

Black Women's Recommendations for Developing Effective Type 2 Diabetes Programming

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Tera R. Hurt¹, Asani H. Seawell², Carolyn Cutrona¹,
Margaret C. O'Connor¹, Randie D. Camp¹, Roxanne Duran²,
Reid Elderts², Chrishelda Green¹, Vanessa Hara²,
and Jenna Pattee¹

Abstract

The purpose of this study was to learn from 29 Black women how to develop effective Type 2 diabetes programming. Three focus groups were held in Des Moines, Iowa, during fall 2012. Results highlighted themes related to diabetes knowledge, diabetes management and prevention, physical activity, diet, and diabetes management programming. Opinions were shared as to whether family members should be included in programs for supporting those diagnosed with diabetes. These results provided guidance and ideas to scholars and health care professionals aiming to improve effectiveness of diabetes programs for Black women and families.

Keywords

diabetes, focus groups, gender, ethnicity, women's health, minorities, content analysis, Black, health disparities

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Among Black adults, the risk of Type 2 diabetes mellitus (T2DM) is more than twice that for Whites (National Diabetes Information Clearinghouse, 2014). In particular, with respect to Black women, Arthur and Rowe (2012) stated, "As members of one of the largest single ethnic groups most affected by diabetes, Black women are also disproportionately impacted" (p. 187). For example, Black women are more likely to be diagnosed with T2DM than either White men or White women. Furthermore, in 2011, Black women had a higher age-adjusted prevalence of diagnosed T2DM per 100 individuals (9.5) relative to White men (6.5) and White women (5.4; Arthur & Rowe, 2012; Centers for Disease Control and Prevention, 2015).

Among Black women, T2DM is the fourth leading cause of death and disability (Arthur & Rowe, 2012). Black women, compared with Whites, are also more likely to experience T2DM complications such as blindness, renal disease, and limb amputations (Bell et al., 2010; Liburd, Namageyo-Funa, & Jack, 2007). Arthur and Rowe (2012) asserted, "Black women are particularly vulnerable because of the triple burden of race, class, and gender" (p. 187). Although scholars have long studied T2DM, health disparities have persisted, and scholars have struggled to effectively remedy this chronic disease among Black women (Centers for

Disease Control and Prevention, 2015; Jack, Gross, & Troutman, 2010; McGinnis, McGrady, Cox, Grower-Dowling, 2005; Newton, Griffith, Kearney, & Bennett, 2014; Norris, Engelgau, & Narayan, 2001).

By capturing Black women's voices and documenting their perspectives, we can assert that health researchers and professionals might be better able to tailor T2DM interventions and programming to meet the unique needs of this group (Seley, Furst, Gray, Jornsay, & Wohl, 1999). We thus convened three focus groups to obtain feedback from 29 Black women related to developing effective T2DM interventions. We sought to learn more about how race and gender intersect to influence T2DM self-care and management and which factors (such as family strength) were important in T2DM programming.

¹Iowa State University, Ames, USA

²Pacific University, Hillsboro, OR, USA

Corresponding Author:

Tera R. (Hurt) Jordan, Iowa State University, 4380 Palmer HDFS Building, Suite 1364, 2222 Osborne Drive, Ames, IA 50011-4380, USA.

Email: trh@iastate.edu



Guiding Framework

Various factors differentially shape T2DM outcomes. The Gender-Centered Diabetes Management Education Ecological Framework (Jack, Toston, Jack, & Sims, 2010) was selected for the current study. Jack and colleagues (2010) initially developed this model to discover and study connections between health and masculinity, and it has guided studies on Black men's health, T2DM, and masculine identity (Hurt, Seawell, & O'Connor, 2015; Jack, 2004; Jack & Griffith, 2013; Jack, Toston, et al., 2010; Jack, Gross, et al., 2010; Sherman, McKyer, Singer, Larke, & Guidry, 2014; Whitaker et al., 2014).

We propose that this framework can be equally applied to women. In their model, Jack and colleagues (2010) describe the influential effect of gender norms, gender roles, and gender-role conflict on T2DM management. As the authors noted, the model

offers a theoretical approach to understanding the influence of variables across multiple levels of influence that directly and indirectly affect short-term, intermediate, and long-term health outcomes. This framework encourages close examination of the family as a key source of influence and illustrates important pathways through which diabetes-related health disparities are ultimately influenced. (p. 6)

More specifically, the conceptual model describes how demographic factors, family functioning (e.g., social support), and gender (e.g., femininity) intersect to influence and be influenced by biological health (e.g., weight, body mass index [BMI], glycemia), knowledge about psychological health (e.g., T2DM knowledge, stress), behavioral health (e.g., nutrition, PA, health care), and gender-centered diabetes management education (e.g., sensitivity to gender, culture). Each aforementioned area influences women's abilities to reduce T2DM-related health disparities both in the short term (e.g., glycemia, weight) and in the long term (e.g., quality of life; Jack, Toston, et al., 2010).

Black Women and Diabetes

Femininity and Culture

It is important to pay attention to both race and gender while developing T2DM programming for Black women because processes associated with successful T2DM self-care and management are often very different from those for men (including Black men) and women from other racial groups (Jack, Gross, et al., 2010). Femininity is defined as a set of traits, behaviors, perceptions, roles, responsibilities, and expectations linked to women and shaped by social context and cultural norms (Annandale & Hunt, 1990; Arthur & Rowe, 2012). Feminine socialization when coupled with cultural influences might differentially affect the health outcomes of women of different racial backgrounds (American

Diabetes Association, 2015; Annandale & Hunt, 1990), particularly Black women. For example, culturally inspired health practices (e.g., reliance on home remedies, mistrust of physicians) might lead women to delay preventive health care and help seeking when T2DM symptoms arise (Smith, Braunack-Mayer, & Wittert, 2006).

