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Revising Diabetes Programming for Black Men and Their Families

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Keywords

Type-2 diabetes, gender, masculinity, men's health, risk, minorities, diabetes education, qualitative research, Midwestern United States

Disciplines

African American Studies | Community-Based Research | Demography, Population, and Ecology | Endocrinology, Diabetes, and Metabolism | Family, Life Course, and Society | Gender and Sexuality | Medicine and Health | Race and Ethnicity

Comments

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Abstract

Type-2 diabetes has increased 160% for African American males in the United States. This two-part study's purpose was to apply social marketing theory to understand the Type-2 diabetes education needs of men in Iowa. Study One was a preference assessment of Type-2 diabetes education strategies. Four African American men participated in a series of four focus groups and indicated that they were interested in diabetes prevention programming with their families but not in having it labeled as diabetes education. Participating men would rather increase their physical activity as opposed to tracking their food intake. As a follow-up to this study, nine other African American males took part in Study Two, which used cooking demonstrations and recipe taste-testing with the men to examine their relationship to food in the context of managing their Type-2 diabetes. The findings of both studies, which provided insight into these African American men's lifestyle as related to their Type-2 diabetes, could be useful for nursing professionals who have a critical role in navigating cultural, gender, and family norms while developing care plans, offering patient education, and promoting quality of life.

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Introduction

Diabetes is a critical, global public health issue (Saeedi et al., 2019; World Health Organization, 2016). Diabetes is a priority non-communicable disease requiring action, in part because it is one of the top 10 causes of adult deaths (Saeedi et al., 2019). Diabetes has far-reaching impacts for disease burden, complications, and economic impact (Saeedi et al., 2019; WHO, 2016). Most cases of diabetes are Type-2 diabetes, which is attributable to aging, urbanization, and obesity (WHO, 2016). Cultivating effective programs and practices in nursing, health care, nutrition, and physical activity are important for preventing and managing Type-2 diabetes. Nursing professionals play a critical role in the health care of individuals at risk for the disease, as well as those who are coping with it, and they advocate for patient care, education, health care, and quality of life.

In the United States, Type-2 diabetes is the seventh leading cause of death (Heron, 2018). In addition to addressing the disease burden, its complications, economic impact, and prevention and management, other key areas for scholars and health professionals to pursue include diabetes disparities

among certain populations and gaps in diabetes knowledge base (WHO, 2016). Type-2 diabetes disproportionately affects African American adults, having increased by more than 160% for African American males between 1980 and 2020. The age-adjusted prevalence per 100 individuals among these men was 11.4 and by comparison, 12.0 for African American women (Centers for Disease Control and Prevention, 2020).

While Type-2 diabetes rates are a national issue generally, their rates are higher in some regions of the country. For example, in urban areas in Iowa, the number of African

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American residents affected by Type-2 diabetes is higher. While they comprise 3.3% of the total population in Iowa in more populated areas (e.g., Des Moines, 10.2%), this number increases substantially. Polk County, site of the state capital of Des Moines, has the third highest African American population (33,611) (State Data Center of Iowa & the Iowa Commission on the Status of African Americans, 2019). According to the Centers for Disease Control & Prevention (2018), cases of diagnosed Type-2 diabetes in Iowa increased from 3.8% in 1991 to 7.7% in 2015. Moreover, racial disparities exist for Type-2 diabetes: 13% for African American women and men versus 5% for White, non-Hispanic men and 7% for White, non-Hispanic women. By comparison, 8% of Hispanic women and men were diagnosed with this chronic disease; and women and men from other racial groups were diagnosed with it, at 7% and 5% respectively (Iowa Chronic Disease Report Supplement, 2011).

Yet, African American men have been under-represented in randomized trials for testing preventive interventions for Type-2 diabetes (Jack, Gross, et al., 2010), and when they have been included, their retention rates are low. One way to improve these outcomes would be to offer appealing and sensitive programming to address African American men's unique needs and preferences. To be sure, the disproportionate global, national, and state rates of this disease make clear the need for developing a gender-sensitive, culturally appropriate Type-2 diabetes education program that would promote healthier outcomes among African American men. For these reasons, we focused this two-part study on African American men's experiences, which are designated as Study One and Study Two.

Diabetes Prevention Programs

One well-known attempt at reducing Type-2 diabetes risk and promoting health has been the CDC's National Diabetes Prevention Program (DPP), a structured, 16-week lifestyle intervention focused on nutrition, physical activity, and behavioral self-management, which reduced the incidence of Type-2 diabetes by 58% among the sample of participants (DPP Research Group, 2002; Orchard et al., 2005). In the original DPP program, there were differential rates of success with respect to recruitment and retention among African American men, who represented only 5% of the total sample, and who achieved poorer outcomes relative to African American women and men from other racial and ethnic groups (DPP Research Group, 2000, 2002; Samuel-Hodge et al., 2014; West et al., 2008). Cené et al. (2013) tested the DPP in three rural socioeconomically disadvantaged African American communities, and suggested that modifying the DPP curriculum to respond to the participants' opinions and perspectives would help improve their retention and behavioral change.

Based on the results of the DPP, scholars created the Prevent T2 curriculum in 2016, which promotes modest weight loss (5–7% of current weight if overweight or obese)

and increased physical activity through a 12-month lifestyle change program (National DPP Program, 2020). Although these programs are evidence-based and available nationally, their appropriateness for African American men remains unknown. The lower success rates of African American men participating in the DPP suggest that there is an opportunity for a revised curricula to address three critical areas (i.e., culturally appropriate, gender-sensitivity, and family) to be more effective for this population. With respect to *cultural appropriateness*, some Type-2 diabetes-specific and nutrition curricula designed to be culturally sensitive for African American adults have included culturally appropriate food examples (e.g., preferences for soul food and fried or breaded meats, high-carbohydrate diets) (Davis-Smith, 2007; Dodani & Fields 2010; Steinhardt et al., 2009).

With regard to *gender-sensitivity*, most studies have focused on African American women, thereby raising the question—are these curricula ecologically valid for men (Jack, 2004; McGinnis et al., 2005; Newton et al., 2014; Norris et al., 2001; Surwit et al., 2002; Wester, 2007)? There is growing literature on men's health promotion and masculinity that attends to dietary practices, physical activity, and health programming (Griffith & Thorpe 2016; Johnson et al., 2016). Therefore, attending to the role of gender is warranted because Type-2 diabetes prevention has “a gendered dimension” (Gomersall et al., 2011, p. 866). Masculine gender roles and characteristics (e.g., invincibility, protector, provider, working long hours to be a good provider, sense of invincibility in the face of pain) may explain why men are less likely than women to engage in preventive health practices (Jack, Totson, et al., 2010; Johnson et al., 2016; Newton et al., 2014). As Levant et al. (2011) stated, “Masculine gender socialization thus appears to create a ‘double whammy’ effect because it is associated with both poorer health behaviors *and* a reduced likelihood of using appropriate health resources when needed” (p. 27). As emphasized in earlier work, men are socialized to believe that seeking help is a sign of weakness and an admission of being unable to solve one's own problems and needing assistance (Smith, 2002; Williams & Justice 2010).

