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Challenges to healthy eating practices: A qualitative study of non-Hispanic black men living with diabetes

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Abstract

Purpose—The purpose of this study was to explore current dietary practices and perceived barriers to healthy eating in non-Hispanic black men with type 2 diabetes.

Methods—Four 90-minute focus groups held in September and October, 2011 were led by a trained moderator with a written guide to facilitate discussion on dietary practices and barriers to healthy eating. Participants were recruited from the diabetes database at a public safety-net health system in Jefferson County, Alabama. Two-independent reviewers (LTL and ALW) performed content analysis to identify major themes using a combined deductive and inductive approach.

Results—There were 34 male participants aged 18 years and older. Mean years living with diabetes was 9.6 ± 5.9 . Sixty-two percent of participants perceived themselves to be in fair or poor health. Participants' self-reported eating practices did not always relate to hunger. Internal cues to eat included habit and response to emotions; and external cues to eat included media messaging, medication regimens, and work schedules. Men identified multiple barriers to healthy eating including hard-to-break habits, limited resources and availability of food at home and in neighborhood grocery stores, and perceived poor health-care professional communication.

Conclusion—Non-Hispanic black men acknowledged the importance of healthy eating as part of diabetes self-management, but reported various internal and external challenges that present barriers to healthy eating. Tailored strategies to overcome barriers to healthy eating among non-Hispanic black men should be developed and tested for their impact on diabetes self-management.

Keywords

diabetes self-management; dietary practices; barriers; men

Type 2 diabetes (T2DM) is the leading epidemic of the 21st century¹, affecting 29 million people in the United States (US) alone and contributing \$245 billion annually to health care expenditures². The prevalence of diagnosed T2DM is 77% higher in non-Hispanic blacks compared to whites^{3,4}, and is also higher among US men than women, at 14% versus 11% respectively². Further, people with diabetes have a substantially increased risk of micro and macrovascular diseases (e.g., kidney and end stage renal disease, heart and peripheral vascular disease)⁵⁻⁷. Between 2005 and 2050 there is expected to be a 363% increase in the number of non-Hispanic black men living with diabetes, compared to a 174% prevalence increase among men in general^{8,9}. Consequently, if this alarming trend continues, the largest and sickest population of people with diabetes and its related complications could be non-Hispanic black men. These projections indicate a need to identify strategies to eliminate health disparities among non-Hispanic black compared to white men. However, few studies have focused specifically on the development of self-management strategies tailored for non-Hispanic black men.

The aim of diabetes self-management is to maintain blood glucose as close to the normal range as possible¹⁰. Compelling evidence shows that healthy eating practices play a role in blood glucose control¹¹⁻¹⁴ and diabetes management¹⁵⁻¹⁸. However, maintaining healthy eating practices requires vigilant and sustained adherence to a dietary plan recommended by a health-care provider¹⁹, and many non-Hispanic black men with T2DM struggle to follow such plans²⁰, citing lack of family support, work schedules, insufficient knowledge, and inability to purchase healthy foods as barriers²¹. Identifying nutrition strategies that improve dietary practices and address barriers to glycemic control unique to non-Hispanic black men is essential to enhancing self-management in the high-risk group.

Intuitive Eating (IE) is a strategy that promotes healthy eating and acknowledges four major reasons for eating: physiological hunger and fullness signals, environmental cues, societal cues, and emotional stimuli²². IE is a holistic strategy that relies on an individual's ability to distinguish between physical and emotional feelings as cues for eating. An intuitive eater focuses on physiologic body signals for eating, improving self-image, and coping with emotions, versus reacting to unhealthy cues for eating (e.g., societal norms, dieting practices, TV commercials)²². IE strategies have been identified as one effective approach to modify eating behaviors and improve metabolic fitness (e.g., lower fasting blood glucose)²²⁻²⁸. The extent to which older non-Hispanic black men with T2DM dietary practices align with the principle of intuitive eating is not known. Understanding non-Hispanic black men's current dietary practices and specific barriers to healthy eating could facilitate the creation of tailored interventions aimed at eliminating or decreasing many of the obstacles for diabetes self-management as they relate to diet in this vulnerable population.