Moreover, socially constructed feminine behaviors and attitudes undermine health behaviors (Jack, Gross, et al., 2010). For example, ascribing feminine gender roles (e.g., caregiver, nurturer) often explains why women are less likely than men to engage in proactive health practices (Woods-Giscombé, 2010) and likely to prioritize fulfilling gender roles more than health-promoting behaviors (e.g., physical activity, good diet, health screenings, annual physical examination; Woods-Giscombé, 2010). Moreover, gender differences in nutritional choices (e.g., preference for soul food) and exercise patterns (e.g., preference for walking vs. strength training) are well established in the literature, underscoring the need to separately consider issues for each gender (Newton et al., 2014). It is thus important to attend to both race and gender in developing interventions for Black women.

Family

For Black adults, the family unit is a critical resource. Within Black culture, collectivism, interdependence, and cooperation are valued, and family definitions are often flexible. The term *Family* often includes persons linked by marriage, blood, and adoption as well as persons who are frequently and substantially involved in one's life (Chesla et al., 2004; Peyrot et al., 2015). Furthermore, Black adults are more likely than White adults to live with extended family members; coresidence in the same household presents unique opportunities for families to support those coping with T2DM (Baig, Benitez, Quinn, & Burnet, 2015; Peyrot et al., 2015).

Family can also be a significant source of support for women's health promotion (Chesla et al., 2004) by helping reduce the impact of T2DM through education, reinforcement, and direct assistance (Chesla et al., 2004; Chlebowy, Hula, & LaJoie, 2013; Treadwell et al., 2010). Spouses and relatives also often influence meal planning and encourage physical activity (Savoca & Miller, 2001). For example, in the Supporting Healthy Activity and eating Right Everyday (SHARE) study, weight loss was highest in the group in which family and friends actively took part in interventions (Samuel-Hodge, Johnson, Braxton, & Lackey, 2014). Families often have been absent in intervention work because programs have usually targeted individuals and often failed to intervene within the family context in which T2DM often develops (Gomersall, Madill, & Summers, 2011). Focusing on the family might also be an important route to increasing retention in prevention and intervention programs. Studies that include family member(s) in preventive interventions might find success not only in recruiting and retaining Black

participants but also in maximizing intended outcomes (Brody, Kogan, Murry, Chen, & Brown, 2008; Chlebowski et al., 2013; Newton et al., 2014).

Diabetes Intervention Programming

Notable T2DM curricula designed to be culturally sensitive to Black adults include the Diabetes Coaching Program adapted for Blacks (Steinhardt, Mamerow, Brown, & Jolly, 2009), Fit Body and Soul (Dodani & Fields, 2010), Project Diabetes Interventions Reaching and Educating Communities Together (Project DIRECT; Engelgau et al., 1998), and the Lifestyle Balance Church Diabetes Prevention Program (Davis-Smith, 2007). These programs have focused on how Black culture affects behaviors and beliefs relevant to T2DM (e.g., preferences for soul food, often including fried foods, breaded meats, and foods high in sugar, starch, or carbohydrates; beliefs about the importance of cleaning up one's plate at every meal).

Although these programs have helped Black adults enhance their self-care behaviors (e.g., Centers for Disease Control and Prevention, 2015; McGinnis et al., 2005; Norris et al., 2001), few of them have separately documented both short- and long-term changes. The one exception is the Diabetes Prevention Program (DPP) that, using a group at risk of T2DM, demonstrated that an intensive lifestyle intervention focused on diet, nutrition, physical activity, and lifestyle could help prevent the onset of T2DM (Diabetes Prevention Program Research Group, 2002). Despite the overwhelming success of this intervention, Black women lost less weight than participants from other racial groups (Diabetes Prevention Program Research Group, 2004; Samuel-Hodge et al., 2014; West, Prewitt, Bursac, & Felix, 2008). The point is that, although earlier work has reduced T2DM among Black adults (e.g., Diabetes Prevention Program Research Group, 2004; Samuel-Hodge et al., 2014; West et al., 2008), the effectiveness of such programming could be enhanced by paying additional attention to the particular needs of Black women.

Study Purpose

Considering the existing gaps in the empirical literature and the noted significance of attending to femininity, culture, and family in T2DM education, it is important to give voice to the perspectives of women to address T2DM and create effective T2DM programming. The purpose of this study was to use focus group methodology to guide the development of culturally tailored, gender-sensitive, and family-based T2DM programs for Black women. We report on three focus groups made up of community-dwelling women who were interviewed about developing effective programming to reduce the impact of T2DM. Using the focus group method allowed for in-depth and cost-effective exploration of diverse perspectives (Liamputtong, 2011; Miles, Huberman, & Saldaña, 2014).

Method

Participants

All procedures used in conducting this research were in compliance with Iowa State University's Institutional Review Board requirements and general ethical standards. In September and October 2012, Black women comprising the Iowa sample of the Family and Community Health Study (FACHS) were invited to take part in focus groups. FACHS, a longitudinal study conducted in Iowa and Georgia, engaged more than 800 Black primary caregivers and their 10- to 12-year-old children. For a more detailed review of FACHS recruitment protocols, see Cutrona and colleagues (2003). To develop a pool of potential participants for our focus groups, we created a list of eligible FACHS participants who were aware they might be invited to take part in future studies. All eligible adults were Black because of the nature of the original FACHS sample (Cutrona et al., 2003); resided in the Des Moines, Iowa metropolitan area; and took part in FACHS Wave 6, conducted between 2010 and 2012. We reviewed their data related to T2DM diagnosis and BMI, and identified 47 eligible women who were then mailed a recruitment letter inviting them to participate in a focus group aimed at understanding Black women's experiences with T2DM and making recommendations for prevention and management programming.