Type-2 diabetes programming that engages family members generally also holds value for African American adults, as they offer significant sources of support in promoting healthy outcomes among African American men through direct assistance, education, and reinforcement (Chesla et al., 2004; Chlebowy et al., 2013; Hurt et al., 2015; Treadwell et al., 2010). Mates and relatives plan meals and advocate for physical activity (Savoca & Miller 2001). Scholars who have included family in interventions have not only found positive outcomes with recruiting and retaining African American men, but also have observed gains in targeted outcomes (Brody et al., 2008; Chlebowy et al., 2013; Newton et al., 2014; Samuel-Hodge et al., 2014).

A common approach to Type-2 diabetes education for African American adults is the use of community health

advocates, most commonly lay leaders trained in facilitating the curriculum, a model used by the DPP. Evaluations of Type-2 diabetes education delivered by community health educators have revealed issues related to program fidelity and program sustainability (Cené et al., 2013, Faridi et al., 2010). One means of delivering community-based Type-2 diabetes programming would be through Extension and Outreach.

Extension and Diabetes Education

Leaders in Iowa were the first to accept the terms of the Morrill Land Grant Act in 1862, which established Iowa State as a land-grant institution. These institutions were designed to “teach such branches of learning as are related to agriculture and the mechanic arts. . . in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life” (Iowa State University Extension and Outreach, 2015, p. 1). Following this legislation, Iowa State adopted the Smith-Lever Act, becoming the first land-grant institution to establish cooperative extension, “a network of 106 land-grant institutions and the U.S. Department of Agriculture serving communities and counties across the United States” (Iowa State University Extension and Outreach, 2015, p. 1). Extension and Outreach provides research-based information and education to help residents make decisions that improve their lives. Iowa State faculty and staff collaborate with Extension and Outreach specialists to “translate university research into practice for local individuals, families, employers, and communities” (Iowa State University Extension and Outreach, 2020). Today, Extension and Outreach supports program implementation across Iowa and locally, and leads efforts in educational program development, needs assessment, and evaluation of program impacts (Iowa State University Extension and Outreach 2015). More specifically, its mission is to build “a strong Iowa by engaging all Iowans in research, education, and extension experiences to address current and emerging real-life challenges” (Iowa State University Extension and Outreach, 2020).

Extension and Outreach is present in all 50 states and provides opportunities for people to receive research-based nutrition education without the added burden of requiring health insurance to cover the fee. Type-2 diabetes’s prevalence has prompted Outreach and Extension to take an active role in providing Type-2 diabetes education nationally (e.g., West Virginia, Illinois, Wyoming, New Mexico). Extension has the capability to reach many underserved audiences (e.g., the uninsured, African American communities, etc.) who might not otherwise be able to receive Type-2 diabetes education.

The primary Type-2 diabetes education program provided through Iowa’s Extension and Outreach is Dining with Diabetes (DWD), a curriculum based on social cognitive theory. According to this theory, gaining knowledge involves modeling or observing others’ experiences and social interactions (Bandura, 2001). Extension-based health and nutrition

educators use DWD nationwide (West Virginia University Extension Service, 2014). It is comprised of a series of four 2-hr classes that include learning activities, demonstrations, physical activity, and food tasting. The program’s focus, to help individuals learn strategies for lessening the health risks of Type-2 diabetes, has been effective in lowering hemoglobin A₁C (Burcham, 2009; West Virginia University Extension Service, 2014) and improving Type-2 diabetes self-management of A₁C levels (Chapman-Novakofski et al., 2004). Another Extension-delivered program, “Wisdom, Power, Control,” was developed and pilot-tested in African American rural Texas communities (Peña-Purcell et al., 2015). This seven-week program improved Type-2 diabetes knowledge, self-efficacy, improved self-care behavior, higher health status, and lower distress levels. However, the majority of the participants in “Wisdom, Power, Control” were women. Although effective, the DWD program and others offered through Extension were not tailored for African American men (Peña-Purcell et al., 2015).

One way to ensure that Extension Type-2 diabetes programs are appropriate for African American men is to utilize social marketing theory (SMT), a program-planning theory that aids in creation of audience-centered programming (Lefebvre & Rochlin 1997; Snow & Benedict 2003; Storey et al., 2008). SMT is comprised of six steps: (1) planning and strategy, (2) selection channels and materials, (3) creation of materials and pretesting, (4) implementation and/or pilot testing, (5) evaluation, and (6) revising based on consumer feedback (Lefebvre & Rochlin 1997). Utilization of SMT has enhanced community-based nutrition and wellness programming, particularly for underserved audiences (Francis et al., 2011, 2012; Francis & Taylor 2009; Keane & Francis 2018).

Since the purpose of this two-part study was to apply SMT in order to understand the Type-2 diabetes education needs and preferences of African American men in Iowa, we adopted a within-group design to allow us the opportunity to study these men “on [their] own terms as opposed to looking at things in terms of similarities and differences to other groups. Second, [we] could identify and describe issues [that may be] uniquely important to this group, or explore topics relevant to the group that were previously ignored. Third, [we] could document the impact of cultural factors on particular outcomes” (Phinney & Landin, 1998, p. 91). In this paper, we report on a two-part study designed to determine the influential role of African American culture on a number of men’s behaviors and beliefs relevant to Type-2 diabetes. Study One was a program preference assessment in the context of Prevent T2. We selected this program because of its proven effectiveness with promoting modest weight loss and increasing physical activity, with yet unknown acceptability among African American participants, and men in particular.

However, upon learning about the men’s preferences for program length and content, it was readily apparent that the Prevent T2 curriculum was not acceptable for our sample of African American men. Therefore, we committed to using

the DWD curriculum. We believed that the shorter format and curriculum content would be sensitive to African American men's needs and interests. We were, however, unsure about which foods to offer them in the cooking practicum. Therefore, we focused our efforts on this by conducting Study Two. For this study, we researched meals commonly consumed in African American culture and identified recipes best suited for those diagnosed with Type-2 diabetes (e.g., foods low in sodium, fat, carbohydrates). A different sample of African American men was recruited to taste test these foods. Our overall goal was to use these foods in a revised Type-2 diabetes education program for a number of African American men. This was viewed as an important aspect of the curriculum to investigate. Taste and texture are often highly valued among African American men (Allen et al., 2013; Griffith et al., 2013). Iowa State University's Institutional Review Board for Human Subjects reviewed and approved our protocols for both studies.

Study One: Preference Assessment

Author Perspectives

Saldaña and Omasta (2018) described how lenses, filters, and angles matter in qualitative research, more specifically, "Participant observers bring who they are into the field site" (p. 34). For this reason, we attended to the authors' disciplinary training and demographic characteristics, as follow. Hurt and Seawell are Black women with advanced education in human development, psychology, and qualitative methods; Francis and Krisco are White women with advanced education and experience in nutrition, food science, and diabetes programming. Flynn, O'Connor, and Rudolph are graduate students seeking advanced education in Human Development and Family Studies, Kinesiology, and Food Science and Human Nutrition. Rudolph, who identifies as a White woman, specializes in food science while O'Connor was receiving training in human development and family studies and identifies as a multiracial Latina/White woman. Flynn is a Black male with graduate-level training in kinesiology. Hill is an undergraduate student in Nutrition. The combination of these demographic attributes (e.g., gender, race/ethnicity, occupation) and disciplinary approaches added to the team's ability to examine the issues under study more comprehensively. Early in the study's process, we set an expectation for everyone to engage in and contribute their expertise in order to advance the work. Through regular meetings and communication, the team outlined a research plan and frequently attended to how their lenses, identities, and filters influenced their suggested approaches, theoretical perspectives, professional and life experiences, and interpretations of the study participants' reflections (Saldaña & Omasta 2018). We drew on the strengths of our respective professional and personal journeys to ensure the success of the planning, implementation, and dissemination of this work.