The purpose of this article is to explore current dietary practices and perceived barriers to healthy eating in non-Hispanic black men with type 2 diabetes. Researchers present the results of focus group interviews held in September and October 2011 in the Birmingham,

Alabama area. Interviews were designed to understand current dietary practices and identify perceived barriers and strategies for healthy eating in non-Hispanic black men with T2DM. Research questions that guided the focus groups were:

Research Question 1: What are the perceived barriers to healthy eating in non-Hispanic black men living with T2DM?

Research Question 2: What are the dietary strategies used by non-Hispanic black men to promote healthy eating?

Methods

Study Design

This study used a qualitative approach, specifically focus groups, to explore perspectives related to food, eating practices and beliefs among non-Hispanic black men living with T2DM. The use of focus group methodology involves a series of planned discussion groups to assess beliefs and perceptions of the target population on a specific topic in an open-ended, non-threatening way²⁹. Individual participants have the opportunity to expand on ideas introduced by other members of the group, allowing for a wide range of feelings and opinions on a topic to be expressed. The study was approved by both Cooper Green Mercy Health System and The University of Alabama at Birmingham Institutional Review Boards, and written informed consent was obtained from each focus group participant.

Sample and Recruitment

The study was conducted through a partnership among the University of Alabama at Birmingham (UAB), Cooper Green Hospital (CGH), and Congregations for Public Health, a 501(c) 3 organization dedicated to promoting health equity among community members. Participants were recruited using a homogenous sampling technique from within CGH, a public safety-net health system that provides care for residents of the Birmingham-Hoover Metropolitan Area. Participant eligibility was determined using the health system's diabetes education database, which included all patients referred for diabetes education at CGH. Non-Hispanic black men were eligible if they had a physician diagnosis of T2DM and had received care within the health system between 2009 and 2011. Potential participants received a letter from the investigators informing them of the study purpose and providing them the opportunity to opt out of future communication about the study. Men were then contacted by telephone and provided with additional information about the study along with an invitation to participate. Four focus group sessions, with a range in group size of 4–10 men took place in Congregations for Public Health churches within the men's local communities.

Data Collection

Prior to each focus group session, participant height was measured to the nearest 0.1 centimeter, and weight measured to the nearest 0.1 kilogram, by trained project staff using a standardized protocol. Body mass index (BMI) was calculated as weight (kg) / height (m²). Afterwards, questionnaires were administered to participants asking about age, marital status, education, employment status, years spent living with a diabetes diagnosis, self-

reported health status compared to peers, and dietary practices related to intuitive eating (see Measures). All questions were read to participants in consideration of potential low levels of literacy and health literacy in the study population. Participants were allowed as much time as required to answer questions. A non-Hispanic black male trained in qualitative methods served as moderator for the focus groups using a guide; a designated note-taker was also present to capture participants' comments on a flip chart and to keep track of non-verbal behavior and level of engagement on various topics. The moderator's guide included open-ended questions about perceived barriers, dietary practices and beliefs in the context of T2DM. Questions regarding diabetes self-management and barriers were included (Table 1). Audio from all focus groups was recorded and transcribed. The moderator, note-taker, and project investigators met immediately following each focus group for a debriefing session to compare notes on the overall process and impressions unique to each group.

Measures

The questionnaire included a validated IE scale measuring five domains related to food intake and IE³⁰: 1) disinhibition, the inability to stop eating even when full; 2) awareness, being aware of and appreciating the effects of food on the senses; 3) external cues, eating in response to environmental cues; 4) emotional response, eating in response to negative emotional states; and 5) distraction, focus on other activities while eating. The scale was developed using previously validated instruments that assess eating behavior and mindfulness. The questionnaire contained 28 items and used a 4-point Likert-scale ranging from 1 (strongly disagree) to 4 (strongly agree). Higher scores on the IE scale indicate greater adherence to IE principles, with a score of 4 representing very high adherence, and a score of 1 indicating poor to no adherence to IE techniques. In prior work, average scores decreased with increasing body mass index with scores of > 3.00 observed in normal weight men and women, scores > 2.70 noted in overweight participants, and scores of 2.54 recorded in obese individuals³⁰.

