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Culturally Tailoring a Patient Empowerment and Diabetes Education Curriculum for the African American Church

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Abstract

Purpose—The African American church has long been recognized as a valuable partner for health interventions in the community. While an extensive literature exists documenting the potential efficacy of diabetes education programs in church settings, there has yet to be an effort to leverage spiritual beliefs and practices to promote diabetes self-management and shared decision making within a faith-based framework that is culturally tailored to the African American church. The purpose of this article is to describe the translation of a clinic-based diabetes education program into faith-based education curriculum tailored for use in the African American church.

Conclusions—Themes extracted from focus groups and input from a faith-based community partner provided a methodical and patient-informed foundation for culturally tailoring and piloting a diabetes self-management curriculum for the African American church setting. This study illustrates how spirituality can be incorporated into interventions to enhance health promotion and behavioral change among African Americans with diabetes. Participants in our study described how religious beliefs play an active role in many aspects of diabetes care, including self-management behaviors, coping strategies, and patient/ provider communication. In addition, this intervention can serve as a model for the development of patient-centered health interventions.

In the US, racial and ethnic minorities experience disproportionately high rates of diabetes-related morbidity and mortality.¹ These national trends extend to the city of Chicago. For example, the South Side of Chicago, which is comprised primarily of low-income African American neighborhoods, has documented disparities in diabetes prevalence (ie, estimates of 19% in some South Side communities compared to 7% Chicago prevalence estimates²), diabetes-related health care delivery (eg, eye examinations, influenza vaccinations³), and diabetes-related complications (eg, 1.5 to 5 times the rate of diabetes-related lower extremity amputations among blacks vs whites^{4,5}).

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Launched in 2009, the South Side Diabetes Project (SSDP) is a multisite, multitargeted intervention designed to improve diabetes care and outcomes on Chicago's South Side.⁶⁻⁸ A collaboration between the University of Chicago, community health centers, and community organizations, the SSDP consists of 4 key components: culturally tailored patient education/empowerment, health provider training, quality improvement/health systems change, and community partnerships. The SSDP has been successful in terms of patient experience, patient skills and health behaviors, health care delivery change, and diabetes-related health outcomes.⁶⁻¹⁶

The cornerstone of the SSDP's patient empowerment work, the Diabetes Empowerment Program (DEP), has combined culturally tailored diabetes education with the innovative use of skills building in shared decision making.⁹ Shared decision making emphasizes equity between patients and physicians in discussions and decisions about clinical care, and has been associated with better control of diabetes and hypertension as well as higher ratings of self-reported health.^{17,18} Preliminary studies of the DEP showed improvements in diabetes self-efficacy, self-management activities, shared decision-making behaviors, and diabetes control.⁹

Despite effectiveness within clinic-based settings, the DEP's impact has been limited by its lack of reach within community settings, such as the church. The African American church represents a valuable community resource with nearly 5 million African American church members in the US.¹⁹ Within Chicago, an estimated 150 000 persons are members within 385 church congregations.¹⁹ Previous studies have demonstrated the effectiveness of health interventions in the African American church setting, including programs for weight loss, nutrition, physical activity, and diabetes prevention and control.²⁰⁻²⁵

While the effectiveness of diabetes education in the African American church has been explored, there has not yet been an effort to combine diabetes education and shared decision-making skills training within an explicit religious framework.²⁶ That is, there have been faith-*placed* diabetes interventions but few faith-*based* interventions, particularly that leverage spirituality to enhance patient/provider communication as well as diabetes self-care behaviors. This project aimed to develop and pilot test an intervention to address this gap in evidence-based practice.

Methods

This project consists of 2 phases: (1) informative qualitative work and (2) program adaptation and pilot testing. The Institutional Review Board at the University of Chicago approved this study.

Phase 1: Informative Qualitative Work

To better understand the opinions and cultural preferences of religious African Americans, patients who had completed the clinic-based 10-week DEP curriculum were recruited for participation in 2 focus groups. All patients recruited had made explicit references to religiosity and church attendance during previous classes. Recruited participants (n = 13)

were African Americans with diabetes, ages 21 and older. Study participants were given a \$20 gift card to a local grocery store as an incentive.