Study One Participants

For Study One, we recruited participants for the study from an existing database of African American families who were participating in the Family and Community Health Study (FACHS; Cutrona et al., 2003; Cutrona et al., 2000). The FACHS is a longitudinal study from 1996 to 2023 of 889 African American families residing in Georgia and Iowa. To participate in the study, adults were required to be primary caregivers of 10- to 12-year-old African American children and most such caregivers (93%) were female. We focused on the Des Moines sample ($n=183$) and mailed letters to 21 African American men in the fall of 2016. To be eligible to participate, they were required to have a basic understanding of Type-2 diabetes. Six men were unable to attend the focus group due to conflicts with work or family responsibilities. One man had relocated and lived out of state. We could not reach five men by phone, email, or letter. Therefore, nine eligible men agreed to take part in Study One. At the first session, although there were five no-shows attributable to work schedule changes, illness, and other unspecified conflicts, we proceeded with the remaining four men, all of whom had been diagnosed either with Type-2 diabetes or prediabetes, or were at risk for Type-2 diabetes. Because the purpose of this project was exploratory, we believed that even this small sample could still yield valuable information for our purposes and provide findings that would be transferable to other groups and locales (Cené et al., 2013). Thus, no additional men were recruited to Study One.

Procedures

In Study One, we focused on the first two steps of SMT—planning and strategy as well as on channels and materials selection. We conducted focus group discussions because this method was cost-effective and allowed for in-depth discussion and understanding of the participating men's perspectives on Type-2 diabetes. This method also gave the research team an opportunity to learn about their motivations and diverse perspectives for managing their health (Liamputtong, 2011). In four focus group discussions, we determined the male participants' particular needs and preferences for and their receptiveness to a community-based Type-2 diabetes education model. These participants met as a group bi-monthly for 2 hr on Saturday mornings at the county Extension office over a period of 2 months. At all focus group sessions, food and drink was available; each man received a financial incentive for participating.

The focus group sessions were facilitated by a registered, White female dietitian (Krisco), who had experience working with racially-diverse audiences, and an undergraduate research assistant who was an African American male (Flynn) with training and expertise in physical activity. Hurt, Francis, and Krisco also attended the focus group discussions, with O'Connor participating in the meetings in-person

once and by phone three times. While most of the authors had no relationship with the participants prior to the focus group meetings, Hurt, through her involvement in other FACHS data collection efforts, had met all of the participants prior to the meetings. No one else was present during these discussions. And the men were guaranteed anonymity.

The participants first introduced themselves and described their motivations for enrolling in the focus group discussions, after which they were asked to review 8 of the 16 Prevent T2 sessions they had attended. Two sessions from each of the four main topics—Type-2 diabetes knowledge, nutrition, physical activity, and stress—were identified for the men’s review (National DPP, 2020). The men were asked a series of questions designed to identify the program’s curriculum strengths and weaknesses, alternative strategies for program delivery, recommendations to better meet their needs and preferences, possible motivations for attending a Type-2 diabetes self-management program, and barriers to participation.

The focus group participants were encouraged to continue their discussion of proposed curriculum changes until a consensus was reached, with our goal being to discern how receptive the men were to a revised Type-2 diabetes program. After three focus group sessions, it became clear that Prevent T2 would not be a good fit for the participants because they had a strong aversion to tracking food intake, reading food labels, and physical activity, which are the hallmarks of Prevent T2. Therefore, during the fourth and final focus group session the participating men were queried about the structure and acceptability of the DWD program. In sum, the data were based on the participants’ constructions of their lived experiences, consistent with a constructivist paradigm (Creswell & Poth 2018). For example, the focus group meetings were flexible to allow the participants to share their emergent insights in order to expand upon the topic and their responses in the data collection phase.

We documented the curriculum revision process using digital recorders and transcripts; Seawell and her team of undergraduate research assistants transcribed the recordings from the first two focus group meetings, producing 80 pages of text. Six minutes of general conversation during the first recording were not transcribed, reflecting a break in the focus group discussion.

Data Analysis

Hurt and O’Connor reviewed the data recordings and transcripts that comprised the full data set and contributed to the dependability of the findings (Miles et al., 2020). They used content-analytic summary tables to organize related and pertinent data from the focus group discussions for initial and exploratory analysis (Miles et al., 2020). Using this approach, the team was able to illuminate key themes related to the African American male participants’ perspectives relative to their Type-2 diabetes knowledge, nutrition, physical activity, and stress—the key areas of interest. See Miles et al., 2020, for an example of a content-analytic summary table (p. 143).

Hurt and O’Connor closely examined the data, then performed data reduction to focus on the most important aspects of the participants’ reflections about the Type-2 diabetes curricula. For this purpose, they focused on the content, similarities, and differences in the focus group participants’ reflections and observations, without citing specific cases that these comments came from. It was not possible to isolate the participants’ responses because of the nature of the group discussions. That is, the authors focused on the main data trends or themes across cases (Miles et al., 2020).

Hurt and O’Connor then cycled through iterative sequences of reviewing, categorizing, verifying, and drawing conclusions from the data (Miles et al., 2020; Tong et al., 2007). Other authors then commented on a manuscript draft in which the findings were detailed. As noted by Carlson (2010), this work is best completed when a polished product can be considered and explanations can be given for data themes. All the authors except Seawell and Hill either participated in or observed the group discussions, which added credibility to the findings through collaboration and peer debriefing as well as confirmability and assurance that Study One findings reflected the respondents’ experiences and comments without the researchers’ special interests (Miles et al., 2020). More specifically, the authors scheduled meetings to debrief the Study One focus group discussions and shared similar perspectives about the nature and content of the data collection efforts. In this respect, the authors collaboratively analyzed the data. In these meetings, the authors also engaged in peer debriefing, which involved discussing each other’s impressions of the data, reviewing transcripts and focus group notes, and deciding on the study’s findings. The study authors openly shared whether key points were overlooked, emphasized too much, or reflected their interpretations, rather than the participants’ experiences (Guba, 1981; Janesick, 2007).

Findings of Study One

The participants identified notable qualities of well-being for African American men in Study One. They then discussed key aspects of the Prevent T2 curriculum, including Type-2 diabetes, program format, nutrition, and physical activity.

The men participating in the focus group discussions described characteristics of healthy African American men as being energetic and happy, having a strong social network, and adopting a healthy attitude with respect to stress in their life. One participant offered, “When you are healthier, you are happier.” Another conceded, “You cannot look at a person and say whether or not they are healthy. It’s more than physical appearance.” The participants also recognized that leading a stressful life was a risk factor with respect to becoming obese.

Type-2 Diabetes

The participants next discussed four main topics from the Prevent T2 curriculum: Type-2 diabetes, program format,

nutrition, and physical activity. Noting the prevalence and severity of Type-2 diabetes in the African American community, the men overwhelmingly supported a Type-2 diabetes-focused program. They further acknowledged that African American adults either do not care about the disease etiology and complications (e.g., amputations) or are not educated about them; programs designed to provide accurate information about the risks of Type-2 diabetes and how to prevent it are therefore warranted. They supported a family-based program format. One man shared,

I would just say more family involvement, more education, for everybody. So more people know what to do. And I think even when we start younger with things like this, it's easier to carry them into your teenage years and adult years more than starting out as an adult and trying to change habits that you've had for so long.