Data Analysis

For questionnaire data, descriptive statistics were generated using SAS version 9.3 (SAS Institute Inc., Cary, NC, USA). As previously described, a combined inductive and deductive approach was used to conduct qualitative content analysis identifying major categories and substantive themes^{31,32}. Three independent reviewers (LTL, ALW, and ALC) read each transcript to gain an over-arching sense for the conversation, and then identified meaningful units in the forms of phrases and sentences. These units were further condensed with codes created and assigned to each meaningful unit. Investigators then discussed the codes in order to reach consensus on a codebook that would be applied moving forward. Codes were further categorized and themes identified based on the data. Two reviewers applied the codebook to each subsequent transcript, noting emergence of any new themes, with coding discrepancies decided by the third independent reviewer. Saturation of themes was identified following the fourth and final focus group.

Study rigor and trustworthiness of the data were ensured with multiple strategies^{33,34}. The primary reviewers in this study have doctoral degrees in nursing and nutrition, and a research focus on health disparities. Researcher bias was minimized by incorporating a

multidisciplinary racially diverse team of reviewers in the analysis, including a physician investigator with expertise in community-based research and qualitative methods. Additionally, member checking, or leading a confirmatory focus group with previous participants for respondent validation of focus groups findings, was conducted following the conclusion of all focus groups.

Results

Characteristics of Focus Group Participants

Four 90-minute focus groups were conducted with 34 non-Hispanic black men (Table 2). The sample group was on average aged 53.8 ± 7.5 years with a BMI 33.5 ± 9.3 . Mean years living with diabetes was 9.6 ± 5.9 years. The majority of men were unemployed (88%) and were not married/living with a partner (79%). Thirty-five percent of the group had some college/technical school or a college degree, 29% completed high school, and 35% had less than a high school education. The mean household income was less than \$1,500 each month. The majority (62%) of the men perceived their health status as fair or poor.

Intuitive Eating Scores

The men in this study had low adherence to IE techniques. Mean IE score was 2.6 ± 0.3 (Table 2), which was consistent with scores observed in overweight and obese participants in previous studies³⁰.

Themes from Men's Focus Groups

Themes arose in five overarching domains. These included: why we eat, impact of diabetes mellitus diagnosis on diet, current dietary practices, barriers to changing eating practices, and myths/misperceptions among non-Hispanic black men with diabetes.

Why We Eat—The men discussed eating as an integral component of maintaining overall health, “For your health, that’s why you are eating.” Another participant added, “It is for your basic nutrition, my health, basic nutrition and health to maintain a healthy diet.” Additional subthemes related to why we eat included both internal and external cues.

Internal cues: Men described several internal cues to eating, including hunger, habit, and/or response to emotions. In response to the question “why do people eat”, some men answered, “Because they’re hungry.” Others described eating as a habit. For example, one said, “In other words, they’re like me. Every morning, I wake up looking for breakfast.” Another participant said, “My body has a clock, you know. I do this at this time,” while another participant reported: “Happiness makes you want to eat.” Others explained that people eat because they are bored or depressed; “Yeah, I get depressed and I just eat.” Some use food for comfort or as a reward. For example, one participant reported, “People eat to get relief from troubles, heartaches.” Some men reported using food as reward for sticking to their prescribed diet. One participant stated, “I can eat a sweet every now and then, and so what I do is when I do eat it, I feel award.” A few participants noted that eating was linked to sexual intercourse, “When you have sex you be wanting to eat.”

External cues: Environmental and external stimuli for eating were discussed by several men. One participant emphasized the importance of marketing in food choices, stating that television advertisements were a cue for eating, “They send subliminal messages in the television about food.” Another added, “The commercials make you want to eat something.” Participants also reported their eating times were often dictated by work and medication schedules. For example, one participant explained, “Scheduling as far as your job time. Sometimes the work may call for you to put in more time, maybe less time so you can’t eat at a regular time.” Another added, “If you’re going to take medication, you got to eat every time before you take it.” Others agreed that prescribed diabetes medications require compliance with certain dietary habits, “And the medication, like you said, is going to eat on you if you don’t have anything on your stomach.”

