USE OF COMPLEMENTARY AND ALTERNATIVE THERAPIES BY RURAL AFRICAN AMERICANS WITH TYPE 2 DIABETES

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The prevalence of type 2 diabetes among non-Hispanic African American adults aged 20 years and older is 11.4%, compared to 8.4% non-Hispanic whites. Given the high rate of diabetes in this population, it is important to determine whether African Americans use complementary and alternative medicine (CAM), and if so, what kind. Such information is important to healthcare professionals who prescribe therapies and make self-care recommendations to those with diabetes. The use of CAM by African Americans with diabetes has not been well studied, however, particularly among those living in rural areas. This descriptive study was conducted in 2 rural communities in Central Virginia to explore the use of CAM therapies and the role of religion and spirituality in dealing with diabetes among adult African Americans with type 2 diabetes. Sixty-eight participants attended 1 of 8 focus group sessions in various community settings and described their use of alternative therapies. According to these sessions, the most common alternative therapies used are prayer, diet-based therapies, and natural products. The participants’ descriptions enhance our understanding of CAM use among rural African Americans with diabetes. (Altern Ther Health Med. 2006;12(5):34-38.)

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Despite advances in the diagnosis, treatment, and management of diabetes, the disease continues to be a serious health problem in the United States. In 2002, diabetes was the sixth leading cause of death in the United States and was associated with numerous complications, such as heart disease, stroke, high blood pressure, kidney failure, blindness, and amputation. According to the Centers for Disease Control and Prevention (CDC), the prevalence of diabetes in the United States more than doubled between 1980 and 2002, from 5.8 million to 18.2 million. In 2003, more than 1.3 million adults were diagnosed with diabetes, an increase of 52% from 1997. There may be an additional 5.2 million individuals whose diabetes is undiagnosed. The incidence of diabetes is steadily growing, and it is a particular problem for subgroups such as African Americans. The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) reported that in 2002, approximately 11.4% of African Americans had diabetes, and African Americans were 1.6 times more likely than whites to have diabetes.

Many people are now using complementary and alternative medicine (CAM) to manage illnesses such as diabetes. Studies have consistently shown that CAM is used by 36% of US adults, and when vitamins and prayer are included in the list of CAM therapies, this percentage increases to 62%. The National Center for Complementary and Alternative Medicine (NCCAM) defines CAM as “a group of diverse medical and healthcare systems, practices, and products that are not presently considered to be part of conventional medicine.” Therapies typically classified as CAM include, but are not limited to acupuncture, Ayurveda, chiropractic care, chelation therapy, deep-breathing exercises, diet-based therapies, energy healing therapy, folk medicine, guided imagery, homeopathic treatment, hypnosis, massage, progressive relaxation, qi gong, Reiki, tai chi, yoga, natural products, and naturopathy. A survey by Barnes et al found that when prayer and vitamins were included as CAM therapies, African Americans were more likely to use some form of CAM than Asians, Hispanics, or whites. When CAM excluded vitamins and prayer, however, African Americans were least likely to use CAM. Other studies have reported that prayer is one of the most common types of CAM used during illness.
The widespread use of CAM therapies is of some concern because of their potential impact on the efficacy of conventional treatments. Interactions between CAM therapies, particularly herbal and nutritional supplements, and conventional medicines can have negative as well as positive effects. Some studies have suggested that herbal formulas such as cinnamon, flaxseed, and Korean ginseng may prevent the progression of diabetes; however, there have also been reports that some alternative treatments, such as herbal preparations, may cause harm (e.g., bone marrow suppression, hypertension, indigestion, abnormal bleeding) due to contamination and to unknown or toxic ingredients.

Complementary and Alternative Medicine and Diabetes

Some studies have suggested that many patients use CAM therapies along with conventional therapies. Reasons for using CAM therapies include distress about side effects of conventional treatments, the high costs of prescribed medications, perceived lack of control of one’s healthcare, and dissatisfaction with healthcare providers. The Agency for Healthcare Research and Quality (AHRQ) has suggested that individuals with diabetes are more likely to use CAM than other patients. A 2002 study by Edger found that the five CAM therapies most commonly used by people with diabetes were lifestyle diets, spiritual healing, herbal remedies, massage therapy, and meditation. Few studies have explored CAM use among individuals diagnosed with diabetes, particularly African Americans, however. A study by Popoola, which focused on a holistic approach among African Americans and Nigerians, found that all participants (n=35) had used one or more CAM therapies to deal with diabetes. The most commonly used therapies were garlic, coconut, cinnamon, onion, ginger, honey, and prayer. A study by Abrams that focused on how African American women coped with health found that participants believed the best action people could take when they were sick was to pray.