A moderator experienced in leading discussions about religion and health led focus groups. Each focus group consisted of 5 to 7 people and lasted approximately 60 minutes. A topic guide was created to lead the discussion using the constructs of the theory of planned behavior (TPB) and the ecological model (EM).^{27,28} The guide explored normative beliefs about spirituality and diabetes self-care as well as the role of faith-based institutions in promoting health behavior change. Focus groups were audiotaped, transcribed verbatim, and imported into Atlas.ti 4.2 software for coding. Three coders independently reviewed and coded each transcript; emergent themes were identified and iteratively discussed.

Phase 2: Program Adaptation and Pilot Testing

The themes identified in the focus groups were used to guide adaptation of the existing DEP curriculum. All adaptations were made in collaboration with a local church (New Beginnings Church of Chicago [NBCC]) that serves as a neighborhood resource (eg, social services, violence prevention, charter school) for the low-income African American community in which it is located. New Beginnings Church of Chicago has collaborated with the SSDP on prior diabetes education and community outreach activities.^{6,29} Specifically, NBCC has served as a site for the SSDP's culturally tailored physical fitness program since 2013 and has also partnered with the SSDP to sponsor diabetes awareness activities (eg, creation of a public service announcement about diabetes screening).^{6,29} Conversely, the SSDP has supported NBCC's antiviolence and health promotion programs since 2013. These aligned missions and ongoing collaborations were essential for fostering trust among church leaders and members when designing and implementing this program. The intervention team included physicians, religious scholars, church leaders (ie, pastors, health ministry leaders), clinician researchers, public health experts, diabetes educators, and persons with diabetes.

Church members were recruited for the study through health ministry outreach, presentations by SSDP staff during church service, and church-based social media (eg, Twitter and Facebook). Eighteen adults with diabetes were recruited for the pilot intervention. Classes met weekly for eight 90-minute sessions in the fall and winter of 2015.

Results

Phase 1: Informative Qualitative Work

Thirteen patients who had previously completed the DEP participated in the focus groups (Table 1). All participants were African Americans with diabetes living on the South Side of Chicago.

Five recurring themes arose from the transcripts, which were used to guide adaptations to the DEP curriculum (Table 2):

- **Theme 1: Faith as a motivator for health behavior change.** Spiritual faith was discussed by patients in the context of diabetes as an impetus for self-management (eg, diet modification, increasing physical activity).
- **Theme 2: Integration of physical and spiritual health.** Participants described how their religious practices and beliefs were integrally associated with their physical health.
- **Theme 3: Coping/stress.** Church members described faith as a means of weathering the emotional and physical challenges of living with diabetes.
- **Theme 4: Role of church community and social support.** Participants noted that physical and social environment of the church fostered relationships between church members and provided social support for health promotion.
- **Theme 5: Patient/provider communication.** Study participants frequently referenced the importance of communication with their clinicians to successful diabetes management.

Phase 2: Program Adaptation and Pilot Testing

Eighteen members of the NBCC congregation participated in the pilot study (Table 1). Recruitment was carried out with assistance from the NBCC health ministry and included distribution of informational materials at church events and SSDP staff promoting the program (with support of the church pastor) during several Sunday services. Fifteen of the participants identified as African Americans (83%), 1 identified as white, 1 identified as mixed race, and 1 did not provide racial identification. Fourteen of the participants (78%) were female, and 6 participants (33%) were married or living as married. Twelve participants (67%) had completed some college or were college graduates, and 12 participants (67%) reported earning more than \$15 000 per year. Three participants (17%) owned their own living space, and 11 participants (61%) were insured by Medicare or Medicaid.

General Religious Adaptations—Taking into account the focus group' emphasis on the integration of physical and spiritual health (Theme 1), SSDP staff met several times with the NBCC health ministry leaders and an assistant pastor to design and review the curriculum adaptations prior to the launch of the pilot study. The NBCC staff helped select scripture for discussion and approved all materials.