Approximately 3 days after the expected receipt of the recruitment letters, full- and part-time FACHS research staff members called potential participants to inquire about their interest in enrolling in the focus groups. Thirteen women did not sign up (reasons: inability to contact nine women via phone, two women expressed their interest but did not confirm which focus group they could attend, one woman was caring for a disabled dependent, one woman attempted to schedule after the focus groups were full). A total of 36 women were enrolled, and each was assigned to one of three focus groups based on individual availability. Seven of these women did not show up for their assigned focus group meetings (six could not be reached to obtain a reason, whereas one reported unanticipated work responsibilities).

The resulting sample size was therefore 29 Black women of mean age 49.5 years (range = 41–68), all of whom were affected by T2DM. Eight had been diagnosed with T2DM, and the others had indirect experience with T2DM through family and friends. Eleven identified as single (not dating or seeing or anyone at the time of data collection), and others ($n = 11$) reported either being married (mean years married = 15; range = 2–43), coresiding with a partner in a steady, marriage-like relationship ($n = 2$; mean relationship duration = 10 years; range = 1–19), or dating but not living with a partner ($n = 5$; mean relationship duration = 8.6 years; range = 3–17). The women reported having an average of two children (range = 1–7), and their mean level of education was high school or general education diploma (GED; ranging

from eleventh grade to an advanced degree). The mean level of household income was between US\$50,000 and US\$65,000 (ranging from less than US\$10,000 to US\$150,000; one refused to provide this information; five had no knowledge of their income level).

Procedures

Two members of our research team (T.R.H. and A.H.S.), both Black women, facilitated the first focus group and took observational notes. The goal was to show appropriate sensitivity to enrolled participants, and thus draw on the support and expertise of a racially and gender-concordant staff. This reflected our awareness of the significance of cultivating trust by connecting with others of similar backgrounds (Cooney, Small, & O'Connor, 2007). Because of an unexpected change in one facilitator's (T.R.H.) availability, another member of the team (C.C.), a White woman, and a FACHS principal investigator extremely familiar with the sample of participating women assisted with conducting the second focus group and took observational notes. The third focus group meeting was conducted by one member of the team (T.R.H.). A graduate research assistant took observational notes and monitored the digital recorders used at the first and third focus group meetings.

Focus group methodology was employed to explore relevant topics and capitalize on group dynamics and discussion to engage the women in detailed conversation about each topic (Liamputtong, 2011). The flexibility of the data collection approach also allowed facilitators to follow up on emergent themes. To prepare for the focus groups, a focus group protocol was prepared by two members (T.R.H. and A.H.S.) who have taught graduate courses in qualitative methods and were trained in interviewing techniques.

The first focus group was comprised of eight women, the second focus group included 11 women, and four women took part in the third focus group. On their arrival at a private meeting room at either a centrally located community center or a library in Des Moines, Iowa, we (T.R.H. and A.H.S.) introduced ourselves and invited the participants to eat the healthy snacks and drinks provided. After all the women had arrived, we (T.R.H. and A.H.S.) called the focus group to order, introduced ourselves, and briefly described the desired purpose of the discussion to follow. We (T.R.H. and A.H.S.) read the informed consent document, asked the women if they had any questions about study procedures, then obtained all their signatures on written documents, thereby giving their consent to take part in the focus group study.

The participating women were reminded that others would most likely be aware of their involvement and responses, and encouraged not to discuss their responses or reveal other group members' participation after the focus groups had ended. We also asked them not to use specific names in their responses. The women were asked to comment on their knowledge about T2DM (e.g., What do you

think causes people to become diabetic as adults? What can people do to prevent diabetes? What do you think prevents people from doing these things?). Facilitators invited the women to reflect on the role of food (e.g., What types of foods most often lead to weight problems among the people you know? What are the benefits of consuming healthy foods? What are the barriers to consuming healthy foods? In what ways does the state of the current economy influence your food purchases?). Participants were also invited to reflect on the role of exercise (e.g., How much of a role do you think exercise plays in preventing diabetes? What kinds of exercise or physical activity do you enjoy? What kinds of exercise or physical activity are easiest for you to keep up over time?). Women were asked to describe ways to make T2DM programming more appealing for Black women, both to encourage participation and to suggest marketing strategies for a T2DM program.

Focus group participants also discussed ways to motivate women specifically, priorities for interventions, barriers to participation, and pros and cons of including spouses/partners, friends, and children in the program given family norms regarding health (e.g., What are some things that would motivate Black women to participate in a program designed to help them prevent diabetes? Which do you think is needed more, a prevention program or a management program for women who already have diabetes? What are some things that might prevent Black women from taking part in the program? Should we involve other family members in the new program?). Women were asked to offer a list of sites where an educational program should be provided and to indicate whether they would comply with requests to wear an activity monitor, to give blood, and to allow their height and weight to be measured. Finally, the focus group participants were asked to talk about their personal experiences with T2DM and try to pinpoint community resources that could provide answers to T2DM-related questions. Each focus group discussion lasted about 2 hours, and at the conclusion of each focus group discussion each woman was paid US\$50.00 for her participation.