The complex management of diabetes can be a particular burden for members of minority groups, such as African Americans, who have high rates of poverty and minimal healthcare. Yet there has been little research into beliefs and practices related to CAM among African Americans with diabetes, especially those living in rural areas of the United States. The study reported here was designed to provide insights into CAM use among this group.

Methods

As part of a larger study conducted to identify facilitators and barriers to self-management among rural African Americans with type 2 diabetes, this study explored both mainstream medical recommendations and CAM. This study also examined the role of spirituality and religion in self-management of diabetes among participants.

Focus-group interviews were used to enhance participants’ willingness to provide rich descriptions of their experiences in managing diabetes. This approach recognizes the value of group cohesion and the oral tradition of rural African American communities.

Setting, Sample, and Procedures

Focus groups were conducted with 68 adult participants in 2 rural communities of Central Virginia during 2003 and 2004. Participants were recruited using flyers, newspaper and radio advertisements, and announcements in African American churches in each community. Participants had to meet the following criteria: (1) age 21 or older, (2) diagnosed with type 2 diabetes (self-reported), (3) African American (self-defined), (4) able to speak English, (5) willing to discuss their experiences with diabetes in a focus group, and (6) able to give informed consent. Researchers called or sent a postcard reminder with the date and time of the focus group to individuals who called the toll-free number or returned a card that was attached to the flyers. In some cases, participants came and were screened just before the session. The groups consisted of 8-12 participants, based on recommendations by Krueger, who reports that the ideal focus group size is between 4 and 12 members. Men and women were placed in separate groups to encourage openness. Sessions conducted in 2 rural communities in central Virginia were held during late afternoon in community centers or churches that were easily accessible and centrally located. Focus groups were led by facilitators who were gender- and race-matched to the group. Of the 68 participants, 39 were women, and 29 were men. Participants were paid $50 for their time and travel.

Results

The age of participants ranged from 23 to 89 years, with a mean of 60 years (SD=12 years). The majority of participants were married (63.2%); 13.2% were widowed, 10.3% were single, 10.3% were divorced or separated, and 1.5% were living with a partner. All participants reported their religious denomination as Protestant/Baptist. They reported a wide range of educational attainment (eighth grade or less to advanced college degrees) with the larger percentage (38.2%) having a high school diploma; 20.6% reported an eighth-grade education or less. Many participants were retired (36.8%), but 25% were disabled or unable to work, another 30.1% worked full- or part-time, and 4.4% were unemployed. In reporting health insurance coverage, nearly half (48.5%, n=33) of the participants had Medicare, 17.6% (n=12) were covered by Medicaid, 44.1% (n=30) reported that they had private insurance, and 25% (n=17) paid for healthcare services out of pocket. Some participants had more than one type of insurance.

RESULTS

Self-Management Approaches by Participants

When the focus-group facilitator asked participants whether they used remedies other than those prescribed by the doctor or diabetes care team, such as special teas, supplements, rubs, root preparations, and massage, participants described using a variety of teas, dietary products, and supplements. Those most frequently used were lemon juice, vinegar, teas made from leaves and roots, and herbal supplements purchased in health-food stores. A few reported using CAM products with
unknown ingredients that they had obtained from friends or family members.

Several participants said they believed there was not much information available about the use of CAM with diabetes. Some individuals revealed that healthcare providers had recommended that they not take alternative products because their effects are not completely known. A few said they would never use anything except products prescribed by their doctor because they worried about interactions. One participant said he was told by a pharmacist to avoid using herbs, tonics, rubs, roots, and other preparations because of potential interactions with medications he was taking.

When group members were asked if they had heard of other people using remedies outside of healthcare providers’ prescriptions, the same participant said that the pharmacist told them they should not take alternative products because they would not know how much or how little to use, and also because of the risk of interactions with other medications.

Participants who had used CAM therapies in the treatment of their diabetes had also used CAM therapies for other illnesses. During one of the focus groups for women, a participant said she uses lemon juice and vinegar in small amounts to reduce sugar levels.

Another woman said that her doctor had put her on medication for high cholesterol. She saw a health program on television that talked about apple cider vinegar, so she took a teaspoon of apple cider vinegar in a glass of water every morning for 2 weeks before her next doctor visit. When the doctor saw her, he said, “You’re doing good; your cholesterol is good.”

One of the men said, “I have used what they call dandelion root tea. And for a while it worked. But then, after a while . . . my body built up resistance against it.”