Impact of diabetes diagnosis on diet—Acknowledgement of the reasons why we eat led to a discussion of the impact of diabetes diagnosis on diet, with awareness of how food affects physical health, perceived loss of dietary choice, and loss of culture identified as major subthemes. Men emphasized the importance of eating meals and food selection, one explained “Since I have become a diabetic I found out that when I eat breakfast I have more energy—and I think better.” Another participant stated, “The food changes your blood sugar, blood pressure, basically your ability to function.” Others cited foods that they believed would increase their blood glucose. These included peanut butter, candy, chocolate, and bakery goods (e.g., cinnamon rolls, honey buns and sweet potato pie). One participant explained how eating foods other than sweets contributed to his poor blood glucose control: “And I got diabetes not because I eat sweets because I’m not sweet-eating person. I got it from eating things I didn’t know was running my sugar up, like starches, rice, macaroni and cheese, and mashed potatoes.”

Men described a loss of dietary food choices and specifically what they perceived as “bad foods”. One man explained, “Since I have diabetes, I’ve learned that I can’t have certain spicy food, and I can’t have certain fried foods.” Some participants believed that living with diabetes and subsequently dietary restrictions caused them to feel jealousy for people who do not have the same restrictions, “Jealousy, what makes it hard for us when we watch what others eat, we might be... involuntarily, we might be a little bit jealous because we can’t have those things as a diabetic.”

Participants explained that many dietary preferences of non-Hispanic blacks were not aligned with a healthy diabetes diet. For example, one participant expressed concern about diabetes diets, noting that few foods listed on the diabetes diet are favorite food choices among non-Hispanic blacks. He explained, “The list they gave us at the diabetic class, everything on it, sad to say, not to eat the whole black race diet.” Another participant noted, “What it really all boils down to one thing, we all of what we call kind of a meat-eaters. It doesn’t make any difference what kind of meat it is. If it’s meat, it’s meat.”

Current Dietary Practices—The men discussed their current eating practices. Subthemes that emerged from the discussion included: preferred eating locations and habits to enjoy food, self-indulgence, self-control, and cues to know when to stop eating. The men described eating location as an important element that enhanced their eating pleasure.

Common eating locations were in front of a TV, in the kitchen, and eating with family members. For example, “In the kitchen in front of the TV. The TV cannot be left out—that’s the culture we live in.” Another participant added “I sit in the kitchen and watch TV and eat because I don’t want no bread crumbs in the living room there.” Other participants added, “I eat in my car,” “I eat with my grandkids, kids, or my wife. I seldom eat alone.” One participant expressed the importance of minimizing distractions during meals, saying, “[You eat] anywhere you can zone out.”

Several participants acknowledged their habit of self-indulgence for perceived unhealthy foods and overeating, “You eat it knowing you’re not supposed to have it,” and another added “I find the problem with sweets with me, and probably a lot of people, we don’t know when to stop eating.” Others cited holiday celebrations as their reason for self-indulgence.

Self-indulgence led to a discussion about self-control. One participant stated, “I’m just going to be honest with you, and I’m not the only one guilty of this, there’s a high percentage of people that are diabetics but do not control portions like they need to.” Conversely, other participants stated, “Like the portions, you have to sort of train yourself to stick to the food choice,” and “I eat just a portion of food when I used to eat, you know, a big meal.”

Participants described several cues they relied on to know when it was time to stop eating. Most reasons discussed related to physical discomfort. For example, one participant stated, “When the button pops off your pants.” Another similar comment was, “When you breathe...when I get to breathing hard, I know I ate way too much.” Some men also agreed that a cue to stop eating is when their plate is empty.