Data Analysis

After completion of each focus group meeting, two members of the research team (T.R.H. and A.H.S.) carefully listened to the digital recordings. By the time the third focus group meeting had been conducted, participants were found to be sharing similar opinions and answers in response to the focus group questions posed in the first and second focus groups. This signaled that saturation had been reached; that is, it was felt that no additional data collection was needed, because no new or relevant information had emerged from the third focus group discussions (Morrow, 2007).

For data analyses, we (Iowa State University researchers and researchers from Pacific University) worked as two separate teams to ensure the reliability of the results. We

carefully listened to the digital recordings, and analyzed the content of the focus group discussions to search for both similarities and differences in responses. During this part of the study, we adopted a conventional content-analysis approach in our efforts to categorize, assess, and interpret the data (Miles et al., 2014). No qualitative software was employed to organize and analyze the data; we used either paper and pencil or a Microsoft Word or Excel table, depending on our individual preferences, to organize the data and develop preliminary themes emerging directly from the data.

We independently evaluated, compared, and contrasted data. We (the Iowa State team) included two facilitators/study investigators and both graduate and undergraduate research assistants. We (the Pacific University team) also included one facilitator/study investigator and graduate research assistants. We (analysts from Iowa State University) used only digital recordings in our analyses. We (the Pacific University team) developed verbatim transcripts by both listening to the audio recordings and manually transcribing conversations, and these transcripts were then used to help analyze the data and discover themes. We each developed a list of themes from his or her review of the focus group data. Our (Iowa State and Pacific University teams) site teams held separate data retreats in which we discussed and compared findings from their independent analyses (Saldaña, 2013).

Two meetings were convened at each site during which we (analysts) formed conclusions about data themes that appeared relevant to strategies for developing effective T2DM programming for Black adults. During this activity, we practiced analyzing all data collected across the three focus groups (Miles et al., 2014). We observed both similarities and differences in the women's collective responses. The principal data analysts (T.R.H. and A.H.S.) met via Skype to discuss thematic categories that had emerged during the data retreats; these categories were then revised and streamlined as a result of these discussions. Five major topics emerged from our analysis of the data—diabetes knowledge, diabetes management and prevention, physical activity, diet, and diabetes management programming. There were no unresolved differences in analytical coding or presentation of the results (Saldaña, 2013); hence, we attended to reliability or dependability by ensuring that multiple observers' accounts converged (Miles et al., 2014).

The principal data analysts (T.R.H. and A.H.S.) took the lead in writing up the manuscript, and others reviewed manuscript drafts to ensure that they had adequately reported on the data and accurately documented the participants' perspectives. In documenting the results that follow, credibility was attended to by offering an authentic presentation of participants' opinions and meaningful descriptions of their perspectives related to the subject. Furthermore, the data have been linked to prior theory (i.e., Gender-Centered Diabetes Management Education Ecological Framework), so the findings reflect how the conceptual framework guided our data interpretations and offer clarity (Miles et al., 2014).

Results

Diabetes Knowledge

Black women demonstrated a basic understanding of T2DM and its associated risk factors, including heredity, diet, exercise, and lifestyle; we define this as *diabetes knowledge*. The women's knowledge about T2DM was consistent across the three focus groups, and they asserted the need for the Black community to be given factual information about the disease and its consequences as well as the importance of leading a healthy life (e.g., eat a nutritious diet, engage in regular physical activity, maintain healthy weight). All participants agreed that more effort is needed with regard to informing Black communities about the signs and symptoms of T2DM, and many of the women expressed concerns that the message of T2DM is simply not reaching Black communities, suggesting that a poignant hook (e.g., awareness of severe complications of T2DM and ways in which the chronic disease can undermine quality of life) that shocks and captures attention is sorely needed. Women shared the following comments.

People with diabetes are not listening.

People don't know the consequences unless they personally experience the nasty deaths and conditions. Make the message clear that diabetes is killing Black people so people will take it seriously. Maybe make it more graphic and scary like the campaigns for lung cancer and AIDS?

Not only tell 'em about it, but show 'em in films and pictures of—okay if you keep doing this, this is what'll happen to this body part and you know this is what it looks like.

Most women reflected on personal experiences (e.g., lost limbs, blindness, disability, death) with parents and other family members as factors that shaped their understanding of the severity of T2DM. Some conceded that individuals were simply in denial about their conditions even though they manifested some of the common symptoms of T2DM, including intense thirst and weight loss. In reflecting on her own family history, one woman said, "Am I next?!" Another woman was motivated to participate in the focus group because her own mother had died of complications from T2DM, and she and her sibling had also been diagnosed with T2DM. She reflected,

I too have a family history with it and my mother died of complications of diabetes so I was raised on a heart healthy diet. I continue a heart healthy diet. [But] I still got diabetes and two of my younger children are pre-diabetic. So, it [diabetes] definitely gets passed down all the time. I [still] don't know how to really alter my diet, because I grill my steak instead of fry it in oil and I did everything right, but despite everything I did right, you know, I gained 9 pounds and no matter what I did, it got me anyway.

Diabetes Management and Prevention

We define *diabetes management and prevention* as the collection of attitudes, behaviors, and information related to how to avoid, minimize, or respond to T2DM and its consequences (American Heart Association, 2015). Participants proposed that health care providers should give people sufficient time to process the information when they are diagnosed with T2DM. Patients should be prepared mentally for changes in their bodies and the consequences of mismanaged T2DM. Women stressed that communication with health care providers is central, and that individuals should know how to advocate for themselves. Other women pointed out the reticence of some Black adults to openly communicate with health care providers: “African Americans are too private.” Women also noted that individuals must be willing to comply with medical treatments and regimens.