The health ministry also took an active role in teaching the program, with members of the health ministry leading 3 of the 8 classes. The head of the health ministry has a master's degree in public health and taught 2 classes. Another member of the health ministry, a nursing student, taught 1 class. In both cases, the health ministry was provided the curriculum and teaching instructions with SSDP staff providing clarification as necessary. The SSDP staff led the remaining 5 classes. Two physicians affiliated with the SSDP taught 4 of these classes, with 1 class taught by an SSDP staff member with a master's in public administration. The SSDP instructors were chosen on the basis of their previous experience

teaching the clinic-based diabetes education curriculum, role in the development of the faith-based program, and familiarity working with NBCC ministry and members.

Adaptation of Educational Materials—The class emphasized audiovisual instructional materials (eg, PowerPoint slides, culturally tailored educational videos) to align with adult learning principles and address potential literacy barriers.^{9,12,30,31} The curriculum also retained instruction on shared decision making throughout the program as a means of supporting patient/provider communication (Theme 5). The educational slides were revised to include biblical scripture (Figure 1) that supported the learning objectives of each class in order to align the curriculum with the participants' faith and enrich the learning experience (Table 3). Similarly, objective-aligned scripture were added to the goal-setting worksheets used throughout the curriculum to identify and monitor participants' personal goals for diabetes self-management and patient/provider communication (Figure 2).

In total, 17 educational documents were adapted for use in the African American church curriculum: 10 instructional slideshows modified to include scripture aligned with weekly educational objectives and 7 goal-setting worksheets with similar objective-aligned scripture.

Spiritual Practices—In an effort to leverage faith as a motivator for health behavior change (Theme 1), the scripture embedded in teaching materials and presentations were used to initiate group discussions about the role of faith in health promotion activities (eg, diabetes self-management, participating in shared decision making about clinical treatment options). These initial discussions usually lasted approximately 15 minutes. While the DEP already included group activities to foster social bonding among participants, the adapted curriculum opened and closed classes with group prayer as an additional means of highlighting the role of the church community and social support (Theme 4). Prayers were led by volunteers from the class.

Religious Beliefs—Personal stories and testimonials are a tradition in the African American church, and class participants were encouraged to discuss their experiences with diabetes and health care professionals throughout the class. In addition to providing culturally tailored experiences, these testimonials served as a valuable instrument in patients' management of the emotional impact of diabetes, which was described in the focus groups as coping/stress (Theme 3). Thematic discussions regarding the integration of religious beliefs with health beliefs (Theme 2) were a regular component of the class presentations as well.

Discussion

Although the African American church has been utilized previously as a physical space for community-based diabetes education, this study suggests interventions that leverage spiritual beliefs and practices within the church setting may have greater potential to promote health behavior change within this population. Participants in our study described how religious beliefs play an active role in many aspects of diabetes care, including self-management behaviors, coping strategies, and patient/provider communication. As such, health educators

may be able to leverage the faith and social support unique to the church setting to support patient education about diabetes and other chronic diseases. The cultural and religious tailoring process described in this paper can serve as a template for the adaptation of faith-based diabetes education programs in other populations.

In our study, patient engagement (through focus groups) and community partnerships (with a faith-based organization) facilitated the translation of an effective health care-based intervention into a real-world community setting. As such, this intervention can also serve as a model for the development of patient-centered health interventions. This work provides a strong case for establishing relationships between clinical research and community partners. Having already collaborated with the research team for other health programs, the church health ministry was familiar with the SSDP and amenable to assisting in the creation and implementation of the pilot study. Likewise, by using focus groups of patients similar to those being included in the pilot study, the beliefs and perceptions of the target audience were consistently considered throughout the curriculum adaptation.

Given the pervasive and pernicious racial disparities in diabetes outcomes in the US, there is a growing need for innovative interventions to address this problem. This study describes a feasible, patient-centered intervention that leverages spiritual beliefs and practices to promote diabetes self-management and shared decision making among African Americans with diabetes. Although survey data were not routinely collected as part of the pilot, anecdotal responses from participants suggest that the classes were well received and appropriately tailored to the socio-cultural audience. Furthermore, as a pilot, this study was focused on feasibility and did not collect any outcome data. Moving forward, more work is needed to evaluate the effectiveness of such programs at improving health behaviors and health outcomes among this population.