This approach is warranted because multiple African American family members are often diagnosed with Type-2 diabetes. However, the study participants indicated that the program should *not* include the word "diabetes" in its title; sessions should appeal to men who may be responding to bad health, a negative diagnosis, or a desire to lead a healthier life. There was consensus that men too often delay seeing a doctor until it is too late. One man summed this up: "African American men, you know, they don't like to go to the doctor. They gon' [sic] wait till the last minute. You know what I'm saying? And this is bad, but you know, for about ten years, I didn't even go see a doctor. But now, I see my doctor once a year."

The participating men recommended recruiting significant others with knowledge of what they might be going through. One participant said, "Women are more concerned about family. You know, they're gonna [sic] make sure they eat healthy." It was suggested that support persons such as wives could help the men reach their goals of promoting their good health and achieve healthier outcomes. Furthermore, from these men's viewpoints, wives are more focused on family members' health and well-being and want to find out how to provide assistance.

The disadvantage of including family members is, however, that they might begin nagging these men, rather than rendering valuable assistance. Another man thought that even though the program was a good idea, he confessed that his family might have a problem with it. When asked how to involve men with their families in physical activity, he said, "Well mine wouldn't last long. It would be one day. That's it. I'm too active. I'm way older than them but I'm more active than them." Another participant recalled this:

I remember when my kids were little, I had a Burlingdale Light Bicycle Trailer. And so we'd go round and round the lake and stuff so we were actually getting a workout and spending family time. The wife has been tricked into thinking, you know, you are spending time with her and you're really working out.

Program Format

The participating men suggested planning a health-focused intervention program for men in the winter months in Iowa when fewer activities are offered. It also might be helpful to conduct sessions for men attending the annual celebration of African American arts, culture, and contributions in Iowa entitled *I'll Make Me a World*. These men noted the significance of collaborating with community resources such as churches, the Young Men's Christian Association (YMCA), fraternities, and Prince Hall Masons, an ongoing Type-2 diabetes initiative. The program should be available to all and free of charge, if possible. Program sessions should feature structured activities (e.g., cooking demonstrations, taste-testing activities, physical activities, 3-on-3 basketball games) and group discussions on topics such as physical activity and nutrition. One man stated, "The elaboration and stuff, that's what really makes it. I mean, otherwise, people get bored. Display enough points to get us [snaps fingers] started and then you can give the key points that you want to slip in." Another participant agreed, saying, "If you make part of your class a structured physical activity, instead of all of us just theoretically sitting down. Imagine having a 3-on-3 basketball game and then after the game go through wellness and fitness."

Images used in program materials should be culturally appropriate for African American families and help structure the discussion. As one participant shared, "No pictures of half bananas!" To keep the participating men and families engaged, it was suggested that the facilitator have good speaking skills and be energetic and personable. Although it would be helpful for the facilitator to have some experience with the topic (e.g., an American Diabetes Association representative), they need not have been diagnosed with Type-2 diabetes or be male.

Nutrition

The participating men reported enjoying consuming appealing, healthy options from various food groups, including vegetables (e.g., salads, collard greens), fruits (e.g., fruit salad), grains (e.g., sandwich bread, wraps), milk and cheese (e.g., 2% or 1%, no skim), lean meats and poultry (e.g., deli meat, baked chicken, grilled chicken breast), fish (e.g., tilapia), eggs, nuts, and beans. After considering this list, Francis recommended adding whole wheat bread and coleslaw as options. These participating men noted that they did not enjoy drinking diet or low-calorie sodas or drinks; only two male respondents expressed a concerted effort to drink water daily. Even so, another participant conceded that focusing on healthy eating across the food groups would probably last no more than 2 weeks.

The participating men agreed that it was best to make small changes suitable to the African American palate and keep healthy options readily available at home or work (e.g., cut-up and washed vegetables and fruit, dry Honey Nut

Cheerios, Smart Pops) to counteract the desire to eat unhealthy options that might be more easily accessible. Another participant jokingly recommended “lettuce on a stick.” Another man encouraged being open to trying new things:

If I had some of those samples of the foods that are healthy and good, I mean, if it didn't cost too much, I think that would be good. Because sometimes we make an assumption, we don't like something before we've ever tried it. I mean, that's the honest truth. I know somebody—the people that have introduced me to stuff, I say, ‘Man I didn't know it was like that,’ and it might be enough of an impetus to change you or to say, ‘Hey, I can try that for a little bit or maybe I can do that.’ You know, maybe like the popcorn or something like that. Just small samples, you know.

One of the biggest barriers to adopting Prevent T2 was the participants' refusal to track their own food consumption. Krisco asked, “Do calories resonate with you? Like, when we are talking about calories, is that message something you value? Or should it be framed it in a different way? This part of the program spends a lot time on calories.” Calorie counting was not familiar to most of the participants. They responded accordingly:

Participant 1: I know what calories are. I know all the measures of energy and stuff. It doesn't resonate with me. It just doesn't. It's one of those things, you know, but not even in my worst times did I do that. It just doesn't.

Participant 2: I don't know. Young Black males, especially those going into their thirties and early twenties, like I don't know anyone who counts calories. . . at all. It takes time to look at how many calories and high fat and high sugar would be in any product they eat. I don't think that's something that is at the forefront of their mind when they go to eat something.

Participant 3: Women are more on diets than men. So they'll hear it when they go to these Weight Watchers classes. They show them how to do it. I never heard about any of it till I was a full-blown diabetic, and I started reading labels on everything I buy. You know, if I want so many calories a day or week, I have to plan my meals ahead of time. This, 300, 400 calories, 500 calories, this what I eat that day. If I go over that, then. . . You get used to it. You know exactly what you want.

Participant 4: The thing is we don't have the patience. [Another participant agrees by saying, “There you go.”] Women have patience. They gon'[sic] count them calories. We're not gonna [sic] count 'em [sic]. You know what I'm saying? We gon' [sic] eat what we want to eat because that's what we like. . . I think it's cultural. Like we, as men growing up, could never understand why women would have a diary? [Another participant agrees with this statement: “Yeah I couldn't

understand that either. I still can't understand it.] Why would you ever write down something? You know, write what happened?! Break that book out for. . . [Nonverbal communication suggests the listing could be used for some other ill-conceived motive or reason]. They got the dates, the times, everything that happened.

The discussion of calories ended with a general understanding about the concept, and the participants recommending that a caloric goal be indicated on a per-day or per-meal basis rather than on per week. They did not explain why. They would be open to learning more about this approach, as well as to reading labels and counting carbohydrates. The participants did hold strong reservations about tracking meals, though.

All the men expressed a fondness for food and eating. Food held an important meaning in their lives, and they reflected on the emotional and psychological aspects of eating (e.g., large portions of holiday fare, Grandma's potato salad, sweet potato pie, chocolate cake). In their lives, food had long been associated with happiness, celebrations, and feeling better. One participant noted that the period from late November through early February includes numerous events in which familiar, high-calorie foods will be staples: gatherings for Thanksgiving, Christmas, Kwanzaa, New Year's, and the Super Bowl leave these men in a nutritionally-vulnerable position for a period of 8 to 10 weeks.