Women conceded that there is little motivation to change behavior when one is still functioning well, and they often wait to experience a significant event before they are inspired to do something different. One Black woman thus asserted that unconventional messaging is needed to provide a sense of urgency to change behaviors. She said, “You need scare tactics. Scared-straight tactics like when you see someone be sick. I watched my husband go blind. I was scared straight by the experience.” In addition to not being motivated to manage T2DM, women cited denial, lack of family communication (e.g., not wanting to worry family, desiring to keep one’s health information private), and avoiding the doctor’s office as contributors to poor management of T2DM.

Women deemed having comprehensive health insurance to cover expensive health care costs and ensure proper medical care as critically important to managing T2DM well. Another woman described the difficulty of being heard and believed by her health care provider:

Everything I complained about, they found it. But, it took a member from my church, who knew the [doctor’s] family and said, “No, she’s not crazy. She’s not making this up. If she says she’s sick, she is sick.” She begged him right in front of me, on the phone, to take me on as a patient. All these things I was complaining about no one wanted to hear. So by the time they found it, my health was a wreck. I’m on disability. I’m only 52. [Been on it] for 20 years.

At the same time, women described the importance of patient advocacy and willingness to communicate with one’s health care provider and taking the initiative to educate oneself about an illness:

We need to be our own best advocates. If you know what you know, you have to relay that to your doctor. My doctor knows I’ll be in their Kool-Aid because this is my one and only life. [Kool-Aid is a slang term for business; Urban Dictionary, 2016.] At the end of the last day when I take my last breath, I wanna know I did everything to keep that life going. So be advocates,

don’t be afraid. Say this is what’s going on and I’m here, you need to do this, you need to do that. You know who’s your best friend? WebMD. If you don’t understand or you got something and don’t know what it is, type it up, type the symptom. You need to be informed. If you have researched this stuff and maybe you sound a little hypochondriac at first, but [the doctor’s] going to know you’re at least willing to help yourself.

There were also differing opinions about capitalizing on family relationships and using children and grandchildren as motivators to help support those diagnosed with T2DM. Women with reservations about this approach made the following statements:

You can’t force people that don’t want to.

It’s hard to be there or see family members not making healthy choices. It’s too emotional.

If someone has experienced a loss of a loved one to T2DM, it might be overwhelming and emotional to engage in a program. This is a sensitive matter.

Proponents of enlisting the support of the younger generation cited the need to teach children about T2DM early in their development. Adopting a family-based approach would ensure not only secondary and tertiary prevention of complications but also primary prevention of T2DM. One woman offered, “Start with younger children, if you wait until people are older, they are losing limbs by then and you’re still not making healthy changes in others.” Another woman corroborated this point when she said, “Help children see the impact of diabetes.” Another woman added, “Yes include them because adult children are now getting diabetes.”

Other women cited the importance of preparing family members on how to help those coping with T2DM in the event of an emergency situation. Such a family-based approach would also help relatives understand the disease, dispel misconceptions, and provide education about healthy food choices. Another woman noted that individuals are more open to making change when others are involved. Women noted that support persons were more likely to be children or other women. It would be a challenge to involve Black men in programming in the participants’ opinions.

Physical Activity

Women described their motivations for engaging in *physical activity*, which we deemed as “any bodily movement produced by skeletal muscles and requiring energy expenditure” (World Health Organization, 2016). Women noted that they were inspired to make positive gains in their health and meet their goals for maintaining good quality of life. Barriers to exercising included preferring to sleep or rest, being limited by weight and other health challenges (e.g., fibromyalgia, stroke, heart attack, high blood pressure), experiencing

financial strain and an inability to pay for fitness centers or transportation, and having full schedules with little time for physical activity after caring for children and families.

Women had a gender-oriented perspective on exercise. They viewed lifting weights as being “too manly” and were not interested in strength training. One woman pointed out that it was a myth that some exercises were for men only. In addition, running was regarded as being too intense for their bodies; yoga was deemed less enjoyable. Women much preferred walking, biking, swimming, Pilates, tennis, golf, or playing games with grandchildren. Those able to access fitness centers appreciated the support of someone who could show them how to use the equipment so they would not believe they were a “fish out of water.” For example, one woman noted that she enjoyed going to Curves for 30 minutes because “I’m doing something for myself.” One woman noted that she was motivated by family to participate in physical activity:

I know for me, I have two granddaughters, one is two one is six . . . They [always say], “Come on grandma!” and oh I’m moving and playing with them! Just *that* was enough for me, but otherwise [I don’t exercise].

I take my grandson to speech therapy. He’s mentally disabled. He keeps me kind of moving. I try to do little tiny activities with him in increments. I can’t move 30 minutes at a time, so I can move around for 10 minutes.

Diet

We define *diet* as food and/or drink that one regularly consumes for nourishment. Women raised the issue of awareness of how one’s family of origin prepared meals as well as the kind of foods that were commonly served in the household. For example, one woman, whose experience was not representative of other women in the focus group, said that she was raised on a diet with no sugar or fat because her father had heart problems. She grew up never expecting foods to be rich in flavor and taste. The women also discussed meanings attached to food and how culture could influence food choices. They acknowledged that the underlying spirit of soul food cooking was to take the scraps or something bad and make it good: “It’s in your DNA.” For this reason, many household members preferred their foods to be prepared in a flavorful, yet unhealthy way (e.g., fried chicken, fried corn): “Prefer it fried, the way our ancestors ate it. Like greens with fatback.”