Barriers to Change/Healthy Eating—Several men reported barriers to change or healthy eating due to factors such as limited resources, availability of food at home and in neighborhood grocery stores, hard to break habits, and perceived poor health-care professional communication.

Men expressed frustration that recommended foods were often too expensive or not available in their home. One participant stated, “Most of the food that they tell you to eat is too expensive for you to buy.” Another participant commented, “Cheaper food, you get them for a dollar, but the good stuff costs you way more.” Thereafter the moderator asked about which foods were more expensive. A participant stated, “Fruit, man.” A second participant added, “I go and grab me three bags of them three-for-a-dollar..., now it’s two for a dollar.” They also reported difficulty with food availability even when they could define which foods were better for blood glucose control.

“Availability. I mean, let’s be honest. The good, healthy stuff is not in our neighborhood. You’re not going to find that in our Piggly Wiggly. You’re going to find pig’s foot and all sorts of stuff, you know.”

“Yeah, frying the chicken. How many people do you know are going to cook a separate meal for you, you know?”

“A lot of times some items are there in the house.”

Participants also believed that their old eating habits were barriers to healthy eating. One participant questioned the need to change his eating habits because he had reached the 6th decade of his life.

“I’m saying all that to say this, you know. I understand what they said, it’s all good academically, but when it comes to trying to put it into practice, it’s not that easy when you have habits that you have been doing...I’m 57 years of age, so I’ve been doing it for 50-some odd years.”

In addition, participants mentioned denial, rebellion, and lack of self-control as barriers for healthy eating practices.

Men complained that their health-care professional provided ambiguous instructions about weight loss, “That’s just like the doctor told me that I got to lose 50 pounds. How can I lose... I just can’t lose 50 pounds within one week or something like that.” One participant stated, “They’re so, how can I say, for lack of a better term, booshie (i.e., pretentious or snobby) that they talk at you, not to you.”

Myths/Misperceptions/Misinformation—Closely linked to the men’s perceived barriers for healthy eating were myths and misperceptions. Major subthemes that emerged related to myths/misperceptions/misinformation were general misconceptions related to foods, and home remedies that control blood glucose. For example, one participant explained, “I pick certain items with high fructose sugar.” Two men shared their beliefs about foods that are altered by cell phones and microwave ovens.

“I would raise the issue that not only for diabetics, but everybody needs to look at the top ten reasons why not to use a microwave oven because of the radiation in it and it alters the food itself to a form that the body no longer recognizes it as usable food fuel, so it stores, but can alter and raise your sugar levels.”

Another participant added, “cell phones too.”

Men reported some home remedies, which they perceived would control their blood glucose. One remedy mentioned by some participants was hot sauce, “Add a little hot sauce.” Another participant explained, “Cardiologists carry hot sauce, cayenne pepper on them all the time, because one drop on the tongue will stop a heart attack in less than ten seconds. If you are going to eat that fried chicken, that cake, that honeybun, cut it with that hot sauce and it will clean your blood.”

Discussion

This qualitative study explored non-Hispanic black men’s perceptions surrounding why they eat, the impact of diabetes diagnosis, current dietary practices, barriers to change/healthy eating, and myths and misperceptions. These focus groups provide important evidence needed for developing culturally-sensitive tailored interventions for self-management of blood glucose control for non-Hispanic black men. The results of the study reveal numerous perceived barriers to healthy eating practices among this sample of non-Hispanic black men with T2DM including hard to break habits, limited resources and lack of availability of

healthy food at home and in neighborhood grocery stores, and perceived poor health-care professional communication. In addition, findings indicate that the non-Hispanic black men living with T2DM in this sample have eating practices that are not aligned with principles of IE.

IE is one potential approach for health management and Wheeler et al. found a positive association between IE scores and glycemic control in adolescents with type 1 diabetes³⁵. On average, IE scores for this sample of non-Hispanic black men with diabetes were consistent with those reported in other studies of overweight and obese men/women³⁰. Previous studies have reported higher IE scores in men compared to women^{36,37}; however, IE scores of this study population were not significantly different from those of non-Hispanic black women with type 2 diabetes from the same geographic area³⁷.