Furthermore, the men noted being “doubly-taxed” by cultural expectations such as finishing one's plate and the view that men need to eat well. Krisco stated, “I think the cultural message is to finish your plate. When, really, we should eat until we are satisfied, not until we are full or certainly not until we are stuffed.” One man responded, “Well, that's cultural because I think in the African American community, we also associate masculinity with the amount of food a man can eat.” Besides, friends and loved ones invite men to eat free food, partake of leftovers, and refill their plates, establishing customs in which men gain weight and become obese, making different, healthier choices about food options difficult.

When away from home, these men described being extremely busy during the day, undermining planning for more nutritious, regular meals along with the dilemma of, “What am I going to eat for lunch?” One man conceded: “I don't eat but twice a day. I eat breakfast. I eat dinner. And when I go to eat dinner, I eat a large meal, so I make up for that lunch that I missed, you know.” After Krisco suggested making meals in advance, one participant countered, “I refuse to make lunch/meals in advance. I won't do it. I'm not a morning person. I focus on the food in the moment when I am hungry.”

The participating men recounted patterns of snacking (e.g., chips, candy, peanuts, regular caffeinated soda, energy drinks, popcorn, mixed nuts), meal-skipping, and eating food from fast food restaurants, local convenience stores/gas

stations, or all-you-can-eat establishments. For example, one man shared this about his experience at the movies: “You go to the movie and if you get that tub of popcorn, that’s about this big, you’re thinking, ‘It must be normal to eat this otherwise why would they sell it like this?’ And then the guy comes in and they give you refills on that size too. And you can take it home!” Another man offered this: “And that’s a good point, though. You pay so much money for it, you say, ‘You know what? I’m going to eat it all.’ I mean, for what the cost of it is, I do that sometimes. I just eat it because I paid for it.” Krisco continued by asking this question: “What other things influence your decision of how much you’re going to eat of that trigger food or your favorite food?” One participant responded: “All you can eat restaurants are nasty, but you’re going to eat it because there’s a whole lot of it!” Another man said, “Make the most of your plate.” A third man agreed with these sentiments saying, “If you really took your time and went to Golden Corral, really, just sit down and say, ‘I’ll go get one plate.’ You’ll be like, ‘This is not good.’ But realizing you get six plates for \$9.99.”

The Study One participants said they would be willing to listen to advice on choosing healthier options at fast food restaurants and stores they frequent. One man diagnosed with Type-2 diabetes shared this example:

When I found out I had Type-2 diabetes, to have somebody to show me how I could still go to [fast food restaurant] and just choose different things that would make it a healthy meal. Like, they told me I could have 32 carbs and for dinners I could have 60 carbs. I could get a [large hamburger] but I had to have water and no fries. Or I could get a cheeseburger and still have a small fry and a water. Or I could have a cheeseburger, no fries, and a drink. It was up to me to choose.

Another participant countered:

I can’t do [fast food restaurant] like that. It’s disrespectful to [fast food restaurant] man! I need that drink. I need that fry. . . And I say this because I go to [fast food restaurant]; for example, yesterday I got the number 1. Like, super-sized everything and I ate it so quick, that’s the only thing with fast food, like before I get out the parking lot, it’s gone. And then maybe 15 minutes later, I’m hungry again. I’m [age], so I say, I eat high calories, high fat, high sugar, but at the same time, I take in almost a gallon and a half of water. I take vitamins. So, I feel like, that kinda would balance me out a little bit. Flush out some of that sugar. Maybe not as much as the calories and the fat, but that’s also being active.

Another participant concurred:

I like what he said. Show the fast food. Like you said at [fast food restaurant]. I didn’t know about the water, so that would be good. Even just show the pictures. Make it simple. Make it easy to associate with.

Though additional guidance on how to eat well away from home would be appreciated, one man summed it up this way:

“We know what we should do, but we get the donut at the QuikTrip!”

The participating men called for accommodations at stadiums and sporting events to support those with chronic diseases like Type-2 diabetes and help them eat better. These men proposed that those with appropriate documentation or identification be allowed to bring healthy snacks with them because stadium vendors do not commonly offer nutritious options because there is no market demand. Another man responded:

They figure like this: ‘If people start bringing food in, the vendor loses money.’ The thing is, you don’t want us to bring it in, but you don’t want to lose money, so why don’t you stock for us? You see what I’m saying? So, my thing is, when I go to a store or a restaurant, hey I’ll ask somebody, ‘Can I see your manager? Could you stock for diabetes?’”

Regarding better choices, several men stated: “Probably cost too much.” “Yeah, you get a little thing of carrots at the store for a dollar or something; you go into the stadium and it’s seven bucks for the same thing.” Another participant said, “No, you can’t.” A third participant stated, “See, that’s why I be sneaky when I am in the stadium.” A fourth man said, “One time I went up to Chicago for the games and I had cut up veggies and I told ‘em [sic] I was a diabetic. They let me in.”

Physical Activity

The participants acknowledged that there were opportunities to burn more calories or be more active by making small adaptations both at work (e.g., standing desks, sitting on large exercise balls, using stairs rather than the elevator, using the furthest-away bathroom, scheduling meetings away from the office) as well as at home (e.g., completing yard work, cutting grass, using a snow blower, or marching in place while watching television). These men also provided a list of physical/recreational activity they enjoyed, including roller skating, dancing (e.g., Zumba, line dancing), boxing, weight lifting (no instruction or trainer required), and any sport that involved a ball (e.g., basketball, baseball, softball, soccer, bowling).

The participating men would most likely be even more engaged and inspired to engage in these activities if they included or were taught by women. The stated goal for physical activity was 150 min per week at a moderate pace, 30 min for 5 days per week, 75 min on Saturday and Sunday, or 15 min at higher intensity 5 days per week. Most of the men understood the point of intensity; one said: “If you don’t sweat, you don’t work out.” Krisco recommended that the men talk during exercise. One man countered, “Men don’t talk when we exercise, unless there’s a new lady at the gym who is showing interest in you.”

These men would appreciate having more community-based athletic programming and activities for older adults. All concurred that they would rather increase their physical activity rather than modify their food intake or choices.

There was little to no support for exergaming or jumping rope. These men were very familiar with the benefits of physical activity; it helped them manage stress and anger, promoted focus and mental alertness, and aided in sleeping better at night. One participant recalled this:

Every time, I feel like exercise is motivating. I go to my check-up and all my tests are lower, lower, lower—that's a whole other thing. But, I mostly do it because I have challenges in the morning at work, so when I get up early and then in the morning I work out, I get pumped up, and I be ready for them. It's like playing football. You're ready for them to come in! 'Cause they come at you at all different directions, and I'm sharp. I just think better. You goin' and then getting out of bed, goin' in sluggish, and somebody come in and ask you a question, "Get the hell outta here! Can't you see I just walked in? Hello!" But I'm sharp like I've been up all night. I'm wide alert.

Another man agreed with this statement: "If you want to show the brightness or intellectual stamina, why don't you show a picture of somebody working out and somebody standing in a suit and a tie?" Another participant supported this point: "There you go!"

The participants also noted how physical activity improves cardiovascular health (e.g., reduces pulse rate, resting pulse rate, blood pressure; lowers risk of heart attack and stroke), reduces risk and complications of Type-2 diabetes (e.g., blood sugar, hemoglobin a1c), lowers cholesterol, and enhances balance and flexibility, thereby promoting long-term health and weight management. Another participant shared,

Overweight people or obese people make 15% less doing the same job than somebody that's in shape. [Another participant interjects: Discriminated.] And that people that are in shape are more likely to advance in their careers than people who aren't. Because people view people that are obese or overweight as being lazy.