The women asserted that families must exercise discipline and control to ensure lasting change: “You have to want to change.” Women advocated changing how food is valued in families to promote long-term health and well-being. Most of the women were raised on southern-inspired diets; they noted that there was a myth that southern food always included unhealthy food choices (e.g., fried foods, high carbohydrate, high sugar). Some women supported offering

ways to consume southern-inspired foods that were rich in taste and nutrients but prepared using healthy cooking practices, for example, not frying. One woman poignantly described historical reasons for why Black adults preferred diets that were not only pleasure focused but also tended toward being less healthy, and also reflected on the cost of paying for healthy food:

Even if we go back and look at history, talking about our ancestors, the things that they did . . . You look at the things that they took from that that hog meat, things that were left over and not pleasurable to the people. We made that to be enjoyable to us, but in the long run it caused health issues so the cheaper things are not healthy most times. It’s not healthy for us so we look at it as a thing to be healthier, we’re going to pay that extra expense. Or we should pay that extra expense to live longer.

Barriers to eating healthy included not having enough time to prepare meals, having to travel too far to purchase healthy food, and not knowing how to prepare foods in a healthy way. Other women spoke about the difficulties of finding transportation to stores that sold healthy foods, because such stores tended to be outside their neighborhoods: “Yeah, transportation for all these stores, I don’t know where they are, but they have a lot of the things that are cheap and inexpensive for some of them. There are better grocery stores. But transportation.” Women also expressed difficulty in reading labels and evaluating portion sizes. Most of the discussion, however, focused on affordability. The women collectively raised the question: “Can you financially afford to eat well? What is cost effective?” One woman asserted, “I want to eat more salmon, but I can’t afford it!” Another woman asserted, “Must have money to be healthy.”

Some women received help from the Supplemental Nutrition Assistance Program (SNAP) but were frustrated with the benefit: “The food stamp program does not account for how much growing children eat. It isn’t enough.” In efforts to stretch meals and take advantage of the benefits of long-term storage, women frequently purchased canned goods instead of fresh foods. When women did desire to purchase healthy foods (e.g., whole grains, fruits, vegetables), they often used coupons, bartered with others to share family size bags of food, or picked fresh fruits and vegetables at a local community garden. For example, one woman stated,

I have a neighbor, we barter for food. I don’t have any butter, but I have a can of peaches, and so we’ll switch . . . I have a car so I take her to the grocery store. I’ll tell her I’m on my way to Walmart, do you need a ride?

The issue of access and affordability to food was a recurring theme across the three focus groups, and many participants felt forced to choose unhealthy foods because of cost and doing what they could to make unhealthy foods healthier:

It's cheaper for me to go to McDonald's than it is for me to go get this piece of salmon, which is what I really want, but I'm hungry and I can't afford the salmon today, or if you do have to go to McDonald's, take that bread off.

Diabetes Management Programming

We define *diabetes management programming* as activities or initiatives designed to improve T2DM outcomes. Women expressed a preference for a group-based T2DM management program in which individuals would have an opportunity to connect with others, build community, and learn from others. Women noted that the program should be fun, enjoyable, and emotionally rewarding to increase their motivation to take part. It was noted that, if participants took ownership of the program and helped create it, attendance would increase and retention would improve. Even though money was noted as an incentive, so also was the availability of cookbooks, healthy food preparation tips, information about the cost of care, education about health screenings and endocrinologists, and door prizes or gift cards.

Women would also appreciate a means for keeping track of their progress (e.g., pictures for tracking weight loss, follow-up with tests and evaluation at a doctor's office), so that they could see the results of participation. Women said that they would consent to wearing pedometers or other activity monitors, and allow someone to measure their height and weight. Only one person declined to "give away her blood," whereas all of the other women agreed to provide blood samples to advance research: "For the science and developing understanding which is impactful for diet, exercise, and healthy foods." The only two barriers to participation noted were not having child care and offering a program that is too long in duration with sessions that meet too frequently (i.e., not every week, maybe bimonthly or monthly).

Women also advocated that the program should be led by someone who reflected the target group—a Black adult of any age from the community with personal experience and knowledge about T2DM (e.g., medical personnel, nurse). As one woman shared, "The facilitator needs to be on the journey." Another woman put it this way: "Someone who knows the struggle and has been there and succeeded."

Women indicated that programs should be held at community-based centers (YMCA's), local churches, libraries, or other neighborhood centers with easy parking and kitchens that would facilitate learning about cooking healthy foods. For example, one woman stated,

I think, too, that the churches will be a good place to have either speakers of the church or people who are in the field of diabetes, but those people can come and talk to the congregation and they can maybe have like a booth or something and a table set up.

In addition, some women identified the following area resources to obtain information about T2DM—nurse's

hotline, doctor's office, county public health office, Evelyn K. Davis Center for Working Families, Creative Vision, churches (e.g., Corinthian Baptist Church Free Clinic), libraries, and Women, Infants, and Children (WIC) programs. The women believed that better advertisement was needed to publicize the type of information and services available in the community. One woman advocated asking the state legislature to pass a new law to create awareness and demonstrate a commitment to improving health in the community. Given the time demands that Black women face, the nature of the program schedule will be important. One woman offered this:

I was going to say, once a month meeting. You know, you may not make it to this month, but you might be able to make it to next month. Then bring someone with you the next time. For me, the first time would be a longer time if it is whatever day a week. Have snacks and ideas of recipes. Or another time, maybe a cooking class.