Women appeared to speak more openly than men about CAM use in managing their diabetes. Although the men talked about CAM therapies, they offered less information and fewer examples. In every focus group of both men and women, however, at least a few participants reported using CAM therapies to help with health problems such as high blood pressure, high cholesterol, and arthritis.

The Impact of Spiritual Beliefs and Religion

When participants were asked whether religion or spiritual beliefs had any effect on their diabetes, the majority of participants reported that faith in God and prayer were important in their lives, and prayer was a method they used to help manage their diabetes. Three primary themes emerged from the responses: (1) prayer and faith in God are coping mechanisms; (2) God provides knowledge to healthcare providers; and (3) there is a relationship between faith and conventional treatment. Each of the 3 themes is examined below.

Prayer and Faith in God

Prayer and faith in God were seen as mechanisms to uplift one’s emotions and attitudes, and to help one cope with the stressors faced in dealing with diabetes.

One of the women said,

Yes, sometimes you get down in the dumps . . . I don’t know where to turn sometimes. And I look to the [Lord], I say . . . Lord, I’m your child. I say, use me in your service, anywhere and everywhere.

Another woman said,

I find that my religious beliefs help me a whole lot. Because when I get to those low points, and I just start praying and just block out everything else, I find that it won’t be long before my spirits will go up. And when my spirits are up, then everything else falls into place. But if I just let the day go and say, “Oh well, I’m sure it’ll get right after awhile,” it doesn’t. Sometimes I think that [prayer] does more for you than the medicine.

Another woman added,

I do the same thing. I pray on it, and try to come out of that “blah” mood and try to think . . . “this is gonna turn around.” And just pray hard. It makes you feel a lot better, a whole lot better.

A female participant emphasized that her positive attitude and faith in the Bible helped her make daily decisions in dealing with diabetes:

In the Bible it tells you to eat healthy . . . more fruits and vegetables and things like that. And that’s [the] best guideline for a diabetic to follow . . . more fruits and vegetables and less meat . . . And as long as you have a positive attitude, things will work fine.

One of the men said that he needed to pray daily and keep the relationship between him and God strong:

I pray to God every day. I say, “give me strength to know my responsibilities when it comes to taking care of myself.”

Diabetes, I have other illnesses, too, that [are] caused by diabetes. I’m asking God every day, “Give me that strength.” Still, it’s up to me, but I begin on my side, getting that strength really helps and I really have a firm belief in it . . . Spirituality . . . helps me with my diabetes.

Although the majority believed that prayer helped them cope with their diabetes and other illnesses, one female participant voiced concern that prayer might affect diabetes negatively by deterring some people from seeking conventional medical treatment.

I don’t think religion has anything to do with any disease. You have to tell the truth. I don’t see how it could affect it, unless it might keep somebody from going to the doctor, or praying it off, or something like that . . . I don’t think . . . too many people . . . would stay away from the doctor; I mean, in this neighborhood, in some areas, there may be some religions that would say, you can pray this [diabetes] away.
A woman in another focus group said that religion or spiritual beliefs had little to do with taking care of diabetes, and some might put too much dependence on God. As a result, she was concerned that some people might forego medical treatment.

During the discussion that followed, another participant asked the woman if she believed in God. She said yes, but made the point that some people put their religion before going to doctors and if they’re sick, they might believe that God can help them more than doctors can.

In summary, religion and prayer were highly valued by the majority of participants, who emphasized religion and prayer as coping mechanisms for living with the difficulties posed by diabetes. Participants noted that some people might believe in God and pray in conjunction with undergoing conventional treatments while others used religion as their primary treatment. They described people outside the focus groups who placed all of their trust in God even to the point of foregoing conventional treatment.

**God Provides Knowledge to Healthcare Providers**

Several of the participants believed that God gave healthcare providers the knowledge and skill to help treat patients’ diabetes. Many of the participants saw the importance of treatments provided by the healthcare providers.

One woman said,

> I figure God gave these people [doctors and other healthcare providers] the knowledge to learn something to help us, and I don’t see [a] reason why we can’t go to them. I really don’t.

One man viewed prayer as a mechanism to treat his diabetes, but also believed that God gave healthcare providers the education and ability to treat his diabetes. He said,

> I don’t necessarily pray that my diabetes gets better. No, I do believe that there is a strong relationship between faith, and realizing that God has endowed doctors with wisdom and knowledge, and my religion and my faith does not tell me that all I have to do is pray and it’s gonna go away. . . . I think that’s why the doctors are there. God gave them the knowledge to help me deal with the situation, so my prayers would be that you continue to give them more knowledge so that they can work with me. But do I pray that my diabetes goes away? No, because God did not give me the diabetes. The diabetes, basically as an adult, came from my lifestyle, not something that God did to me.