They also commented on the social benefits of physical activity, such as having time for oneself.

In addition, the men's key physical activity goals were to have fun and be competitive (e.g., earn a gift card, money, or trip for the person with the most steps or lost pounds; what's the payoff?). One man conceded that he would be willing to track his fitness for a prize. He said,

I'd do the fitness tracker. Wear that and that's it. Track it down. I'll write it down and then when it's time to turn it in, I'll turn it in and note this is what I did. I would cause I'm tryin' to lose that weight. See that's what I look for. I need to know what to do because we would look at that as a win. To gain. To lose. Don't tell me about cutting my diabetes. I need to know if I do this, what do I get for doing this? See, the catch is the prize. That's it.

Other participants concurred with this attitude, saying, "Yeah, because you said prize." "Psychological." "Competitive."

Study Two: Recipe Taste-Testing

After their completion of Study One, the authors determined that the Prevent T2 curriculum was not well-suited for the African American men we had recruited for the focus groups, primarily because of the program's length and emphasis on tracking. Based on the authors' observations, we decided that another Type-2 diabetes education program—DWD—should be employed and modified for African American men. This program is shorter (about 4 weeks) and focuses on lifestyle behaviors without a tracking requirement. For these reasons, this sub-study entailed the identification and evaluation of recipes for use with a Type-2 diabetes education program for African American men. That is, in a revised Type-2 diabetes education program, each session would include a cooking practicum with culturally appropriate, Type-2 diabetes-friendly recipes. This was an important aspect of the curriculum to investigate with the sample, as taste and texture are often highly valued among African American men (Liburd et al., 2007). To ensure that we offered food that would be appealing to these men, we designed Study Two to focus solely on foods known to be popular during family gatherings and/or to promote pleasure based on the aforementioned focus group feedback. We also modified the recipes to ensure that our selections met the nutritional needs of those diagnosed with Type-2 diabetes.

Study Two Participants

African American men at a Midwestern university participated in taste testing eight soul food recipes in Study Two. None of the men who had taken part in Study One were recruited to Study Two, for which we employed a different recruitment strategy. Potential male participants received announcements via the University's Black Faculty and Staff, the Black Graduate Student Association, and the Black Student Alliance listservs, as well as through personal solicitations. Francis also posted a sign on the sidewalk in front of the building that housed the meeting room for participants. To be eligible, the participants were required to be African American men at least 18 years of age or older, although support persons could also attend. The participants could not have any food allergies or dietary restrictions (e.g., vegetarian, gluten-free). Over the course of 2 days, nine men participated in the study. Day 2 included three new participants (Day 1=6, Day 2=9). Of note, one walk-in participant approached the meeting room and requested participation on the taste-testing days. Since this man identified as Asian, his data were not included in the analyses.

Eight men and one woman (support person) attended the two taste-testing sessions. Over half ($n=5$, 55.5%) were aged 35 or younger. Some were single ($n=4$, 44.4%). While the majority had no Type-2 diabetes diagnosis ($n=8$, 88.9%), most had a family history of it ($n=7$, 77.8%). Others reported being "likely" to attend a Type-2 diabetes education program ($n=4$, 44.4%).

Procedures

Eight recipes as part of a four-week Type-2 diabetes program (two recipes per class) were selected from *The New Soul Food Cookbook for People with Diabetes* (Gaines & Weaver 2006). All the recipes considered appropriate for use in the Type-2 diabetes curriculum could not take too much time to prepare, had to be simple enough to be made with limited resources, and must appeal to the target audience of African American men. The selected foods were barbecued pulled pork, soul slaw, sweet potato pie, Althea's beef gumbo with rice, Tramaine's oven-fried chicken, green beans and new potatoes, shrimp jambalaya with rice, and corn bread. Three University Dietetics students prepared the foods prior to the participants' taste-testing session. Two meals were served on two consecutive days on-campus over the lunch hour.

Data Collection and Analysis

The participants received scoring papers as they entered the test kitchen and were instructed to rate the foods they sampled. They tasted portions of the foods listed on the menu, and after sampling them filled out a sensory evaluation using pen and paper. The study participants evaluated the foods on appearance, aroma and flavor, texture and mouthfeel, and overall impressions using a 5-point Likert-type scale (1=dislike very much to 5=like very much). This tool is available upon request from Hurt. Each scorecard included a space for comment under each food attribute in order to provide qualitative feedback regarding the recipes. Some of the participants chose to complete the survey while consuming the foods, while others ate first and then scored the food. There was no verbal exchange related to the rating during this time. Rather, the authors and participants chatted about life (e.g., school, where they grew up, etc.). For the data analyses, dislike very much and dislike slightly were both recoded as disliked; similarly, like slightly and like very much were both recoded as liked. The participants received a copy of *The New Soul Food Cookbook for People with Diabetes (Second Edition)* for their involvement (Gaines & Weaver, 2006). The authors did not collect any identifying information on the participants. Sociodemographic and recipe sensory data were gathered; Francis conducted the data analyses and reported descriptive statistics.

Results

The majority of the Study Two participants liked all the recipes, with flavor and texture attributes being mentioned most frequently with regard to satisfaction. The cornbread was one food that received negative reviews, however. One taster commented, "It's something I would expect from a place/person that doesn't consistently cook this cuisine. It's fine, but not great." Another commented, "It (the cornbread) doesn't have any flavor and is dry." The shrimp jambalaya

with rice was well liked in all sensory areas. One participant stated, "[It] tastes much better than it looks. . . favorite of the tastes today. [I] will definitely use [the] recipe." These results suggest that the eight recipes could be used with a Type-2 diabetes educational program for African American men and would be acceptable to participants.

Discussion

Synthesis of the Study Findings

The findings of these two studies with African American men illuminated the meanings that the participants attached to being healthy, such as being energetic, happy, having a strong social network, and adopting a healthy attitude with respect to life stress. The participating men understood the prevalence and impact of Type-2 diabetes but lamented that many did not understand the etiology and complications associated with the disease. It would be helpful to involve significant others and family members who could help support the men's efforts to make healthier choices related to nutrition, physical activity, and management of stress. In addition, the study participants implied that there was a stigma associated with having Type-2 diabetes, given their recommendation not to label any prevention or intervention program with that designation in the title. Thus the participants also advised offering programs in the winter months or in collaboration with other major events or community agencies. These men supported programs that were open and free to all. They suggested that informed and engaged facilitators should use program materials that include culturally appropriate content and imagery for African Americans.

Program activities should also include group discussions on physical activity and nutrition as well as structured activities, such as cooking demonstrations and taste-testing activities. The men in the second study enjoyed consuming—and deemed appealing—vegetables, fruits, and lean meats that were prepared for their sampling. They offered insight into specific recipes, flavors, textures, and satisfaction. The men liked all of the recipes and prepared foods, with the exception of the cornbread. Thus, these recipes could serve as good candidates for a cooking demonstration in a Type-2 diabetes education program and would likely be appealing to other African American men and their significant others. The participating men underscored the importance of food being accessible to them in their daily routines and at sporting events as well as the emotional, cultural, and psychological significance of certain foods and portions.