While some men in this study acknowledged hunger as a cue to eat, many of the participants described additional factors including habit and response to emotions as triggers to eat. Similarly, rather than recognizing satiety as a cue to stop eating, men often described an empty plate or physical discomfort as factors that influence their decision to stop eating. This is consistent with findings from Wansink and colleagues who reported such findings for Chicagoans (Internal and external cues of meal cessation: The French paradox redux?)³⁸.

Participants also engaged in eating practices not consistent with IE, such as eating in situations (i.e., while driving or watching television) that distract them from focusing on their meals. Previous studies have examined the association of food intake with psychological and behavioral factors^{39,40}. For example, watching television while eating has been associated with a delay in mealtime satiation^{41,42} and subsequent overeating. Higgs and Woodward revealed that participants who watch television during mealtime do not have a clear memory of the amount of food consumed and subsequently eat larger after-meal snacks⁴³. Similarly, other studies report that people who eat while watching television tend to underestimate the amount of food consumed⁴⁴. Findings from these studies may explain the eating practices described by the men in the current study.

Watching television while eating can influence food selection as well as overeating. In westernized countries food advertisements, often for high-calorie unhealthy foods^{45,46}, are shown during prime time television. Studies have shown that television viewers consume more advertised foods relative to non-advertised foods⁴⁵. It is noteworthy that Henderson and Kelly reported that more television food advertisements appear during shows targeted at non-Hispanic black viewers than on other prime-time television shows⁴⁶. Given this evidence, some non-Hispanic black men may be exposed to visual sensory stimulation from television advertisements that encourage eating low-nutritious foods that are not aligned with a healthy diabetes diet. Despite the negative consequences, some men in this study noted that watching television while eating increased meal satisfaction. More studies are needed to investigate the association between amount and type of food consumed and television viewing during meals in a population of non-Hispanic black men with diagnosed diabetes as well as to appraise the benefits relative to risks for glycemic control. In addition, interventions that include strategies for watching television while de-focusing on food advertisements may be effective in improving eating practices in this population.

Another theme among participants was the perception that a diabetes diet is not aligned with non-Hispanic black culture and traditions. This perception is consistent with another qualitative study reporting perceived dietary deprivation among non-Hispanic blacks with diabetes⁴⁷. It is also consistent with findings by Locher et al. that barriers to eating foods older adults reported liking included health-related dietary restrictions and recommendations from healthcare providers⁴⁸.

While most minority men with T2DM receive dietary instructions from their health-care provider, that information is often perceived as culturally insensitive in disregarding traditional food preferences⁴⁹. Non-Hispanic black cultural tradition commonly includes diets rich with fried foods and flavoring with animal fats⁵⁰, foods associated with risk of incident T2D⁵¹. Findings from this study highlight the importance of integrating cultural-specific menu and meal planning in diabetes self-management strategies designed to improve blood glucose control in non-Hispanic black men with T2DM.

Findings also suggest that non-Hispanic black men may benefit from positive approaches promoting foods to eat more of, as opposed to a negative focus on foods to restrict. Investigators have reported that positive messages promoting healthy behaviors are more effective than negative messages of unhealthy behaviors to avoid^{52–54}. In addition, culturally tailored nutrition interventions are associated with positive health outcomes such as weight loss in non-Hispanic black women^{55–57}. However, more research is needed to assess how to best incorporate culturally tailored positive health messages into diabetes education for non-Hispanic black men^{58,59}.

Another important feature of this study is the extent to which participants discussed socioeconomic barriers to healthy eating. Lack of access to healthy foods in non-Hispanic black and other minority communities has been reported in the literature^{20,60,61}. For example, the American Diabetes Association recommends that people with diagnosed diabetes eat a low-fat diet⁶² (e.g., low-fat milk) but fewer grocery stores in predominantly non-Hispanic black compared to white neighborhoods in New York State sell low-fat milk^{63,64}. More recently, Bodor et al. found that African American areas in Louisiana had more convenience stores than supermarkets, potentially limiting access to foods such as fresh fruits and vegetables while increasing availability of snack foods⁶⁵. A similar disparity in the location of chain supermarkets has been found across the United States⁶⁶. The barriers described by these study's focus group participants are supported by a growing body of research highlighting an association between limited access to full service grocery stores and chronic diseases such as diabetes^{67–71}.