Many women called for ongoing programming to help reinforce skills and provide ongoing motivation and support. One woman said,

There's a lot to squeeze into six months, and it depends on how much you want to squeeze in. Diabetes is an ongoing thing, you know. I think it [programming] should be an ongoing thing.

When someone is diagnosed with diabetes, they have some resources that are available to them, their doctors will give them information. But the problem I think is the ongoing thing. They don't have someone who helps them throughout.

In summary, Black women praised efforts designed to help them learn "tricks and tools" that had worked for promoting health and well-being. They understood the importance of creative strategies to stay healthy in responding to the constant barriers and challenges that make leading a healthy lifestyle difficult.

Discussion

These focus group results offered guidance as to how to build culturally sensitive, gender-appropriate, and family-based T2DM programming for Black women. Using Black women's voices, we sought guidance on how to appropriately frame T2DM programming and strategies for effectively delivering such curricula, thereby making a contribution to the literature. Although other studies have reduced the impact of T2DM among Black participants (e.g., Diabetes Prevention Program Research Group, 2004; Samuel-Hodge et al., 2014; Treadwell et al., 2010; West et al., 2008), they offered little guidance about how interventions should be specifically modified for Black women.

This work therefore advances the literature in important ways for T2DM professionals desiring to recruit Black

women, and recognizes the importance of messaging and delivery in reaching Black women to reduce the impact of T2DM. Our findings underscore key concepts outlined in the Gender-Centered Diabetes Management Education Ecological Framework (Jack, Toston, et al., 2010) related to diabetes knowledge, behavioral health, and culturally sensitive, gender-appropriate, and family-based T2DM programming. Our study results connect well with this framework, and we do not propose any further revisions to this conceptual tool based on this study.

Overall, the women in our study had basic knowledge of T2DM and its complications. They asserted the importance of offering more impactful diabetes prevention through programming and public relations campaigns, and suggested that information should have a hook that outlines the etiology and severity of T2DM through visual imagery and words. The women stressed the importance of shock value as a means for communicating the seriousness of T2DM and its potential impact on quality of life. Participants asserted that many in the Black community are in denial about T2DM, and that most adults in such communities neither understand T2DM as a disease nor its complications. These findings relate to the high prevalence of T2DM in the Black community, and the need for intervention efforts mirrors those highlighted by others (Hurt et al., 2015; Liburd, Namageyo-Funa, Jack, & Gregg, 2004).

Focus group participants stressed the importance of prevention, advocating for oneself, and openly communicating with doctors and health professionals. They also noted the significance of needing time to process information after visiting doctors' offices, particularly after hearing difficult information. Illness has meaning, and one's perception of a disease can significantly affect health outcomes (Scollan-Koliopoulos, O'Connell, & Walker, 2005). T2DM might have traumatized adults, particularly among those with strong family histories of the chronic disease. Participants also recommended that health care professionals listen to patients and work to cultivate trust, especially among Black patients who might struggle with privacy, mistrust, and guarded behavior.

Cost was a particular barrier to seeking appropriate medical care. To ensure maximum access to health care, comprehensive insurance plans are needed, as well as education on how to access health insurance made available through the Affordable Care Act. Common barriers to health-promoting behaviors included denial, avoidance of health care, failure to follow doctor's orders (e.g., not taking medicine as prescribed), and not making one's family members aware of health challenges. Self-care was a critical component in optimizing one's health as outlined in earlier work by Liburd et al. (2004). There were varying opinions about whether it would be best to include family members in programming, highlighting one's inability to control another family members' actions and how family members can be affected and traumatized by the death of family members. This reflects a perspective

different from those found in previous studies (Brody et al., 2008; Chesla et al., 2004; Chlebowy et al., 2013; Gomersall et al., 2011; Newton et al., 2014; Samuel-Hodge et al., 2014; Savoca & Miller, 2001; Treadwell et al., 2010).

In another study by Samuel-Hodge (2012), 67 Black adults were interviewed about how family members supported those with T2DM. Samuel-Hodge (2012) concluded that adults with T2DM were concerned about role reversals and family conflict, and specifically found it difficult to cope when adult children offered guidance for care, prepared meals, or made food choices. Moreover, adults with T2DM often did not appreciate uninvited advice or overprotective adult children. Samuel-Hodge (2012) recommended that scholars promote a balance between family support and maintaining autonomy in addition to clarification of family roles. Family members often felt a need to regulate the food choices of their loved ones with T2DM and recalled being conflicted about whose responsibility it was to manage T2DM, with such confusion sometimes resulting in unintended family conflict. These results might highlight the underpinnings of some of the opinions found in the current study about integrating the family in programming.

Participating women also discussed lifestyle habits, including their desire to be more physically active and engage in moderate exercise such as walking, swimming, and Pilates, yet struggled to overcome key barriers (e.g., busy schedules, life stress; Arthur & Rowe, 2012). We observed connections in the data between gender and physical activity, given participants' natural preferences for exercise routines deemed appropriate for them as women (e.g., walking, not strength training). Furthermore, grandchildren were regarded as strong motivators for remaining active outside of the T2DM session. Social support and social networks have been found to be consistent predictors of T2DM self-management success (Arthur & Rowe, 2012). Grandchildren enjoyed taking part in outdoor activities and video games (e.g., Wii, dance contests) that required low to moderate exercise. Given women's roles as caregivers and nurturers, we were not surprised that participants welcomed the opportunity to be active with their loved ones.