It is important for healthcare providers to consider when treating people from rural communities such as those studied here that some of them believe that God’s role in their health is to empower healthcare providers with the knowledge to care for people with diabetes. Participants also showed respect for the decisions of providers, and they listened carefully to recommendations made for managing their diabetes.

**Faith in God and Conventional Treatment**

Although the majority of the participants believed that prayer and faith in God were important to their health, many also believed in the value of conventional treatments in conjunction with prayers and faith. None of the participants said that they would rely completely on God and forego conventional medical treatment. They realized that both their faith in God and allopathic medicines were needed to treat their diabetes appropriately. One of the men said,

> We pray to God and things, but then, too, we seek prayer to the medical science for the knowledge that they have for coming up with medicine that we can use to, not to cure our complaint, but to actually live with it, which you couldn’t do years ago [because] you didn’t have the medicine. We [African Americans] couldn’t get the medicines we have today.

A female participant noted that God is important, but that sometimes people dismiss medical treatment and believe only in God to help treat their diabetes.

In summary, several participants emphasized that conventional treatment, as well as spirituality and religion, is important in the treatment of diabetes. This demonstrated a need for the integration of conventional medicine with CAM. The participants thus supported a holistic approach to healthcare and agreed that it is not wise to forego traditional treatments and rely on faith-based practices alone.

**DISCUSSION**

**Participants’ Use of Complementary and Alternative Medicine**

Many of the participants believed that there was limited information on CAM and they were therefore skeptical about using CAM therapies unless they had positive experiences. Participants were probably reflecting reports in the media and statements by their own healthcare providers about exercising caution in using supplements and herbal remedies. CAM treatments such as lemon juice, dandelion tea, and vinegar were, however, used to treat diabetes as well as other illnesses such as hypertension and arthritis. Although both male and female participants spoke about the use of CAM, women reported more use of CAM than men. This finding is consistent with reports in the literature that indicate that women are more likely than men to try an alternative or complementary medicine or therapy.

**Responses Related to the Role of Religion and Spirituality in Managing Diabetes**

The finding that prayer and faith in God was important to health is consistent with other studies indicating that life experiences are often focused around religion and spiritual beliefs in African American communities, particularly during periods of sickness. Among participants in the present study, the use of prayer and religion was mostly described as a coping strategy to handle the emotional and physical challenges associated with diabetes, such as being limited to the types of foods one eats, having...
to prick one’s finger for glucose readings daily, or dealing with the cost of prescriptions and supplies. Some participants commented that they had observed situations in which religion could interfere with obtaining necessary conventional treatments. This finding should be examined in more detail in future studies.

A number of the participants discussed their belief that God provides healthcare providers knowledge to treat diabetes. These participants saw healthcare providers as an instrument used by God, who empowers them to appropriately diagnose and treat people with diabetes. This finding has been reported in the literature, particularly with regard to African Americans,3,20 and is important for healthcare providers to consider.

In all of the focus groups, most participants said they would not forego conventional medication treatments and rely completely on their faith in God, or prayer. Many realized that conventional medications were needed to treat their diabetes, though several participants noted that they knew other individuals who believed that prayer was the only treatment they would need and they did not seek conventional medical treatment. Although the majority of participants had a strong belief in God, the participants also had confidence in traditional medical care to help stabilize their diabetes.

CONCLUSIONS AND IMPLICATIONS

The use of CAM is increasing every year in the United States.29 Understanding the use of CAM in managing chronic illnesses is crucial, particularly among populations that are not often studied, such as African Americans in rural communities. This study points to the importance of recognition of the use of CAM by those who suffer from chronic illnesses such as diabetes. In particular, religion and spiritual beliefs were reported by these participants to be an important aspect of dealing with diabetes. In some cases, prayer and faith in God were considered a major element of treatment and/or coping with the illness.

The finding that many African Americans with diabetes use practices and products not prescribed by their physician contributes to our understanding of self-management of diabetes. More research is needed to determine whether participants in this study are representative of the larger population. In the meantime, healthcare providers need to be aware of CAM use and work with patients to ensure that approaches used are acceptable and safe. The American Diabetes Association has encouraged healthcare providers to take the initiative by asking patients about CAM use, test the efficacy of therapies, and watch for both potential harms and benefits that may be associated with the use of various CAM remedies.31 Given the increase in CAM use by the general population and among individuals with chronic illnesses, healthcare practitioners must be familiar with CAM therapies in order to provide competent care for people with diabetes. In addition, healthcare providers need to know whether religion and spirituality are important to their patients and find ways to support these beliefs in a holistic approach to living with chronic illness.

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