Another barrier to glycemic control mentioned by the participants in this study is imposed schedule and associated lack of time. This barrier may result from a combination of external factors (e.g., jobs, school, and family) and the perception that prepared healthful meals is excessively time consuming. Participants' perception of limited access to healthy foods may thus be related to lack of access to convenient easy to prepare forms of healthy foods (e.g., pre-packaged prepared and inexpensive foods) as well as to lack of knowledge of how to quickly prepare foods using available healthy ingredients.

This study has limitations. Data are from a convenience sample of 34 men. Additionally, the majority of study participants had similar socioeconomic backgrounds; they received care from the same resource-limited safety-net health care facility in Birmingham Alabama, and were all living in the Southeast region of the United States. Because this study sample size was small and largely homogeneous, findings cannot be generalized to all non-Hispanic blacks, other racial minorities, or men living in other regions of the United States. However, this study does fill a gap in the literature regarding the perceptions and self-management strategies of non-Hispanic black men living with T2DM.

Conclusions

These results highlight the need to further investigate factors that play a role in self-management of diabetes among non-Hispanic black men. Studies directed toward the relationship among eating practices based on the principles of IE, social support (e.g. spousal support), and blood glucose control will allow for the development of tailored interventions in this vulnerable population. Future interventions aimed at eliminating barriers to healthy eating practices and promoting dietary strategies that result in improved blood glucose control can be effective in reducing the racial health disparity of diabetes and diabetes-related complications.

Implications for Practice

This study has several implications for practice. First, it is important that clinicians be aware of the barriers to healthy eating faced by non-Hispanic black men. Second, clinicians must be mindful of the importance of providing culturally-sensitive patient information in programs that promote education on healthy eating. Third, diabetes self-management programs that include IE principles may encourage more healthful eating practices. Fourth, Crabtree et al. found that non-Hispanic black men emphasized a need for improved health-care provider and patient communication and community-based support groups with respect to diabetes self-management³². This may be especially true for men with limited social support from spouses. Findings suggest that as part of that self-management, behavioral strategies that facilitate an understanding of healthy dietary habits need to be identified. Such strategies to improve self-management of diabetes that focuses especially on diet, may also be effective in similar populations that have a disproportionate diabetes and diabetes-related complications burden.

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Table 1

Selected questions from the moderator's guide used in the focus group meetings held in Jefferson County, Alabama in September and October 2011

1	What kind of things makes it difficult for you to eat the right foods?
2	In general, why do people eat?
3	How, if at all, has having diabetes changed the way you think of food?
4	Let's make a list of all of the things in our day that let us know when we want to eat?
5	Are there other emotions or feelings that make people want to eat?
6	First of all, where do you eat?
7	How do you know when you are ready to stop eating?

Table 2

Characteristics of male participants (n=34) in the focus group meetings held in Jefferson County, Alabama in September and October 2011

Characteristics (n = 34)	Mean $\pm$ SD
Age (years)	53.8 $\pm$ 7.5
Weight (kilograms)	105.9 $\pm$ 29.2
Height (centimeters)	177.9 $\pm$ 7.2
Body mass index	33.5 $\pm$ 9.3
Years with T2DM	9.6 $\pm$ 5.9
Monthly household income	737.9 $\pm$ 578.3
Intuitive Eating Score	2.6 $\pm$ 0.3
Frequency (%)	
Married or living with a partner	7.0 (21%)
Employed	4.0 (12%)
Years of education	
Some college/technical school or college degree	12.0 (35%)
Completed high school	10.0 (29%)
< High school education	12.0 (35%)
Health comparison	
Fair/poor	21.0 (62%)
Good	10.0 (29%)
Very good/excellent	3.0 (9%)

SD=standard deviation, T2DM=type 2 diabetes mellitus