In addition, women knew that food types related to their families of origin and soul food fare were often not healthy, and conceded that the way in which such food was valued in Black culture needed to change. A preference for unhealthy food choices contributed to obesity and T2DM (Arthur & Rowe, 2012; Liburd et al., 2007; Liburd et al., 2004; Newton et al., 2014). Liburd (2003) asserted that "achieving and sustaining a healthy eating pattern was often a challenge for people with T2DM, given that individual food preferences and practices are deeply rooted in history and culture" (p. 160). Soul food has been strongly linked to southern-inspired diets and consumption of nutrient-poor foods in response to difficult living conditions. Such diets and nutritional practices largely persist because of rituals in the Black community (Liburd, 2003). Participating women noted that lack of

money to purchase more nutritious foods, distance as well as lack of reliable transportation to better quality grocery stores with more nutritious options, and a desire to eat familiar but unhealthy food were key barriers to eating healthier.

Finally, participants emphasized the importance of T2DM prevention and intervention programming that allowed them to connect with others, build community, and learn from others' experiences (Hurt et al., 2015; Liburd et al., 2007; Liburd et al., 2004). As found in other studies, the women in this study asserted that the sessions should be short, informative, activity based, and rewarding (Hurt et al., 2015; Liburd et al., 2007; Liburd et al., 2004). Programs should be free, and offer complementary services and resources to help better prevent and/or manage T2DM (Cooney et al., 2007). Participants recommended that facilitators be from the community and have firsthand experience with T2DM (Hurt et al., 2015; Treadwell et al., 2010). We noticed connections in our data with respect to gender and some programming details; for example, women preferred program incentives such as cookbooks, healthy food preparation tips, and pictures for tracking their weight loss.

Several study limitations should be noted: First, although the sample size was quite small and limited to one data collection point, these data are most likely transferrable or externally valid to the experiences of other Black women residing in metropolitan areas (Miles et al., 2014). Second, it is not possible to link the quotes presented in the results to specific women because the purpose of using focus groups was to provide individuals with an opportunity to express their opinions in a group setting and learn about group consensus and diversity of opinions, not to focus on individual opinions (Miles et al., 2014). Focus groups are not intended to record any specific participant's opinion about an issue. A third limitation is that we did not examine the data in terms of diabetic status (e.g., diabetics vs. nondiabetics vs. prediabetic) because we were unable to connect individual comments to specific participants. Even so, the women were fairly consistent in their views about the issues discussed.

The health of society and social structures influences Black women's capacities to lead healthy lives and make choices that promote well-being. Social and cultural conditions affect lives, and structural forces have long influenced morbidity and mortality in the Black community (Geronimus, Hicken, Keene, & Bound, 2006; Jack, Gross, et al., 2010). Structural inequities and differential access to urban centers with nutritious food, safe spaces to exercise, and quality health-focused programming undermine Black women's well-being, so scholars should continue to collaborate with policymakers, legislators, and local leaders in addressing these disparities. Interventions and educational programs focused on addressing health disparities could also use this study's results to strengthen their approaches and effectiveness, particularly in underserved communities.

In conclusion, as T2DM professionals work to address critical disparities between Black women and men and

women from other racial groups, greater attention should be paid to ensuring that T2DM programs are culturally tailored, gender sensitive, and perhaps even family based. We strongly advocate for a community-based participatory approach to develop and deliver T2DM programming for Black women (Arthur & Rowe, 2012; O'Fallon & Deary, 2002). Our results provide concrete recommendations and guidance with respect to how to better reach Black women and their families. First, T2DM messaging should be impactful and address the severity of the disease. These results demonstrate that Black adults are open to information and advocacy that will promote their well-being. Second, prevention efforts are valued, and women should be empowered to advocate for themselves with health providers and take action to promote self-care.

Third, participants supported removal of barriers to receiving comprehensive health care and maintaining healthy lifestyles (e.g., being physically active, eating nutritious foods). Any programming for Black women should be interactive, informative, and include a sense of community. Family members should be welcome to take part in such efforts if their involvement would be advantageous and supportive, not overbearing. Ensuring that programs are revised to meet the needs of Black women and their lifestyles will help not only ensure ecologically valid programming but also reduce the impact of T2DM on this vulnerable population and improve the health of Black women with T2DM.

Authors' Note

Tera R. Jordan publishes scholarly work using her maiden name, Tera R. Hurt.

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Author Biographies

Tera R. (Hurt) Jordan, BS, MS, PhD, is an assistant professor of human development and family studies at Iowa State University in Ames, Iowa, United States.

Asani H. Seawell, PhD, is an associate professor at the School of Professional Psychology in Hillsboro, Oregon, United States.

Carolyn Cutrona, BA, MA, PhD, is Department Chair and professor of psychology at Iowa State University in Ames, Iowa, United States.

Margaret C. O'Connor, BS, MS, is a doctoral student in human development and family studies at Iowa State University in Ames, Iowa, United States.

Randie D. Camp, BS, MEd, is a doctoral student in human development and family studies at Iowa State University in Ames, Iowa, United States.

Roxanne Duran is a graduate student at the School of Professional Psychology in Hillsboro, Oregon, United States.

Reid Elderts is a graduate student at the School of Professional Psychology in Hillsboro, Oregon, United States.

Chrishelda Green, BS, Human Development and Family Studies, Iowa State University, Ames, Iowa, United States, is a master's student in higher education at Florida State University, Tallahassee, Florida, United States.

Vanessa Hara is a graduate student at the School of Professional Psychology in Hillsboro, Oregon, United States.

Jenna Pattee, BS, Human Development and Family Studies, Iowa State University, Ames, Iowa, United States, is a master's student in social work at the University of Northern Iowa, Cedar Falls, Iowa, United States.