The men explained how their busy schedules sometimes undermined selecting healthy foods as well as their refusal to track meals or calories. They indicated that they would rather make small changes in their daily routines or increase their physical activity intensity than track their nutritional intake. They were familiar with daily and weekly goals for physical activity and advocated for community-based activities for

older adults that would allow them to engage in such physical activities as roller-skating, dancing, boxing, weight lifting, and “any exercise that involved a ball.” Physical activity was beneficial for improving the men’s focus and mental alertness, sleep, cardiovascular health, balance and flexibility, and Type-2 diabetes, stress, and weight management. Altogether, physical activity promoted long-term health and facilitated having time for oneself, a social benefit.

Advancing the Literature on African American Men’s Health Promotion and Programs

The findings of these two studies advance the literature on African American men’s health promotion and programs in important ways. We draw upon Jack, Totson, et al. (2010) A Gender-centered Diabetes Management Education Ecological Framework to connect our findings to relevant literature. Type-2 diabetes prevention is complex, and various factors differentially affect men’s health outcomes, so Jack et al.’s framework addresses the role of masculinity in managing this disease (Jack, 2004; Jack & Griffith 2013; Jack, Gross, et al. 2010; Sherman et al., 2014). Their framework outlines how the demographic factors of family functioning and masculinity intersect with biological health, knowledge and psychological health, behavioral health and medical compliance, and gender-centered diabetes management education. Each area affects one’s ability to reduce health disparities in the short- and long-term as related to Type-2 diabetes; other scholars have illuminated the challenges that African American men, in particular, must overcome to participate in Type-2 diabetes programs and prioritize their health and well-being (Jack, Gross, et al., 2010; Newton et al., 2014).

Demographic factors. By employing a within-group design, we were able to learn more about the health experiences of the African American men in the studies (Phinney & Landin, 1998). We attended to the heterogeneity in the data. Our goal was not to compare these men to other groups. Rather, we explored the insights that the participating men shared about their families, health, and their perspectives on gender (e.g., finish one’s plate, men need to eat well) and Type-2 diabetes programming. Further, by focusing on one region, we learned about some challenges that the men experienced while residing in Iowa during the winter months. In particular, winter programs were needed as fewer activities are offered then, and these men were more likely to consume high-calorie foods from late November to early February. In earlier work, Gorham et al. (2009) as well as Robbins et al. (2000) wrote about seasonal variations in Type-2 diabetes among African American adults, with increasing concern about those diagnosed with it in the winter months.

Family functioning. Attending to the norms, coherence, and rituals in the family are important for understanding its functioning (Jack, Gross, et al., 2010). The participating men

highlighted the significance of their strong social networks, which are likely familiar with the men’s health goals as well as factors and circumstances that may undermine those goals. The advantage of engaging family members in their healthcare outweighed the risk of these relatives nagging the men about their lifestyle choices. As outlined in prior work, significant others and family members can help prevent a loved one’s Type-2 diabetes through education, reinforcement, direct assistance, and promotion of healthy behaviors (Chlebowy et al., 2013; Samuel-Hodge et al., 2017). Kaiser et al. (2009) also reported that participants who brought a support person to their Type-2 diabetes class felt more supported when responding to changes in social barriers. These support persons can manage key aspects pertaining to Type-2 diabetes prevention (Albanese et al., 2019). In addition, other family members diagnosed with Type-2 diabetes could be a source of support (Balls-Berry et al., 2015).

Masculinity. The participating men reflected on the role of gender norms and role conflict related to their health care. They managed lengthy work schedules and competing family responsibilities while adhering to masculine gender roles (Jack, Gross, et al., 2010; Newton et al., 2014). Their busy schedules undermined their ability to be intentional about their health practices and nutrition. Rather than simply participating in Type-2 diabetes prevention or management programs in order to be healthier, these men may be more likely to maintain their health if their goal is to continue to adequately provide for their family, thereby fulfilling their roles and responsibilities as providers (Hurt et al., 2015; Seawell et al., 2015). Furthermore, the participating men spoke about their fondness for food and how consuming large portions was associated with masculinity in their families and social networks. Work by Hawkins (2019) and Liburd et al. (2007) also underscored the importance of attending to gender-related values and beliefs among Black men in their healthcare.

Biological health. The participating men spoke about the prevalence and severity of Type-2 diabetes in the African American community. They surmised that their peers either did not care about disease etiology or were not educated about Type-2 diabetes complications, despite possibly having multiple family members diagnosed with this chronic disease. Yet these men were aware of how effective physical activity was for improving cardiovascular health, reducing the risk of Type-2 diabetes, lowering cholesterol, and enhancing balance and flexibility to promote their long-term health and weight management. These findings corroborate results in the considerable literature on Type-2 diabetes, complications, and comorbidities among Black men (e.g., Bancks et al., 2017; Kumanyika, & Ewart 1990; Martin et al., 2004).

Knowledge and psychological health. The participating men were knowledgeable about Type-2 diabetes in part because

of their own life experiences with the disease. These men also made some key points about quality of life, for example, noting the importance of being happy, having a healthy attitude, and minimizing stress in one's life. The men observed how leading a stressful life was a risk factor for obesity. These findings corroborate other scholar's work including Black (2006) and Griffith, Johnson-Lawrence, et al. (2011).

Behavioral health and medical compliance. Although tracking food intake and physical activity can help reinforce the men's positive lifestyle changes and are often a component of effective health-education programming (Ingels et al., 2017; Shay et al., 2009; Stuckey et al., 2011), it was not viewed as a favorable activity by our sample of African American men and should be avoided. Other work by Lee et al. (2016) described barriers to healthy eating among Black men. The men in Study Two were open, however, to committing to small changes and learning more about reading labels, counting carbohydrates, ordering healthier meals at fast food restaurants, and understanding caloric intake by day or meal but not per week in structured learning sessions. Therefore, nurse practitioners may provide needed emotional support to help Black men overcome barriers and establish better dietary practices (Lee et al., 2019).

We viewed offering a cooking practicum as a good way to attend to the significance and meaning of food and nutrition among African American men. In another study, a meta-analysis found that the incorporation of cooking demonstrations/classes were correlated with improved self-efficacy, attitudes, and a healthier dietary intake in adults and children (Hasan et al., 2019). Similarly, a systematic review of inpatient and community cooking interventions influenced self-esteem, quality of life, socialization, and affect (Farmer et al., 2018). Farmer et al. (2018) concluded that incorporation of cooking may increase motivation for and frequency of food preparation.

When our participants discussed and rated food during the second study, they found joy in talking about the meaning of specific meals and foods that were suitable for their palates. This increased understanding about foods that appealed to African American men and their support person, therefore advancing the literature (Allen et al., 2013; Griffith et al., 2013). Selecting foods commonly consumed during celebratory family gatherings may be a useful way to attend to materials and implementation as scholars approach programming and apply SMT principles. Food has personal meaning, as evidenced by the examples of snacks that the men included in their diets. That is, chips, candy, regular caffeinated soda, and energy drinks were not good protein sources, but had some appeal to the men. However, they clearly preferred cultural favorites such as barbecued pulled pork, Tramaine's oven-fried chicken, shrimp jambalaya with rice, sweet potato pie, and soul slaw served during the study. The participating adults were less pleased with the green beans and new potatoes, cornbread, and Althea's beef gumbo with rice.

If offering these food choices again, scholars should invest in efforts to make these foods tastier for African American men and their families.

