit Black Community Food Security Network—utilizes unused urban space as a seven-acre community garden where people can learn more about food and grow their own food (White 2011). This farm has helped ease urban blight, built a sense of community, and increased local residents' ability to engage in collective work, thereby enhancing their sense of political agency (White 2011). In light of the findings of our own qualitative study regarding the importance of the communal aspects of food and the complex nature of the issue of food insecurity across populations, future multidisciplinary research into the feasibility

of implementing similar programs in settings accessible to persons with serious mental illnesses could be useful.

Social/relational strategies to buffer against the negative impact of food insecurity is relevant for African Americans, and may also be helpful for others, and more research is needed. Community gardens and kitchens, possibly housed in public mental health centers, or in other spaces like church kitchens, may work to decrease food insecurity and increase the social relationships of individuals experiencing food insecurity. These spaces could be used to provide education, as well as healthy cooking practices, and also may reduce the financial and emotional stressors of trying to cook alone.

Conclusions

The emotional and social uses and understandings of food among highly vulnerable groups are important. Addressing food insecurity to improve mental health requires focus on adaptive strategies, especially strategies being deployed in everyday life in specific cultural contexts. This requires further ethnographic research on individuals' lived experiences of food and food insecurity in different cultural contexts. In this case, we suggest that programs targeting social networks of individuals working together rather than individuals alone, in order to build on the existence of current shared food networks, may be an effective way to both reduce social isolation among persons with serious mental illnesses and promote food security. Creating spaces where people can grow food and cook food together in public mental health programs, especially people who may be isolated from a larger social network, could be beneficial for highly vulnerable populations. Cooking together seems to promote social and emotional well-being, and enables participants to pool their food and diversify their food consumption options. Kitchen facilities could be housed in a community mental health center, in local churches or community centers, or even in group homes. A community mental health center where people have a high experience of food insecurity, and where cooking together is a cultural adaptation to social adversity that restores a sense of well-being for many while promoting social connectedness, could be a good place to implement and test such an intervention.

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