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Figure 1.
Comparison of original Diabetes Empowerment Program slide and adapted slide.

**IMPROVING
DIABETES**
CARE AND OUTCOMES
ON THE SOUTH SIDE OF
CHICAGO

Diabetes Success Plan

Goal Area 7: Living and Coping

Name: _____

Date: _____

"But blessed is the one who trusts in the Lord, whose trust is in the Lord. He is like a tree planted by water, that sends out its roots by the stream, and does not fear when heat comes, for its leaves remain green, and is not anxious in the year of drought, for it does not cease to bear fruit" (Jeremiah 17:7-8 ESV)

Step 1 – Select a goal to follow for the next few weeks, or write down a specific goal of your own. Remember to set a goal that is measurable, attainable, relevant, and time-bound!

- ✓ To help manage my stress, I will _____ at least ____ times a week.
- ✓ I will write in my journal at least _____ times a week.
- ✓ I will write down one thing that stresses me out during the week and identify at least one way I can help reduce the stress.
- ✓ I will _____

Now that you've selected your goal, write down one related question you will discuss with your doctor.

I will ask my doctor _____

Figure 2.
Section of adapted goal-setting worksheet with objective-aligned scripture.

Table 1

Focus Group (n = 13) and Pilot Study (n = 18) Patient Demographics

	Focus Group Participants % (No.)	Pilot Study Participants % (No.)
Age (y)		
<60	54 (7)	39 (7)
60	46 (6)	61 (11)
Female gender	92 (12)	78 (14)
Marital status		
Married/living as married	31 (4)	33 (6)
Other	69 (9)	67 (12)
Education		
Vocational school, high school graduate, or less	46 (6)	28 (5)
Some college or college graduate	54 (7)	67 (12)
Unknown	0 (0)	6 (1)
Income		
<\$15 000	46 (6)	28 (5)
\$15 000	46 (6)	67 (12)
Unknown	8 (1)	6 (1)
Living space		
Own	23 (3)	17 (3)
Other	77 (10)	83 (15)
Insurance status		
Uninsured	8 (1)	0 (0)
Medicaid/Medicare	69 (9)	61 (11)
Private	23 (3)	22 (4)
Unknown	0 (0)	17 (3)

Table 2

Themes Extracted From Focus Group Analysis

Theme	Supporting Quotation
Faith as a motivator for health behavior change	<p>“Jesus guides you to people to help you.”</p> <p>“It’s your faith that makes you get well or make you be sick.”</p>
Integration of physical and spiritual health	<p>“I believe it’s like a balance with the physical and the spiritual. You have to have a balance in your life.”</p>
Coping/stress	<p>“When you struggle with something you turn it over to God.”</p>
Role of church community and social support	<p>“[The Pastor] come out and tell you . . . take your medicine. Eat before you come.”</p> <p>“You surround yourself with the people who really want to take care of themselves.”</p>
Patient/provider communication	<p>“Knowledge is power and when we started coming to the . . . classes . . . most of us didn’t know about testing . . . what our sugar count was or whether it was high or low, we’re just eating and we didn’t know . . . but we learned from the doctors.”</p>

Table 3

Unit-Specific Scripture Added to Curriculum

Instructional Focus	Example of Thematically Appropriate Scripture
Orientation and welcome	“Therefore encourage one another and build one another up, just as you are doing” (1 Thessalonians 5:11 ESV)
The basics of diabetes care	“Do you not know that your body is a temple of the Holy Spirit, who is in you, whom you have received from God? You are not your own; you were bought at a price. Therefore honor God with your body” (1 Corinthians 6:19–20 NIV)
Food choices	“So whether you eat or drink or whatever you do, do it all for the glory of God” (1 Corinthians 10:31 NIV)
What to expect from your doctor visit	“Do not be anxious about anything, but in everything, by prayer and petition, with thanksgiving, present your requests to God. And the peace of God, which transcends all understanding, will guard your hearts and your minds in Christ Jesus” (Philippians 4:6–7 NIV)
Treatment options	“The heart of the wise makes his speech judicious and adds persuasiveness to his lips” (Proverbs 16:23 ESV)