The participating men enjoyed intense physical activities such as dancing, boxing, weight lifting, and any sport that used a ball; engaging in these sports improved their alertness, sleep quality, balance, flexibility, time for oneself, and health (e.g., cardiovascular, Type-2 diabetes risk, cholesterol, stress). The men indicated they would rather increase their physical activity than modify their eating habits and food intake. They would appreciate having more community-based activities for older adults. Further, the men were supportive of monitoring physical activity, if their efforts were rewarded with a prize or winning a competition, consistent with masculine motivations (Gomersall et al., 2011; Griffith & Thorpe 2016; Hurt et al., 2015; Jack, Gross, et al., 2010; Newton et al., 2014; Seawell et al., 2015). Encouraging one to set personal goals to work toward is well received among African American men. Incorporating goal setting in health education programming led to behavior change in other work (Young et al., 2011). Another minor, yet important finding, was the belief that Black men do not make regular doctor appointments and frequently wait until symptoms become severe, corroborating plentiful literature on men's help-seeking behaviors (e.g., Boyd, 2007; Griffith, Ober Allen, et al., 2011; Mansfield et al., 2003).

Gender-centered management education. In furtherance of the tenets of SMT focused on planning and strategy, offering Type-2 diabetes programming is useful for African American men and their families to provide accurate information and education. Based on these African American men's responses, there is interest in health promotion and enrolling in Type-2 diabetes education, but the way in which this education is provided should be modified. These findings underscore the importance of attending to selection channels and materials, as highlighted in SMT. It is unsurprising to find that the participating men asserted that Type-2 diabetes programming should be free and have a family focus and be delivered in collaboration with other community resources and groups (e.g., fraternities, YMCA, local events and celebrations), especially in the winter time (Hurt et al., 2015; Seawell et al., 2015). Educational content should clearly articulate the connections among nutrition, physical activity, stress, and preventing or managing Type-2 diabetes, if diagnosed. Type-2 diabetes education programs for African American men should be marketed as a general health program without overemphasizing Type-2 diabetes by its name or description. Providing Type-2 diabetes education programming marketed as health programming is effective in recruiting participants who may not know they have Type-2 diabetes or are at risk for it. For example, Peña-Purcell et al. (2015) developed and implemented a Type-2 diabetes program ("Wisdom, Power, Control") that doesn't include Type-2 diabetes in name, and it appears that the participants were receptive to the program,

as reflected by its 83% completion rate (Peña-Purcell et al., 2015). Similarly, the *Latinos Living Well* program is a Type-2 diabetes program for rural Latinos that does not promote itself as a Type-2 diabetes program but has achieved successful participant recruitment and retention (Keane & Francis 2018).

In terms of community partners, this approach could be inclusive of peer educators or collaboration with community groups for program recruitment. Peer educators can enable participants to learn from someone to whom they can relate, reflecting an effective programming and implementation strategy, as described in SMT. For example, Philis-Tsimikas and Gallo (2014) reported that the integration of peer educators as part of a community-based Type-2 diabetes program helped lower socioeconomic and cultural barriers to Type-2 diabetes care. As suggested by this study's participants, peer educators should be energetic, personable, and informed, but not necessarily African American men. Similarly, the Racial and Ethnic Approaches to a Community Health (REACH) study reported that a culturally appropriate Type-2 diabetes education program facilitated by trained community residents contributed to improved knowledge related to diet and Type-2 diabetes self-care as well as metabolic improvement (Two Feathers et al., 2005). However, this model type encountered challenges related to facilitator engagement (Faridi et al., 2010). They reported finding no changes in Type-2 diabetes outcomes, which they attributed in part to the peer-facilitator model; so finding other trusted community providers, such as Extension workers, may be a more effective strategy. These providers should collaborate with respected community partners such as churches or leaders in African American communities to promote program recruitment. When doing so, however, such collaboration must be mutually beneficial and respectful (Austin & Claiborne, 2011; Concannon et al., 2014; Corbie-Smith et al., 2010; Dodani & Fields, 2010; Samuel-Hodge et al., 2014).

Type-2 diabetes programming that is well developed and empirically tested may not be suitable for every population, however. These findings contribute to the importance of developing an emphasis on the evaluation and implementation of research that underscores the importance of attending to nuance and is appropriate to promoting program effectiveness. For example, Treadwell et al. (2010) reported on a sample of 42 Black men residing in Ohio who were either at-risk or diagnosed with Type-2 diabetes and tested the impact of Save Our Sons (Treadwell et al., 2010). This program is a revised version of the Power to Prevent Diabetes curriculum, which featured six sessions focused on obesity, Type-2 diabetes, physical activity, nutrition, and engagement with healthcare providers (Centers for Disease Control and Prevention and National Institutes of Health, 2007). Modified for Black men, the program utilized culturally appropriate and gender-appropriate recruitment and retention strategies (e.g., photographs of Black families, community health workers) and intervention scenarios (e.g., challenges Black

men face). Six weeks post-intervention, the participating men reported improved knowledge regarding strategies for managing obesity and Type-2 diabetes. Nearly all the men (98%) exceeded 150 min of physical activity each week which produced weight loss, lowered body mass indices, and reduced blood pressure (Treadwell et al., 2010).

Limitations

While the results of the two studies reported here offer several practical implications for the development of Type-2 diabetes programming for African American men, there were a few shortcomings. The transferability of the findings for both Study One and Study Two is limited by the small sample sizes and response rates. Another potential limitation for Study One was social desirability bias and collective voice (i.e., the participants may tend to agree with each other more because they are hesitant to "go against the crowd"). Although this type of bias was not observed among the focus group participants in Study One, it may have played a role in the participating men's responses. As such, they may have acquiesced to the influence of masculine norms and practices and the cultural context. Potential may exist to ask men to consider other behaviors, attitudes, and strategies that may challenge masculine norms related to nutrition and physical activity. While we also did not examine the focus group responses by Type-2 diabetes status (e.g., adults with Type-2 diabetes versus adults without it), the participating men were very consistent in their viewpoints. Finally, these findings may not be transferable to other communities outside of Iowa and men of different racial backgrounds.

Conclusion

Type-2 diabetes continues to be a global issue, particularly for certain high-risk populations such as African American men. Thus, developing gender-sensitive, culturally appropriate, and family-based and supported Type-2 diabetes programming for them is critical. The findings from these two studies point clearly to both the challenges and opportunities for developing these kinds of healthcare initiatives with African American men. The findings also suggest that Type-2 diabetes programming in collaboration with community partners and nursing professionals can address its critical need among African American men with Type-2 diabetes, and in turn, improve their health outcomes and improve their quality of life, even potentially extend it. In addition, scholars can apply these findings when develop future healthcare interventions and programming that can engage and support African American men and their families when addressing Type-2 diabetes. It is equally important to consider the nuances of gender and account for the ways in which masculine values could undermine health promotion efforts with African American men (e.g., culturally specific diet, physical activity). Overcoming the social messages about masculinity

in this population will be important to any sustained effort that effectively creates an opportunity for them to embrace their humanity, engage in regular physical activity, consume healthy diets, and seek assistance when needed to manage their Type-2 diabetes. Lastly, clinicians and nursing professionals can use this information to more effectively engage with and respond to the challenges of African American men and their families as these practitioners attempt to promote quality of life, provide patient care and education, develop care plans, and evaluate outcomes and interventions for this population.

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